The Cebu Conference

For quite some time now, global fisheries have been ravaged by successive ‘crises’. These have their roots in overfishing, technological overkill as well as the widespread disregard for the needs and priorities of the artisanal and small-scale fishing communities.

As issues that fundamentally concern fishworkers the world over, they are also the concerns that form the mandate of the International Collective in Support of Fishworkers (ICSF), an international NGO affiliated to the Economic and Social Council of the UN and admitted to ILO's Special List of Non-Governmental International Organizations.

These questions were first addressed at the International Conference of Fishworkers and their Supporters, held in Rome in 1984. To mark the tenth anniversary of The Rome Conference, as well as to conduct its triennial conference, ICSF organized an international meeting at Cebu, the Philippines in June 1994. More than 90 participants from over 30 countries gathered to debate, share opinions and exchange views on the state of the world's fisheries, its impact on their lives and how this could be managed.

This publication is the official record of what transpired at Cebu. It is a compendium of papers, reports and special contributions on topical concerns in global fisheries management. It also contains the reports of the various working groups which tackled the conference's themes. These converged in a final declaration which detailed the recommendations of The Cebu Conference.

As a work of reference, this publication will be of immense use to researchers, activists, environmentalists, NGOs, journalists, policymakers and just about anyone concerned with the world of fisheries and fishworkers.
The Cebu Conference

The Struggles of Fishworkers: New Concerns for Support

Triennial Conference of the International Collective in Support of Fishworkers and the Tenth Anniversary of the International Conference of Fishworkers and their Supporters, Cebu, Philippines, 2-7 June 1994

International Collective in Support of Fishworkers
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ICSF draws its action programme on the basis of specific demands made by fishworkers and their organizations. For our purposes, the term ‘fishworkers’ refers to all those who participate in and make a living from, fishery-related activities in production, processing and marketing.

In structuring the programme for the Cebu Conference, we have tried to recognize the primary role played by fishworkers in setting the agenda of ICSF’s activities. This has taken the form of a long and rather unique plenary session at the beginning of the Conference, where fishworkers from over seven countries will make presentations on issues of importance to them.

Here, we may need to make the presentations as well as the responses to them clearly focused on specific issues so that the session can make an important contribution towards designing ICSF’s programmes in monitoring and research, exchange and training, campaign and communication.

We should also bring in a wide variety of experiences. Please do not hesitate to present the problems of importance to fishworkers in your country, fearing that they may not be of relevance to others, as the complementarity of issues and their implications can be understood only on the basis of a sharing of diverse experiences. Responses could bring in complementary or contrasting perspectives, so that we may have a more comprehensive and nuanced picture of the situations discussed.

I feel that it will be useful to hear more about how the participation of fishworkers in decision-making processes has helped alter the policies of governments. I also feel that

by

Sebastian Mathew
ICSF, Madras,
India
in order to be really useful, this session should have a clearly practical focus. The chairperson may need to give special attention to maintaining such a focus and to explore the complementarity of the issues presented. This session is of crucial importance in determining the orientation of the entire conference, and in developing a positive agenda at the national, regional and global levels for the activities of the ICSF.

The second session of the conference involves the presentation of theme papers, followed by discussion. The primary aim of this session, while highlighting the major issues relevant to these areas, is to update fishworkers on developments of crucial importance for them. Five key areas were identified by the Animation Team of ICSF at its seventh session in 1993 for special focus at the Cebu Conference.

These are:

- coastal environment and fishworkers;
- fisheries and fishworkers’ organizations;
- work conditions of fishworkers and social security;
- technology and energy use in fisheries; and
- transnational linkages in fisheries.

In this context, some of the issues to keep in mind may be worth mentioning. Developments in the coastal environment, including pollution, reclamation, construction and excavation need to be addressed.
The destructive impact of intensive and semi-intensive aquaculture is of special concern to fishworkers in many developing countries. The increasing pressures on the fishing ground and consequent problems such as overfishing and overcapitalization cannot be resolved without the active participation of the user groups.

To develop a viable set of programmes to tackle these problems, it is important for fishworkers to actively discuss problems facing fisheries and to participate in decision-making processes.

Another matter of great concern is the abuse of human rights on board the fishing vessels of some countries. To protect their human rights, fishworkers need to campaign more actively for better safety at sea as well as better working conditions and social security measures. The recent history of the world’s fisheries clearly illustrates the limitations of the regenerative capacity of oceans, and hence it is important to discuss technologies in the given socio-bio-economic context.

Clear guidelines may have to be formulated to move away from high-energy artefacts to sustainable, low-energy ones. The increasing globalization of fisheries trade has both pros and cons, depending on prevailing socio-economic conditions as well as dietary habits.

The impact of trade and international aid in various geographical contexts need to be understood in detail. The conference may also need to discuss the implications of international fisheries agreements for fishworkers, particularly in developing countries.
The third and fourth sessions of the conference comprise five working groups which will do further intensive work on the five key themes, so that specific proposals can be drawn up for the future work of ICSF in these areas.

Session III of the conference involves parallel sessions of groups I, IV and V, while session IV incorporates those of groups II and III. Participants may wish to decide in advance on the working groups they wish to take part in on the basis of the programme, as it will not be possible for participants to attend all the working groups.

The working groups will take adequate cognizance of the expectations raised by fishworkers in session I and the issues raised by the theme papers and the discussions. Work here will have a practical orientation and pay special attention to the complementarity of issues to make clear proposals for ICSF’s future work in these areas.

The discussions in the working groups will be led by the chairpersons and the rapporteurs. Background notes have been prepared by the ICSF secretariat on each of the five themes, in order to complement the information presented in the theme papers and to facilitate the work of the working groups. These notes, however, do not necessarily represent official positions of ICSF.

The reports of all working groups will be presented before the plenary session. Based on the reports and the discussion, a final Conference Statement will be prepared by the Secretariat for presentation to the delegates. This will embody ICSF’s action programme in these areas.
The fishworkers, particularly the artisanal and small-scale fishermen, are at a significant juncture today. The fisheries world increasingly recognises the limitations of conventional management, and is realising the importance of involving fishworkers in fisheries and coastal zone management.

Thus, an important demand of fishworkers right from the International Conference of Fishworkers and their Supporters in 1984, seems to be better recognized.

However, this recognition has come at a time when the world fisheries are increasingly subject to overcapacity and overfishing.

Destructive fishing practices in the inshore and offshore waters are adversely affecting the catch potential of the small-scale fisheries.

The coastal waters are heavily polluted from industrial and agricultural wastes. Conflicts between different gear groups and between different user groups of the coastal waters are becoming more pervasive.

The introduction of use rights in fisheries, and participatory management of the coastal zone are being discussed as appropriate management measures. But to enable this process, it is important to discuss the vicissitudes of world fisheries in relation to fishworkers, understand the cross-sectoral linkages in coastal waters and stress the indispensability of equitable management regimes within and without the Exclusive Economic Zone (EEZ).
Rationale of the Conference
The fishworkers, primarily fishermen from the artisanal and small-scale sector, from over thirty countries round the world, met for the first time at Rome in July 1984. This was to assert their right to participate in decision-making processes that have a bearing on their life and livelihood.

The International Conference of Fishworkers and their Supporters (ICFWS) referred to as the Rome Conference was carefully timed to synchronize with the World Conference on Fisheries Management and Development. Also held at Rome, under the aegis of Food and Agriculture Organisation of the United Nations (FAO), this conference brought together the largest number of high level delegations, but excluded fishermen. The ICFWS focused on this exclusion and contended that the marginalisation of fishworkers from policy making and planning is the principal reason for the poor management of coastal waters.

The 1990s, however, have begun on an optimistic note for the fishworkers, particularly for the fishermen in the artisanal and small-scale sector. Within a decade, the fisheries world has begun to recognize the importance of fish workers’ participation in decision-making bodies that have a bearing on fisheries management in the coastal waters.

The United Nations Conference on Environment and Development (UNCED) at Rio de Janeiro in 1992, for example, suggests integrating small-scale artisanal fisheries development into marine and coastal planning by encouraging representation of small-scale fishworkers. It also recognises their rights to utilisation and protection of habitats on a sustainable basis.
There is increasing recognition of the fundamental drawbacks of conventional development policies and the “industrial model” transplanted to the developing countries. The *State of Food and Agriculture 1992* (SFA), published by the FAO, acknowledges the serious difficulties experienced by small-scale fishermen.

These arise from the intrusion of large-scale vessels into their traditional waters. SFA also takes to task former development assistance programmes for supporting the construction of large vessels.

The study of International Fisheries Research (SIFR) under the joint auspices of the World Bank, the United Nations Development Programme (UNDP), the Commission of the European Communities (CEC), and the FAO a study that involved over 100 scientists, fishery administrators and other experts critiques the philosophy that emphasised the transfer of industrial model to fisheries in the developing countries. It stresses how “this strategy conflicted with, transformed, and ... destroyed the technologically diverse and labour intensive traditional local fishing industries”.

The FAO now observes that the problems discussed in *The State of Food and Agriculture 1967* namely, those of excessive fishing effort, subsidies, poor enforcement and cost escalation continue to persist, and the “problems that then existed for the North Atlantic and North Pacific have now expanded worldwide”. The conventional management strategies, SIFR points out, only “addresses the symptoms rather than the cause”. It goes on to further suggest “limiting access to the resources” through the introduction of use rights as the only solution.
There is better awareness now among policy makers of the salient advantages of community-based approaches to fisheries management. The SFA pays compliments to these approaches for preserving community stability and recommends the transfer of fisheries management to local level. It also calls for an increase in the participation of fishermen in management decisions.

The above examples show the growing concern for the problems of artisanal and small-scale fishworkers at the international level. At the national level, new resource management experiments have been involving local fishermen. In the Philippines, for example, the government has transferred jurisdiction over coastal fisheries to selected local municipal governments. It has also initiated programmes to provide fishing communities with authority over adjacent resources. In Chile, the national, zonal and regional fisheries councils that take decisions with respect to coastal fisheries management have the representation of fishermen on their boards.

Similarly, in promoting the participation of women and recognising their role in development, countries like El Salvador, Nigeria, Sri Lanka, Togo and Uganda have made special provisions. These are at the government level for women in artisanal fisheries development programmes.

On the whole, the main issues taken up by the fishworkers at the Rome Conference seem to be better incorporated into the mainstream thinking. Recommendations of the Conference with regard to fishermen’s participation in resource management, recognition of the role of women in fisheries and facilitation of their improved participation, and decla-
ration of an exclusive zone for small-scale fishermen, have been taken up by many countries. In the realms of policies and implementation, thus, the fishworkers seem to be moving towards the centre from the periphery to which they were confined until a decade back.

In fisheries management, especially in the coastal waters, the artisanal and small-scale fishermen could be increasingly called upon in the near future for active participation. New management regimes are likely to be discussed and implemented, given the extreme level of frustration with the current state of affairs in the fisheries. Systems of management based on use rights are likely to be introduced or made pre-conditions for access to international aid.

Introducing property rights may have far reaching implications, especially in the coastal waters. This is because of exacerbating competition from various user-groups such as aquaculture and industrial operators, land developers, and tourism promoters, for the utilisation of the coastal zone. Also, given the emergence of stratification in the artisanal or small-scale sector, the notion of property rights, and its introduction have to be considered. The institutional mechanism that would define and distribute the use rights has to be carefully studied.

The use rights based on resource, fishing space, and fishing gear could be allocated to enterprises, individuals or communities. The manner of allocation could have important significance for fishworkers who are primarily dependent on fishing for their life and livelihood. Fishworkers’ organisations have to ensure distributional justice under the proposed new regimes. They should prevent them from
being introduced just for sustainability of the resource, efficiency of investment, and for generating revenue to the State.

The degradation of the marine environment from land- and sea-based activities is leading to the consideration of integrated coastal zone management as a viable solution. This would be with the participation of various user groups. The interface of use rights in fisheries with that of coastal zone management could have important implications because of existing incompatibility between different user groups. The fishermen should also reflect on emerging ideas on coastal zone management and discuss ways and means to broaden their perspective to work with other user groups.

Unless the ramifications of the new legal regimes considered for resource management are adequately discussed and understood, artisanal and small-scale fishermen often one of the poorest sections in developing countries may lose out to other powerful groups. To prevent the new concerns and perspective from degenerating into mere rhetoric, fishworkers have to maintain a new vigil.

**An Overview of Marine Fisheries in the 1980s**

(i) *Fishery stocks increasingly under stress*

There is growing awareness to protect the environment and to prevent overfishing, nevertheless, the state of the world fisheries and the coastal environment are still matters of great concern. In the 1980s, world marine catch increased from 65 million tonnes in 1980 to 82 million tonnes in 1991, thanks to five species of low value from the Pacific, namely, Alaska pollack, Chilean jack mackerel, Peruvian anchoveta, Japanese pilchard and South American pilchard. Of the
five, Alaska pollack is already overfished, and Russia has unilaterally declared a moratorium on this fishery within its EEZ from June 1993.

The catch of four important species of ground fish (Atlantic cod, Cape hake, haddock and silver hake) have dropped from 5 million tonnes in 1970 to 1.7 million tonnes in 1991, and there have been significant drops in catches of species like Atlantic redfish, Pacific Ocean perch and yellow croaker. According to the FAO, nine of the world’s seventeen major fisheries are in a serious decline, while four are classified as commercially depleted. The most dramatic depletions have been in the Grand Banks where a moratorium on cod fishery, declared by the Canadian government, has thrown 30,000 fishworkers out of jobs. This is the very same fishery that supported the salt cod trade for over four centuries before the over-efficient trawlers depleted them to commercial extinction.

Various fisheries management measures introduced and managed by the State, without the meaningful participation of fishermen’s organisations, have failed to sustain fisheries at economic and social levels of viability. In addition, subordination of fisheries to corporate interests have redistributed the benefits from the fishery more in favour of those who command capital than in favour of fishworkers.

All the more disturbing about the pervasive crisis in fisheries is that when the global catch raked in a record US$ 72 billion in 1989 as gross revenue, the operating costs stood at US$ 92 billion. The difference was the subsidy governments provided to their unsustainable fisheries. Between 1983 and 1990, for example, the European Economic Community’s
(EEC) support to its fishery rose from US$ 80 million to US$ 580 million. This excludes substantial subsidies provided by the national governments.

The subsidies are mainly used as a short-term means to buy fishing access to the waters of developing countries, many of whom are reeling under debt crisis and shortage of foreign exchange. Complicated quota system, excessive fleet capacity, and political compulsions are forcing the EEC to sponsor the redeployment of excess capacity into the developing countries. In 1991 alone, US$ 125 million were paid as access fees by the EEC under the Lomé Convention, to the West African countries (Morocco, Senegal, Mauritania and Angola in the order of magnitude).

Although the developing countries receive hard currency, they are unable to prevent the foreign vessels from intruding into the traditional fishing grounds of their artisanal fishermen. Again, in cases where local people are recruited to work on board, these countries are unable to ensure better living conditions and remuneration for their workers. The rich countries who enter into fisheries agreements put the onus of implementing the access conditions as well as fisheries regulations on the recipient countries, knowing fully well that they do not have any monitoring, control and surveillance systems.

(ii) Trade continues to grow but with varying impacts
The burgeoning international demand for high-valued species like prawns, lobsters, cod and haddock, coupled with the introduction of over-efficient fishing methods, have led to various problems in the artisanal and small-scale sector. While leading to global overfishing of almost all species of
high commercial value, excessive commercialisation of the narrow production base has adversely affected social cohesiveness. In several places, especially in the developing countries, the fishing community has got more stratified and the pressure to make a living from the coastal resources has become more severe for the poorer strata.

The value of world trade in marine products continued to expand in the 1980s at an annual rate of about 10 per cent (against 18 per cent in the 1970s). The developing countries accounted for 45 per cent of the total exports and 12 per cent of imports.

The exports from the developing countries also include fish caught by foreign fishermen under joint ventures, particularly off the coast of West Africa. The tuna canneries in Côte d’Ivoire and Senegal for example are mostly French, and process tuna caught by the French vessels and import many inputs (cans, processing equipment, etc.) from France.

Of the total value of exports from the developing countries, the largest contribution comes from the newly industrialised countries of Asia, like Thailand, Korea, Taiwan and China (21 per cent in 1989).

The European Union (EU) currently constitutes the largest import market in the world. Imports to EU increased considerably between 1985 and 1990 from US$ 5 billion to US$ 13 billion. France, Italy and Spain, while accounting for US$ 2.4 billion in 1985, increased their imports to US$ 7.9 billion in 1990. Their share accounts for over 60 per cent of the total imports into the EU.
The rapid expansion of tuna canneries in countries like Thailand (currently the biggest exporter of canned tuna), Samoa, Côte d’Ivoire and Senegal has given more employment in the processing plants, particularly to women. The working conditions and wages, however, leave a lot to be desired.

The landing of large catches by industrial vessels under joint ventures, in countries on the west coast of Africa have been reported to depress the price of fish landings in artisanal and small-scale sector. Concurrently, large-scale imports of fish and fish products into the EEC have depressed local fish prices, especially that of fish landings in the artisanal and small-scale sector. The French fishermen are currently agitating for lower import quotas into the EEC.

The fish products from the developing countries, produced at lower costs seem to enjoy better access to the Northern markets, under favourable tariff regimes. While this seems to affect the Northern fishermen, those from the South seem to benefit by getting a better price for the export varieties. However, the situation could vary depending on the conditions of supply in the Southern countries. If production for international trade is primarily undertaken by foreign fishermen under joint-venture agreements, the local fishermen will not gain from higher prices in the world market.

When the form of the product changes, for example, from smoked/dry to frozen, local traders in the developing countries, especially women, are sometimes displaced from the processing/marketing activity. It also leads to situations where the local population does not receive adequate
supply of protein. The reorganisation of local markets for export sometimes affects traditional trade by depriving petty traders of adequate supply of fish.

(iii) Coastal environment remains a matter of concern
The artisanal and small-scale sector contributes to 25 per cent of the world marine fish production (SFA), and almost the entire catch is taken from the coastal waters. The health of the coastal marine environment therefore is inextricably linked to the livelihood of over 100 million people who are, directly or indirectly, dependent on this sector. Also, as the SFA points out, “two-thirds of marine fish production come from stocks which pass the first and most vulnerable stages of their life-cycle in coastal areas”. In addition to overfishing (from non-selective gears like trawling, and other destructive fishing methods), and aquaculture practices, coastal environment is also threatened by pollution, siltation, construction, excavation, and mangrove deforestation.

The indiscriminate use of trawlers ravages fish stocks, and decimates them very quickly, resulting in unemployment, debt, and poor supply of protein. Use of explosives as a fishing method, especially in islands in the tropical belt where fishermen combine different forms of food gathering, not only destroys large tracts of coral reefs, but also results in the indiscriminate killing of all kinds of marine life. Similarly, the use of cyanide to drug ornamental fish kills the coral reefs.

Many coastal aquaculture practices have a debilitating impact on the coastal environment and the inshore fisheries. Removal of gravid female prawns and the incidental destruction of fish larvae negatively affect the recruitment
pattern of fish into the inshore stocks. Bacterial and viral disease outbreaks in intensive aquaculture, kill species in the wild. Also, the practice of feeding fish to fish, especially to grow them to giant size, is highly wasteful, since only about 30 per cent of such protein is converted into the body weight of the final product. From a social perspective, the quantum of fish reduced to meal all over the world could substantially improve the food security of many poor countries. Additionally, the problem of biomass fishing the phenomenon of intensive harvest of planktonic material and trash fish as feed for shrimp in the aquaculture sector affects the recruitment to the coastal fisheries.

The causes of pollution are sewage and industrial wastes, residues of pesticides, herbicides and organic fertilisers as well as feed and prophylactic matter from agriculture. Siltation occurs from discharge of mud into the coastal waters as a result of deforestation and excavation of sand and coral reefs. Turbidity of the waters from suspended silt also affects fish catches. Destruction of mangroves and coral reefs destroys fish habitats and exposes vulnerable coastal communities to the fury of cyclones.

Increasing competition for coastal tracts from activities such as tourism, aquaculture, agriculture, military use, human settlements, and industrial establishments, threatens easy access to the fishing ground from land, especially in countries without harbour facilities. There are instances of fishermen getting evicted or relocated from their traditional bases as a result of competition from these activities. Forced relocation of fishermen from villages with high demographic pressure has dislocated their subsistence fishing economies in some instances.
Environmental degradation of land also can add to the conflicts in the coastal waters. In countries with drought-prone areas, for example, the coastal fisheries provide seasonal employment to peasants and agricultural labourers. When droughts persist and land becomes uncultivable, those who come to the fishery continue to stay, and it adds to the pressure on the coastal fisheries. This also raises many questions, moral and social, in relation to introducing use rights in the coastal waters.

(iv) Fishworkers are getting more organised
The artisanal and small-scale fishworkers face similar problems round the world, and today are better informed about the international dimensions of fisheries, about how all production-oriented strategies in fisheries have the worst ripple effect in the coastal waters.

The fishermen who participated at the Rome Conference from over 30 countries realised for the first time, the extent of similitude of their problems, and also recognised the importance of collective action. Their awareness building has further been facilitated by South-South and North-South exchange programmes, some of them under the auspices of the International Collective in Support of Fishworkers (ICSF). These programmes have attempted to expose unorganised fishermen to the fishworkers’ movements in Asia, Latin America, Europe and Canada. Fishworkers’ organisations, for the first time, have been formed as a result in Senegal, Brazil, Mexico and Madagascar.

Simultaneously, dormant fishworkers’ organisations have been actively revived in Chile. New networks have been
built up in countries like the Philippines. Attempts are now being made to encourage fishermen in the South Pacific to form their own organisation. Thus, the impact of the Rome Conference can now be seen in all the Southern continents.

Given the national, regional and international ramifications of fisheries, the fishworkers are also actively participating in international conferences of relevance. The United Nations Conference on Environment and Development (UNCED) at Rio de Janeiro in June 1992 had the representation of fishworkers at the Global Forum. Similarly, the United Nations Conference on Straddling and Highly Migratory Fish Stocks at New York in June 1993 had the participation of fishworkers’ organisations.

The fishworkers’ organisations are now increasingly consulted by many national governments while formulating their fisheries policies. India, Chile, and the Philippines are good examples.

Fishermen’s representatives have also been appointed on board national, zonal and regional fisheries councils in Chile. In the Philippines, fishermen are actively involved in some of the resource management programmes at the village level.

The last quinquennium shows discernible changes in the attitude towards fisheries management and the emerging official views are converging with those of the fishworkers at the Rome Conference. The move towards the centre from the periphery has begun. But this places an added responsibility to understand the significance and viability of new management regimes.
Background to the Conference
The right to participate in decision-making and planning processes that have a bearing on life and livelihood is an important prerequisite for the empowerment of fish workers. At the first-ever International Conference of Fishworkers and their Supporters at Rome in July 1984, the fishworkers asserted their right to move from the periphery to the centre of fisheries development programmes. Rooted in direct experience at local level, this was an attempt to relate beyond national and regional boundaries.

The ICSF was formed in 1986 at Trivandrum, India, to address the marginalisation of fishworkers from the policy-making and planning processes and specifically to cater to the recommendations of the Rome Conference. It provides a forum to focus on issues of concern to the fishworkers, and through its various programmes, tries to influence policy making at various levels.

After the formation of ICSF, fishermen’s organisations have been initiated in countries like Senegal, Thailand, Brazil, Mexico, Philippines, Madagascar and strengthened in Chile and India. In several instances, this has been with the active support from the members of ICSF.

The uniqueness of the ICSF’s support to the struggle of fishworkers lies in drawing its triennial programme based on the demands and recommendations of fishworkers. In 1986 at the Trivandrum Conference, and in 1990 at the Bangkok Conference the fishworkers’ representatives from all the continents participated. Their recommendations substantially contributed to the formulation of the programmes for the triennia following those conferences.
The General Body of the ICSF also meets at the same time to review the programmes of the previous triennium and to discuss new ones.

The Lomé Campaign, against the inequitable fisheries agreements of the EEC with the African, Caribbean and Pacific (ACP) countries, was launched in 1989 as a result of this interactive process. It has had significant impact since then. The EEC is now in the process of commissioning a study to look into the impact of these agreements on the artisanal and small-scale fisheries sector of Africa.

Similarly, the campaign against illegal recruitment and poor working conditions of workers from developing countries on board the Taiwanese distant water fishing vessels has impacted the Taiwanese government to enact new legislation. This provides for better protection to migrant workers.

In the light of new developments in the world fisheries, and the serious consideration of participatory resource management, a conference of fishworkers from round the world ten years after the historic Rome Conference, would enable them to delineate new programmes and priorities to cross the threshold of the twenty-first century.

The Conference would also help fishworkers from the developing countries in particular, to draw support from their counterparts in the developed countries to fight against unfair trade, aid, and international agreements in fisheries. The Lisbon Conference of the ICSF in 1989, for example, has helped the Senegalese fishermen to receive support from the French in their campaign against the Lomé Agreement.
The Northern fishermen can also caution their Southern counterparts about the inadequacy of existing management regimes, how overcapacity of fishing fleet can eventually break the backbone of any commercially viable fishery.

**Conference Objectives**

While bringing to the attention of fishworkers and their supporters the recent developments in the world fisheries, this Conference is mainly concerned with how ICSF can continue to function as a source of creative support to the process of empowerment of fishworkers, especially in the artisanal and small-scale sector.

The objectives of this Conference are:

- to enable fishworkers and their supporters to consider the current status of the world 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’ organisations in developing programmes and strategies for true equitable management of coastal resources;

- to strengthen fishworkers’ initiatives towards organising their struggles in the face of increasing pressures on the environment and the fishery stock,
and to assist fishworkers establish an agreed frame work of strategies to counter the forces that are ranged against them; and

- to establish a three-year programme of work for ICSF in support of the conference decisions.

**Conference Participants**
The participants for this Conference are from all the continents with special emphasis on developing countries and comprise fish workers and their supporters. About 90 participants have been invited mainly from Asia, Latin America, Africa, Europe, and North America. There are also some representation from the South Pacific.

**Conference Structure**
The Conference is for six days and is structured in such a manner as to hold plenaries on the first and the last two days. There will be working groups on five broad and related themes on the other days. At the plenary, on a regional basis, representatives of fishworkers’ organisations will report on their activities as well as the developments in fisheries subsequent to the Bangkok Conference of ICSF in 1990. The plenary will also enable participants to share the gist of the deliberations at the working groups. The Conference would assist the participants to arrive at an understanding of fisheries and the environment, as well as the pros and cons of resource management with community participation. Following are the themes:

*Coastal environment and fishworkers* will discuss from a holistic perspective the environmental problems posed by land- and sea-based activities to the coastal waters and fisheries.
It will also discuss the response strategies of fishworkers’ organisations and their supporters to these problems.

*Fisheries and fishworkers’ organisations* will mainly focus on community participation in fisheries resource management, and articulate the principles that should govern this concept. Since the concept implies limited property rights, it will discuss whether these rights should be: area-specific, resource-specific, gear-specific, or combinatory, and how to ensure participation of women and seasonal fishermen in a non-discriminatory fashion. The nature of intra- and inter-sectoral information required for equitable distribution of use rights, and coastal zone management, will be identified. The limitations of current management measures, including that of the transferable quota system, will be specified.

*Work conditions of fishworkers and social security* will address the working conditions, social security, recruitment and safety of fishworkers on board fishing vessels and of those in canneries and processing plants.

*Technology and energy use in fisheries* will look into the trade-off between technological efficiency and employment, and caution against excessive dependence on capital and technology that would enhance operational costs, forcing fishermen to fish beyond the regenerative capacity of stocks. The desirability of low-energy artefacts that ensures sustainability of the resource and social stability in fishing villages will be discussed.

Transnational linkages in fisheries will address the significance of trade, international fisheries agreements, joint
ventures, flags of convenience, and technology transfer to fishworkers and fishing communities, especially in the developing countries. The implications of the Uruguay Round of the General Agreement on Tariffs and Trade for fishworkers will be discussed.

**Anticipated Results of the Conference**

The Conference hopes to strengthen the fishworkers’ movements by providing a perspective on the current status of fisheries in relation to equity and sustainability. The Conference expects to facilitate a better understanding of the implications of new management regimes like use rights and coastal zone management to help fishworkers undertake self-management of the fishing grounds, and initiate processes that would minimise inter-sectoral conflicts.

The Conference aims to assist fishworkers’ organisations chalk out strategies to counter inequitable fishing methods and international agreements in fisheries, exploitative joint ventures, flags of convenience and international trade regimes.

The Conference will also enable ICSF to design its triennial programme, complying with the needs and priorities of fishworkers’ organisations.
The artisanal and small-scale sector contributes up to 25 per cent of the world marine fish production, and almost the entire catch is taken from the coastal waters. The health of the coastal marine environment therefore is inextricably linked to the livelihood of over 100 million people who are directly or indirectly dependent on this sector. Two-thirds of marine fish production come from stocks which pass the first and most vulnerable stages of their life-cycle in coastal areas. In addition to overfishing (from non-selective gears like trawling and other destructive fishing methods) and aquaculture practices, coastal environment is also threatened by pollution, siltation, construction, excavation, and mangrove deforestation.

Excessive fishing effort and destructive fishing methods can lead to a fall in catch per unit effort, and in total fish production. The indiscriminate use of trawlers can devastate fish stocks. Use of explosives as a fishing method, especially in islands in the tropical belt where fishermen combine different forms of food gathering, not only destroys large tracts of coral reefs, but also results in indiscriminate killing of all kinds of marine life. Similarly, the use of cyanide to drug ornamental fish kills the coral reefs and other fish habitats.

Many modern, intensive aquaculture practices have a debilitating impact on the coastal environment and the inshore fisheries. The contamination of coastal waters from aquaculture wastes can cause various problems for coastal capture fisheries (similar to sewage and industrial pollution). Removal of larval and gravid female prawns and the incidental destruction of fish larvae negatively affect the recruitment pattern of fish into inshore stocks. Bacterial
and viral diseases that break out in intensive culture tracts kill species in the wild. Also, the practice of feeding fish to fish (on which intensive aquaculture depends) is highly wasteful since only about 30 per cent of such protein is converted into new fish protein. From a social perspective, the quantum of fish reduced to meal all over the world mainly to cater to the agriculture industry could substantially improve the food security of many poor countries.

Additionally, the problem of biomass fishing the phenomenon of intensive harvest of planktonic material and trash fish as feed for shrimp in the aquaculture sector affects the recruitment to the coastal fisheries.

The main causes of coastal pollution include sewage and industrial wastes, residues of pesticides, herbicides and organic fertilisers as well as feed and prophylactic matter from agriculture and aquaculture. Siltation occurs from discharge of mud into the coastal waters as a result of deforestation and excavation of sand and coral reefs. Turbidity of the waters from suspended silt dwindles fish catch. Destruction of mangroves and coral reefs destroys fish habitats and exposes vulnerable coastal communities to the fury of cyclones.

Increasing competition for coastal tracts from activities such as tourism, aquaculture, agriculture, military use, human settlements, and industrial establishments threatens easy access to the fishing ground from land, especially in countries without harbour facilities. There are instances of fishermen getting evicted or relocated from their traditional bases as a result of competition from these activities. Forced relocation of fishermen from villages with high
demographic pressure also has dislocated subsistence fishing economies in some countries.

Environmental degradation of land also can add to the conflicts in the coastal waters. In countries with drought-prone areas, for example, the coastal fisheries provide seasonal employment to peasants and agricultural labourers. When droughts persist and land becomes uncultivable, those who come to the fishery continue to stay, and it adds to the pressure on coastal fisheries.

Being at the tail end of many land-based sources of pollution and habitat destruction, the impact of coastal mismanagement are naturally most pronounced in the fisheries. Since majority of the poor fishermen in the developing countries in particular do not have recourse to an alternative livelihood, the degradation of coastal waters should be of utmost concern.

In spite of greater attention being paid to environmental degradation, specific information on habitat degradation is fragmented and anecdotal in fisheries. The fishworkers’ organisations could demand a systematic compilation of baseline information on marine habitat destruction. They can take the initiative to put pressure on the state to form decision-making bodies with a multi-sectoral approach, and with representation from all user groups. This should be with the important objective of minimising the adverse impact on coastal habitats of industrial activities, by attempting to tackle these problems at the source itself. Unless there is greater interaction between user groups, also with the active participation of the state, it may be difficult to arrive at permanent solutions. For effective participa-
tion, fishworkers’ organisations should enjoy a legally formalised right to participate in these bodies and to advise them on matters of concern.

Wherever appropriate, national, regional or international institutions should be set up with the participation of fishworkers.

Even if community-based fishery management is introduced in coastal waters, it could be made redundant if the negative impact of non-fishery activities on the coastal waters is not controlled.

Integrated coastal zone management, therefore, becomes a requisite for the successful implementation of community-based fisheries management.

However, the coexistence of various kinds of property regimes (private ownership, state ownership, community-controlled, etc.) and the varying degrees of priority attached to coastal zone management by different user-groups could make this concept a difficult proposition to implement.

Consent as well as coercion (through legislation) are important preconditions for its success and therefore fishworkers’ organisations may have to lobby respective governments for adequate legislation.

For this, it may also be important to be represented in appropriate decision-making bodies.
Issues for Consideration

- What are the various kinds of land- and sea-based activities that contribute to environmental degradation in your fishing grounds?
- Do you agree with the concept of community-based coastal zone management to achieve sustainable fisheries as a solution to marine habitat degradation? How would you react to problems specific to this concept and what would be your suggestions to overcome them?
- Since fishworkers are the most direct victims of degraded marine habitats, could fishworkers’ organisations take the initiative to begin a dialogue with other user-groups?
- What support do you expect to undertake documentation of environmental deterioration, to initiate dialogue with conflicting user-groups and to undertake integrated coastal zone management?
Organisations are to be seen as an institutional requirement in fisheries, either to systematize the question of access to the fishing ground, to mobilise inputs into fisheries, or to coordinate the disposal of catch. At the social level, there are several traditional structures that try to ensure equitable access to the fishing ground within the confines of a particular community. These are arguably the oldest forms of community organisations in fisheries. They are informal and localised and in addition to overseeing distribution of access to the fishing ground they also mediate in intra- and inter-community conflicts.

At the economic level, are the fisheries cooperatives that are principally involved in the organisation of production and/or marketing of fish and fish products. They may also negotiate on behalf of fishworkers with the government for subsidies on various inputs into fisheries and may also negotiate with traders (as well as the government) for better price for their products.

Trade unions are explicitly political and often function in tandem with other organisations in the fisheries sector. Unlike the traditional structures and the cooperatives, the trade unions have a broader agenda, and specifically relate to the labour component of fish production, processing and marketing activities.

They may fight against overefficient technologies that deplete resource base and pose threats for sustainability of artisanal and small-scale fisheries. They may demand exclusive zones for certain types of gear groups and lobby against government policies that are perceived to be against equity considerations.

Background Note
Fisheries and Fishworkers' Organizations

by

The Secretariat
ICSF, Madras, India
Legislative intervention and effective implementation of appropriate legislative measures are sought through struggles, to resolve various grievances of fishworkers. Social justice, in terms of fairer distribution of benefits as well as better working conditions and social security measures, is an important tenet of trade unions in fisheries, especially in the developing countries.

There are also instances of formation of associations around specific complaints of fishermen. Once the issues are resolved, these associations are automatically dismantled. There are several instances of such associations being formed both in the developed and the developing countries. These are mostly in protest against the introduction and/or development of highly competitive as well as destructive fishing technologies (like trawling and purse-seining).

**Fishworkers’ Organizations and Coastal Management**

The increasing number of technological innovations and their adaptation into fisheries in response to expanding demand for fish are today putting additional pressure on fishing grounds. Many commercial fisheries are contributing to exacerbation of conflicts over access to fishery resources.

The redistribution of catch in favour of more efficient technologies like bottom trawling, has caused considerable hardship to those fishworkers who are fully dependent on passive fishing gear for their livelihood. Simultaneously, various forms of land- and sea-based pollution and several forms of coastal degradation arising from the development of industry and aquaculture are adversely affecting the fisheries potential, especially in the coastal waters. Various
management regimes introduced by the state have largely failed to reverse overexploitation, reduce conflicts and limit capacity in marine fisheries.

Until recently, the production limitations of fisheries, with rare exceptions, was not an issue, and this attitude seems to have influenced fishworkers’ organisations as well. Except for certain effort control measures at the local level which are basically to minimise conflicts between different gear groups or among fishermen few of the fishworkers’ organisations in the past have consciously tried to include conservation practices in their agenda. Recently, however, initiatives are being made by fishworkers’ organisations in countries like the Philippines to directly undertake resource management.

Limiting access to the resources through the introduction of use rights is increasingly considered as an effective way of preventing overexploitation of marine resources in the artisanal sector. Individual transferable quotas (ITQs) are also being considered as another effective means of preventing overcapacity and overfishing. The World Bank for example is seriously thinking of introducing ITQs as a conditionality for loans in fisheries. In other words, for better management of various fisheries, attempts are being made to privatize ownership rights in the sea.

The introduction of ITQs, although might contribute greater revenue (to the state), has the grave potential of going against all equity considerations. Not only that there could be concentration of ownership, it may also exclude seasonal fishermen from all fishing activities, for example, in seasons when farming activities are difficult. Its object of meeting
conservation requirements is also doubtful. The estimation of total allowable catch (TAC) of each stock will be next to impossible in the tropical fisheries because of the presence of numerous species. Moreover, the discard rate may be much higher in these fisheries if ITQs are introduced.

Given the inherent difficulties in successfully managing a fishery with conventional resource management measures, appropriate community-based fisheries management (a community in this context means all the fishworkers, their dependents and others living in a specific locality), depending on the characteristics of a particular area /region, and its fisheries has to be seriously looked into.

Traditional community-based fisheries management has been quite successful in minimising conflicts over access to the fishing ground. Although many of the systems have been unable to withstand the inroads of market economy, the traditional knowledge of fish habitats and ecology can meaningfully be combined with appropriate modern management regimes. Communities and the government can work together within the framework of co-management. This will ensure equity as well as conservation and at the same time does not have the negative effects of the open access or the ITQ system. The right to fish within this framework would essentially be the right to enjoy the use and advantages of fish stocks short of their destruction or waste of their substance. This implies custodianship of the fishery resources as well as the environment.

The concept of custodianship, however, raises important questions about the magnitude of fishery operations, the desirable extent of integration into market forces and the
choice of technology (should one go for more efficient or less efficient technology? Capital-intensive or labour-intensive? Energy-intensive or otherwise?).

As coastal fisheries are prone to coastal degradation, they are also susceptible to the impact of fisheries beyond the coastal waters (which in many countries would mean beyond 3 to 12 nautical miles). This is because of the fluidity of the sea, the migration of fish stocks and the inter-relationship between different species. Successful coastal fisheries management therefore also depends upon minimisation of the adverse impacts of industrial fisheries.

Overefficient technologies could decimate stocks on their migratory routes to the coastal grounds, thus adversely affecting the fisheries potential of coastal fishermen. This again calls for adequate legal measures that will help minimise the negative impacts of industrial fisheries. The coastal fishworkers may have to lobby for this as well.

Although many states seem to be supportive of better fisheries management with the participation of fishworkers, the necessary political will is yet to be generated in several others. Often foreign exchange considerations may force governments to support industrial fisheries to the detriment of the artisanal fishworkers.

It may be in the form of international agreements in fisheries allowing foreign fleet to exploit the local resources against hard currency payments. Or it may be in the form of developing a domestic-based industrial fleet, or by allowing flags of convenience. Fishworkers’ organisations, if they are well organised and forceful can put pressure,
nationally and internationally, to revoke such development policies that are harmful to the artisanal fishworkers.

Due to demographic and/or ecological factors, all those who would like to participate in fisheries perhaps cannot be accommodated and therefore fishworkers’ organisations should also consider how they could help fishermen to diversify into other sectors.

Compatible with sustainability principles and community-based ownership, among other options, aquaculture as an alternative means of livelihood for redundant labour force should be looked into.

The above discussion shows the need for a complementary framework of social, economic and political functions for a fishworkers’ organisation to succeed in its objective for a livelihood, based on equity and sustainability.

**Issues for Consideration**

- What are the views on the current state of fisheries management especially in your artisanal sector? If community-based fisheries management is acceptable as an alternative to current practices, what are the specific problems that have to be addressed? How could these rights be distributed and what ought to be the rationale for their definition?

- Do you think that the ITQ system is a viable alternative? If you think it is not, what are your alternative proposals?
• What are your experiences with participatory re-source management? Do you support the idea of co-management, i.e. management of fisheries resources by the community and the state?

• What should be the management regime for industrial fisheries? How will you ensure minimisation of their adverse impacts?

• What are the ways to resolve conflicts between the priorities of the state and those of fishworkers, especially in relation to international agreements in fisheries? Do you think setting up an appropriate body to manage these agreements, also with the participation of fishworkers’ representatives, can settle these differences?

• Are there instances of fishermen moving from capture to culture fisheries? To what extent can fishworkers diversify into other activities? What are the alternative livelihood options?
Some 50 per cent of the estimated 30 million fishworkers in the world are engaged in fish capture, and are mostly in the small-scale sector. About 100 million people are economically supported by fishery-related activities. The fishworkers in the artisanal and small-scale sectors are amongst the world’s poorest people, and about two-thirds of them are in Asia. China and India have the largest numbers:

Small-scale Sector
The specificities of working conditions and social security vary from sector to sector. In the artisanal and small-scale sector, poor working conditions in fishing would refer specifically to the drudgery of manual labour (in unmotorised fishing) and poor navigational and emergency life-support aids. In an economic and social sense, it refers to bondage of labour to middlemen and payment of wages/shares at levels below subsistence. In the coastal waters, poor working conditions also refer to dispossession of traditional fishing rights, competition from efficient gear-groups like trawlers and purse-seiners that diminish the catch capacity of small-scale gill-net groups. Pollution of coastal waters can also create health problems. Displacement and relocation also sometimes put pressure on fisher-men to expend greater physical energy to reach their fishing grounds.

The social security scene is very dismal in small-scale fisheries in developing countries. There are very few countries that provide more than lip service to old age pension, insurance coverage and accident benefits. Some counties provide nominal amounts as some kind of support to families of fishermen who lost their lives while fishing.

Background Note
Work Conditions and Social Security of Fishworkers

by

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India
Although the small-scale sector is a net contributor in the foreign-exchange earnings, hardly any funds are earmarked for their welfare by the state.

Working conditions on medium-sized (over 8m in length) fishing vessels in many developing countries leave a lot to be desired. These vessels have to brave the sea with no navigational, life-support and communication systems. Crew accommodation facilities are very poor.

In developed countries, however, crew accommodation in the newer fishing vessels is much better than in the old ones. But the frequency of accidents of vessels that belong to this category is quite high and is as high as the rate that prevails in coal mines in the UK. Foundering, fire, stranding, capsizing and collision have been documented to be major causes of such accidents.

**Industrial Fisheries**

In the case of industrial fishing vessels this includes vessels fishing way beyond the coastal waters as well as distant water fishing vessels the working conditions and social security are generally better than what prevails in the small-scale sector in both developing and developed countries. In Chile, industrial fishermen are guaranteed minimum wages and unemployment benefits by law. They also receive compensation for days lost in fishing because of bad weather. In Ecuador, a compulsory social security scheme that provides sickness, accident, unemployment and old-age benefits, and widows and orphans pension exists. However, it is not fully known to what extent these legislation are implemented in developing countries. The general feeling is that they are not implemented properly.
In distant water fisheries, however, especially in the case of Taiwan (which catches over 300,000 tonnes outside its own waters), there are several documented instances of deplorable working conditions on board the industrial fishing vessels.

Taiwan seems to operate the most labour intensive distant water fishing fleet in the world. Most of these vessels are long-liners for tuna. The majority of the workforce on Taiwanese industrial vessels are migrant workers, especially those from the Philippines. Illegal recruitment through unscrupulous agents, contractual violations leading to wage settlement far below what is stipulated in the contract, sexual and physical abuse of workers, long working hours, poor food and unhygienic working conditions and incarceration of workers for disobedience have been documented. There are several instances of desertion from vessels while fuelling the vessel or unloading the catches, as well as cases of mutiny on board leading to bloodshed and death. No social security benefits are provided.

Because of overfishing, the quota allocation system, and higher wages in developed countries, many owners have moved their vessels from the North, particularly from Spain, France and Portugal into the underexploited waters of the Atlantic, Pacific and the Indian Oceans. Under joint ventures, flags of convenience and international agreements, they gain access to the waters of developing countries. In several cases, local labour is recruited at low wages. Although there are a few isolated cases of complaints from countries in Africa, there is very little information on the working conditions and social security on these vessels, particularly of locally recruited workers.
International Task Force on Industrial Fishing Vessels
An international task force, comprising members from the Philippines, Mauritius, Taiwan, Madagascar, Senegal and India, has been formed by International Collective in Support of Fishworkers (ICSF), in 1993. This task force has the following objectives:

- compile legislation and other legal documents on industrial fleet vis-à-vis recruitment, remuneration and conditions of work;
- document working conditions, study the recruitment pattern and suggest campaign and action programmes regarding industrial fishworkers; and
- consolidate interaction and consider new linkages where necessary, with organisations concerned with the rights of fishworkers.

Processing Plants
Over the past twenty years, there has been a major shift of processing facilities, especially for tuna, from the developed to the developing countries. While the ‘Cannery Row’ in California had been closed down, new tuna processing facilities have sprung up in American Samoa, Solomon Islands (largest employers in these countries are these firms).

Thailand has emerged as the world’s largest exporter of canned tuna and its share of the world market has made quantum leap from just 6 per cent in 1982 to 52 per cent in 1991 (in terms of quantity). Consequently, the employment of processing workers, specially that of women, has increased. However, little information is available about the working conditions and social security in these firms. In the
South Pacific, comparison of wages, working conditions, and social security between that of Fiji’s with Solomon Islands’ shows that the Fiji workers get a better deal than the women processing workers in Solomon Islands.

For various reasons of their own, many processing plants resort to accommodating workers on the factory premises in many developing countries. The living conditions in these plants leave a lot to be desired.

Complaints of these processing workers include:

- inadequate safety conditions on the factory floor and poor remuneration;
- unhealthy working conditions (standing barefoot on cold floor, continuous contact with water without any protection for the hands etc);
- infrequent and short intervals between shifts; excessive workload and longer working hours (in seasons when there is excessive supply of fish);
- insufficient medical benefits (including poor maternity benefits and leave); and
- poor amenities as well as inadequate child care facilities.

Often there is no insurance coverage against accidents. Compensation for loss of limbs is insufficient and there is no old age pension or any family allowance.

Issues for consideration
- What are the safety and working conditions of fishworkers prevailing in the small-scale, medium-scale and the large-scale fisheries sectors in relation
to production, processing and marketing? In what ways can/should they be implemented?

- What are the legislative measures providing for better working conditions and social security? What is the status of their implementation?

- Are their any recruitments of workers into the distant water fishery? Are their rights protected by legislation? What are the kinds of exploitation that prevail on board distant water fishing vessels?

- What kind of safety/social security provisions are available for developed-country fishworkers in industrial, small-scale and artisanal sectors? How far can they provide models for developing country policy-making?

- What are the impacts of environmental degradation on your working conditions?
Development and application of modern technology, coupled with increasing availability and use of fossil fuel energy, have pushed up the extraction rates of fishery resources by almost five-fold over the past forty years: from 18 million tonnes in 1949 to 86 million tonnes in 1989. Application of industrial techniques, capital intensive technologies and economic projections based on short term gain, rather than long term sustainability, has resulted in the introduction of highly efficient fish catching methods, huge expansion of industrial-scale fleets, and the introduction of sophisticated fish-finding and navigational aids. Recent declining trends in extraction rates of many economically important fish stocks (according to FAO, global fish production declined by over 4 million tonnes between 1989 and 1991) has brought attention to the finite nature of fishery resources and the destructive capacity of fishing technology. Historic patterns of investment and support to the fishing industry have built up excessive surpluses of fishing capital with huge operational inefficiencies. Without including the numerous artisanal and small-scale sector fishing vessels, the global fishing fleet comprises over three million fishing vessels, which run an annual operating loss in the order of US$ 22 billion. It is clearly evident that the current rate of exploitation cannot be sustained - economically or ecologically.

Unless the enormous fishing power (the combination of technology and energy) in world fisheries is reduced, and unless we rationalise the way energy and technology are used to extract fishery resources, there is a danger that stocks will continue to collapse. Millions of fishworkers would be deprived of their only source of livelihood, thereby displacing many thousands of fishing communities. Cer-
tain combinations of fishing vessel, propulsion methods and fishing gear (Man-made Capital), as well as depleting the resource base, cause the destruction of the very environment which nurtures and sustains the fishery (Nature’s Capital). Nature’s Capital can only provide a sustainable income if the use of Man-made Capital does not erode or degrade it. However, current global fishery trends show that over investment and misapplication of Man-made Capital are eroding and degrading Nature’s Capital.

We therefore need to reflect on ways in which technology and energy can be used to sustain Nature’s Capital, to provide us with sufficient income over the longer term. This means formulating fishing policies based on sustainable combinations of the size and type of fishing craft and gear, as well as the means and power of vessel propulsion technology. Initiatives to rationalise and reduce fishing power at all levels in the artisanal, medium-scale and industrial fisheries need to be considered. However, it is particularly important to rationalise the industrial fishing policies of both the developed and the developing countries.

Such fishing technologies as bottom trawling, purse seining, and “wall of death” drift netting, controlled by big business interests have been implicated in the collapse of a number of fisheries, and the destruction of the resource base. The non-specific catch-all nature of these gears results in a large by-catch of undesired species (immature fish below market size, fish of low economic value, marine mammals and sea birds) of between 30 per cent and 80 per cent of the catch. These are dumped in huge quantities, causing unacceptable wastage of precious resources, and environmental degradation.
Human skill and labour can also be substituted and displaced by investment in technology and energy both directly and indirectly. Mechanisation of fishing can greatly enhance labour productivity, but requires significantly increased capital investment, and fossil fuel consumption. The application of mechanical propulsion technology to fishing craft has the potential to take out much of the drudgery and heavy manual work load of fishing but at a cost in fossil fuel use, which must be paid for out of the fish catch (and possibly crew wages). In the same way the use of mechanical gear haulers can be used to replace human labour. Workers on mechanised boats may therefore be relegated to the status of machine operators or coolie labourers. Mechanical propulsion also increases the fishing power and the potential to use more effective active fishing techniques (like purse seining and trawling), which may lead to overfishing, stock depletion and resource degradation. Navigational aids and acoustic fish finding technologies replace traditional skills. Although the use of modern technologies like outboard motors, and computerised navigational aids necessitate the learning of new skills, dependence on technological artefacts increases technological dependence, and fishing economies can become very vulnerable to failures in technology delivery and support systems.

Introduction of larger fishing vessels opens up the possibility for processing and storage at sea, thus by-passing local fish processors and traders. Whilst large scale mechanised (shore based) fish processing plants do open up the possibility for supplying more lucrative markets, generating foreign exchange earnings and providing work places, their capital investment costs are high, they consume large
amounts of energy, and may divert fish catches away from traditional processors and markets (where they already exist). Such processing plants, whilst providing the possibility of processing large quantities of locally caught fish, often rely heavily on the import of other inputs (e.g. cans and other packaging materials, freezing plant, tomato sauce and oil etc.). There is therefore a danger that with investment in larger scale mechanised technology, labour will be displaced, and decentralised community based production, processing and marketing will be replaced by large scale, centralised energy intensive facilities. The various potential benefits and dis-benefits of investment in technology and energy use, particularly the impact on work places and the local economy, need to be discussed, and actions proposed.

The marine ecosystem fixes and channels solar energy into living matter or biomass. Important fish habitats such as coral reefs, mangrove swamps, and sea grass beds comprise important biomass resources, supporting a diverse biomass of fish stocks. Biomass represents an important natural reserve of energy, which can be transformed into a variety of products for human consumption (food, oil, fertiliser, and energy) through the application of technology and energy in fishing. The most widely used source of energy for fishing is that stored in fossil fuels (e.g. diesel, petrol, kerosene, etc.). As well as providing fuel for motive power fossil fuels are used for manufacturing plastics (e.g. nylon for nets, resins for fibre glass, etc.), refining steel, and transforming fish into a variety of products. Unlike fish resources, fossil fuel resources are non-renewable. Therefore the way we use and become dependent on the use of fossil fuel energy to extract biomass from the marine eco-
system has implications for the future. Industrial modes of fishing, using active techniques such as trawling and purse-seining are particularly fossil fuel energy intensive. For example, studies have shown that trawl fisheries for cod typically consume 20 kilocalories of fossil fuel energy for every kilocalorie of fish protein produced, and shrimp trawling uses up to 200 kilocalories for every kilocalorie of shrimp protein produced.

As extraction rates of fishery resources decline, increasing importance is being given to the cultivation of fish through aquaculture. However, modern intensive aquaculture is also heavily dependent on non-renewable fossil fuel resources (to produce fish feeds, run pumps, manufacture cages, etc.) and the exclusive use of coastal ecosystems (salt marshes, mangrove forests and swamps, bays and estuaries). Each hectare of mangrove converted to other uses can decrease fish and shrimp harvests by 750 kg. Other environmental impacts include land degradation, pollution through use of pesticides and production of fish farm effluents. Additionally, fossil fuel energy is required to catch and convert live fish biomass into fish meal for formulated aquaculture feeds. Intensive aquaculture would therefore seem to be both resource damaging and environmentally degrading.

Given the abject failure of the various management regimes, both in developed and in developing countries, it is perhaps time to consider globally limiting fishing power. Certain technologies such as trawling and purse-seining, for example, which are inflicting immense environmental damage, perhaps have to be done away with. In the same
way certain aquaculture practices which destroy important natural habitats and consume huge reserves of non-renewable resources for short term economic gain, need to be banned.

Fishworkers in coastal waters have been making a livelihood from fisheries for centuries. The sustainability of these fisheries is also contingent on the craft-gear-propulsion combination that they adopt. Given the large numbers of fishworkers in many developing countries, and also given the fact that these fishworkers do not have any recourse to an alternative livelihood, it is important to ensure that the fisheries on which they depend remain sustainable.

Fishing rights, as far as possible, may need to be given to those who participate in fishing. While considering appropriate technology options, these communities need to understand that certain craft-gear combinations can be labour-displacing in nature and resource degrading.

From this point of view, even if extraction rates in certain fisheries are still below the maximum, it may be worthwhile to maintain a low-efficiency threshold. The factors that govern production and the distribution of various species of fish vary from country to country and from region to region.

Therefore, appropriate combinations have to be developed through consultation among different gear-groups, within the framework of traditional knowledge-systems, and with an understanding of local environmental and production factors, so that a legitimate efficiency threshold can be fixed.
Issues for consideration

- Should fishing power be limited or reduced to prevent overfishing? If so what sort of measures should be considered (e.g. limiting size of boats, engines and gear)?

  Can moratoria on fishing (i.e. closing fishing grounds) result in regeneration of fish stocks? What sort of difficulties are likely to be encountered by calling for limits or reductions to fishing power?

- Should certain fishing technologies (e.g. bottom trawling) and practices (e.g. intensive prawn and salmon aquaculture) be banned, for example those fishing techniques and practices which can cause resource degradation?

  What experience is there of fishing practices which deplete fish stocks and cause environmental degradation? Is there any experience of effective actions being taken against such practices?

  How could such a ban be implemented, and what sort of problems might be encountered?

- What criteria should we use to determine technology choice and levels of fossil fuel use? What sort of trade-offs should be made between labour-intensive, capital-intensive and energy-intensive technologies?
What is the trade-off between decentralization and centralization in fish production, processing and marketing?

- What is the experience of technology and energy use in relation to labour? For example, has the introduction of mechanized fishing led to an increase or decrease in the number of jobs (e.g. crew size, shore-based work)?

- Have centralized fish processing facilities affected decentralised community based fish processors and marketers? What sort of new jobs have been created as a result of the introduction of new technologies?

- What is the experience with industrial scale fishing? Who benefits from such large scale investments? Can the activities of industrial scale fishing be regulated and controlled by monitoring, control and surveillance measures? What sort of experience is there in this area?
About a third of the world production in fisheries enters international trade, and this share has remained more or less the same during the past twenty years. Total export of fish and fishery products increased from 5 million tonnes in 1963 to about 18 million tonnes in 1991. In terms of quantity, developing countries increased their share of total volume of exports from 34 per cent in 1963 to 52 per cent in 1991. However, in terms of value, their share increased from 25 per cent in 1963 only to 45 per cent in 1991.

Development and diffusion of freezing technology, adoption of new gear material and fish harvesting methods, declaration of exclusive economic zone (EEZ) and the expanding global demand for marine products have considerably ‘internationalised’ the fisheries scene in the past two decades. The significance of these events is mixed and it may be difficult to have a uniform perspective on their impacts. The following sections discuss the pros and cons of the significance to fishworkers of trade, international agreements, aid and technical assistance in fisheries, particularly in the developing countries.

Impact of Trade
There are contesting views on whether exports benefit or adversely affect fishworkers, especially in the developing countries. While some argue that exports deprive the poor people within the country of cheap protein, others disagree. Does export of fish actually deprive the poor of protein?

Fish is protein, but its consumption by people to a large extent depends on food habits. For customary or religious reasons, sections of population may be opposed to eating

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in Fisheries

by

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fish. There are poor countries in Africa who prefer to eat beef instead of fish (Mauritania, Morocco, etc.) even though fish is available in large quantity. There are for instance fishermen on the north-west coast of India who are strict vegetarians. For religious reasons, Jews and certain Christian sects are forbidden from eating fish that do not have scales. For those who consume fish, it is often associated with specific types and they do not consume just any kind of fish. The Papua New Guinea people, for example, prefer to eat imported canned mackerels from Japan and Europe instead of their own local catch (only about 30 per cent of the fisheries potential is tapped in Papua New Guinea!).

Using non-destructive fishing gears, many artisanal and small-scale fishing groups in developing countries catch marine stocks such as prawns, squid and cuttle fish. Because of competition among the traders for these economically valuable species, the fishermen get a better price and realise a better income in comparison with what they earn from supply to the domestic market of fish like sardines and mackerels. However, investment in destructive fishing techniques from outside the sector can cause stock depletion and undermine the sustainability of the small-scale fishery (e.g. prawn trawling in Kerala, India).

Development of fish production and processing activities in response to export potential can contribute to an increase in employment opportunities in the developing countries. Joint ventures as well as local initiatives in developing countries have contributed to better employment opportunities, especially for women. Canneries have either moved from the North to the South in the past two decades, or have been closed down in the North because of inability to
compete with processing plants in the South. About 90 per cent of prepared and preserved tuna, for example, came from the South in 1991, and Thailand alone accounted for 52 per cent of the global market. However, the work conditions and remuneration leave a lot to be desired.

Developments in the export market that have negative impacts on domestic fish supply and on the coastal environment however have to be discouraged. Adequate safeguards have to be made to prevent the export of fish that contributes to nutritional requirements of the local population. Aquaculture practices, especially intensive aquaculture, with poor water and waste management as well as removal of gravid females and fry from the wild have to be discouraged, since they have adverse implications for coastal fish production and the livelihood of fishworkers.

Impact of International Agreements in Fisheries
International agreements in fisheries refer to granting of access to surplus fish stocks within the national jurisdiction to foreign fishing vessels against the payment of stipulated fees, usually in hard currency. The agreements between the European Union (EU) and the African countries are matters of concern for artisanal fishworkers in countries like Senegal. Given the total absence or impotence of monitoring, control and surveillance mechanisms in these countries, vessels that come under these agreements often violate the stipulated conditions and create hardships to the artisanal fishworkers.

Formation of appropriate bodies for negotiation and supervision of international agreements in fisheries with adequate representation of fishworkers’ representatives is an
essential prerequisite for minimising negative impacts of these agreements. The flag state should take responsibility and compensate for violations of stipulated conditions by their vessels. There should also be provisions for sufficient punitive measures against erring vessels under the agreement. Also, the process of concluding these agreements should be made sufficiently transparent. These measures will ensure that the access of artisanal fishworkers to their traditional fishing grounds is not threatened, their crafts and gears are not accidentally destroyed, and that the boundaries of traditional waters are respected by the foreign vessels.

**Impact of Aid and Technical Assistance**

While some transnational linkages are beneficial mainly from the employment point of view, certain others have deleterious effects. External assistance programmes were instrumental in the introduction of bottom trawling in several countries. Development of bottom trawling has not only led to severe pressure on some bottom dwelling species like prawns, but also has led to competition for resources and space in the inshore waters. This has often erupted into open conflicts between gill-net and trawl gear-groups. Modern technical interventions without a thorough understanding of cultural and social ethos that govern traditional harvesting, processing and marketing activities have caused considerable waste of resources in many African as well as Asian countries, and have dislocated several traditional fishing practices.

**GATT and Fisheries**

Fish and fish products, unlike agricultural products seem to be traded internationally under relatively lower tariff re-
gimes. With a few exceptions, fish and fish products can be exported at tariffs below five per cent to markets like Japan, USA and the EU that account for bulk of the world market. However, some of the highest tariffs in developed countries apply to products such as canned tuna and canned sardines, which are of major export interest for developing countries. For example, France, which is the largest importer of fisheries products in Europe, levied 24 per cent tariff on canned tuna and 25 per cent on canned sardines in 1986. The United States has tariff quotas for canned tuna, determined in relation to domestic production, and imports beyond this quota are levied very high tariffs, e.g. 35 per cent in 1986 for canned tuna in oil.

However, the Uruguay round seeks a reduction of tariff rates on industrial products, in which group fish and fish products are included, by a third. It is estimated that the actual reduction will be in the order of 39 to 41 per cent on average. According to calculations made by the GATT Secretariat, 45 per cent of the imports (in value terms) will be paying between 0.1 and 5 per cent, 23 per cent between 5.1 and 10 per cent, and 9 per cent between 10.1 and 25 per cent. 23 per cent of the imports will not have to pay any tariffs. Imports of fish and fish products subject to tariffs between 15 and 25 per cent would decrease from 7 to 3 per cent.

While adversely affecting producers and processors enjoying subsidies, especially in some developed countries, lower tariffs are likely to benefit the exporters from developing countries. Fish production in the developing countries take place at lower costs and are not subsidised to the extent in many developed countries. This will help the exporter from
developing countries to compete more effectively under low tariff regimes in the international market. Ensuring healthy competition among exporters would help enhance the share of the export price that would accrue to the fishermen. However, care has to be taken to ensure that species whose demand outweighs supply are not subject to overfishing.

In normal circumstances, the inputs that are imported into the fisheries could also benefit from reduction of tariffs if there are no currency devaluations. But, this may also act as an incentive to enhance efficiency of fishing operations with implications for sustainability of fish stocks.

While the fishworkers from the developing countries are likely to benefit, those from developed countries who already enjoy a certain degree of protection are likely to suffer from reduction of tariffs. This is especially in situations when they may have to supply to the domestic market fish that can be imported cheaply from developing countries.

However, if local production commands a premium price in the domestic market at a price higher than what prevails in the international market, the local fishermen will not be threatened by tariff concessions that are given to imports. Such a situation is possible only if the local products enjoy considerable demand and are not substitutable by imports. The fresh fish market in Japan for some of its coastal fish and fish products is an example. Certain species of high quality fresh fish commands a higher price in the Japanese market in comparison with the price of similar species that are imported.
Environmental standards are increasingly becoming a topic for inclusion in GATT. In negotiating international agreements on environmental standards, developing countries may wish to ensure that such standards are not used for protecting domestic production in developed-country markets and to restrict imports from developing countries.

Issues for consideration

- What are your views on development of export market for fish and fish products? Do you think fishermen should primarily cater to protein requirements of the domestic population before considering export options?

- What is your experience with the export market in relation to the domestic one? Does the export market help fishermen to earn a better income than the domestic market? Do traders pay a better price for exportable varieties of fish? Are there substantive differences in the earning capacity of those using gears like trawls and purse-seines, and those using passive gears?

- Are there instances of export-led fisheries development contributing to environmental degradation and overfishing in your country? Do gear-groups primarily catering to the export market conflict with those gear groups catering to the domestic market?
What is the nature of joint-ventures in your country? Do they create new employment opportunities for the local communities?

What are the developments in processing industry in your region? Are they providing new employment opportunities for the local communities?

Do they, on the contrary, displace labour from their traditional occupations? How about work conditions, remuneration, social security, etc.?

Would you like international agreements in fisheries to be dismantled, or would you like to accept them after redefining the terms and conditions of such agreements?

In the latter case, what sort of redefinitions in general should they be subjected to?

What are your views on liberalisation of fish trade? Do you think it can adversely affect fishworkers, if so, how?

Do you agree that liberalised fish trade will make the fishworkers of the South better off and those of the North worse off?

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**Background Note**

**Transnational Linkages in Fisheries**
Fishermen and fishworkers living in coastal areas all over the world, work with living marine resources and feel very closely the negative repercussions of activities originating from both land and water. For this reason, the relation between development and the environment is one of our major concerns.

Fishermen and fishworkers are one of the most disadvantaged social and productive sectors and they have a genuine concern for fishing resources, their major source of income.

The dangers threatening these resources could harm the very existence of these workers, in particular those who live on river banks, lakes and the oceans of poor countries.

Alarming discoveries made about the sea’s state of health are attracting attention at the same time that the idea that the sea has an “infinite” capacity to receive and recycle rubbish and waste has been rejected.

Fishermen and fishworkers are fighting against destructive fishing practices and the draining of natural traditional resources, which are being attacked by fleets equipped with modern predatory technology and indiscriminate trawling and fishing methods; all of which are practiced by the major industries in search of enormous gains, at the cost of sustaining basic resources.

There are also a series of activities on the land that contribute, directly or indirectly, to damaging the coasts, polluting river waters, lakes and oceans. There exists a deep rooted “civilization” who, not concerned with maintaining the ecosystems and their resources, drains and destroys in
order to benefit the interests of investors, traders or social or political pressure groups.

This document presents a series of facts, reflections and experiences of fishermen’s struggles and their desire to contribute to the definition of the politics and actions needed to defend coastal regions, marine resources and most of all the people who make their living from them.

1. Marine environmental problems provoked by maritime or land activities
The negative impact on sea coasts, lakes and rivers can be attributed to the following combination of activities:

- activities directly causing pollution;
- trends and operational methods of modern civilization that disturb the traditional management of resources;
- finally, natural phenomenon that affect the marine ecosystems and the coastal communities, especially the fishermen and fishworkers

1.1 Sources of land pollution directly affecting the aquatic environment
The following activities are directly responsible for the deterioration of the marine ecosystems and the living conditions of the coastal workers who live from these resources;

- indiscriminate use of the marine environment to deposit waste;
- careless drainage of toxic chemicals from the land;
- mining exploration and extraction from mountains, rivers and seas;
- construction and recuperation of coastal land;
- military activity.

Among the harmful activities that have a negative effect on fishing resources are:

- the spillage of toxic chemicals;
- the discharge of large quantities of organic waste with high levels of biological oxygen by agricultural industries;
- the introduction by nuclear plants of radioactive waste in the environment;
- the releasing of organic chemicals which could possible have mutating effects on fishing resources; and
- the discharge of possible carcinogenic petrochemicals.

Thirty years ago it was thought that pollution was an inconvenience that had to be tolerated, an inevitable consequence of urban life. It even symbolized prosperity. With
technical and investigative advances, its effects have been seen to cause aesthetic inconveniences and also grave consequences for human health and the quality of ecosystems.

To give an idea of the magnitude of the environmental problems and the real possibility of resolving them, the data of the United States Environmental Protection Agency (USPA) and the World Health Organization (WHO) demonstrates, that approximately 80,000 different chemical substances are in daily use (1991), and that only 30,000 have been seriously researched. This number rises when these chemicals react with water when released into the sea.

Nature has its own mechanisms for purifying itself, but its capacity to recuperate itself is finite and can be exceeded. This produces irreversible modifications in the environment causing illness, the extinction of species and the destabilizing of ecosystems.

“When tens of thousands of tons of production waste are dumped daily into rivers and oceans; when thick clouds of pollutants cover cities; when forests begin to disappear as a result of such irrational behaviour; when insects change their habits and create new resistance and when new diseases appear as a result of such new resistance and when new diseases appear as a result of inadequate use of agrochemicals; when the land is exhausted, barren or begins to change into arid desert; when in order to eat sea products precautionary measures and detailed health checks are required, then the time has come to urgently review the principles of the relationship between man and nature.”
Industrialized countries have an enormous quantity of contaminating waste converting the oceans into a potential waste dump. Furthermore, they look to deposit their waste on the sea beds of third world countries, in exchange for payment of foreign debt, and are moving polluting industries to the third world, arguing cheaper labour and the creation of jobs. Oceans have been treated as a “free resource” to dump all sorts of waste.

The composition of waste dumped all over the world varies from one zone to another, but it all ends by moving, mixing and spreading its effects. Each type of dumped waste contains various elements and compositions, some poisonous, others inoffensive and some, apart from being dangerous are accumulative. These compounds are potentially even more dangerous when combined with other elements and compounds about which little is known.

**Case: the south-east coasts of the Pacific in Latin America**

The region of the south-east Pacific is approximately 10,550 km long, from Panama to the extreme south of Chile, including five coastal states: Colombia, Chile, Ecuador, Panama and Peru. The surface area of the continent is 3,520,842 sq. km and the surface area of the ocean is 5,145,000 sq. km. There are a great number of coastal communities along the length of the region with the length of the region with approximately 74 million inhabitants in the five countries. It is estimated that by the year 2000 the population will be 104 million with an annual growth rate of 2.4 per cent.

Since 1984, the United States Regional Seas Programme, has collected basic information about the regional distribution, dispersion/dilution of petrol hydrocarbons, the occurrence
of tarring on coastal lines, waters, sediments and marine organisms containing heavy metal and an account of polluting sources.

With the existing information of 1989, three causes were found: pollution by heavy metals, bacteriological, pesticides and eutrophication, by petrol hydrocarbons, by sources on land, all of which show the state in which the users and/or resident organisms find the environment.

Parallel studies have been made about climatic changes and their effects on the coastal land ecosystems (forests, grasslands, hydrographic basins), marine ecosystems (coral, mangrove swamps, pelagic coastal species, benthonics, estuaries) and about the fishing grounds of the region, using as a reference the changes registered during the occurrence of the “El Niño” phenomenon.

With these factors it is possible to determine the future fishworkers of the Southwest Pacific could be awaiting, if this complacency regarding the pollution that afflicts us continues.

Apart from the 1,813 pesticides found in waters, eight chemical compounds have been registered (Aldrin, b-BHC, DDE, DDT, Heptachloro, Lindano, Mirex and Toxaphene). The 1,474 tests made on sediments reported the same pesticides present in waters excluding Toxaphene, but also detected the presence of Endrin. Studies of organisms made up of 469 tests in 28 species of fish, 9 species of crustaceans and 3 of molluscs, have revealed the presence of 14 pesticides.
Pollution by eutrophication in the coastal region of these five countries, caused by domestic and industrial dumping in seas and rivers, is serious. In terms of bacteria, the health conditions of the waters are bad and the possibility of enteric illnesses has been predicted.

An example of this, is the cholera virus that has invaded the coasts of Peru, with several cases being found in Chile.

Records of pesticides in waters show serious pollution in several regions, by Aldrin, Lindano, DDT and DDE. Sediment pollution existing in organisms, is moderate in Chile and Peru but serious in Panama.

The presence of heavy metals in regional waters is high in cadmium, moderate in Chrome and Zinc, and serious in Copper, Iron and Mercury. In sediments, only high amounts of Mercury have been found. Finally, moderate levels of pollution have been registered in organisms.

1.2 Management methods or modern civilization’s tendency to upset traditional ways of managing resources

It has been proved that in a modern society a dominant economic and social culture tends to see its natural resources in relation to its economic and commercial objectives, beyond nature’s capacity to renew itself.

These tendencies extend throughout the world and in the case of marine resources and coastlines, provoke an indirect impact on the lives of the coastal communities and their resources.
Some of these tendencies are:

a. Internationalization of the economy and the opening of markets by countries with high incomes per capita and higher consumption of sea products.

The economic growth of industrialized countries, especially in Europe, Asia and the United States has generated higher incomes per head, creating a market of more than 1,000 million people. In these countries there are not enough natural resources to satisfy internal needs and they have turned to those countries with natural resources still available. South America, Africa and some Asian countries for example, have a high trade flow of their sea products as a result of the introduction of buying, transformation and exportation networks by very powerful companies.

This expansion of trade has made a great impact on the following aspects:

- has raised the cost of numerous marine resources creating great demand and pressure on extraction, resulting, in some cases, in the exhaustion of reserves and their extinction.

- has instigated the increase of production and transformation centres in coastal communities,

- provoking numerous social and economic changes, especially in behavioural patterns, with positive and negative effects.
b. The development of industrial methods and competition for resources against traditional fishing

The technological advances applied to navigation and capture in fishing grounds, likewise the growth of deep-sea fishing fleets and factory boats, have increased competition with the coastal craft and middle scale fishermen.

The conflicts between industrial and small craft fishing have been very intense on the West African coast. Fishing fleets from the European Community have reduced the resources used previously by the traditional fishermen and have destroyed their ways of fishing.

On the coast of South America the industrial fishing fleets have progressively occupied the space and species once fished by the traditional coastal fishermen, species including swordfish, the southern hake, etc.

In Asia, especially in the Philippines, agreements made with Japan have caused a massive exploitation of fishing resources by the industrial fishing fleets, leaving the traditional fishermen in great poverty.

At the same time the growth of intensive fish farming in coastal regions which were once managed by fishing or countryside communities, has in some cases provoked a serious social and environmental impact, especially on shrimps in tropical countries and on the growth of salmon in mild climate countries.

c. The development of industrial methods, tourism and military activity on the coast or interior valleys
and their effect on the conditions sustaining marine life.

The needs of industrial, urban or military development have brought about the creation of huge plants in the coastal regions of numerous countries, these have transformed resources, natural coastal conditions, and have modified the social and labour framework of coastal communities.

Examples of such installations are:

- Energy plants with thermic, nuclear or hydroelectric power supplies;
- Petrol refinery, mineral or agricultural plants;
- Iron and steel, cellulose, fishmeal and other industries, whose waste is dumped directly into river waters, lakes or seas;
- tourist resorts with large property developments and recreational marinas;
- navy and defence installations
- areas of agro-industrial production in interior valley regions, whose organic or chemical waste, especially pesticidal, are transported to coasts.

The impact of these installations affects the marine environment. Companies along with governments, do not take into
adequate consideration the cost of the losses produced by the effects of pollution or by the social changes inflicted on communities in these areas.

1.3 Climatic changes provoked by natural phenomena, the emission of gases or global warming
The risks of pollution and climatic changes predicted for the year 2025 (the oceans’ surface temperature rising by 1.5°C and the sea level rising 20 cm) put the planet in danger.

The ocean is very sensitive and would be one of the first ecosystems to suffer permanent and irreversible damage. Climatic changes and pollution will cause devastating damage on the fishing industry and its communities.

The first indications of change have already appeared. In the last five years the level of maximum sustainable output (MSO) has been dropping rapidly, and the cutback by fishing quotas has affected the fishing industry workers.

A fall in fishing reserves, seasonal movement or spatial abnormalities of many species in numerous areas, have been recorded. These reductions indicate that there are other variables influencing the diminishing of stocks and interfering in reproductive cycles.

“El Niño” 1982-1983
In the South-east Pacific, the global phenomenon of “El Niño” gives us a guideline on a small scale, of global climatic changes and their potential effects on all ecosystems. Information has been recorded about this phenomenon since 1541. Archeological references have been discovered from 500 and 1100 A.D. and recent geological
studies from the Inca Department (Peru) indicate that a similar event occurred more than 18 million years ago, demonstrated by the existence of a round stone bank, in a diatomic sequence from this age.

The presence of “El Niño” is characterized by the invasion of warm waters low in salt content, a change in the characteristics of coastal waters and by meteorological phenomenon such as rain, storms, cloud variations, etc.

On land it causes the dragging away of solids, landslides, erosion of riverbeds, floods, drought and growth of vegetation in arid coastal regions. A noticeable loss of fish life, sea birds, ecological disasters, replacement of species and a huge growth of others are also noted.

“El Niño” is the result of an interaction between ocean and atmosphere, an oceanic equatorial response to the fluctuation of atmospheric pressure and wind systems. Heading east the circulation intensifies and the thermoclimatic is deepened by maximum vertical grades of temperature. Both effects tend to heat the ocean’s surface causing new coast to emerge.

In 1983, the abnormal heating of the South American coasts, was related in two different water sources: Northern (15°S) with surface heat, high salt content and associated with the advection of subtropical waters via the coasts. As a result of this abnormal invasion of warm waters, the surface temperature reached abnormal levels across the region. The warm waters of the Peruvian coast raised the temperature by 10°C, and the Chilean and equatorial waters by more than 5°C.
The whole of the South American coast was seriously affected by torrential rains associated with an abnormal displacement of the intertropical meeting place of winds towards the south, characteristics common to all the occurrences of “El Niño”. In 1983 the rains doubles on Columbian Pacific coast; in Equador they were forty times more abundant than normal levels; and in Peru 340 times higher than the average.

The river levels rose, causing floods, landslides, expansion of the sea bed in the deepest parts, and land modifications. These rains affected agriculture, housing, public health, educational infrastructure, transport, industry and caused the loss of human life.

The rising of ocean surface temperatures and the rising heat on the surface waters in the centre and east of the Pacific contributed to the presence of hurricanes in places like Tahiti and Hawaii. In the same way, huge tornados affected the northeast.

The consequences described caused drastic changes in the morphology of South America. This action along with rising sea levels and destruction caused by tidal waves, caused the coastline to retreat, floods in huge land sections, erosion of the coastal region, the devastation of shrimp growth, and the destruction of mollusc communities, coastal infrastructure and several fishing communities.

The catches made by fishing fleets, particularly in Equador and Peru, were drastically reduced to the point of forcing a total paralysis of operations, which resulted in losses of more than US$ 200 million.
2. Effects on fishing, the coastal environment and fishworkers
The impact caused by this form of coastal management, pollution of the marine environment and global climatic changes have affected the fishing grounds, the coastal environment and the fishing communities in the following ways:

- The disturbance of living conditions and the traditional culture of coastal communities, due especially to the introduction of external demands modifying the value of several resources; the schemes of social relations and the behavioural patterns of people and family groups, have been changed. In the majority of cases the protagonists of commercial change are outsiders aided by government agencies.

- Industrial fleets using very efficient netting methods and techniques have occupied traditional fishing areas, eliminating access to resources which were once a source of income to fishermen.

- Exaggerated pressure is exhausting natural growth, causing the loss of work and food for communities. This pressure has been made by fleets or the fishermen themselves without being controlled by the respective authorities.

- Coastal fishing areas have been lost, resources endangered, with a loss of commercial value by the concentration of heavy metals or harmful bacteria. Industrial, mining, urban waste or agricultural pesticides have caused these disasters.
The growth of tourist resorts has forced fishermen to emigrate, bringing about changes in their habits, raising prices, creating seasonal conditions of work and causing long term unemployment.

3. Actions by fishermen and fishworkers’ organizations in response to their problems
The responses made by fishermen have varied greatly according to each situation and country. However, there are similarities in actions made.

Fishermen from the port of Chañaral, Chile, have joined with other sectors of the local community to protest against the damage in the bay and destruction of marine resources, caused by copper mineral waste accumulated on the coast. They are securing a resolution from the Justice Supreme Court that forces the state-owned mining company to repair the damages made and stop disposal.

Fishermen from south India together with environmental groups and organizations, have protested against the project to build an electro-nuclear plant on the south east coast of the country. They are achieving huge social mobilization which is stopping the growth of such projects.

These movements are being supported by the Indian National Fishermen Forum and by the South Indian Federation of Fishermen Societies (SIFFS), organizations that are fighting against bureaucracy, administrative corruption and intermediaries, in order to consolidate and defend the economy of the small craft fishermen. Their societies have created real alternatives in the form of boat construction workshops, credit funds and marketing systems.
Fishermen from the coast of Ecuador fear the growth of shrimp cultivation installations with semi-intensive production methods for export, which destroy the mangrove swamps. The inhabitants of the area are excluded from traditional and modern resources and the fishermen end up working in the new plants. Some communities are organizing themselves into co-operatives or production companies similar to commercial business, but with less capital, technical and marketing resources. The national federation of fishing co-operatives, FENACOPEC, has not managed to coordinate fishworkers’ groups into an effective organization or means of defense.

The international demand for agar-agar created great pressure on the extraction of Gracilaria Algae in the south of Chile, almost to a point of exhaustion. Fishermen, farmers and urban groups began to extract algae themselves and when the natural reserves were exhausted, groups of cultivators appeared brought together by professional organizations with the appropriate technology. The collectors and cultivators of Gracilaria algae depended on conditions imposed by the buying power of the agar-agar industries. After a boom that lasted less than ten years, the market has stabilized with very low prices, making cultivation unprofitable. A great part of cultivation and collection has now been abandoned and the beds have recuperated their original state.

In 1993 and 1994, French fishermen from Brittany deployed very violent protest movements “Sauvage”, against the importation of fish products. These products have lowered the prices on the home market and have ruined family businesses. The movement began with informal groups
and is directed against traders, importers, and also against some professional organizations (co-operatives and unions) and against fishermen from the countries from where the products are imported. The imports are organized by multinational business groups that do not take into account the social impact of their actions. The most important co-operative organizations have been created in order to fight against the intermediators, and now play a very important part in the national fishing economy, offering excellent infrastructure, equipment and social security for their members.

Fishing groups from north Norway have been organized to defend their interests against the restrictive quotas system. The temporary ban on cod fishing has brought about great poverty in this area. These groups are requesting access to quotas for whaling, regulated by scientific and technical criteria. Their protests are directed towards the national professional fishing organization, which apparently is not defending the interests of small-scale fishworkers, and towards some environmental movements that defend at all costs some species without taking into account the living conditions of the communities in that area. The Norwegian national fishermen’s organization began at the beginning of the century as a result of the fight against the intermediate traders and one of its major successes was the “gold law”, which states that products should be sold firstly to the co-operatives of which the fishermen are members.

In under a century the fishermen from northeast Brazil have evolved from a situation of slavery to the formation of organizations dependent on the National Marina (the colonies). A national movement, the MONAPE was formed by
groups of pastoral fishermen, in communities belonging to the catholic church. They have achieved more independent forms of organization, unions for example, which are fighting for changes in the federal constitution, recognition of fishermen’s rights to work in a pollution-free environment and community rights against the tourist resorts which have invaded the coastline. One of its principal actions has been against the pollution produced by mining projects in the Amazonian rivers.

A bill giving almost total freedom to foreign fishermen was campaigned against by small craft fishermen of Chile via diverse movements organized by the National Confederation of small-scale fishworkers CONAPACH. This organization has bases in workers unions throughout the country. The unions began in 1925 as part of the workers movement. As a result of these actions the fishermen were granted a five mile protection zone, coastal areas were assigned for benthonic resources, its representatives participated on the fishery advisory boards, together with other public and private sectors and a fund for small-scale fishing development was created.

In the Philippines, the fishermen’s fight has been directed towards the defense of their resources, which have been destroyed by foreign fleets, especially Japanese, acting freely on agreements made with the President Marcos dictatorship. Local and regional battles have been made against companies building in interior waters and for rights to municipal fishing grounds. In other cases they have fought to pass a fishing law that protects the small-scale fishworkers against industrial fleets and assures them participation in decisions. These campaigns have been the fruit
of movements planned by regional and national organizations.

Spanish fishermen, especially the workers in the industrial fleets of Galicia, Vigo and other ports, have had to suffer the consequences of bankrupt fleets abandoning fishing grounds overseas. In effect, the peak of the Spanish fishing industry was a result of the exploitation of resources from countries in the southern hemisphere (Chile, Namibia, Falklands) and their exclusion from these fishing zones have caused unemployment and poverty for their workers. Women participate very actively but the protest movements are not finding it an easy battle.

In Mexico, the political party that has dominated the government for 60 years, has elected the leaders of the majority of social organizations, including fishing co-operatives. This has marked the working frame of professional work across the whole country and local units have received numerous legal, financial and social benefits. Since 1937, they were given exclusivity for the fishing of principal resources, without allowing other groups to intervene.

Federal government or state public institution programmes granted credit for fishing boats and harbour infrastructure. These schemes and exportation caused a huge growth of capture and product value, especially shrimps. In 1993 a fishworkers movement initiated a protest action against the dominant political system over the professional and has created a National Network of Coastal Fishermen whose principal aims include the autonomy of organizations, better access of its members to credit, technology and participation in the decisions which affect them.
In synthesis these campaigns have been directed by fishworkers’ organizations, in alliance with other groups or organizations.

The identity of the fishworkers’ groups, their motives to fight and the definition of their enemies, has been consolidated progressively with each case, in the defence of marine environment and its resources. Not only temporary pressure groups have been formed, but real social movements of cultural and economic change.

4. The significance of UNCED and the United Nations Conference on the oceans’ migratory species

At the United Nations Conference on Growth and the Environment in Rio de Janeiro, 1992, background information was given to the international community about the state of the marine environment. A series of recommendations and agreements was proposed to the members of the United Nations, in order to initiate forms of management more consistent with the natural conditions of the marine environment.

Chapter 17 of AGENDA 21, one of the agreements of the conference, covered all the background information and recommendations, especially paragraph D, which referred to the rights of small-scale fishworkers and coastal communities of the world.

This information is resumed in the following points:

- the marine environment, especially the oceans, make up two-thirds of the planet’s surface and are an essential component of the global life of the planet
more than half of the world’s population live within a 60 km-wide strip along the coasts and this number could go up to two-thirds by the year 2020

- The activities on land contribute to 70 per cent of pollution and 10 per cent is made up by dumping and spillage of waste, nutrients, organic and synthetic components, sediments, rubbish, plastics, metals, radionucleoids, hydrocarbons and oil. Around 600 million tonnes reach the ocean via normal operations, accidents and illegal dumping.

- The oceans’ fishing fleets make up five per cent of the world’s fishing boats, but the fishing is not controlled, fleets are too big, escape controls, use few selective fishing methods and exchange very little of information.

The following suggestions related to fishing, have been presented to the governments and countries all over the world:

- The potential of living sea resources has to be developed and increased in order to satisfy the nutritional needs of the world’s human population

- the traditional knowledge and interests of the local communities, small-scale fishworkers and the native population must be taken into account in management and development programmes

- the population of marine species must be maintained and restored so as to produce the maximum
amount sustainable, maintaining the relations between the species

- selective fishing methods which minimize the fishing of species not required, should be promoted

- endangered marine species should be restored and protected in order to preserve the ecosystems and other sensitive ecological habitats

Finally, AGENDA 21 recommends that the coastal states help in the growth of small craft and small-scale fishing fleets by:

- integrating the small craft and small-scale fishworkers in the planning of marine and coastal activities, taking into account their interests and promoting their representation when taking decisions

- recognizing the rights of small-scale fishworkers, especially the rights of indigenous people and local communities, in the use and protection of their environment

- implementing systems of purchase and recording traditional knowledge about the sea resources and environment and incorporating this information into management systems

Fishworkers’ right to life
The coastal fishermen and fishworkers make up one of the most disadvantaged sectors of the international labour force. Their minimum subsistence, which depends vitally
on the quality of the marine environment, is at risk. Damage
to marine ecosystems as a result of the diminishing
ozone layer, for example, will have enormous consequences
on primary sea production, which in turn will affect fishing
on a global level.

For many other sectors of society, damage to the environ-
ment can only be diverted by reducing the number of
products offered on the market. For fishworkers however,
diminishing resources in the sea menace their own right
to survival.

This has long term and intergenerational consequences and
could eventually lead to the disastrous situation foreseen
by Hutchinson: “The life span of the biosphere as a
habitable region for organisms is now being measured in
decades rather than hundreds of millions of years”.

Do we have options?
In order to prevent the reciprocal relation between the
environment and worsening growth, it is imperative to
come to a global consensus. The fishworkers are con-
scious of the fact that the growth of their activities contain
an inherent tendency to deplete and pollute.

At the same time, the capacity for nature to restore and
rejuvenate itself is limited and only when this is sur-
passed by exhaustion and pollution, does growth convert
itself into a problem for discussion.

If we manage to establish a symbiotic equilibrium between
environment and growth, then harmony can be recovered.
The coastal fishermen and fishworkers, “sea beacons”, as a Chilean fisherman proudly characterized them have already been giving out signals.

It is important to recognize these danger warnings and assure that the fishworkers participate effectively in the making of resolutions about the growth processes which could affect the marine environment.

Fishworkers participation in decision-making and their right to advise in matters relevant to them, should be institutionalized and formalized.

Fishermen already participate actively in decision-making in the exploration and extraction of oil and gas in the North Atlantic.

Their legal right to advise on the location of oil ducts has also been recognized and formalized, the British law of 1975, on petrol and the marine beds, is a good example.

Likewise in Norway fishing organizations have been active in the planning of oil activities: decisions taken over the selection of drilling zones, their expansion, the designation of routes for the supply boats, etc.

The Norwegian Ministry for Oil and Energy also regularly consults fishing organizations about all concerns of mutual interest.

These are isolated and limited examples of positive activities so far as oil is concerned. A greater dialogue must be
created with more participation from fishing organizations.

It is evident that we do have options and that they must be explored, because in the final analysis both the survival of the fishworkers and a clean environment, is imperative for the survival of mankind. The irreparable damage done to our oceans will destroy life on this earth.

As Rachel Carson wrote in the preface for the revised edition of her pioneering work “The Sea Around Us”:

“It is a curious situatiuon that the sea, from which life first arose, should now be threatened by the activities by one form of that life. But the sea, though changed in a sinister way, will continue to exist; the threat is rather to life itself”.

Theme Paper
Coastal Environment and Fishworkers
The events that continue to unfold in coastal zones present both: a gloomy horizon as one witnesses the unabated destruction of the aquatic and marine resources and a glimmer of hope when fishworkers took a united stand to defend the seas their frontier for survival and a better future.

In the middle of this push and pull situation is the government trying to establish a more decisive stand in addressing problems related to the overexploitation and the degradation of the coastal environment. While concerned government agencies implement programs aimed at arresting these problems, they could hardly make any dents as national laws in fisheries and other economic policies that are production- and export-oriented continue to lord it over the entire fishing industry. The dilemma of whether to protect the seas or continue its exploitation to support the export economy is likely to linger as the government is yet to make a clear choice between environmental protection and conservation or economic development through maximum resource utilisation. At the rate things are going, no definite answer seems to be near in sight.

In the meantime, the marine resources continue to deteriorate and fishworkers hang precariously on the edge of survival.

The situation is urgent. And it is in the light of this urgency that the fishworkers have solidified their ranks and took the frontline in protecting the seas from further destruction. Their initial involvements saw them advocating for reforms in lopsided fishery laws and recognition of the fishworkers as a separate and distinct sector. This outcry for policy
reforms and recognition as a sector became the unifying factor that brought fishworkers together and gave birth to national organizations of fishworkers (e.g. KAMMPPI, Bigkis-Lakas Pilipinas, PAMALAKAYA).

Over the years and reflecting on their role towards effecting concrete changes in the fishing front, the fishworkers’ organizations went beyond advocating for reforms and started taking active part in the management of coastal resources. The growth of this new consciousness also led them to influencing policy decisions and to some extent, actively participating in the legislative processes both at the national and local levels.

To this day, several positive changes have transpired in relation to fishery issues and concerns and they are credited to the continuous struggle of the fishworkers. While these changes have yet to be reflected in overhauled systems and related policies in the fishing industry, their impact is best gauged at the community level in the firmness of their disposition and in influencing the community into taking actions geared at protecting the coastal environment and passing local policies that are supportive of this endeavour.

**Participatory Coastal Resource Management (CRM): The Fishworkers’ Perspective**
The fishworkers’ participation in the coastal resources management arises not only from the issue of survival but more importantly from their deeply personal relationship with the sea and with nature in general. Looking back, this smooth relationship described a simple but contented lifestyle of the fishworkers. Deference to nature was very marked and they would not catch fish that was more than...
what they needed. The advent, however, of the new technologies had brought an end to this relationship and the destruction of the seas began and has continued to this day.

The concentration of the government to achieving economic development has made the destruction process more serious. Development virtually becomes the legal framework that continue to provide clout to those who participate in exploiting the resources.

The fishworkers and the sea are pushed further apart, with the former being driven to the peripheries of survival and the latter to extinction.

The present involvement of fishworkers’ organizations in coastal resource management is viewed in the light of their desire to sustain the community of people and to enhance the relationships between the fishermen and the sea.

**Imperatives in Participatory Resource Management**

*Developing the CRM Concept in the Context of the Culture of the Fishworkers*

Experience has it that any development framework that is imposed on the people and their culture is always wanting of community participation. The reason for this is that, more often than not, the schemes are too autocratic and the specific strategies too alienating that the people feel being displaced than benefited.

The scheme for the management and development of coastal resources is to evolve from the fishworkers’ experience. The specific strategies and management measures are to be framed by the fishworkers themselves on the basis of their
understanding of how the sea should be preserved and protected.

In the light of the foregoing, new strategies in resource management are to take into consideration the fish workers’ traditional practice of conservation and nourishment. Similarly, sensitivity to the people’s aspirations and that of the community’s is crucial if CRM is to become part of the consciousness of the people in fishing communities.

Ensuring Fishworkers’ Participation in Policy and Decision making with the Support of Other Sectors in the Community.

As the sector most affected, the fishworkers are more cognizant of the depth and the width of fishery issues and problems. This enables them to present a realistic agenda and draw up policies and programs that are responsive to their needs and that of a community as a whole. Their active participation, therefore, in decision-making can give rise to a development plan that redounds the benefits to them and their community.

The people’s role as subjects of development is given due recognition by the Government of the Philippines and enshrined in the now prevailing Local Government Code. Furthermore, finally realizing the ineffectiveness of a centralized agency deciding and managing the development of communities in an archipelagic country, the code transferred most powers (fiscal, administrative and legislative) to local government units and gave them more leeway in deciding on the development agenda that are specific to their respective municipalities/communities. The code
also expanded the coverage of the municipal waters from 7 km. to 15 km. from the shoreline. It is very specific in its provision that the management of municipal water falls under the authority of the local government units.

It is this Code that is currently posing a great challenge to the fishworkers. While it provides a fertile ground for their participation in the legislative process, it also opens doors for other manipulative interests. The expansion of municipal waters for instance augments the treasure of local communities and this is not without the knowledge of unscrupulous businessmen and capitalists.

There is a need, therefore, to structure and institutionalize the participation of the fishermen by way of creating the Resource Management Council (RMC) in every municipality to ensure that policy decisions are congruent to the needs of the fishworkers and the entire coastal environment.

Likewise, the participation in and the synchronization of the efforts of NGOs, people’s organizations (POs) and government agencies is necessary to ensure that fishery issues and concerns are systematically responded to. The issues are so complex necessitating a more coordinated action. It is this need for a more coordinated action that warrants a political will.

*Developing a Consensus on the CRM Goal*

A major difficulty in our efforts at coastal resource management has been the very diverse perspectives of the participants (local government units, NGOs, and POs). The government foresees economic growth measured in terms
of aggregate economic returns as the end goal of any development endeavour. The NGOs / POs expect to realize broad changes at the political, economic and socio-cultural levels.

Given this difficulty, a levelling-off process has been initiated to work towards solidarity of purpose by trying to understand environmental situations in the context of broader realities.

Likewise, openness of all concerned to define the programs and the strategies in accordance with those perceived realities has been encouraged. We believe that it is the solidarity of purpose that would serve as the basis for the decisions and actions and that would facilitate the implementation of specific activities towards the attainment of the CRM goal and objectives.

**Sustaining the Struggle of the Fishworkers**

Central to the concept of fishery resource management is an “empowered” sector of fishworkers, their organizations and their communities, which is the result of a transformatory praxis in community and organization development efforts.

This status is reflected in a high level of social consciousness, a great degree of relatedness (with a Supreme Being, fellowmen, the state and nature), individual and corporate witnessing of vision, mission and goal, as well as knowledge of skills in human relationship, analytical tools (historical, structural and cultural), development strategies and technical aspects in fisheries and resource management.
Leadership is a crucial factor in harnessing the entire organizational and community resources in the attainment of the fishery resource management vision through a humanizing and liberating process. Such leadership incarnates servant leadership behaviour made manifest in value commitments such as common good, interdependence, simple lifestyle, integration, solidarity, quality of human interaction, co-responsibility, stewardship, harmony with nature, life-giving, life-promoting and quality of life.

Just how to bring this about in the fishworkers’ struggle towards social justice and peace is a constant challenge to fishworkers and their supporters.

It is not the task of this paper to discuss Community Organizing (CO) as this has been done at the Bangkok Conference. However, in the light of the above concerns and as a follow-up to the CO topic already discussed, it may be useful at this juncture to raise a few questions as points of reflection:

- What is the content and process of core leaders formation among fishworkers in the total organizing process?

- What mechanisms are utilized in order to ensure stability of fishworkers’ organizations as well as dynamism in their struggle?

- What strategies are employed in the CO process that would bring about fishworkers’ active involvement in legislative processes at the local and national levels concerning fishery policies?
• What strategies are used in striking a balance between the need to regenerate the fishery resource and to meet the economic needs of the fishermen as well as to ensure a sufficient supply of fish in the community?

**Concluding Statement**
Given the fact of an overexploited and degraded fishery resource and a government response that is ambiguous towards justice and peace, coastal resource management has still a long way to go.

There is, however, one positive note, that is, the fishworkers’ growing consciousness and active involvement in resolving fishery issues through legislation that enhance sustainability of the environment and their implementation as well.

In developing countries where sectors are deprived of their historical rights to livelihood, where resultant conflicts continue to erode efforts at development, POs oriented towards the attainment of peace through faith and justice is indeed one single weapon towards development and sustainability of the environment.
Many of you will know that this is a turbulent time in the Canadian Atlantic fishery. The loss of 4 million tons of cod biomass has thrown fisheries management into chaos and has spawned no end of visionaries and retrospective genius’. There is much fury among fishermen and it seems to shift from focus to focus. Management by science is trashed, leaders of fishermen have been vilified, the Government ridiculed, and fish companies targeted as the principal culprits.

Using the language of the ICSF, I would have to call myself a fishworker supporter. I earn my living working for the Maritime Fishermen’s Union (the MFU); this is an organization of inshore fishermen who mainly own and operate fishing vessels less than 45 ft. (13.7 m) in length. Our fishermen are based in many harbours stretched along a very long coastline comprising three Maritime provinces (but excluding Newfoundland where 70 percent of the cod fishery is found and as well as half of the total number of fishermen on the East Coast of Canada).

Most of the MFU fishermen (meaning non-Newfoundland based inshore fishermen) rely first on the lobster fishery, 90 percent of which is exported live, frozen and in processed form to the United States, Europe and Japan. But our fishermen also rely on several other species to make up a fishing year including the devastated cod fishery.

As you might guess, 90 percent of Atlantic Canada’s fishermen are inshore fishermen (i.e. 40,000 fishers), about half are based in the Maritime Provinces (excluding Newfoundland) where the MFU does its organizing. Of these, approximately 25 percent would be under the MFU flag.
The Maritime Fishermen’s Union got started in the middle 1970s as a militant inshore fishermen’s organization that wanted to break company dominance of fishermen and wanted to defend the way of life of the inshore fishers.

In the middle 1970s in Canada and in many parts of the world the massive expansion of the world’s fishing fleets and catching capacity had already reached a kind of limit. Our Canadian fish stocks had been fished down mainly by foreign trawlers but also by herring seiners that had moved from the Pacific Coast to the Atlantic Coast.

Canada declared its 200 mile limit (Exclusive Economic Zone) in 1977. The sense of future opportunity attracted new entrants and new capital. And, in the 1976 to 1979 period inshore fishermen signed up with the MFU in droves. There were marches and demonstrations. Seiners were blocked from landing their fish and fishermen and families were tear-gassed. Squid was dumped on the highway as a protest over price and market access.

The neophyte MFU attracted many militant young left or neo-left types. They organised for little material reward, they helped with the newsletters, the information flow and so on. The trade union movement threw in some dollars and endorsed the fishermen’s struggle, and there was support from NGOs.

One of the rallying cries was collective bargaining rights for inshore fishermen. The demand was to have inshore fishermen included in the same or similar bargaining legislation that Canada’s trade union movement had won for workers.
The formation of the Maritime Fishermen’s Union was especially based among the French speaking fishermen (the Acadians) who populated the eastern New Brunswick coastline. The Acadians themselves were living through a kind of renaissance after 200 years of isolated and relative poverty following their expulsion in 1755 from their farmlands in neighbouring Nova Scotia by British soldiers.

The MFU not only aspired to organize its fellow Acadian inshore fishermen, it aspired to unite the inshore fishermen throughout the Maritime provinces. On the Pacific Coast of Canada, the much smaller fishery was already organised under the militant United Fishermen, Food and Allied Workers Union (UFFAWU).

This Union recently celebrated its 50th anniversary and it includes plant workers, and fishermen and crewmen. In Newfoundland, almost every fisherman and plant worker was brought into Newfoundland Fishermen’s Union in the early 1970s. It too, was very much a Union in the Industrial sense and while it represented inshore fishers, it also included the plant workers and crew of the industrial fisheries sector.

The early MFU faced a different situation in the Maritime Provinces. The Industrial fishing sector was generally organized but the very diverse inshore and ‘middle’ distance fisheries were not organized or unionized be it the fishermen, the crew members, or the plant workers. The MFU quickly ended up focusing its organizing on inshore fishers who tended to own and operate their own vessels in inshore waters where most fishing trips were out and in on the same day this varied by region and type of fishing.
Looking back now 18 years later, at the MFU’s organizing project, you would have to conclude that the organization served many purposes that were not always recognized by its leaders while some of its main conscious objectives were never realized. Indeed, you might conclude from the only book written on the MFU, that nothing of much significance was done by the MFU beyond the 1976-83 period. That period was the militant (mainly Acadian) phase that fought for collective bargaining rights, exposed the collaborative approach of cooperatives (sic!), and fought for the protection of the herring fishery.

In those days, the MFU had the ability to put hundreds of fishermen into the Provincial capitals to demand bargaining rights for inshore fishermen. It had its famous protest against the herring seiners on the Caraquet wharf. It marched on fish companies and Government buildings and generally got known in the industry and the bureaucracy.

But the fishery is anything but predictable and maybe it should not be surprising if most things turned out differently than we intended. Still, the MFU remains and is to this day a relatively broadbased inshore fishermen’s organization, into its 18th year, lurching from year to year in technical bankruptcy, subject to every possible destabilizing current, losing some and winning others.

The MFU history is full of ironies perhaps to the trained sociologists it is all very predictable but to me I still see much irony. It is ironic that the Federal Fisheries Department has bailed out the MFU financially on as many as three different occasions, the militant MFU whose earlier organizers were once booted out of the Trade Union central building for
being radical sectarians. It is ironic that as the MFU fought for collective bargaining rights for inshore fishermen on the premise that there was a growing monopoly in the fishery, inshore fishermen were actually gaining more independence from their buyers as a result of better credit, more competition, better information flow, improved social security, and better returns to the vessel, all of which the MFU also had a hand in creating.

In the end, the MFU won collective bargaining rights for inshore fishermen but has seldom bargained and, taken at face value, the exercise seems to have been a failure.

Indeed, it is a complex task to evaluate the role of fisheren’s organizations in defending the inshore fishers and the coastal communities. No one would have predicted that the lobster resource would have tripled over the lifetime of the MFU. This resource is the background of the inshore fishery (outside of Newfoundland), and the scientific community is at a loss to explain the resource expansion when exploitation rates on legal size lobsters is as high as 90 percent.

Ironically, this is probably the MFU’s major success story and it derives from an MFU collaboration with the Government regulators and enforcers to ensure basic adherence to restrictions on size, egg-bearing females, and limited entry. It was in its capacity as a professional organization of limited entry license holders that the MFU has contributed to a productive lobster fishery.

It is also ironical that the inshore fleet of the Maritimes may now be in a better position to participate in a future cod recovery (within the Maritime Provinces that is, to again
distinguish from Newfoundland where inshore fishermen are almost exclusively dependent on the cod fishery). The inshore fleet is in a better position than the vertically integrated industrial fishing companies, not because of the militant struggles of the MFU and other fishermen’s organizations but because of an unpredicted lobster expansion and because the specialized cod fleets have bankrupted themselves. There is a conjuncture here where the inshore fishermen’s organizations can achieve future gains.

The present conjuncture has parallels from an early period; one of the commanding myths in the MFU is that of the inshore fishermen’s militant fight with the large herring purse seiners. The purse seine fleets arrived in numbers on the Canada’s east coast in the late 1960s; they landed millions of tons of herring in the Gulf of St. Lawrence before they bankrupted themselves and the resource by 1980.

Because the MFU was organized and in place in 1980 and because the seiners were finished, the inshore fishermen won major concessions over future access to the resource and for some years now we have enjoyed 80 percent of the quotas i.e. 82,000 metric tons of herring. The herring resource is now one of the most productive and best managed (from a resource point of view) in Atlantic Canada. You cannot say that the MFU defeated the seiners. It was more dialectical; the seiners fished out their own resource base and were therefore exposed to gains from the inshore.

In both the cod and herring fisheries, the State was neither effective in protecting the inshore fishermen, nor the resource, against the expansion of catching capacity by larger and more heavily capitalized fleets. Organizations like the
MFU were never really heard until most of the damage was done. The reason why we may be able to achieve some gains now in the present groundfish crisis is because our members have stayed with a multi-species fishery and have stayed somewhat organized and of course, have had the good fortune of holding limited entry lobster licenses and therefore have a resource base.

On the other hand, the inshore fishermen’s strength in the Maritimes is potentially compromised by fishermen’s dependence on Fishermen’s Unemployment Insurance. Our inshore fishermen qualify under the national programme of unemployment insurance. This means in the fishermen’s case that he or she can receive payments for the Unemployment Insurance fund for up to six months of each year.

These payments represent as much as 25 per cent of the total land value of the fish and such payments have been generally a feature of the fishery since the early 1970s. The payments are the focal point of the corporate sector’s attack on the inshore fishery, claiming that it is a social fishery and not totally subject to the dictates of ‘market place’.

However, all the bluster in the world will not convince anyone that it was a ‘social fishery’ that has brought the cod stocks to ruin!

But if the present conjuncture with the Canadian fishery is very much in flux and in crisis, fishermen may be organizing to make their gains but it is not always to the MFU that they are turning. Indeed, we have had two breakaway groups and in a third area many members have just dropped out. The outcomes to the present crisis will not be just
mechanistic, they will depend on the nature of the fishermen’s organizations’ struggles.

To this we must say that the 1990s MFU is not the same fishermen’s organization as the 1970s MFU. There are some simple sociological facts:

The sociology in a nutshell is this: in the 1970s we had some of the features of a movement, wives and families and coastal communities had at least some involvement. Our fishermen leaders tended to be in their late twenties, tended to have work experience outside of the inshore fishery, tended to have more education, and tended to have chosen to stay or return to the fishery. They are what we might call a ‘strong year class’. They have moved through the fishery with the MFU right through to the 1990s. Generally, they bought into and had influence upon the general fisheries management consensus in Canada that managed with limited entry licensing and a range of effort and quota controls.

They may have been a strong year class but there was very little recruitment behind them, partially because of their own approach to limiting entry. So what do we have in the MFU by the 1990s? We have fishermen who tend to be males between the ages of 40 to 55.

We have fishermen who are almost exclusively the skippers of their own vessels who have little or no connection with the rest of the trade union movement and whose families tend not to be as implicated in their more ‘professional’ (or ‘modernized’) operations. Indeed, our fishermen tend to have between $100,000 to $ 200,000 invested in the fishery (which nevertheless, is still a relatively labour intensive
operation in the Canadian context) and some have living standards that sometimes exceed that of the Canadian middle class norm.

You could say that the 1990s MFU has a ‘thinner’ sociological base and predictably its membership is less likely to adhere to progressive solidarity type ideals and is more demanding of ‘bread and butter’ interest group results. The dramatic downturn in the fishery that began in earnest in 1988 and in some places earlier, has naturally been lived out in our organization in ways specific to our sociology.

Don’t get me wrong. The MFU still aspires to solidarity principles, and social justice in the fishery; it maintains tenuous links to the trade union movement and in many ill-defined ways still feels itself to be in a power struggle to recover its rightful share of power within the industry.

But the analytical skills and strategic thinking that are imperative for making real gains for community based inshore fisheries also seem to be less present; in my opinion, this lessening of strategic thinking and analysis comes from the conditions of fisheries capitalization in the inshore and mid-shore sectors (this capitalization continued throughout the 1980s in spite of unprecedented Government restrictions on capacity); it is enhanced by a social environment that favours the political power of the capitalized sector. So, even though our fishermen may have progressed over the past 20 years, they are less likely to have confidence in collective solutions to fisheries management issues.

When the MFU got started in the 1970s, the offshore industrial fleets were perceived to be the threat to the inshore not
just for resource but also with respect to control of the market. But the dynamic growth in the 1980s came in what we call the mid-shore sector, that is from the inshore fishermen and small plant operators backed by provincial Government subsidy that invested in high tech mid-scale vessels that met the definitional requirement of an inshore vessel but which were capable of out fishing much of the ‘industrial’ fleet and of moving virtually anywhere on the continental shelf. Today in all of Atlantic Canada there are perhaps six hundred such vessels as compared to 15,000 more traditional inshore operations (I am using ‘traditional’ in a very fluid sense since even most of this fleet is quite modernized).

The fleet of 600 has many private property rights to crab, groundfish, shrimp, herring, etc. These fishing enterprises tend to be enclaves of privilege, and with a capital to labour ratio five times that of our inshore fleets they are very much business operations and their ideology is reflective of this. But, the lines are more and more blurred between the inshore and mid-shore and the ideological lines are just as vague. It leads to a curious mixture of phenomena, especially under the present conditions of crisis.

The MFU, still carrying an image of militancy, found itself almost an on-looker in 1991 as it was the ascendancy group (the midshore) that occupied offices, blasted the science community, and stormed the Capital. In a resource rich fishing region near the American border it was a group of the highest income lobster fishers that spontaneously tied up the lobster fishery for a critical two week period and that condemned the MFU for not wholeheartedly supporting their “strike”. The same people had aggressively criticized
the MFU for the previous ten years for being associated with strikes! In any case, it was the elite groups in the inshore and midshore that were doing the protesting and looking like militants. Their protests mirrored the type of protest coming from the upper middle classes throughout Canada that has resulted in the formation of a new right wing party that carries considerable influence at the national level.

Some of the new militants came from within the MFU as well as from without. In some examples they were ‘blocks of capital’ fighting for their interest in relation to the managers and to other ‘blocks of capital’. Sometimes they are psychological groupings, replete with visionaries and what I term secular fundamentalists. They would ‘clean out’ the non-fishermen, the intellectuals, the administration from the fishermen’s organization. Government bureaucrats are scum and should be fired en masse. The fishermen will run the fishery. The near-bankrupt industrial companies are calling the shots. The closure of the cod fishery is a plot to get rid of fishermen.

The Supreme Court ruling granting aboriginals the right to a food fishery was seen as a fundamental threat to inshore fishermen according to this type of thinking. A central theme of the populist secular fundamentalists (it is still difficult to see whether they will become any kind of serious force) in the fishery is accountability. They are quick to call for audits and inquiries be they on the MFU or the Government’s management system.

I refer to the phenomenon as psychological because it seems to carry an emotional weight and psychic gravity far out of
proportion to the material interests of the participants. In fact, most of the militancy is vicarious; it seems to have more to do with projections from other fisheries than events specific to their own. For example, one local spokesman, who has gained a small ‘sectarian’ following, seems to be objectively positioned with the best possible licenses in Atlantic Canada (licenses for crab, lobster, and tuna) and yet he is unrelenting in his condemnation of the Federal Fisheries Department that defends his privileges.

Much of the militant reactions in the present fisheries crisis within our MFU constituency (and once again I want to remind you that our fishermen have been put under pressure as a result of the cod collapse but our constituency is only 10 to 20 percent dependent on cod, whereas in Newfoundland the inshore would be 80 to 90 percent dependent on cod) much of the reaction seems to be expressed in regressive terms.

Whereas in the 1970s our inshore fishermen were attracted to the idea of unionizing as a means of gaining some power with respect to their fishing grounds, the port market, the fish buyers, and fisheries policy, at least some of the present 1990s reactions tend to be politically and strategically naive and bearing only tenuous relation to real threats to the livelihood of the advocates.

It tends to be anti-union, sometimes racist, and usually anti-intellectual. Instead of a rightful share of the power which implies other indispensable levels to the industry, such militants tend towards a kind of infantilism, exhibiting fantasies of omnipotence and omniscience. They look not to organization but to the big Court decision that will entrench
rights and declare their identity. Within our own fishermen’s organization, the populist (or secular fundamentalism) is felt to be dissipating energies and weakening the organization at the very moment when some of us believe we could have more influence on the future direction of fisheries management than the inshore has ever had. This is really the place for students of social organization to help out.

The generalized breakdown in consensus over fisheries management and evident failure of the Canadian management system in the groundfish sector has put many of our ‘established’ inshore fisheries in a curious position because for them the system has worked quite well. They are not the victims at all and they are holding a relatively privileged status in an otherwise devastated fishery; some of the fishermen must sense that their protected status is not easily justified to the public when the industry has just finished off one of the truly natural resources of the nation (i.e. the cod fishery).

The psychological type of militancy may actually be partially an expression of considerable unease and even guilt feelings associated with a protected status. Of course, this regressive expression of militancy is not the whole story.

Some fishermen, for example, are looking to the environmentalist camp where they perceive some possibilities of gaining support for the elimination of some of the worst of the fishing abuses. But, the environmentalists tend to be neophytes in the fisheries management arena, putting forward solutions that are ahistorical, that is to say without a social basis and therefore likely to be in contradiction to the resource management interests of the fishers.
Nor, do I want to be misinterpreted as saying our inshore fishermen are now in a position of privilege. This is not the case. In Newfoundland the inshore’s dependency on cod leaves its coastal society in heart-wrenching disaster. But, in the Maritime Provinces, there is a continuum in the inshore fishery from the very poor to the moderately well off; the majority of the inshore fishermen earn incomes below the Canadian average and rely on fishermen’s unemployment insurance benefits for a third and more of their income.

This type of benefit, which has functioned as an income supplement to fishermen for the past 25 years, is under heavy pressure in a national climate of continuing deficits and fiscal cutbacks. The demand to bring fishermen’s unemployment insurance into line is driving a general call to reduce the fishery in terms of capacity and terms of participants.

The fishermen’s organizations are being asked to participate in shaping a future fishery with less Government income supplement and less participants. The Government is intent on trimming the fishery to a ‘core’ of professionals that will hold the licenses and the quotas in the future fishery and that will be self-sufficient in relation to State subsidy. The ‘core’ of professionals will have their professional organizations who will control licensing and, in the long run, co-manage the fishery.

It is for sure that we are in the midst of a restructuring in Canada. The last restructuring of the East coast fishery was in 1982 and it concentrated on setting up stable industrial fishery companies; the present, as yet unformulated,
Restructuring is tending towards the setting up of stable professional fishermen’s organizations. The Maritime Fishermen’s Union is being invited to participate in the restructuring but our response is ambivalent. We are faced with the dilemma of a primary producer organization.

If we embrace wholeheartedly the process, we are taking a ‘tri-partite’ and corporatist direction; we take on, or are delegated, some of the powers of the State and in return we yield our independence and voluntary character. Put this way, we have no choice; we must remain independent; we must remain a fishermen’s organization that tries to follow a union line, a solidarity line.

But, our sociology and the conditions of the fishery push us more and more in the direction of a professional association. And even our support over the past 15 years for a ‘professional’ licensing system has been a factor driving us in such a direction.

I should point out again who is missing from our own fishermen’s organization. First, approximately half of the owner operators in our inshore constituency in the Maritime Provinces do not belong to any organization. Second, 95 percent of the men (and sometimes women) who crew on the inshore vessels do not belong to our MFU or any other fisher organization. Third, the families of our members, especially the wives who often help on the business side, but also the young who are sometimes apprenticing, are not in our organization.

Fourth, most of the dockside handlers, weighers, truckers, fishplant workers in the inshore fishery remain
unorganized and outside of the MFU. With our narrow social base and without linkages to the rest of the working people in the sector, the MFU will tend to be a professional interest group, expressing managerial ideology. This would be another huge irony for a fishermen’s organization whose members and staff sacrificed much to be an oppositional organization, a fishworker organization!

But, I do not agree that the MFU is just a professional interest group. We continue to try to unite fishers across barriers of language, geography, gear type, fishing regions, provinces, and income levels. We remain broadly based in the inshore fishery. Our fishermen continue to rely on the annual cycles of the fish, on their traditional fishing grounds, on their own skill and wit as fishers; many of the inshore fishers continue to share egalitarian principles, principles of fairness, and a basic solidarity with other fishers.

They are fishermen that continue to resist the economic model of individual transferable quota systems that end up concentrating quotas in the hands of a few, often in the hands of business interests that end up having the fishermen back fishing for a company.

May be I am just ‘whistling in the dark’ and sociology and fisheries economics will relentlessly turn the MFU into a professional association. Perhaps! But, the fact also remains that the inshore fishery situation is a fluid one. The challenge for our fishermen’s organization is to find its way back to a ‘union line’ recognizing that a ‘union line’ with inshore fishers is almost contradictory to their status as autonomous primary producers. If we do not find ways to include the preoccupations of our inshore crew member
fishermen and ways of bringing the future recruits (the young) and the participating wives into the organization, it will be impossible to find a way back to a ‘union line’.

Under Canadian management conditions, there is much pressure for our organization to become a kind of property rights organization that seeks to entrench fishermen in a professional status with powers to control entry and impose standards. In general we can say that our members are attracted by this but have so far rejected such a model for the MFU. I believe their rejection is based on their instincts as inshore fishermen and their general identification with the working man.

Our inshore fishers are subject to the demands of capital because they have significant investments (although still small by Canadian standards and in terms of capital to labour ratios) but their general practice (praxis?) as fishermen in relation to the resource is generally a more dominant consideration. If I am right about this, they should still be predisposed to consider the coastal community, the inshore crews, the wives, and the young in these communities. The question I am left with is whether the MFU can or will be able to incorporate these broader inshore interests into a reformed organization.
This task force was set up after the ICSF Manila Conference on distant-water vessels, which was held in 1992. It was originally composed of representatives of Taiwan, Philippines, and Mauritius. In September of the same year, the ICSF met in Mauritius to decide whether to confirm and broaden the task force’s brief.

The meeting added representatives of Madagascar, Reunion, South Africa, India, the Seychelles, Kenya to the three above-named countries. At the same meeting, a coordinator was appointed.

The Task force set out to examine fishing laws, conditions of work, social security, etc, to produce a comprehensive report and to make recommendations to the ICSF animation team on possible design of fishing laws.

After initial collection of printed material in Mauritius itself (some of which came from the Philippines and from Taiwan), as well as discussion with government officials, several missions have taken place outside the country: to Senegal, France, and Geneva (to the ILO).

The following is based on the work that has been done to date, together with some subjective view-points.

Summary
During the past few years, the ILO Committee on the conditions of works in the fishing industry had met many times. During these sessions many documents have been collected and discussed. Proposals for the future of the fishing industry and of fishermen were sent to Government and other concerned bodies on the following issues:

Theme Paper
Work Conditions and Social Security of Fishworkers

by

Jean T. Vacher
Apostolate of the Sea
Mauritius
Fishermen’s hours of work and stability of employment and earnings,
medical care, social security, protection of fishermen in case of sickness, invalidity, old age and death,
paid holiday,
repatriation,
vocational training,
welfare on board
national tripartite labour boards to be set up for various purposes.

But to our regret, nothing has been done in these areas for the industrial, small scale or rural fishermen.

The claim of fishers for better conditions of work and their economic role in the world are not recognized. Even their welfare facilities and social security if provided are scarcely adequate.

Besides being unrecognized by the nature of their jobs, they are estranged from family support in hard moments. They are exploited wherever they go by unscrupulous persons, they are misunderstood by the social environment at large and there is no denying that hardship is the lot of fishermen.

We can say without fear of being contradicted that there is nothing which has been done or is being done for the social security of fishermen around the world.

Ship-owners place more emphasis on fish than on the dignity of fishermen and on his status in the community. Nobody thinks of raising the status of fishermen, but we all
know that they don’t deserve to be regarded as third-rate citizens.

There is no space here to describe the social security schemes to be applied to fishermen but the essential point to make is they should be specially designed to suit their needs and way-of-life. The inequality of employment of many fishermen makes their needs for social security more greater issues to be brought up. The position of the fishermen with regards to housing, family protection, invalidity and old age schemes whether viewed purely as a social nature or by the factors made by technical progress, pollution etc. have to be taken into consideration.

**Housing**
The problem of providing housing for fishermen is of course a very difficult one. In general, many countries face problems in this respect. But in the case of fishermen it is much more difficult.

Fishermen usually live in a specific area and they start to work very early in the morning, the nature of their work requires it. Living very far from their place of work makes things more difficult for them and for their families.

Schemes for building houses of fishermen should be instituted and these houses should be erected in the vicinity of their place of work.

With financial participation of the Government, the institutions dealing with housing, the private sector and the foreign financing NGO’s, decent houses should be built. Houses near their place of work will help to lighten their
burden and, as this is the Family year, this event will contribute to spend more time with their families.

**Invalidity and Old Age**
In many countries there is no pension for workers who reach a certain age, in others the benefits are so low that it is very difficult for them to live decently. But for the fishermen it is worse due to the nature of their work.

During all their working life, they work as hard as they can and to change or to find other jobs at a certain age is very difficult, not to say impossible, even though the fishermen are willing to do so.

Invalidity for a fisherman is even worse. He is sure to get nothing from the government as his work is not recognized in many countries, nor from the company he works for.

So an old age pension scheme for fishermen would be highly welcome and the help of the ILO should be sought to draw up such a scheme. ICSF could draft a document for the attention of ILO on this question.

**Family Protection**
Family protection, everywhere in the world, is diminishing from year to year. The family protection of poor people has declined and the protection of fishers’ families has not yet reached a state of emergency but it will soon be so if nothing is done for them.

To prevent this state of emergency, insurance should be provided for:
the fishermen himself, when he goes to work because if he is ill, injured or even dies, he is sure that his family will have a certain amount of money to live. Almost all fishermen of the world are not insured, especially those of the third world countries, and this results in poverty in case the breadwinner dies

each member of the fisherman’s family, so that when they are ill, or even die, this situation will not be a burden for him

his tools and equipment, that is, boat, engine, and fishing materials etc

All this should be provided by the fisherman’s company as this cover costs a lot and fishermen earn so little. Due to the natural independence of fishermen, there is very little if no union membership among them. Some do have associations but there is still much to be done.

To organize the fishermen is a difficult task but together we can do something on national as well as international level. To help them we would need each other and help should be sought from well-organised unions.

Each time that there has been an accident at sea of whatever importance all that has been done was to try to upgrade the existing safety on board the ships, whether merchant or fishing, but this was for the sake of the ship’s safety, not for the men’s.
“Because the life of one man is too precious for God and his family, we have the duty to do all that is possible to promote safety at sea for sea workers. Dangers of the sea are such that we cannot pretend avoiding them all. However, all technical and material precautions must be put at the service of man in order to protect his life.

If we wish to succeed in a true social and economic development in our countries, man and his safety must surpass all other considerations, and thus, we call for more awareness concerning safety at sea for seamen and fishermen.”

Father François Legall

One of the principal objectives of the IMO is to promote maritime security. But it is very sad to note that the most important International Convention, SOLAS 74, did not apply to fishing vessels or if it applied it is only about navigational safety (chapter V) and the IMO organised an International Conference at TORREMOLINOS in March 1977 to adopt an international convention for the safety of fishing vessels.

It took five years (1972-1976) for this international convention for the safety of fishing vessels to be adopted. During these five years there were many sub-committees.

The Torremolinos Convention was drafted with almost the same content as that of the Solas Convention 74 with some variation applicable to fishing vessels: protection of crew, stability of the ship, electrical installation, safety proce-
dures, fire protection, navigation equipment, life-boat and others.

The Torremolinos Convention has never been enforced because only 19% of the fishing fleet of less than 24 metres has adopted the convention. The condition which prevailed, if the convention was to be enforced, was that at least 15 countries having a fishing fleet (boat less that 24 metres) should adopt this convention, and this will cover at least 50% of the world fishing fleet.

As the fishing boats are particularly subject to accidents due to their small size and as working on small boats is much more dangerous, the IMO has recognized that it is very important to have an international convention for the safety of fishing vessels and after 17 years they met again from 22nd March till 2nd April 1993 in Torremolinos to draft a text of protocol relating to the 1977 Torremolinos convention for the safety of fishing vessels.

They have come to an agreement to change some of the provisions of the 1977 Torremolinos convention, because those who had not ratified the convention will be ready now to ratify it.

But to our regret there is nothing in the new protocol that mentions boats of less than 24 metres. As we know, it is more dangerous to work on fishing vessels of less than 24 metres than on those of more than 24 metres.

Other recommendations of the FAO/ILO/IMO—that is, safety and health practices for skippers and crews—have been prepared as a support to educate the fishermen/crews on
the basic knowledge of safety and health on board. This recommendation has been drafted so as to serve as guidelines for the authorities.

Another very important publication of the FAO/ILO/IMO, the voluntary guidelines for the design, construction and equipment of small fishing vessels of less than 24 metres, amplifies part B of the code of safety for fishermen and fishing vessels.

We must not forget in our discussion, the social aspects of fishermen’s lives on board. We can again say that (except for some countries) there is usually nothing provided on board fishing vessels in this respect. Sleeping quarters are small and dangerous (near live electric wires) and some boats do not even respect the normal requirement for sanitary amenities.

On many boats there is no mess room. Fishermen eat on the deck and during bad weather they just eat in whatever place they find. You can imagine the constraints the fishermen have to face living with upwards of 20 others in a place like a fishing vessel, with communication problems (different nationalities on board).
The purpose of this Discussion Paper is to provide a framework, and to raise issues of concern for the thematic workshop on Technology and Energy Use in Fisheries. Together with Background Note 4 (Technology and Energy Use in Fisheries), it should be used to guide fishworker discussions on the issues raised by the use of different technologies, and should help increase understanding of the implications of intensifying fishing effort through increased energy use and investing in modern (“state of the art”) high technologies. The output of the thematic workshop should be a jointly agreed fishworker action plan, to be taken forward over the next three years through specific activities in the ICSF programme in which fishworker support organizations will participate.

This paper attempts to assess the implications for technology and energy use against two main criteria:

- Human friendly (improving quality of life for the fishworkers and their communities optimizing security of employment, income, food supply and safety).

- Nature friendly (minimizing impact on the environment enhancing resource sustainability, minimizing ecosystem damage, pollution and waste).

Table 1 attempts to establish a conceptual framework of three interdependent sectors Production (fish capture and culture) Processing and Marketing in the context of three levels of use options Low, Medium and High (technology and energy use). Changing patterns of technology and energy
use in the production process have implications for patterns of technology and energy use in processing and marketing with implications for social organization, employment, income and environmental impact. At the base of the table (low use of technology and energy), labour provides most of the energy needs, technological artifacts use local resources, a wide division of labour ensures that the benefits from the fishery are widely spread, and there is a large degree of local control. However, productivity is limited. As technology and energy use intensify, labour is replaced by fossil fuels and mechanization, and technological artifacts are based on sophisticated refined resources. Although productivity can be much increased, vulnerability to forces beyond local control increases.

Technology is understood to consist of tools (fishing craft, gears, ancillary equipment such as mechanical tools, processing equipment etc); techniques (methods of using tools, scale of operation etc); skills and knowledge (navigational skills, knowledge of environmental factors such as fish behaviour, weather patterns, sea conditions, skill in use and application of tools).

Energy is what makes technology work. It provides heat, light, mechanical power, and provides the motive power for all production processes. It may be derived from at least 3 sources: human energy, naturally renewable energy (wind, tidal, biomass and solar energy) and fossil fuel energy. These may be categorized as “free energy” and “commercial energy” respectively.

Increased energy use, coupled with technological development, enables people to improve their access and power to
extract resources, and to expand the production of desired goods and services. It also allows for improvements in working conditions, comfort and safety at sea. However, increased extraction rates can deplete the resource base below sustainable levels. This paper argues for sustainability of technology and energy use in fisheries, which keeps production options open for future generations. This implies using resources in ways which do not eliminate, degrade or deplete them. Sustainable development requires an optimum use of resources to produce current benefits, without jeopardizing the potential for similar benefits in the future.

**Ecosystems and Fishery Production**

*Man-Made Capital vs Natural Capital:* Man-made Capital, consisting principally of technology and refined fossil fuels, is used to extract goods and services from Natural Capital (consisting of renewable and non-renewable resources). The economic returns to human activities are generally only

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**Figure 1: Natural Capital**

<table>
<thead>
<tr>
<th>Natural Capital (Resources/Energy)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(Goods and Services provided by the life support Ecosystem)</td>
<td></td>
</tr>
<tr>
<td>Non Renewable</td>
<td>Renewable</td>
</tr>
<tr>
<td>Minerals</td>
<td>Limited/Finite</td>
</tr>
<tr>
<td>Fossil Fuels</td>
<td>Plants, Forests, Animals, Soil Groundwater, Fish</td>
</tr>
</tbody>
</table>
assessed against the financial investment made in Man-made Capital. Natural Capital is generally not included in the economic equation, although it provides a source of energy and natural resources, as well as a sink for waste disposal. Modern production processes tend to prioritize short term economic gain (from Man-made Capital) over long term sustainability (of Natural Capital), and regard non-renewable resources as “free” inputs. A fishery is thus regarded as an independent production system, where consumer demand and market forces determine production levels; where industrial growth is perceived as a function of technological advance; and where income is seen as a function of (Man-made) capital investment. However, in the case of fisheries (and other naturally renewable resources like forests), the erosion and degradation of Natural Capital is now beginning to undermine economic returns. Sustaining a regular income from Natural Capital requires limiting the use of Man-made Capital to well within the regenerative capacity of Natural Capital (i.e., the Optimum Sustainable Yield in the case of fisheries).

**Figure 2: Simplified Fishery Throughput System**

*Inputs* → Technology
  Energy (incl. labour)
  Finance

[Diagram: Fishery Throughput System]

*Fishery*

- **Regeneration**
- **Resources**
  +Energy

*Outputs* →

- Desired Products
- Waste
- Degraded resources

*Solar Energy*
**Efficiency and Productivity**: Modern fishery production systems (like other human production systems) are “throughput” systems, i.e., they are open systems, where outputs are produced as a result of inputs made. Figure 2 shows a simplified model of a fishery throughput system. Efficiency in the system means maximizing desired outputs and mini-

<table>
<thead>
<tr>
<th>Technology &amp; Energy Use &amp; Dependency</th>
<th>Fish Capture</th>
<th>Craft and Propulsion</th>
</tr>
</thead>
</table>
| **Low**                             | Passive/active | * Lines, fixed nets, traps, beach seines
* High degree of selectivity/specificity
* Limitations on productivity
* Seasonality
* Most of catch is consumed locally--little wastage (apart from gluts) |
| **Medium**                          | Passive/Active | * Long lines, drifnets pole-and-line mini-trawls, mini purse-seines etc
* Some by-catch waste
* Potential conflict with artisanal sector |
| **High**                            | Actively/Highly Active | * Large driftnets (“walls of death”), trawlers, purse-seiners etc
* Significant by-catch and other waste
* Conflict with artisanal sector-safety aspec |

* Canoe, sail, oar
* Local skills and resources
* Limitations to productivity
* Highly exposed and vulnerable

* New skills, novel resources like plywood, aluminium, GRP etc
* Motorization-small OBM / IBM
* Increasing use of non-renewable resources

* Aluminium, stell GRP etc
* Large OBM / IBM
* High fossil fuel use
* Centralized services (shipyards etc)
* Increased time at sea
Table 1: (contd.)

<table>
<thead>
<tr>
<th>Technology &amp; Energy: Use &amp; Dependency</th>
<th>Fish Culture</th>
<th>Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Extensive</td>
<td>* Household-based</td>
</tr>
<tr>
<td></td>
<td>* Natural producture</td>
<td>* Decentralized</td>
</tr>
<tr>
<td></td>
<td>* Integrated</td>
<td>* Traditional skills: salting, drying, fermenting &amp; cooking</td>
</tr>
<tr>
<td></td>
<td>* Ecologically efficient</td>
<td>* Central role for women</td>
</tr>
<tr>
<td></td>
<td>* Pollution free</td>
<td>* Local resources</td>
</tr>
<tr>
<td></td>
<td>* Local Resources</td>
<td>* Local Market</td>
</tr>
<tr>
<td></td>
<td>* Subsistence based</td>
<td>* Little wastage (apart from seasonal gluts)</td>
</tr>
<tr>
<td>Medium</td>
<td>Semi-intensive</td>
<td>* Use of ice &amp; “Cold chain</td>
</tr>
<tr>
<td></td>
<td>* Enhanced natural production</td>
<td>* Centralization trend</td>
</tr>
<tr>
<td></td>
<td>* Increasing inputs</td>
<td>* Dependence on ice supplies</td>
</tr>
<tr>
<td></td>
<td>* Cash based</td>
<td>* Male domination</td>
</tr>
<tr>
<td>High</td>
<td>Intensive</td>
<td>* Some waste (filleting etc)</td>
</tr>
<tr>
<td></td>
<td>* Exclusive</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Energy inefficient</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Polluting</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Demand led</td>
<td></td>
</tr>
<tr>
<td></td>
<td>* Market dependent</td>
<td></td>
</tr>
<tr>
<td>mizing inputs and waste. The tendency of modern developments in technology and energy use has been to increase output (ie., productivity), but at the same time increase the</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 1: (contd.)

<table>
<thead>
<tr>
<th>Technology &amp; Energy: Use &amp; Dependency</th>
<th>Marketing</th>
<th>Comments</th>
</tr>
</thead>
</table>
| **Low**                             | * Local–food security / cheap protein  
* Local income  
* Local transportation systems (head, bicycle etc)  
* Local control | * Nature friendly  
* Low use of fossil fuel  
* Low technology dependence  
* High degree of community control  
* Intrinsic community value of skill & labour  
* Labour & capital productivity limited | |
| **Medium**                           | * Trend to middle-class cash economy  
* National or regional control  
* Truck, bus etc | * Technology dependency  
* Pressure on ecosystem  
* Risk to health and safety | |
| **High**                             | * Export and / or International  
* Disruptive of food security systems  
* Hi-tech transport–lorry, train, plane  
* Increasing dependence on international market forces | * Centrally controlled  
* Technology & market dependence  
* Productive but polluting/wasteful of resource  
* Dependence on outside factors  
* Labour given economic value–low social value  
* Need for large amounts of capital  
* Use of non-renewable resources | |

Inputs of technology, (non-renewable) energy and finance. Intensifying technology and energy use does not necessar-
ily make the system more efficient. It does, however, increase the rate of flow through the system. Production increases, but it becomes increasingly dependent on non-renewable resources, produces more waste, and uses renewable at rates above their regenerative capacity. As the production rises so the entropy of the system increases.

*Energy, Entropy and Sustainability:* By contrast, ecosystems are semi-closed low entropy systems. They receive external energy from the sun, and use this to build up and store energy and structured *biomass*. The process recycles a finite store of non-renewable mineral resources and degraded biomass resources. At the same time there is a flow of energy in the opposite direction: energy and biomass resources are constantly being degraded (as living matter is consumed, and/or dies), and recycled. The latter process is known as *Entropy*—the loss of energy from systems and a tendency towards a state of disorder or randomness.

Throughput production systems are completely dependent on the stores of energy built up by natural processes. Thus whilst natural processes tend to counter the entropy tendency by fixing and storing solar energy and resources both in and out of the production process. This tends to increase entropy, degrading energy and resources, where degraded resources and degraded energy produced can pollute and poison the ecosystem (which supports them). They are completely dependent on the stores of energy built up by natural processes. Natural processes tend towards low entropy by fixing and storing solar energy. Human production activities tend to increase entropy. Sustainable fishery production is therefore dependent on an equilibrium between the use of technology and energy to extract fish from
the ecosystem and produce desired fish products on one side. Whilst on the other side, this must be balanced by the renewal rate of exploited ecosystems resources and the disposal and recycling of wastes. The lower the entropy tendency in a system, the more sustainable it is. Most modern capital intensive fishery production systems are therefore inherently unsustainable.

*Renewable Natural Capital:* The stores of energy and biomass built up by ecosystems represent stocks of Natural Capital. The relative ability of ecosystems to generate Natural Capital (ie their productivity) varies. In the case of marine fisheries, 85% of the world's oceans are essentially vast unproductive deserts. Only 15% of the oceans' area—relatively shallow seas and continental shelf areas—produce most (85%) of the world's fish. The relative productivity of different aquatic ecosystems is given in Table 2 below.

There are also qualitative differences between tropical and temperate marine zones. In the sea, as on land, the closer one gets to the equator—from either pole—the greater the species diversity in any given ecosystem. But population size of each species reduces. Thus in the tropical zone there are large numbers of species occurring in relatively small quantities, whilst in the temperate zones there are small numbers of species occurring in relatively large quantities¹.

In the Northern hemisphere the dominant demersal species include the cod like fishes, and the dominant pelagic species include the herring like fishes. The increasing use of capital and energy intensive “state of the art” modern technologies has led to a sharp demise in these (temperate water) domi-
nent species. Optimism that technology —particularly demersal trawling—developed for fishing in temperate wa-

Table 2: Productivity of Different Aquatic Ecosystems

<table>
<thead>
<tr>
<th>Environment</th>
<th>Net Production (gmd dry wt/sq m./year)</th>
<th>Relative Fragility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marine waters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open ocean</td>
<td>125</td>
<td>Relatively stable, although limited in productivity-oceanic deserts</td>
</tr>
<tr>
<td>Upwelling areas</td>
<td>500</td>
<td>Relatively stable, although highly dependent on regularity of current and weather patterns. Often disrupted (eg. by El Niño type phenomena)</td>
</tr>
<tr>
<td>Continental shelf</td>
<td>300</td>
<td>Relatively stable, although production is limited by nutrient inputs (eg. from tidal currents and river outflows)</td>
</tr>
<tr>
<td>Near-shore reefs</td>
<td>2500</td>
<td>Very easily damaged by over-fishing and habitat destruction. Takes a long time to recover</td>
</tr>
<tr>
<td>Estuaries</td>
<td>1500</td>
<td>Mangrove areas provide important elements of productivity in an otherwise fragile environment</td>
</tr>
<tr>
<td>Fresh Water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wetlands</td>
<td>3000</td>
<td>Easily damaged by domestic, agricultural and industrial activities and pollution</td>
</tr>
<tr>
<td>Lakes &amp; streams</td>
<td>20-8000</td>
<td></td>
</tr>
</tbody>
</table>
ters, could be applied successfully to tropical seas has proved ill founded. In temperate waters, where large quantities of particular species are generally found together, *non-selective, catch-all* fishing techniques can be economically viable (so long as stocks (fish biomass) are able to renew themselves). In tropical waters, there are too many different varieties (and sizes) of fish to make trawling viable—that is with the exception of prawn trawling.

The high market value of prawns, and the low economic value of labour makes sorting through large quantities of “trash” fish for relatively few prawns economically viable. However, there is a high ecological cost to pay which does not form part of the economic equation.

*Human Energy Use to Extract Biomass Energy:* All forms of energy are, in theory, inter-convertible. Fossil fuel energy is used to produce, amongst others, mechanical energy, elec-

### Table 3: Estimates of Fossil Fuel Energy used in Fish Production

<table>
<thead>
<tr>
<th>Type of Fishery/Aquaculture</th>
<th>KCal Fossil Fuel input per KCal of protein produced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seaweed Aquaculture (Gracilaria spp.)</td>
<td>1</td>
</tr>
<tr>
<td>Extensive Pond Aquaculture (estimated)</td>
<td>1-2</td>
</tr>
<tr>
<td>OBM Powered Canoe</td>
<td>5-10</td>
</tr>
<tr>
<td>Sheep farming</td>
<td>10</td>
</tr>
<tr>
<td>Trawl Fisheries for cod</td>
<td>20</td>
</tr>
<tr>
<td>Broiler farming</td>
<td>22</td>
</tr>
<tr>
<td>Semi-intensive shrimp farming</td>
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<td>Cage farming of Atlantic salmon</td>
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trical energy, heat energy, and light energy. Technology transforms fossil fuel (non-renewable) energy into biomass (renewable) energy. The actual energy equation between what is consumed (in terms of non-renewable energy) and what is extracted (renewable energy) as levels of technology and energy use intensify, becomes increasingly onesided and energy inefficient.

For example a canoe fisherman, using an outboard motor (OBM) may use one tonne of fuel to extract 10-40 tonnes of fish. A modern trawler may use the same amount of fuel, and only extract 3-4 tonnes of fish. In terms of energy, intensive aquaculture is one of the most costly forms of food production—terrestrial and aquatic. Energy efficiency of different fish production and extraction methods are compared in Table 3 below.

Modern Trends in Technology and Energy Use
Trends in the development and use of technology and energy have generally followed industrial models of development. Successful in bringing about industrial revolutions and economic prosperity in many societies, industrialization has been applied to fisheries. The industrial model of development assumes unlimited growth potential, without recognizing the limitations of the natural resource base.

Although the application of “state of the art” technology in many fisheries has brought about a revolution in extraction rates, it is becoming clear that such intensive fishing pressure is not sustainable—ecologically, economically, or socially.

*Ecologically Unsustainable:* In the view of FAO: “*overcapacity of the World’s fishing fleet is a direct cause of fishery resource*
degradation”. They have reported that “marine fish catches declined markedly between 1989 and 1991—by some five million tonnes; nine of the World’s seventeen fisheries are in serious decline, with four commercially depleted”. Large capital investments and high running costs demand significant returns. Relatively few species command sufficiently high prices to merit storing and landing them. This, coupled with the management practice of quota restrictions, encourages “mono-species fishing”.

The practice of targeting single species results in non-target species being discarded and wasted. It has been estimated that the by-catch of finfish in shrimp trawls alone is between 4.5 and 19 million tonnes (roughly 5% - 20% of the World’s entire sea fish catch). In all demersal (bottom) trawl fisheries by-catch rates are unacceptably high (50-80% of the catch), with unknown damage inflicted on the life supporting ecosystem. Gill netters in the North Pacific catch 200 unintended species—40% of the total catch weight.

Economically Unsustainable: The FAO estimated that in 1989 “the total operating costs of the global fishing fleet was US $ 92,200 million (without including returns to capital or allowances for debt servicing)”. Estimates of Gross Revenue for 1989 were “around US$ 70,000 million, the annual operating deficit estimated to be approximately 22,000 million without considering the cost of capital”. Many states recognize that their fishing fleets are well over capacity, and are taking a variety of measures to deal with the problem. However, these measures are often ill-thought through, and result in further damage to the fishery. Due to excessive fishing pressure, the Alaskan pacific halibut is only open for one or
two 24 hour “debys” every year and the Alaskan herring row fishery is limited to 40 minutes/year.

This encourages fishing operations to use highly efficient and resource damaging fishing technology, which maximizes catch rates but tend to further damage the resource. In 1994, Living Earth reported that “almost three quarters of a billion ponds of fish were caught, killed and then thrown back by Alaskan fishing boats because they weren’t what the boats were trying to catch. Fishermen say there’s so much waste because under the current management system, they are forced to rush and catch as much as they can before the quota is reached and the fishery is shut down”.

**Socially Unsustainable:** Traditional ways of life, which for centuries have been sustained by fisheries are collapsing. In the Philippines it is estimated that the collapse of major fishing grounds is uprooting 38,000 fishermen each year. As a result of the recent closure of the cod fishery in Newfoundland (Canada), 40,000 fishermen and processing workers have been left without employment.

The awesome potential of modern fishing technology is perhaps best described by a hypothetical analogy to dry land: “First assume a vast continental forest, free for cutting or only ineffectually guarded. Then try to imagine a mobile and completely self contained timber-cutting machine that could smash through the roughest trails of the forest, cut down trees, mill them, and deliver consumer ready lumber in half the time of normal logging and milling operations. This was exactly what factory trawlers did—this was exactly their effect on fish—in the forests of the deep”.

Now that major fishing grounds in the waters of the North have been closed, and many large
factory trawlers now lie idle, we must not allow them to be redeployed to ravage resources in the waters of the South.

**Technology and Energy Use Options for Small-Scale Fisheries**

Artisanal or Small-Scale fishworkers are generally faced with a limited range of technology choices and energy use options. In terms of their fishing craft, technology choice is limited by the nature (and accessibility) of raw materials, facilities for construction, and materials and methods for tool making and use. In their simplest form (wooden canoes, log rafts and similar) fishing craft utilize a naturally renewable resource (timber), and their construction is achieved through the application of local skills, knowledge and technologies. Limitations imposed by raw material and technological constraints influence sea keeping characteristics and may restrict crew size, quantum and type of fishing gear, and limit the size of catch which can be carried safely. Given their resource limitations, small-scale fishworkers have proven to be highly innovative. Highly developed skills and innovative capacity have provided a remarkable range and complexity of artisanal fishing craft, employing a wide range of fishing methods, and operating under highly diverse conditions.

When such technological and resource limitations apply, generally the sole technical function of the fishing craft is vehicular: to transport the fishing crew and their equipment to the fishing grounds, to provide a working platform from which to operate gears, and to bring crew, gear and catch safely back to shore. In short fishing craft provide access to fish resources; their development means improved access to resources.
Energy in the form of human labour, wind and water currents provide the most readily accessible sources of motive power for applying technology (setting nets, providing propulsion etc). Whilst placing limitations on range, speed and direction of craft, and effectiveness of fishing tools, they are relatively low cost, energetically efficient and use renewable energy sources. The effective use of such craft, propulsion and fishing gear techniques demands extensive knowledge of the meteorological conditions (winds, tides and currents), sea conditions and environmental factors including seasonality, and a high degree of navigational skills. In summary, on the input side, energy and resource use is low, and use of skill and ingenuity is high.

In terms of output most small-scale fishing techniques are generally limited in their capacity to catch fish—ie they have a low productivity. This factor is often used to argue in favour of more capital and energy intensive fishing systems - which it is argued, are more productive. However, the inherent characteristics of many small-scale techniques allow for a proportion of the fish to escape, and their high degree of selectivity means that only fish of the desired species and size are caught. There is therefore little wastage, and the potential for over-fishing is limited. Fishing methods are mainly passive (ie static or free floating, thus relying on fish coming into contact with the gear) or if active, utilize human power (as in beach seining) or natural power (wind, current and tides). Most passive techniques tend to be highly selective (according to the method of construction and setting), but as gears become active, they can become “catch all”. The use of small mesh nets, particularly gill/tangle and bag nets (such as pair trawls and tidally operated
nets) can cause considerable damage to fish stocks through over-fishing juvenile and non-target fish and disrupting the food chain. Particular methods like use of dynamite, poison and certain types of surround nets can cause irreparable damage to the ecosystem.

There are therefore many inherent advantages to small-scale fishing techniques and fishing strategies. In particular the low wastage factor due to the selectivity of fishing gears; the low energy requirements of passive fishing methods; reliance on renewable resources (wind and human energy for propulsion, timber for boat building); and the seasonally diverse range of fishing activities which allow for stocks and habitats to recover during closed seasons. Although inherently efficient, such fishing practices are extremely demanding in terms of human labour, and their relatively limited productivity and low returns can render them marginally viable commercially. Where there is complete dependence on particular resources, such as large sections of timber for boat building, depletion of these resources (eg through deforestation) and increasing competition for their use, can undermine traditional small-scale fisheries. West African canoe fisheries (in Ghana, Senegal and Sierre Leone) reliant on the supply of dugout canoes from Ghana, and canoe fisheries in South India reliant on supplies of large logs are cases in point.

There is a high degree of skill and knowledge needed to produce and provide the various inputs (boats, nets, bait, credit etc), to manage and implement the fishing process, and to deal with (process and market) the outputs. There is therefore a highly structured division of labour both within and between communities and by gender, where skill has
an important social and cultural value, as well as an economic worth. This diversity of inputs is reflected in widely shared outputs. In some West African canoe fisheries it is said that for every fisherman at sea, there is a woman waiting on the shore to process the catch.

One of the unfortunate consequences of scaling up fish catches and landings through more intensive use of technology and energy, is that such a highly structured division of labour, which spreads the benefits of the outputs of the fishery, can be lost. Decentralized and diverse supply of inputs results in the outputs being shared amongst many. Centralization results in the benefits accruing to a relatively few.

Safety at sea is dependent upon navigational and sea faring skill, understanding of local meteorological conditions and their seasonality. It can be enhanced by fishing within view of the shore, or by fishing in groups. Carrying of safety equipment is limited to simple lamps, flotation devices and additional buoyancy provision in the craft. Sea faring competence, safe practice and cooperation are generally more important than technology hardware as far as sea safety is concerned.

**Intensifying Technology and Energy Use: Medium Scale Options**

As discussed above, in many small-scale fisheries, fishing range (access to fishing grounds) and fishing capacity (crew size, gear type and quantum, catch size) may be restricted by limited technology and energy use options. Although the size and form of the craft may be still be limited by the characteristics of the construction materials available, the
use of more technology and energy intensive fishing craft designs and propulsion systems relieve many of these constraints.

Use of modern materials can alleviate such resource constraints (eg replacing boat building timber with fibre glass). Greater adaptability in design of vessels (through use of modern materials), and the application of motorization (the use of an outboard motor - OBM) and mechanization (use of engines generally), enables fishing craft to take on a more significant role in the fishing operation (in addition to acting as vehicle), and increases the actual fishing power (the per unit effort) of a given operation.

Motorization technology removes much of the menial nature of fishing, and alleviates the back breaking task of rowing. It also opens up the possibility for reaching more distant fishing grounds and carrying more fishing gear. Fishing grounds can be reached more speedily, and the return trip home is quicker. This allows for increased fishing time, leisure time, and gets the fish to market quicker.

There are however some penalties incurred. These include greater capital and recurrent cost requirements; greater dependence on outside resources (eg fossil fuels, novel materials and other inputs) and systems (for the supply, delivery and support of new technology); increasing intensity of fishing pressure on fish stocks (through increased per unit effort). These factors must be addressed through the adoption of new fishing practices, which yield higher financial returns. Patterns of cost and benefit sharing may need to change to allow for the increased costs of inputs. The implications are that the relative returns to each fishworker
need to decline, whilst the shares for boat and other equipment need to increase (see also 32 below).

Fishworkers can become disempowered by dependency on an imported “black-box” technology, where they lack the skills and knowledge (and spare parts supply) to maintain it. The OBM is a case in point. The introduction of new technology requires the provision of effective supply, delivery and support services - including skills training in its use. Fishworkers (and their support organizations) therefore need to ensure that appropriate technology delivery and support systems are developed. Unequal access to new technology can lead to conflicts and divisions within fishing communities (see below).

Novel boat building materials and techniques (such as fibre glass, aluminum and plywood), can undermine the position of traditional artisans and create dependency on centralized production facilities outside the fishing community. If the technology requires “modern” knowledge systems, it can be “captured” by commercial interests in ways that undermine and disempower fishworkers. They may have no way to assess the quality of the product, bargain for a fair price or be able to maintain and repair it. Fishworker organisations can play a vital role in ensuring that the ownership and control of new technology stays in the hands of the fishworkers, as has been the experience of plywood fishing craft in South India.

Motorization and mechanization can undermine safety at sea in a number of ways. Where sails and oars are removed from the boat to make room for increased quantities of gear, engine breakdown can be fatal. Boats can be lost at sea, or
swamped by rough seas causing them to capsize and/or break up: With the increased range provided for by motorization, fishing craft will venture out further to sea into shipping lanes, and become vulnerable to collisions with larger vessels. The stresses (enhanced by mechanical propulsion) to which traditional craft are subjected are often not noticed, and such weakened hull structures will break up more readily - particularly where small craft venture out into deeper waters. Under such conditions it is important for fishworkers to adopt effective safety at sea strategies.

The use of electricity opens up a range of possibilities for improving comfort and safety: electric light and heating for comfort; search lights, navigation lights, marker buoys, radio signalling, radar and other navigational aids can improve safety at sea. Although such technology options may improve sea safety, they are no substitute for safe practice. Further more their use does require learning and developing new skills and practices, and their maintenance and use over time demands well provided for back up services.

In terms of fishing methods, more intensive use of energy and technology open up a range of new fishing options. The use of nylon and other synthetic materials can reduce costs, extend working life and increase fishing efficiency significantly (eg the use of monofilament in gill nets), but with implications for over-fishing (in some areas the use of particular materials—such as monofilament in nets—has been banned) and labour displacement (machine made nets replacing hand made nets). The use of synthetic materials can undermine traditional division of labour within the fishing community, for example where factory produced
sheet netting displaces traditional netmakers (who are often women). Informal women fish traders may be displaced by centralized factory processing, established in response to larger catch size and/or the capture of more valuable (eg export) species.

As fishing techniques become more **active** (ie more actively come into contact with fish stocks), there is a tendency for them to become less selective (ie more by-catch and potential for waste to be produced) and able to damage the environment (through over-fishing and associated impact on the food chain, the food web, biodiversity, and habitat destruction). It has also been noted in many fisheries that as fishing becomes more active, so the behaviour of fish changes. Shoals move faster, disperse and escape more readily. Whilst motorized craft may be able to chase and capture these fast moving shoals, traditional techniques may prove ineffective - and become obsolete. This can lead to further divisiveness, marginalisation and increased poverty within the community (and disparities between rich and poor).

The use of electricity for light (either through use of batteries or small generators) can significantly enhance the effectiveness of many traditional fishing techniques (such as lift nets and squid jigging). Again this can lead to over-fishing. In Japan, light has been used for squid fishing for at least 300 years. However, recent developments in light technology has led to a huge expansion of the squid jigging fleet. There are now over 30,000 squid jigging boats in the Sea of Japan. Satellite images show this area to be brighter than Tokyo at night! The expansion of the fleet has led to increasing competition, and vessels with more powerful lights “rob”
squid from less powerful boats. Oversupply of the market in recent years has also led to low market prices.

With the increased capital requirement in technology, under many conditions “modernization” is not an option for small-scale fisherfolk—unless supported by subsidy or low interest credit, or unless costs can be shared through community based organizations. The potential for significant income earnings attracts outside investors and workers to the fishery. Up to a point, modernization and increased technology and energy use have the potential to increase labour needs as well as returns to labour. However, the introduction of new technology can also replace labour and skill, particularly where mechanical power is used. Apart from key tasks (like navigation, supervising the deployment and hauling of the gear etc), the skill requirements of the fishing operation can be reduced, and the value (economic, social and cultural) of labour diminished. Increased per unit catching power may result in fewer more powerful units replacing many less powerful units, with a fewer number of fishworkers working as crew for relatively few boat owners. Such trends can lead to communal disharmony, strife and violence.

These factors can work in favour of ownership of any new, more capital and energy intensive technology being monopolized by existing owners of capital, and can lead to the exploitation of labour. With some notable exceptions (eg fish mammies in West Africa), it is men who generally own and control capital, and thus they are generally the main beneficiaries of any such new technology. This can undermine traditional systems of division of labour by gender, where the fish catch from male fishers is processed and

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marketed by fisher women. Marketing cooperatives, which provide ice and cold storage as well as marketing services, are often owned, controlled and run by men. This also can undermine the trade of women fish vendors and petty traders.

Given the significant returns to be made from export earnings, more capital, technology and energy intensive fishing operations may tend to target export species. This can reduce the supply of fish for local consumption and put pressure on export species. Supply of fish to local processors and marketers may be reduced, and the local economy may be undermined - with the benefits from modernization accruing to fewer individuals, outside the fishing community. There is evidence from recent studies in Senegal that this is happening. Also where export demands sophisticated packaging and marketing, there is often a need to import both materials and technology. The costs of these may be more than the value of the export product. For example in Senegal, where factories have been set up for canning fish, the technology, the tin cans and the tomato sauce are all imported.

So called technological advance is often based on the attempted transfer of technology. In the case of fishing technology this has often led to the construction of harbours to accommodate larger boats (like trawlers). This means that fishworkers have to travel from their communities to centrally based harbours, and the fish catch is landed far away from where women fish vendors may live.

Catching, processing and marketing can become highly centralized. Alternative development initiatives which have
encouraged the development of existing technology, in ways which sustain the widespread sharing of benefits may be more appropriate (eg the Marianand and Fishworker Sangams initiative in south India).

**High Technology and Energy Options**

The development of boat building and propulsion technology has reached a stage where human-kind are able to access and exploit the majority of global fish resources. Large capital investment requirements, need for centralized production, maintenance and repair facilities, need for sophisticated organization, management and marketing systems and operations, high levels of operating knowledge and skill, generally put such technologies beyond the reach of many traditional fishing communities. At best (or worst), fisherfolk can only really aspire to work as laborers or machine operators in “high tech” capital intensive fishing industries. Ownership of “ultra high tech” fishing units is therefore limited to powerful individuals or institutions, with socio-political and economic muscle. However, as discussed in the Background Note, and above (see 14 and 15 above), investment in such technologies is questionable.

The development of highly powerful fishing craft, capable of withstanding the rigours of fishing on the high seas, has led to a scaling up of fishing gear technology. The application of this fishing power to active fishing gears (which actively come into contact with fish stocks) has resulted in an increasingly industrial approach to fishing.

The combination of extremely powerful, intensive, highly active fishing systems (craft, motive power, and gear) with sophisticated navigational (satellite (GPS), LORAN etc) and
fish finding (echo sounders) equipment, and market forces threaten the future supply of food, employment and income from fishing.

Favorable short term economic projections which do not take into consideration the longer term resource constraints, have encouraged over investment in "high-tech", high power fishing technology. In the same way that market forces, investment interests and mechanized technology have resulted in agri-business systematically displacing peasant farmers and buying up their land, commercial enterprises and capital intensive fishing technology is threatening the survival of traditional fisherfolk - and buying up the oceans' resources through "joint venture" agreements, and targeting cash yielding export products.

**Aquaculture Technology**

Concern about recent declines in fish catches, and despair over producing sufficient protein for the World’s ever growing population, have been assuaged by promises of the potential productivity of intensive aquaculture. However, most intensive aquaculture practices need supplies of wild caught fish to feed the cultivated fish. Much of this comes from fish meal. For every tonne of fish meal produced, at least five tonnes of fresh fish are required. Given the conversion efficiency of formulated fish diets (dry weight:wet weight) of 1.5 - 2 into farmed fish flesh, for every tonne of fish produced by aquaculture, some 10 tonnes of fresh fish are required to be caught.

Intensive aquaculture consumes large amounts of fossil fuels, and is dependent on importing energy and resources produced over large areas. According to estimates of en-
ergy consumption, cage forming of salmon is amongst the most expensive food-producing systems, comparable to intensive terrestrial systems such as broiler farming or pig raising (see Table 3 above).

Intensive aquaculture tends to be incompatible with other production activities, and comes into conflict with them. For example the use of coastal bays and lagoons for cage and pen cultivation conflicts with fishing, navigation and domestic use. In many parts of the world mangrove forests and swamps are being cleared to allow for the construction of intensive prawn farming. Studies have shown that for each hectare of mangrove converted to other uses, annual fishery harvests are reduced significantly. The use of rice growing areas for intensive aquaculture displaces agriculture, and replaces a local food crop with an export crop.

The biological loading and other pollution produced by intensive fish farming is considerable. Fish will excrete 2-5% of their body weight per day, and this contributes to a considerable organic loading. Medium to large scale fish farms can produce organic loadings equivalent to the sewage systems of small towns. The use of pesticides and other chemicals for cleaning and disease prevention also produce a great deal of pollution. Intensification of single species aquaculture has the associated risks of spreading diseases and parasites.

Environmental impacts of intensive aquaculture include toxic algal blooms, habitat destruction and resource depletion of species which are important for local artesanal and commercial fisheries, and degradation of local amenities (eg of water supply for human consumption).
The potential for intensive aquaculture to degrade water quality and generate disease thereby undermining its own and associated support ecosystem, is shown by the example of intensive shrimp aquaculture in Taiwan. Here the shrimp industry was crippled by self generated pollution after only a decade of intensive farming.

Traditional aquaculture practices in South East Asia are based on a more sustainable model, and are generally integrated into other production activities. Fish farming is complementary to other production processes. Mutual interdependence and complementarity results in the production of the whole system being greater than the sum of the individual parts. Waste products from one production activity form the productive base of others, and optimum use is made of natural productivity of the environment.

Such systems are relatively ecologically and energy efficient. The combination of fish species of different food habits and ecological niches makes for optimum use of available food in the fish pond. Multispecies or ‘Polyculture’ is based on the harmonious stocking of a variety of fish species (quantity and variety), based on an understanding of the production cycle and energy flow through the pond.

There are planktonic feeders (at the pond surface and in mid water) which feed directly off the ‘phytoplankton’ and ‘zooplankton’ produced by the natural productivity of the pond. The faeces they produce further enhance the productivity of the pond. Pond manuring (with agricultural and household residues) further enhances the natural production of the pond. Fish species which feed on larger organisms in mid water (small fish, insects etc) and the pond
bottom (snails, worms etc), are also stocked. The result is that energy flow and transformation is extremely efficient.

Stocking density and feeding is matched to the natural productivity of the pond. The fish farming system is in ‘harmony’ with the environment.

Pollution is minimized. Offal from fish processing is fed to livestock (pigs and poultry). Pond mud is aerated and ploughed back into the soil. Productivity is limited (up to 3-5 tonnes per hectare per year), and geared mainly towards food production.

Intensive aquaculture is ecologically unsustainable, but is made economically viable by the high value of such species as salmon and shrimp. The promise of significant foreign exchange benefits from salmon and shrimp aquaculture is encouraging many developing economies to take up intensive single species aquaculture, but without reckoning on the high social and environmental costs.

The foreign currency provided is therefore of questionable benefit to such economies and their indigenous population. The switching from food production to cash can deteriorate the life supporting ecosystem.

At the same time important alternative economic, social and cultural knowledge and experience of sustainable resource use can be lost.

In both salmon and shrimp farming we have seen how vulnerable profitability is to supply and demand. Booms in production are regularly causing price slumps, putting...
aquatic farms out of business and rendering coastal zones useless (examples include salmon farming in Scotland, shrimp farming in Thailand and Taiwan).

If the environmental and social costs of these farming methods to society as a whole were included in the economic equation (and had to be paid by the fish farmer), then it would not be possible to use this system of aquaculture. The rapid expansion of intensive aquaculture is converting complex coastal ecosystems which support multiple uses by a variety of users, into private property for single-purpose resource use by entrepreneurs interested in short-term benefits.

The Rio declaration on environment and development states that unsustainable patterns of production and consumption should be reduced, and eliminated. Coastal ecosystems are by nature highly productive (see Table 2), but vulnerable to over-exploitation and pollution.

Single species aquaculture, based on throughput systems is degrading this productivity. Lessons from traditional integrated systems of aquaculture could be applied to coastal ecosystems, where wastes (faeces, processing wastes etc) are recycled, and pollutants and wastes reduced and eliminated.

The real challenge is to develop culture systems that recognize and mimic natural ecosystems. This is unlikely to happen unless steps are taken to explicitly value the ecological support that such coastal ecosystems provide to society as a whole.
Issues for Discussion

- In scaling up technology and energy use, how can fishworkers ensure that negative impacts such as over-fishing, glut landings, “disempowerment” and technology dependence are avoided?

- How can small-scale fishworkers campaign against the use of destructive fishing techniques, and the encroachment into their coastal waters of large scale fishing and aquaculture interests?

- How can small-scale fishworkers minimize the risks of increased technology and energy use replacing human labour and skill?

- How can women’s jobs and activities be protected, and their role enhanced?

- Should steps be taken to develop energy efficient, eco-friendly fishing practices, and to scrap energy inefficient eco-unfriendly fishing practices?
Endnotes

1. The exceptions to this rule are where cold currents penetrate the tropical zone. Examples are the Peru (Humboldt) Current of West Coast of South America (and the anchovy fishery), and the Beneguela Current off the West Coast of Southern Africa (and hake fisheries).


3. Calorie is a unit of energy, used to measure the energy content of food. 1 Kilocalorie (KCal) = 1000 calories = 4200 joules.


7. The Ghanian 8,000 strong canoe fleet catches 70% of the marine fish landings. Like neighbouring canoe fisheries, it depends on a single species of tree for the construction of the “dugout” canoe—local name Wawa (Triplochiton scleroxylori). Deforestation and increasing saw mill demand has reduced the number of Wawa trees in Ghana to around 29,000.

8. Mangroves play a crucial role in sustaining and nurturing our life supporting ecosystem. They serve as filters between land and water, anchoring nutrients and trapping pollutants (thereby reducing eutrophication and pollution of coastal waters); control/prevent erosion; provide coastal storm protection; provide important reproduction, nursery and feeding areas for numerous aquatic species; provide an important environment and source of resources for subsistence farming.
The world-wide crisis in the fisheries sector calls for the renewal of its structures, which need to adapt to increasing internationalization, largely dictated by broader political and economic issues. The GATT, by governing international trade, is one such issue; the follow-up to the 1992 Earth Summit in Rio is another, where worldwide access to fish stocks is concerned. When fisheries agreements between the European Union (EU) and ACP countries are negotiated, the supposedly commercial nature of the transaction means that it is finance, rather than fisheries ministers, that are a party to the deal. For the EU, ‘showing the flag’ as a maritime great power could be as important as any sectoral advantage that may be gained.

Although the negotiation of a new international legal framework for fisheries is the prerogative of governments, the marginalization of coastal artisanal fishermen from both North and South is one reason why they cannot rely solely on their governments to defend their interests adequately. This paper aims to show that it is a matter of some urgency for fishworkers of different nations to organise themselves in a such a way that States and large private concerns do not have a monopoly of information required for international negotiation. Environmentalist groups are also playing a major role in the negotiating process, NGOs are becoming more aware of the issues: it is prejudicial to the future of fishworkers’ organizations that they be so often absent from the international decision-building fora, as appears to be the case today.

2. The European fisheries crisis in the world context
Can it justifiably be claimed that fishworkers from North and South find themselves mainly “in the same boat” in the

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present world crisis, or are they inevitably antagonistic? Undeniably, artisanal fishworkers from the South have long had to bear the brunt of global imbalances. Apart from the redeployment of European fleets with destructive technology, fishworkers from the South are disadvantaged by international cooperation systems which favour the North. These are two aspects of what is usually known as an 'historical right', which weakens the status of local fishermen.

However, the balance is being restored somewhat by large quantities of fish products from the South being transferred to the markets of industrialised countries. Even if such trade flows don’t profit artisanal producers from the South as much as they should, it puts the latter in a position to be considered potential partners of their counterparts from the North. It is therefore in their common interest to study how they can share the same goals through cooperation between professional organizations: not just to gain a greater measure of producer control on the world market, but also to negotiate an upgrading of their common status at international level.

It is presently very difficult for European fishermen to take positions on international issues, since they don’t really have any international representation apart from the European Commission. This should not deter them, though, from taking a critical look at the European Commission’s position in the present debate in the United Nations on high seas fishing. Here, the European Community has taken sides with countries that have long-distance fleets: Japan, Korea, Taiwan, etc. They should ask themselves whether it is a position which defends the 80% of European fishermen
who fish locally, are inadequately organized and yet are part of a dynamic maritime culture in some regions; and not just the production and trading conglomerates that have little regard for such culture, on which people’s livelihoods are based.

Unfortunately, the European Commission does little to build awareness among European fishermen of their position in a global context. Significantly, the Commission will not entertain any discussion on how fisheries agreements act as an instrument of stocks management in the EU’s coastal waters, by relieving pressure on the latter. Here again, in the interest of their own survival, it would be important for European fishworkers to realize that more than half the European fisheries budget is spent on fisheries agreements with third countries, which weakens their own position as a result of the influx of cheap imports generated.

One can only hope that European fishermen will see fit to organise autonomously, rather than just wait for the European Commission to dispense financial favours to implement its policies. The European Common Fisheries Policy does little for the status of fishermen. For example, until recently DGXIV (the directorate responsible for managing the European Common Fisheries Policy) had no mandate to deal with the social impacts of its policies, which are essentially designed to satisfy the needs of the European market.

The main problem here is to overcome cultural differences among Europeans, which is the major underlying obstacle to European fishermen being able to work together. Moreover, the ‘historical rights’ principle only exacerbates competition between European fishermen.
3. Fishermen’s status problems

Lack of international recognition is a serious impediment to the upgrading of fishworkers’ status, whether they be from North or South:

- Fishermen don’t get due consideration as *food producers* world-wide, for ensuring *food security* in many countries (where their contribution to the national economy is played down): the role of women is especially underestimated and, because of their traditional image as hunters, fishermen are often thought to be incapable of a potential role in the management of fish stocks (even when they show themselves to be capable of resolving their own conflicts);

- As yet, fishermen don’t have a recognised role within the framework of national sovereignty over access to fish stocks: it could be said that the notion of ‘*historical rights*’ weakens the legal status of local fishermen, in the sense that it usually carries with it no implication that foreigners or local fishermen have a duty to participate in the efficient management of stocks. Furthermore, the notion of ‘*historical rights*’ is stamped with colonialism: it is what allows England to grant fishing licences in the waters around its Indian Ocean Territory; or what induces the European parliament to justify the principle of fisheries agreements between the EU and ACP countries when, for example, it still defends the rights of Basque fishermen to fish off Senegal (even if only about 7 or 8 boats are presently in-
volved, with 25 Basque fishermen on board, compared to the 1000 who used to work on the vessels that plied these waters).

- The extent of maritime know-how possessed by fishermen is not really recognised in many societies, especially in Western Europe, as the threat of naval warfare around our coasts has receded: generally-speaking, there is little knowledge of fishermen’s lives and problems as soon as one goes some distance from the coast (and even sometimes in fishing ports);

- Fishermen are not always considered to be seafarers in the fullest sense: international organisations such as ITF, IMO, ILO, and the EU exclude fishermen from their legal framework in some instances (such as sea safety for ships shorter than 45m);

- In Europe, fishermen and their families often don’t enjoy the same social protection as workers on land: governments tend to want only to control fishermen, while favouring enterprises. Unfortunately, enterprises hardly have the vocation to defend the social interests of fishermen, especially where crew members are concerned. The representation of fishermen solely through Producers’ Organisations has not been adequate to promote social progress in the fisheries sector (which, because of shared responsibility for the present crisis in Europe, includes the need to support bankrupt boat-enterprises and fishermen/seafarers in difficulty).
In these areas, the Churches have influence and need to look beyond denominational differences to best encourage fishworkers’ organisations to work towards upgrading the status of their members and their families in the international fora, since it is not sufficient to adopt a solely local or even national approach.

4. International negotiations
4.1 Fisheries agreements and international trade
GATT opens the European market with minimal non-tariff barriers to countries which are not eligible for preferential treatment under the Lomé Convention. This appears to give an official blessing to unchecked liberalization of international trade in fish, while measures for regulating imports into Europe are inadequate. Nevertheless, the impacts of cheaper imports had to be felt at grass-roots level before European fishermen began their movement in January 1994. The GATT negotiations had already passed them by...

However, how will African artisanal fishermen be able to cope with the increasingly diverse competition encouraged by GATT?

The development of exports of African fish to Europe and Japan has already led to the over-fishing of certain stocks and priced some species out of the local market. But this is not the only phenomenon which puts strong pressure on local artisanal fisheries in Africa. Some joint ventures in Africa, as well as Russian and Dutch fishing firms, have long been supplying local African markets with low-priced frozen fish. The European Common Fisheries policy increases the pressure: commercial fisheries agreements are
based on an exchange between access to foreign waters for European fishing firms in return for access to European markets. ‘Second-generation’ agreements promote joint ventures, which could make surveillance more difficult. At the same time, African inland markets do not appear to be developing at the same rate for the sale of local fish products.

NGOs predict that countries which are net importers of food will come out as losers from GATT on a macro-economic scale. This is a major reason why local artisanal fisheries in Africa need to be supported internationally through guaranteed access to resources, for the sake of food security, in particular. The devaluation of the CFA franc in West Africa, while bringing some hope to African artisanal fishermen that their exports will thrive, raises the price of imported fishing equipment. There is also a tendency for European fresh fish production to be protected by the closure of European markets to the exports of the African artisanal fisheries sector. This does not resolve the structural problems of the European fishing sector: at best, it only avoids serious social unrest in the short term in Europe, while creating social unrest in Africa (as was recently seen in Senegal).

There seems little doubt that the internationalization of fish markets will further destabilize the ‘human ecology’ of fisheries on a global scale. When a large firm or financial group such as PESCANOVA acquires companies which have run into trouble (as in France and Ireland), or creates joint ventures (as in Namibia or Argentina), is it not also gaining control of world markets, pushing prices lower in order to compete with traders from the South? It is also the case with
the ‘Klondikers’, giant ex-Soviet factory-ships which ingrate into international fish producing and marketing systems: for example, by hiring out their processing capacity British companies, who buy Dutch pelagic fish and resell as canned fish in Indonesia or the Philippines...

As well undermining the production of local fishworkers in the South, this is a system run by Northern operators to reduce labour costs to a minimum, thus dispensing as far as possible with manpower from the North.

It is clear, therefore, that artisanal producers from North and South need to make a joint appraisal of the consequences of integrated production and marketing systems. Joint research, and training based on mutual exchange international know-how and local knowledge, aimed at raising awareness of a common situation, should enable local producers from both North and South to compete better on world markets. Some joint fish-vending operations should be attempted, but with the required means to succeed:

- it ought to be in the interest of producers from Europe to help their African counterparts develop their own fish-marketing systems—both locally, and to ensure that their products come up to stringent European quality standards—in return for more rational regulation of supplies to the European market;

- the emphasis placed by French fishermen on raising the quality of their products should include considerations other than just freshness and nutritional excellence: capture methods which show respect
for the environment, and international cooperation between producers’ organisations can also be attractive to the consumer;

- structural solutions of a financial nature should be found: one suggestion has been the constitution of a fund out of levies on the imports of fish into Europe, the proceeds being used to finance development activities designed and controlled jointly by fishworkers organisations in the South and in the North.

However, such development actions are bound to be limited at first, and can only have an impact if there is strong international pressure to stop the world-wide destruction of fish stocks.

4.2 Fishermen and the defense of the environment
The role of fishworkers organisations in the management of fish stocks
When applied to the maritime milieu, the world debate on environmental protection and the conservation of natural resources for future generations should mean the reduction of over-fishing and fish wastage, less marine pollution, and a stop to the degradation of the marine environment. This is a goal that many fishermen should be able to empathize with, including in the North.

The movement launched by the Earth Summit appears to be in competition with that of GATT, which has great difficulty in taking into account the impacts of international trade on the environment. The problem is that fishing is an activity which should be based on rational management of a finite
natural resource. Since such management can only be achieved with the cooperation of the users of the resource, it should be considered how fishermen can exercise a right not be excluded from the implementation of the principle of the nation-state’s sovereignty over fish stocks in the EEZ.

Moreover, problems connected with the impacts of world trade on the environment will be treated by a Committee on Trade and Environment at the World Trade Organization. Artisanal fishworkers from both North and South should make sure that their interests are represented on this Committee.

Of course, legal notions and their subsequent application are a very different matter. International conventions have difficulty in becoming binding. Often, legal texts can only be disputed in international courts if the States involved agree to such a procedure. Naturally, their legal advisers make sure that such texts are virtually ‘watertight’. Consequently, the management role of fishworkers requires jurisprudence on essential questions, such as:

- the limitation of days at sea
- historical rights
- the resolution of conflicts over certain fishing zones
- cooperation on fish marketing, for certain species, etc

Research on such questions is required to break new ground as regional management systems develop.

It is well-known that environmental issues and fishermen’s survival instinct in the North don’t always go well together.
However, to reduce the environmental movement to the defense of seals, dolphins and whales, or to attacks on drift-nets, is ludicrous when one considers the over-riding need to fight for the survival and rational management of planet Earth. Certain environmentalist positions are too extreme because they tend to forget fishermen and make enemies of them, but they are making inroads with some fishworkers in the South (as in Chile), due to the importance they attach to recommending that artisanal fishworkers’ organisations have a role to play in fish stocks management.

The challenge is surely the defense of local communities on the international scene, to ensure that they can compete with multi-national firms for access to stocks. This no doubt requires that fishworkers’ organisations take a clear and firm stand in favour of an ecological programme—that is to say, efficient and precautionary management of fish stocks—because this approach can gain considerable support from the international community and public opinion.

After all, it also fits with the United Nations option for environmental conservation. As long as limitation of fishing effort is inevitable, it is in the fishworkers’ interest that they propose their own measures, so that they have a chance of being implemented.

In the context of a world-wide negotiation for access to fish-stocks, artisanal and industrial fishermen from the same country can unite to defend their interests against those of the large international firms. In Chile, national fishermen put on a united front to prevent the fisheries bill presented by Pinochet from becoming an open door for invasion by large foreign firms.
In short, when a foreign industrial firm causes harm to a local fishworkers’ community, it is doing similar harm to local fishworkers in its own country, since the position of all local fishworkers throughout the world will be weakened. All are threatened by the incursions of foreign fleets (whether through reduced access to resources or the disturbance of markets): in order to face up to this challenge, what weight will local fishermen carry in a new international legal system?

Since the world debate on the environment is growing, the alliance that is being built between environmentalist associations and development NGOs through the UN Conference on straddling stocks (which is a follow-up to the Global Forum in Rio in 1992) can provide momentum to support for fishworkers’ organisations in the South. Artisanal fishermen in the North should take note of this.

Of course, a lot will depend on whether governments in the South will provide the required support both for their own artisanal fishermen and for rational fish stocks management. In the final instance, a choice needs to be made between too strict an interpretation of the sovereignty principle—which is defended invariably at the cost of over-fishing—and the establishment of regional management systems.

The protection of the marine environment surely has its rightful place within the latter framework, but more and more observers conclude that healthy management of fish stocks depends on large-scale reduction of public subsidies to the industrial fisheries sector, which also have the effect of artificially reducing the price of fish products.
4.3 Social impacts of the internationalization of fisheries

In an official document, the European Commission clearly states that fisheries agreements with third countries, while being essentially commercial in nature, avoid the considerable social and financial costs that member States would have to bear if other means of reducing the European fleet’s over-capacity in community waters had to be found. Be this as it may, fisheries agreements cost the European Community more than half its fisheries budget between 1987 and 1992 (disbursements of 941M ECU out of a total of 1,743M ECU).

The European Commission is not solely responsible for the over-capacity of the European fleet. However, nor will fisheries agreements resolve the social problems posed by the forthcoming structural changes. In which case, what measures will the European Commission support to compensate for decommissioning and moratoria (biological stoppages) ? So far, only monetary compensation to boat-owners, but none at all on the social plane. This question is as pertinent for fishworkers from the South as it is for their Northern counterparts. Will the Commission continue to spend enormous sums to redeploy European fleets to Southern waters ? This policy is attracting a lot of criticism at the moment, not so much because of its lack of social focus, but because it is considered an unviable investment.

Attention should be paid to development alternatives which depend on stronger organisation of fishworkers in the North as well as in the South, and not just to how short-term social problems can be tackled during the present crisis. In Europe, it would be useful to study the impacts of the moratorium on cod-fishing in Canada, as well as the way
workers in other spheres of activity (such as farmers in France) have renegotiated their debts. There is a lot of talk about improving the quality of fish products and promoting the retraining of fishermen, but more attention should be paid to existing working conditions in the fisheries sector.

For instance, as a result of certain ecological disasters, there is a lot of emphasis on the need to improve safety at sea, but with reference to the safety of ships more so than to the safety of seafarers and fish workers.

Safety at sea is an international preoccupation which can help to attract more attention to the social aspects of the internationalisation of fisheries, both in the artisanal sector in the South and on board long-distance fishing vessels. Sometimes, the two extremes are combined, as in the case of industrial vessels that carry artisanal craft in Senegal and the Indian Ocean.

Social impacts should not be excluded from the negotiation of international fisheries agreements, as long as such impacts can be properly described. For example, ICSF’s task force in the Indian Ocean is making an inventory which will enable proposals to be made regarding legislation on the working conditions of crews on board distant-water fishing vessels. The adoption of flags of convenience and mixed crews, in the fisheries sector as in the merchant navy, tends to lead to the worsening of navigational standards.

In the North as in the South, we see two facets of the same problem: it is therefore important not to neglect the social problems in either hemisphere, to keep them well-linked.
5. Why the promotion of North-South relations between fishworkers is justified

Generally-speaking, fishworkers from the North immediately think of North-South technology transfer as the essence of international cooperation. However, the Franco-Senegalese experience (development of twinning arrangements) has been enlightening in the way that progress can be made in the historical relations between fishermen from North and South. This may be summarized as follows:

- Mutual recognition of organisations at international level
- Relations based both on humanitarian commitment and mutual interest
- Tolerance, mutual understanding, acceptance of cultural and religious differences
- Development of friendly relations (which may be extended through youth exchanges)
- Better understanding of problems posed by the internationalisation of fisheries (world markets, global management of fish stocks, social impacts)
- Learning and reciprocal emulation in the search for solutions to problems which allow more autonomy for fishermen and their families
• joint planning of international action aimed at establishing the true worth and upgrading the status of the artisanal fishing profession, and at defending local fishing communities at international level: for example, through campaigns on fisheries agreements

• Development of trade between producers’ organisations (fishing equipment, fish products, etc).

In the fisheries crisis in Europe, there is a need to see beyond initial misunderstanding and pre-conceived ideas, and to avoid inward-looking attitudes (in the economic field as in others).

On the contrary, through better knowledge of realities, it should be possible to put the word ‘solidarity’ into practice (rather than wage a trade war which can hardly profit the small producers, wherever they might be).

6. Conclusion: the need to pursue the development of an international information network in support of fishworkers

Apart from GATT and the follow-up to Agenda 21, the forthcoming implementation of the Montego Bay convention on the international law of the sea, the FAO’s code of conduct for responsible fishing, the right to development, structural adjustments, etc are all the subject of debate which can contribute to the formulation of a new international legal framework, and fishworkers ought to be better represented in it.
If fishworkers from different nations can arrive at realistic agreements on the issues that concern their survival, they should use modern communication methods to make sure they gain official and public acceptance, and thereby upgrade the international status of fishworkers. Hence the need to know the timetables of important international meetings, and to participate in them.

The importance of the issues at stake, and especially the Earth’s survival, require that fish stocks be properly managed.

This should be the primary concern and responsibility of seafaring people (and not just fishermen) who are the custodians of maritime culture in the broad sense.

The representation of fishworkers cannot be solely through professional or trade union bodies, but needs to be of a ‘symbolic’ nature.

Fishworkers need to project a positive image to the public and to the places of influence and political decision: they must be recognised as being part of the ‘maritime culture’ of their country.

Fishermen and their communities possess information which can be used to defend their rights and their own culture.

This information should be used to give recognition to their maritime know-how and experience, and to their role as food producers on a world-wide level.
It is therefore a matter of urgency that fishing professionals, and the maritime milieu as a whole, should take the initiative to develop their own information circuits, and thus help to build autonomous ‘representation’ of their activities on a global basis.

Since the regions that depend on fishing are often marginalised, networking should be an appropriate way of achieving the required treatment of information to enable the defense of a way of life and of an international community of fish workers.

Such a network needs to be built by looking beyond cultural differences, from the local to the international level.

Representation of this milieu can hardly be centralised, but should be built by means of relays capable of treating information: these can be in organisations outside the fishing profession as such, in allied professions, the research field, the press, NGOs or the Churches.

Since fishermen don’t presently have adequate international representation, international solidarity is not easily within reach. Solidarity in the maritime milieu needs to be international in nature if it is to exist at all.

What is harmful to local fishworkers in the South is also harmful to local fishworkers in the North: inadequate representation, imprecise status, fluctuating prices, debt, overfishing, pollution, etc...

European fishermen need to join forces with their counterparts in the South to achieve the right measure of autonomy.
to defend their common interests: in a world where all producers are threatened, the common search for autonomy is a true expression of international solidarity.

In this sense, the National Collective of Senegalese Artisanal Fishermen (CNPS) is a symbol. Its strength resides in the fact that it is a doubly representative organisation, of the national maritime culture, as well as of the fishing profession.

In order to wage this battle, a world-wide information system (such as the Documentation for Human Progress offers) can be a help and needs to be built up.

The internationalisation of fisheries should be monitored more intensively and ways need to be found to make sure that the contribution of fishermen to maritime culture is appreciated at its true worth: this is a task which can be shared by men and women of good will the world over.
Fisheries agreements have developed more and more over the last ten years in response to increased demand for fish in certain mainly Northern markets, and to increasing pressure on fish stocks traditionally exploited by the mainly fish-consuming nations. There is also an accompanying trend among the distant-water fishing nations to internationalize their crewing and management options, with consequent social impacts.

The workshop participants will be able to describe their experience of fisheries agreements as they affect local fisheries and focus on their commercial, environmental and social impacts.

For the last 5 years or so, organisations in Africa and in Europe have been developing research, campaigning and lobbying activities which have considerably raised awareness of all aspects of transnational linkages in fisheries, for all concerned, both within fishworkers’ organizations and their supporting organizations. This work has fed into an on-going debate at the decision-making level. The process and results of this will be discussed and hopefully compared with other similar experiences (including in South-East Asia).

The problematic of fisheries agreements leads us to examine how fishworkers’ organizations can ensure their members’ access to fish stocks and other resources in the context of international competition and negotiation. The Chilean experience of succeeding in challenging the Fisheries Law which the dictator Pinochet attempted to impose in order to open wide the door to foreign vessels will be particularly relevant.
At grass-roots level, fishworkers’ organizations are able to substantiate their claims to participation in resource management through limitation of fishing effort of various kinds: this needs to be emphasized in view of the regional management systems which are presently being considered (or are already in existence, as in the Pacific).

A proposal that could be discussed is how fishworkers’ organizations could participate in Regional Consultative Committees, for instance in West Africa and the Indian Ocean, as well as in the European Community.

Where social impacts are concerned, working conditions with mixed crews are but one of the factors that need to be studied, as the ICSF Task Force in the Indian Ocean is presently doing in order to come up with recommendations on social legislation in the fisheries sector. Also to be considered are the social impacts of moratoria resulting from overcapacity of fleets and over-fishing resulting from internationalization: case studies from Canada, Senegal, and the European Community may be examined.

The workshop would like to examine the diversity of effects resulting from moratoria and consequent delocalisation. A special case is that of the “bateaux-ramasseurs” (industrial vessels that carry small artisanal craft on board).

These systems are very difficult to keep track of: captures are often undeclared and volatile, fishing techniques can change entirely according to that target fish and fishing area, working conditions are rudimentary, and management is versatile. One such example is a Portuguese ship flying the Panamanian flag, fishing off Senegal with up to 169
150 artisanal fishermen on board: this is a boat which used to fish for cod on the Newfoundland banks.

International cooperation is largely based on the “historical rights” existing in the relationships between North and South. We have seen that international fisheries agreements tend be determined by the quality of international cooperation, in the sense that there is often a powerful partner as the buyer and a less powerful one as the seller. Development is not necessarily a corollary of such agreements, but, in the case of the EU’s “second-generation” agreements, the setting up of joint ventures is expected to produce results in terms of development, as well as in terms of supplying an export market.

The experience of fishworkers’ organizations in the context of international cooperation needs to be examined, in the light of both “historical rights” and the call for less state intervention in economic activity. Here the relationship between fishworkers’ organizations and the State is paramount: how do they cope with lingering conservatism aimed at stifling autonomous organization? Also, how can they claim a role in the management of EEZs when one considers the need for better surveillance as a prerequisite of sustainable development? What positive experiences exist of cooperation with the State?

The Peruvian experience is certainly interesting in this respect. Reference will be made to the difficulties encountered in the setting up of a regional cooperation programme in West Africa. Attention also needs to be paid to the problems posed to fishworkers’ organizations by diplomatic and political considerations in the management of
International co-operation
Initiatives in international cooperation taken by professional organizations will be reviewed. Here the experiences of the National Collective of Senegalese Fishermen (CNPS) in their relationships with French, Indian, Canadian and Togolese counterparts will be compared. It is hoped that similar experiences can be described, especially as they illustrate the international recognition of fishworkers’ organizations and the defense of fishworkers’ rights. What scope is there for the further development of autonomous international relations, and what are their limits? What is the role of support groups, especially where the international representation of fishworkers is concerned?

How do fishworkers view international cooperation in the training field? Does it make people more confident and more open to change? Or does it tend to make people more dominant? What effect does it have on fishworkers’ organizations?

International trade
International trade must be placed in the context of the major trends that shape it, notably GATT and structural adjustments:

- how does monetary policy affect fishworkers: devaluation, debt repayment, reduction of subsidies on equipment, for example: these are considerations which need to be considered when discuss-
ing fish exports, monetary compensation for access to fish stocks, fishing licences as part of resource management, etc

- how does GATT shape up as a favourable factor on the earnings of fish workers from exports? How does the export drive affect the supply of local markets? How does the export drive affect fishing effort?

GATT confirms the liberalization of fish trade, with potential gains for fishworkers in the South (although Lome Convention beneficiaries will lose their privileges), and potential disaster for fishworkers from the North, unable to compete under present circumstances. But delocalisation of multinational enterprises and joint ventures owned in the North (or in the South?) enables them to compete through the integration of production and marketing. What experience is there of these conglomerates’ activities in the South? What potential is there for competing with them, for instance through international cooperation between fishworkers’ organizations?

What potential perverse effects of GATT are there? Dumping of fish (including on markets in the South)? The massive supply of frozen fish to West African markets by joint ventures, as well as by Russian and Dutch factory-ships are a case in point. What evidence is there that international trade can lead to over-fishing? What is the likely affect on food security of increased exports?

Why do artisanal fishworkers aspire to export their products, despite the fact they have to supply local markets, and
the fact that they have little control over the prices of exports? Devaluation, informal credit systems being in the hands of exporters, more stable prices for exportable products, etc are among the reasons.

**Maritime cultural links**
What affinity is there between people whose livelihoods depend on maritime culture, despite cultural, national and language differences? Does the internationalization of fisheries weaken the social structure on which fishing communities are based? What potential is there for international cooperation based on maritime culture: for example, for the defense of the marine environment, of maritime know-how, of improved safety at sea? Of the international status of fishworkers?

Does ICSF, which is now recognized by ILO, have any demands to make of that institution? What alliances can be built up to support these demands?

What potential is there for maritime culture to evolve in the context of moratoria and the reduction of fishing effort in some areas, requiring fishworkers to reconvert to other jobs? How can shared experience in this domain shed light on ways of tackling adverse effects of internationalization? The experience of women’s groups around the world should shed light on these questions.

**International support networks**
- The role of the media, and of communication relay-persons, is important for projecting an image of fishworkers’ problems and struggles which will be comprehensible to the public and to the interna-
tional decision-making community (because research is not sufficient): how is it being used on all levels, including the international level?

- Maritime people and institutions outside the fisheries sector

- NGOs (including environmentalists): on the question of the establishment of a new international legal framework for fishing, what role can they play? How can fishworkers improve their representation in the current debate on high seas fishing and the access to resources?

NGOs, through the creation of the Coalition for Fair Fisheries Agreements, launched a campaign in Europe and lobbying work in favour of the CNPS’s interests during the negotiations of fisheries agreements between the EU and Senegal.

The work of the Coalition was instrumental in getting the European parliament to have a study done of the impacts of fisheries agreements on artisanal fisheries in Africa. However, there are limits and conditions:

- fisheries agreements are signed by governments

- development NGOs are sometimes handicapped by not being familiar with the maritime sector (although well versed in lobbying techniques)
the participation of fishworkers’ organizations is paramount

Church networks are, through their international nature and moral support, valuable help in supporting autonomous fishworkers’ organizations (including for actions related to the defense of human rights).

However, they need to look beyond denominational differences to best encourage fishworkers’ organizations in their efforts to upgrade their status.

In the final instance, although support networks are important, the ability for fishworkers themselves to take up their own defense is essential: there should be no substitute for this. Access to information is an important aspect of this capacity. However, the question of fishworkers’ representation at international level is posed.
The workforce of the fisheries sector is comprised of fishers, dockers and employees of wholesale fish merchandising plants. We, the employees of fish merchandising plants, are an important link in this chain of workers. We work for the fish merchants, who buy the fish at the ports. We do the primary processing (deheading, weighing, filleting, packeting) and make the fish ready for shipping.

Until the 1970s, the fish canning industry was the main economic activity in coastal Bretagne and a main job creator, especially for women. Today, there are only a few sardines and tuna plants left.

In order to hold on to the business, they try to enhance the quality of their production as well as diversify with products like cream of sardine, mousse of tuna and noix de St-Jacques (coquille St. Jacques). They also sell directly to individual consumers, in tourist places and by mail order.

In the 1970s, plenty of fish was unloaded in the port by the trawlers. Due to the lack of processing plants (salaison or freezing plants), fish was often destroyed or exported. A few years ago, some small freezing plants were started.

With the depletion of resources, they do not have enough fish to operate at full capacity and so they now import fish. In coastal Bretagne there are almost no secondary processing plants that could produce value-added products and create employment. The workers in the fish processing sector are usually women, especially in Lorient, although a few men work in each plant, performing tasks such as operating the fork-lifts, loading and driving the trucks. It is

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a tradition for employers to hire women, because they think they are:

- more diligent, more disciplined and more prone to stick to their job
- more docile, easier to divide
- appeased with a salary which is considered as a complementary income, and therefore content with a lower pay

Until now, the workers who came to work in the port in the fish merchandise sector had low education and no job skills. Today, however, even young graduates come to the port in search of jobs. The women workers are from all kinds of social backgrounds, but many of them are single: unmarried, widowed, divorced, with or without children. They work in the port not for pleasure, but because they have to sustain their families.

During the last few years, there have also been some immigrant workers in Lorient--Turkish and Cambodians, for example. Their working conditions are similar, but often worse. Not familiar with the language, they are easily abused. Their bosses take advantage of them as these workers accept to do unpaid overtime, work whenever called on, including on Sundays, holidays and even at night, since they are afraid to say no.

The work of the workers in the fish merchandise sector is very hard. It includes long working hours, of up to 10 or 11 hours (which means effectively 12 hours in the port), standing in the cold, amidst the ice, water and the draught. It is a very dirty and exhausting job.
It should be easy to imagine how this affects their health. No woman finishes her career in the port without ending up with backpain, rheumatism and varicose veins. Many have to stop working before their retirement age.

There are also terrible consequences for the family life: mothers say that they have no time for their children when they come back home after 10 or 11 hours of work; they can not listen to their children, nor help them; in fact, they can not bear them. Due to irregular working hours, women have little choice but to leave their young children with a caretaker and see them only on the weekends.

The employers have no consideration for their employees. It’s just “Work and shut up!” The workers can not say anything, even though they have gained real skills. Employers recognize the value of these skills--in their hiring advertisements they ask for qualified and experienced people, but for a minimum wage.

With such working conditions, it is difficult to organize workers. Women, with other tasks at home, have neither the time nor energy to attend meetings or to fight for better conditions or even just to maintain the rights they have already won. With the increase in unemployment, there is also the fear of losing jobs.

Despite this, the CGT union has done a great amount of work. We have very few delegates because of lack of elections, even though elections are obligatory for each shop of over 10 employees. In spite of this, there has always been a good core of militants, especially women, who are very devoted to making pamphlets and distributing them.
outside working hours. For the past 15 years, we fought hard for a collective agreement. We won it in 1990. Sadly, it is applied very little or not at all in the ports. For instance, overtime is not paid and qualifications not recognized though, according to the collective agreement, qualified people should be paid as per an agreed rate. The employers say they can not respect the agreement because of the actual financial crisis. Yet, even during the good years, they did not apply the labour code.

In order to have their rights respected, employees can go to the Labour Relations Court, an institution with representatives of workers and employers. However, they do not use this right for fear of losing their job or being subject to even more pressure.

In the union, women are strong and persistent. When they want something, they go for it! They want to prove they can be as good as men.

In our CGT union local, run mostly by men, we have always had good support. On the port, the only union that supported us was the dockers union composed mainly of men. They financed our pamphlets, posters and travelling expenses.

They loaned us their local for meetings and information sessions. They always invited us to their meetings and celebrations. They recognized our skills, for example, our ability to make simple, clear and concise pamphlets.

Unionism is weak because employers have created a fear of unemployment. To make examples, they fired union del-
egates and militants. They divided workers in the fishing sector: fishers against dockers, fish merchandising workers against each other.

Employers have all the rights. The employees have only the right to be silent. Despite this, there has always been strong women who:

- refused to give in
- fought for justice
- always kept hope
- stood up for their dignity

The following is a testimony of Marie-Louise, the only militant in her shop: “There are people around us moving, it gives us hope for change. I keep this in mind and am not afraid of my boss any more”.

In this fight, we have also created links of friendship between militants from all south Bretagne ports; links of friendship no employer will ever break.
The Senegalese fisherman, reputed to be the best in Black Africa, still uses so-called artisanal fishing techniques, which are nevertheless widely developed. A fisherman’s fishing gear presently costs between 1.7M CFA for small units using lines, to 10M CFA for the large units (purse-seiners).

In his sphere of activity, he is confronted with enormous problems which are due not only to a lack of organization but especially to an absence of management and support on the part of the local authorities, who provide no fish storage equipment, but pursue their mad quest for foreign currency through fisheries agreements.

Since the devaluation of the CFA franc, inputs and other fishing gear have become either too expensive or impossible to find. The outboard motors with which we pursued our activity are mostly lying in a corner of our yards for lack of spare parts. Following a gift from the Japanese, the fisheries ministry is engaged in a large-scale promotion of a new ‘Yanmar’ motor which is being offered to us at 3.34M CFA (although we are negotiating for a drop in the price). Thus, we have the impression of being the guinea-pigs of a fisheries ministry that is depriving us of our Yamaha motors by transferring the distribution monopoly for these motors to a private firm called CFAO, while we were expecting to benefit ourselves from the Yamaha concession and from a renewal of the stock of spare parts.

As far as the construction and repair of our pirogues is concerned, we have the greatest difficulty in obtaining the wood we need for it has not only become too expensive, but the tree trunk is no longer sold by the piece, which is what
was most convenient for repair purposes. This is why today we have to wait for a colleague to be in need of repairs too before we can buy the whole trunk jointly.

On the question of fish vending, we have been obliged to go on strike in Kayar so that the fish buyers agree to raise their prices for high-quality fish. But the problem is not solved yet, for we are still obliged to dump pelagic fish on the beach or sell them dirt cheap for lack of cold storage facilities.

The other crucial problem for which we seek everyone’s support is for fisheries agreements to be reduced and the redeployment of European boats to cease, for both the national and foreign industrial vessels cause us much nuisance, including often fatal accidents and considerable damage to gear which is never wholly compensated for, even though it is usually caused within the six-mile prohibited zone.

Our list of problems could go on and on, but it would be best to look at the solutions, which we need very much to find.

The International Collective in Support of Fishworkers is not unknown to us. Its support is invaluable for an underprivileged category such as ours. This is why we ask for your increased support for our autonomous organization, the CNPS, which now has 8,500 male and female members, who are determined to take up the challenge of excellence.

Our primary duty is to participate in our country’s food security. We also wish to allow our neighbours to benefit from our products, for our pelagic species are abundant enough, both fresh and processed.
Thus we ask ICSF to support us in our efforts to organize the storage of our products, whether fresh or processed, and to improve the conditions under which our women do the processing. To enable us to market our fish better, we need to know the markets of the sub-region and even inland, for there are still parts of Senegal where fresh fish is not eaten while we throw it away on the beaches.

We also wish that ICSF will bring us all its support for the next fisheries agreements because our waters are threatened with over-fishing and accidents mostly occurring in the prohibited zone.

Thus the CNPS which is strong and respected today at the national level has launched a large-scale savings and credit scheme at our local committee level (which represents our base) and we expect material and financial support to enable us to market fresh and processed products, as well as to improve storage facilities and processing methods.

We are also trying to work out ways of establishing our own supply centres for fishing gear and accessories. And finally we expect support against the EU-Senegal fisheries agreement which is due to be signed in October 1994.
When I was asked to write a few words as a fisherman and a fisherman’s representative to an international delegation it first made me nervous, but yet anxious to put my thoughts on paper.

Allow me first to proceed with caution, for I come from a country which is experiencing one of the worst fisheries disasters this planet has ever seen.

The Canadian fishery before the moratorium on cod had total landings in 1991 of 1,157,000 tonnes for a landed value to fishers of $998.6 million. Of the total landed catch, 707,000 tonnes were landed by inshore fishers at a value of $758 million.

**Collapse of Cod Stocks**
The cod fishery with a biomass of approximately 4 million tonnes has been decimated almost to a point of extinction. Forty thousand people dependent on that fishery in one province alone have to look at their future from another perspective, and probably for some of them, in another part of our country. This is happening in Canada at this very moment, in a country that only a decade ago was attending international conferences and bragging about the knowledge it had in fisheries biology.

As of today, the problems caused by the collapse of the cod fishery have not been fully addressed. Although those directly affected by the collapse will be compensated by the Canadian government, those marginally affected will not receive compensation. Thus, to make a living, these fishers will have to put extra effort on other species, therefore creating a domino affect, touching every fisherman.

Country Report
Canada

by
Guy Cormier
*Maritime Fishermen’s Union, Canada*
In terms of the processing sector, it is impossible for me to explain the full effects of the moratorium on people working in this sector. Although they too will be compensated for a short period, their future remains very uncertain. They know that their chances of finding other employment is impossible in many of their communities. A way of life will be altered forever. Younger people will have to leave their families and communities to find work in other parts of their province or of Canada. They know well that the prospect of finding a job in a depressed Canadian economy could prove to be a difficult task.

Some of our politicians seem to want to place the blame for this disaster on foreign overfishing without wanting to look in our own backyard and the fishing methodology which caused this fishery to collapse.

As an organization, we have to maintain a positive attitude in these critical times. It may well be an opportune time to make changes that will allow those remaining to pick up the pieces and restructure the fishery. The challenge is to convince our government that we need to adapt a much more selective fishing technology and that conservation has to be a priority.

**Herring Fishery**
Two decades ago, another fishery had collapsed, although not to the magnitude of the cod. The herring fishery in the Gulf of St. Lawrence, on our east coast, had gone from landings of 300,000 tonnes in the late 1960s and early 1970s to a mere 20,000 tonnes by the end of the 1970s. Today we can call the rebuilding of the herring fishery a success story where the determination of inshore fishers pressured gov-
ernment people to change from an unselective way of fishing to the traditional ways of the inshore fishers. Herring is once again as bountiful as ever it was in the past.

**Lobster Fishery**
Another success story is the lobster fishery which is the mainstay of most inshore fishers in the Maritime region. This fishery has more than doubled its catch from the mid 1970s to the 1990s and is worth more than half a billion dollars in landed value. This fishery is shared among approximately 20,000 inshore fishers from the coastal communities in Atlantic Canada.

In the early 1970s, as technologies changed before our eyes and more seaworthy boats became available, no fishing grounds seemed unreachable.

These changes caused many inshore fishers to examine more conservational methods of catching lobsters and to look more closely at the biology of this fishery. Discussions by fishers’ organizations included ways of being more careful in the way we returned berried lobsters to the sea, and more efficient escape mechanisms on our traps that would allow smaller lobsters to return to their natural environment. These, together with more severe penalties on fishers who did not respect these regulations, brought lobster landings to unprecedented levels in the late 1980s.

The conservation methods were so successful that we were catching more lobsters than we had markets. As a result, we started putting small lobsters, which we had difficulty marketing with the shell, into a canned product which had a diminishing market.
Again, we tackled the issue and fishermen felt it was probably the proper time to look at increasing the minimum carapace size. We knew that consumers demanded a larger lobster and that it would be beneficial for us in the future to allow small lobsters to remain in the water until they became mature.

At the present rate of fishing, we were catching 90 to 95 per cent of lobsters before they have produced eggs once. Increasing the carapace size of lobsters caught did not come about without a lot of discussion and there is still a lot of resistance from one particular fishing district.

But with the proper communications approach I am convinced we will resolve that problem to the benefit of every fisher.

International Linkages
The MFU has always considered it important to create solidarity links between inshore fishers in Canada and their counterparts in the South.

Through Oxfam Canada, the MFU has been directly involved in linkages with fishers in Nicaragua and, through our participation in ICSF, we made connections with the union of inshore fishers in Senegal. I personally have made three trips to Nicaragua. During the last one, an extended trip of six months, my wife and four children came with me. The objective of my visit there was to explore ways of improving their lobster fishery.

We feel that these exchanges help develop greater understanding of the struggles of inshore fishers all over the
world to control their own resource, and to have a greater say in the development of this resource for the sustainability of coastal communities.

**Gender Issues**
I have not touched on gender issues in the fishery because in the MFU, there has been little or no discussion about gender. Personally, I do feel there should be no dominance of one gender over the other, just as there should be no barriers between people of different colours.

**Future of Inshore Fishery**
I am certainly looking forward to sitting down and having serious discussions on where we all believe the future lies for inshore fishers around the globe.

For, as we talk here today, fish stocks from practically all corners of our oceans are being overfished by foreign technologies. Quite often, these technologies have been transferred to other countries because they have depleted the stocks in their own country.

For the capitalist syndrome out there, the solution is growing fish by aquaculture, without any knowledge of what the outcome could be environmentally for our resource as far as the pollution it produces and the lack of respect aquaculture has for fish in the wild.

Fishing, in my mind, can not be sustained in the pure capitalist way that is being introduced around the world today. Communities evolved around the world where fishing was abundant; for it was, and still is, a way of making a living.
As I conclude this presentation, I would like to share with you the major difficulty that inshore fishers, as independent labourers, find within themselves.

In many instances, it is the solitude of being face to face with nature that prevents them from realizing the interdependence they have with others who share this great planet.

In closing, I would like to bring solidarity on our part to the fishing communities around the world. For, as we get to debate together, I am sure we will find out that our problems are very similar in nature and that where people have chosen to create the opportunity to work together, no obstacle is too big to be tackled.

At the end of this great reunion, if we have taken the time to share, we will learn that by working together we will eventually create a world where every human on this planet will feel he/she has a role to play to fulfil our creator’s wish which is for us all to live in peace.

In the ICSF we have a model that there is no obstacle too great for people in the universe to overcome. Some of the wonders of the world, as this country well knows, have been humanly built.

Then we, as a group representing some thirty odd countries, will find that the challenge facing us here today will only be resolved by strengthening the chain which still contains a great number of missing links.

I believe that the ICSF has to be the power line in the fisheries to the United Nations, but only when there is a
strong consensus among ourselves after having first achieved consensus among the people we represent.

But to achieve consensus, the leadership will have to be strong and devoted to continuing the struggle for a more just society.

We feel that the most important work that the ICSF has accomplished is creating information networks and solidarity links among inshore fishers organizations, both South to South and South to North.

This work has been valuable in encouraging fishing communities to organize and in providing energy and inspiration to leaders in these communities.

We think that this work should be continued for it creates opportunities for fishworkers and their supporters to exchange information and to support each others’ struggles.
The Philippines is an archipelago of 7,107 islands spanning 1,840 km., north to south. Its coastline of 17,460 km. is the second longest in the world. Its territorial waters have an area of 2.2 million sq. km. Of this, 12 per cent is coastal and 88 per cent is oceanic. In addition, it has inland waters of 8,258 sq. km. in area. Its flora and fauna are numerous and of great value and include 2,400 known species of fish. It is the eleventh largest fish producer in the world and ranks third in the production of tuna and tuna-like fish.

Eight million people are directly or indirectly dependent on fishing in the Philippines. They comprise five per cent of the labour force. Of this, 70 per cent are municipal fishers, five per cent commercial and 25 per cent are engaged in aquaculture. In 1990, the total fish production was 2.504 million tonnes, valued at P52.2 billion. The breakdown is as follows: municipal, 1.132 million tonnes, valued at P19.3 billion (45 per cent); commercial, 0.701 million tonnes, valued at P12.4 billion (28 per cent); and aquaculture, 0.671 million tonnes, valued at P20.5 billion (27 per cent). The total fish production contributed to 4.5 per cent of the Gross National Product.

The aforementioned statistics and figures would have evoked a positive response if the subsistence fishworkers benefited from the industry and if the marine resources were sustainable. Unfortunately, this is not the case.

We lament over the present state of our coastal environment and the whole fishing industry. According to the Department of Agriculture, of the 26 fishing areas in the country, 22 are overexploited. Other studies reveal that of
the mangrove forests, only 150,000 hectares are left. A
survey of coral reefs conducted in 1981 reveals that 70 per
cent of the coral reef areas are in bad shape (32 per cent
poor; 38 per cent fair; 24 per cent good and only six per
cent excellent).

A more glaring and disturbing reality is reflected in a
1989 study. Virtually all marine fisheries are in a state of
depletion, and total fish production has remained steady
since 1982.

The total number of fishworkers in the workforce, howev-
er, has remained very high, and the catch per unit of effort
of subsistence fish workers is too low and continues to de-
crease.

The major causes of this are attributed to the lopsided fish-
ery laws and the bilateral agreements of the Philippines
with other countries, among them, the Presidential Decree
704, which is production- and export-oriented, the Repub-
lic of the Philippines(RP)-Japan Treaty of Amity, the Com-
merce and Navigation and RP-Taiwan Fishery Pact (later
downgraded to EO 493).

Both the Treaty and the EO have legitimized the intrusion
of foreign fishing vessels into the country.

Other causes are the lack of enforcement of laws favourable
to sustainable development, involvement of some govern-
ment officials in illegal fishing—either directly or
indirectly—conflicting government policies and pro-
grammes, illegal and destructive fishing methods, illegal
logging and destruction of mangroves, pollution from
agricultural, industrial and domestic wastes, and legal and illegal exportation of corals.

We know that the authorities and the government in general are very much aware of these problems. Working on the premise that the sea and the fishermen are one, and given the fact that the fishery resources are highly exploited and degraded, we, the subsistence fishworkers, carry the brunt of the above problems.

The subsistence fishworker is further marginalised. As such, he is caught up in the intricate web of the interplay of the political, economic and social systems. But, like the seas, the human spirit is boundless and it is this that enables us, the fishworkers, to transcend all barriers.

The Fishworkers’ Response to the Fisheries Crises

We, the fishworkers, strongly believe that the agenda for authentic fishery development should evolve from the fishworkers themselves and the entire fishing community. In the light of this belief, we continue to organize fishworkers’ groups into alliances and coalitions that are informed and enlightened, militant and humane. Specifically, we are actively involved in the following major concerns:

Policy Intervention at all Levels

At the national level, the enactment of the proposed Fisheries Code and the creation of Resource Management Councils continue to be our primary concern for legislative action.

By enforcing the Local Government Code and decentralising government decision-making processes, fishworkers’ or-
ganizations at the provincial, municipal and barangay levels are continuing to work for the better protection and enhancement of the coastal resources as well as for the promotion of the rights of fishworkers.

Coastal Resource Management
Pending the approval of the Fisheries Code, we have positioned ourselves to participate in Coastal Resource Management projects of the Department of Agriculture, in twelve bays in different parts of the country. This participation in, and co-operation with, the government is our way of introducing development concepts that evolve through people’s participation.

Other Involvements
Our other involvements include: enforcement of fishing laws, area-specific resource rehabilitation and conservation, mobilization and campaigns, direct action by fishworkers, self-reliant projects and co-operation, education, national and international networking and solidarity-building, research and documentation, and publications.

Prospects/Directions
Our efforts are geared towards an empowered fishery sector and the transformation of the fishery industry into an alternative and sustainable one. This we hope to achieve, subject to the following developments:

- the approval and strict implementation of the Fisheries Code whose general principles incorporate our aspirations and hope. It is illustrated in the following excerpt from the Code:
“The state undertakes to realize the constitutional reservation of the use and benefits accruing from the fishery and aquatic resources exclusively to Filipino citizens, with priority to subsistence fishermen, in a manner that shall encourage popular and equitable participation, equality of the sexes at all levels of decision-making and the recognition of the fisherfolk as a distinct sector with rights and responsibilities and an indispensable role in nation-building.”

- approval and strict implementation of the Resource Management Council Bill which transfers the management and control of coastal resources to fishworkers’ organizations with the support of NGOs and GOs at the local, provincial and regional levels;

- representation of fishworkers at all levels of government local (i.e. municipal councils), provincial (i.e. provincial councils) and national (sectoral representatives in Congress). This is to ensure fishworkers’ participation in the political structure; and

- formation and development of core groups of fishworkers on the technical aspects of marine biology, coastal resource management and naval engineering.
Expectations of Filipino Fishworkers from ICSF

We believe these are:

- to serve as an “early warning device” on the impact on fishworkers of bilateral and multilateral agreements between the North and the South and modern destructive fishing technologies that are conceived in the developed countries for developing countries;

- to serve as a strong pressure group for banning of destructive fishing gears (i.e. trawling, *muro-ami*) and environmentally destructive practices (nuclear tests and nuclear waste dumping), for strict enforcement of legislation towards sustainable fisheries, and to prevent violations of human rights of fishworkers on board distant-water vessels;

- to conduct studies (through the members of ICSF, if possible) on the extent of degradation of our coastal resources, especially the coral reefs. These studies should specifically focus on ascertaining the value of coral reefs, and the impact of commercial extraction of corals on the coastal environment and fisheries; and

- to undertake exchange programmes between countries, focusing on fishworkers’ experiences in coastal resource management, mangrove reforestation, boat building, organizational and lobbying skills.
In Fiji, women’s participation in the fisheries sector is mainly as factory workers engaged in the processing and canning of fish. There are two fish processing and canning factories in Fiji.

The PAFCO, which is the older and bigger one, was established in the early 1960s. Under Japanese ownership, this factory was originally a fish storage plant storing fishes caught by several fishing vessels in the Fiji waters for subsequent export to Japan. The type of fish caught was mainly the tuna variety.

Processing and canning of fish commenced in the mid 1970s. This factory operates under the Tax Free Factory status, hence 95 per cent of all the fish canned must be exported.

The main export market is North America, including Canada and Europe, mainly the United Kingdom. The permanent workforce is around 400, which fluctuates and rises to around 800 in the peak season, with the employment of temporary workers. Around 70 per cent of the workforce are women.

The other factory is Voko which is also engaged in the processing and canning of fish. While PAFCO cans mainly tuna caught in Fiji waters, Voko is engaged in processing and canning mackerel imported raw from America. The products made at Voko are mainly for the local markets; with some exports to neighbouring South Pacific countries.

The permanent workforce is around 200 which fluctuate and rises to around 400 with the employment of temporary workers.

Country Report
Fiji

by

Maopa E. Sobu
Pacific Fish Company,
Fiji
and casual workers. At this factory too 70 per cent of the workforce are women.

Among the problems faced by women, their actual working space is too cramped, with hundreds of workers squeezed in side by side, engaged in physically processing the cooked fish before it passes down the line for canning.

The condition gets quite hot as well due to crowding. While on the processing line, the employees have to stand throughout the day, which can be quite a strain on the legs. These matters have been taken up by our union and the matter is under consideration.

My trade union work currently involves looking after the welfare of the members at work, particularly handling any grievance that might have arise at the workplace. Most of our members are villages who have not had exposure to the industrial work environment.

This creates many problems since workers are not aware of their rights and obligations. To create the necessary awareness, a special effort has to be made to train workers of their rights as trade unionists as well as other aspects relating to occupational health and safety, particularly those relating to women.

While the lot of the workers in fisheries who are engaged in formal employment may not be as bad as those who are not within the formal structure, we too have our share of misery, as we are subjected to the effects of the seasonal fluctuations inherent in the industry resulting in stand-downs and lay-offs.
Fiji has been experiencing a decline in the market for canned tuna, as other countries are entering the world market with cheaper products.

Fiji is struggling to hold on to its market share against competition from countries producing cheaper. Consequently, the workers are the main sufferers, as we are not able to increase our wages because it is argued that increased wages will increase the cost of production, resulting in our canned fish becoming even less competitive in the world market.

Since our members received no wage increases for a long time, last year the union took forward our demand for a wage increase to the process of arbitration.

Unfortunately, we were unsuccessful as the arbitrator upheld the management’s plea of its inability to pay a wage increase due to losses the company had sustained over the past few years.
As 1994 dawned on the horizon, from the jungles of Chiapas could be heard the voice of marginalisation and poverty: clamouring for shelter, food, health, education, land, water, work, democracy, independence and justice. These demands of the Zapata’s Army for National Liberation (EZLN) are the demands of the people of Mexico.

When we talk of the fishworkers’ sector, we are talking of those who provide the Mexican population with one of its main food products and yet are one of the most marginalised sections. We are talking of those who, despite their importance, hardly occupy any significant space in the spectrum of national concerns, in the political discourse and, hence, in the programmed budget of the government.

In times yonder, fishing was a substantive occupation as is well reflected in the Mendocinian Codex. Our country is rich in coasts, rivers, lakes and estuaries, alongside which the fishing communities settle. That is where the social, cultural and productive essence of their community life lies. Mexico has 11,300 km. of coast, with approximately 3,580 km. of continental platform.

I would now like to focus, not on a sector, or, say, fishery in general, but would rather reflect on the men, women and children, i.e. the fishworkers, their human problems and their contacts with the rest of the society, by asking:

- What happens to the Mexican fishworkers, their crisis-driven poverty and their daily life?
What happens to the collective conscience which has not incorporated the sufferings of these men and women who are born of and live of water and with water?

Why does our revolution voice only the aspirations of land and freedom and forget water?

Why do we learn of the sufferings of farmers only and not of fisherfolk?

In popular music, it is common to reflect the struggles of the countryside. However, for the sea, where “life is beautiful”, there are songs of admiration, but hardly ever are those verses recollected which sing the truth:

The drama of the fisherman

I go out to fish in the sea
I throw my net
And it comes out empty
Not a fish do I catch
I take out the net from the sea
I want to cry
It is dark night already

I go back to the sea
with my stomach empty
Oh! What anguish in my shack
My wife and my children three!
According to a study done by the Commission on Fishery of the Chamber of Deputies, it is estimated that, since 1988, 47 per cent of fishworkers received less than minimum wages and that 33 per cent around one-and-a-half. It needs to be pointed out that the minimum daily wage in Mexico is less than five dollars and is just about enough for, say, a kilo of meat; so 80 per cent of fishworkers get below-subsistence wages. Added to this are the increasing costs of expenditure incurred during fishing (management, petrol, maintenance of launches, motor etc.)

The fishworker communities generally lack an urban infrastructure which would ensure a hygienic life and a healthy abode. Their means of communication are insufficient and inefficient. Medical attention and health services, too, are not within their reach and they do not have access to recreative or cultural activities.

The majority of these fishworkers are real or functional illiterates including the leaders of the organizations. This situation makes it more difficult for them to appropriate instruments of transactions or have access to management and administration. Most of the time, they are, in fact, totally unaware of their rights.

This situation isolates them in their own communities, making them take refuge in their relationship with those natural elements which they know and around which they feel confident moving. Even in their relationship with one another, they do not conceive of themselves as part of a group with common needs, as part of a country and a world. This isolation increases their defencelessness. They are alone, facing a power which is annihilating them with big
tourist or industrial projects developed without any previous consultation with them and without the least respect to their habitat. The fact of living isolated hinders them from foreseeing possible invasions in order to defend themselves. Yet, if they do it, they are suppressed and the world does not even get to know about it.

“The life of a fisherman is adventuring out into the sea without a thought about whether he will return or not”, said Carmelo Larrea, fisherman from Puerto Angel, Oaxaca.

This condition of a quotidian survival makes it difficult for these fishermen to incorporate themselves into any struggle against the administration. Their link with the administration is constrained by an organization at the service of the ruling party, which supposedly represents them.

It is quite evident that the government of Mexico does not fulfil its leading task of protecting the rights of the Mexicans. There is a complete lack of an integrative perspective which would ensure participation of all communities and social equality.

A unilateral growth is being implanted which is crushing them. The hegemonic projects which are being imposed on their habitat violently destroy social and cultural harmony, provoking high disintegration.

In the face of these genocides, the government remains indifferent. Its submission to economic powers is reflected in the lack of standards and will to enforce the responsibility which any governing body has, or should have, towards the community and its surroundings.
Clear examples of this are:

LAZARO CARDENAS MICHOACAN: The fishworkers have been worthy protectors of environment against the ecocide produced by the toxic industrial waste. Before 1990, they raised their demands but the government responded with indifference and complicity with vested economic interests.

After the murder of Jose Luis Valdovinos, the port was closed for the first time on 27 July 1992. The situation became serious when a Norwegian ship, *Betula*, was grounded which, in turn, resulted in the imprisonment of the mobilised fishworkers. The irresponsible attitude of the Mexican government became quite evident.

PETACALCO, LA UNION GUERRERO: A settlement, where some years ago the inhabitants were able to live in dignity and in harmony with nature, was transformed with the installation of a thermal power station of the Federal Commission of Electricity which acted so violently on the ecology that it rendered the fishworkers and farmers without work.

Since it was installed in such an irresponsible manner, it also increased the level of alcoholism and prostitution, and affected the life of the community without augmenting the necessary infrastructure.

The fishermen here started their struggle more than four years back with Jose Luis Valdovinos as their leader.

PUERTO MARQUEZ, ACAPULCO, GUERRERO: Devastation has been produced by the tourist project, ‘DIAMOND POINT’.
Irresponsible construction has given rise to accumulation of solid material in the depths of the sea, affecting species like oyster, shellfish, cuttlefish, lobster and others which constitute the sustenance of 62 fishermen's families.

Until now, far from finding a solution, there is a further threat posed by the expansion of the project.

TABASCO and CAMPECHE: a similar struggle is on against PEMEX.

These are some cases which show the critical situation of fishermen. In all these cases, they have been untiringly appealing to the government, mobilising actions and living under constant threat of repression.

Our support to the fishing communities dates to 1990, through Jose Luis Valdovinos, our friend and leader of the fishworkers of Petacalco, Guerrero and Lazaro Cardenas, and the neighbouring communities of Michoacan, who were fighting since then, the first ones against the Federal Commission of Electricity and the latter against PEMEX, FERTIMEX, SICARTSA and other firms for the damage caused to the environment by these installations affecting the source of work of fishworkers.

Jose Luis was murdered on 27 June 1992, an event which brought us closer in our common commitment.

At the same time, fishworkers of Sanchez Magallanes, Tabasco carried out a massive sit-in in the Zocalo of the capital with similar demands on PEMEX.
With a view to exchanging opinions, we went there and it was then that the interest for greater mutual interaction was expressed for the first time.

On our talking to them, Loreto and Lupillo, of Tabasco responded: “We had been poor but we never lacked food, we sold a little and that was it.”

This answer is a reflection of the crisis provoked by neo-liberalism and its genocidal mega-projects, by its social irresponsibility.

Given this situation, after the death of Jose Luis Valdovinos, the threats and the growing tension made it necessary to break the isolation and call upon society to acquaint itself with the problems of fishworkers.

It was decided to call a meeting of all committed persons and organizations at my place. Together, we formed the Support Group to which each one would contribute according to his or her own reality towards this common commitment.

With the effort of everyone, on 30 and 31 January the next year, the first National Meet of Riparian Fishworkers was celebrated in the port of Lazaro Cardenas, Michoacan and Petacalco, Guerrero. It saw the participation of 60 fish-workers groups, coming from nine states of the country.

It was here that the Jose Luis Valdainos National Network of Fishworkers was constituted. Consequently, we gave a call to hold the first State Meet of Guerrero, in Port Marquez, from 23 to 25 July 1993.
As a result of the experiences shared and the results of the meets, we have underlined the marginalisation of fishworkers, whose situation has become critical due to:

- Lack of communication amongst themselves and with the society, i.e. their isolation which is caused by lack of organization and joint effort.

- Lack of educative tools which would help them to understand and confront the concrete, perceive their situation and plan new alternatives.

- Lack of knowledge of their internationally declared human rights, those consecrated in the constitution and those which pertain to specific laws for the sector.

- The poverty of the fishworkers has been worsened by the ecological deterioration caused by mega-projects which have resulted in a considerable reduction in the volumes of catch, and the overexploitation of species aggravated by the lack of control on prohibitions, the irresponsible grant of concessions and the corporatization of cooperatives by Federations which are instruments of the State, i.e. a governmental policy lacking in responsibility and real support to the sector.
These reflections lead us to conclude that the Riparian fishworkers must break the frame of marginalisation in order to strengthen themselves and face the present adverse conditions. For this it would be necessary to initiate:

1. Communication among fishworkers and between them and the society.

2. Organization of meets, mobilization programmes and other forums.

3. Education on literacy, leadership training, administrative and technical training as also training for ecological protection.

4. Knowledge on the promotion and defense of their rights as fishworkers, as Mexicans and as human beings.

The antidote against marginalisation is communication, organization and education for the defence of rights.
Ecuador, situated in the north-west of South America, possesses four regions: the coastal belt, the mountainous sierras, the orient and the region of Galapagos Islands. Small-scale fishing is developed mainly along the coastal belt and includes the provinces of Esmeraldas, Manabi, Guayas and El Oro. Small-scale maritime fishing is the chief source of income of approximately 100 fishing communities. Continental or inland fishing has been developed as a very small fishing industry for domestic consumption and its commercialization in small hamlets along the coastal region or in the interior areas constitutes a very low-scale production system, when compared to small-scale maritime fishing (PAM).

The PAM evolved from an initial activity of subsistence level production of one particular community to its commercialization in markets close to ports and finally towards its commercialization in the most important cities of the country and even foreign markets.

There are various estimates regarding the number of fishworkers ranging from 50,000 to 200,000. Our estimates, based on observations during visits to different places, show that there are nearly 100,000 of them. This figure excludes the so-called ‘Larvae producers’ or ‘Larveros’, who are not traditional fishermen and who occasionally extract ‘post-larvae’ of shrimps to meet the aquaculture sector’s demand for ‘seeding shrimp tanks.

The importance of the small-scale fishing industry as a source of work for the coastal population is further noticeable when considering the number of people involved directly or indirectly in complementary activities such as
aboard the launching vessels, in the evisceration and cleaning of fish, as porters or salespersons of fishing equipment, etc. The vessels used are small canoes or motor launches of wood or fibre glass. Small-scale fishing is done in several ways which include using of hand-lines, fishing-lines, different kinds of trammel nets or small rimmed nets.

The catch includes, a variety of fish, more than 60 species, which constitute regular shipments. The species caught include molluscs, crustaceans and fish, the most important being fish and shrimps. The *penaeus* kind of shrimp is of greater commercial value just as among the fish are *Coryphaena hippurus*, *Makaira spp.*, *Euthynnus lineatus*, *katsuwonus pelamis*, *Lutjanus guttatus*, *Mycteroperca xenarcha*, *Brotula clarkae*, *Centropomus sp.*, *Epinephelus analogus*.

In spite of the volume of catch and the number of shipments, there is no concrete policy in favour of improving the living conditions of fishworkers, which is the key element for tapping the natural resources available along the Ecuadorian coastal belt.

There are several problems in small-scale fishing and some of these problems are not recent and have only been worsening over the years.

From our point of view as fishworkers, the following are the problems which must be dealt with on a priority basis:

- Lack of up-to-date information on the availability of resources and indicators for their rational exploitation.
Fishermen do not receive appropriate information on the availability of resources. In previous years, we had to waste time looking for fish and very often we returned with a poor catch and suffered losses from the high costs of operation.

Notwithstanding the fact that fishing activity has increased in recent years, no government agency informs us about the changes in the availability of resources and, what is more important, about alternatives to the present resources, in case they are exhausted, or about the appropriate changes needed in our fishing conditions so as not to catch the young ones of the species.

In this context, we need specialized institutions which must communicate to us, in very simple language, the necessary information in order to develop fishing activity which allows recuperation of resources and ensures fishing for us today and for our children in the future.

Lack of facilities for fishworkers
There are only two fishing centres available in our country— in Engabao and in San Pedro de Valdivia, Province of Guayas. Even these do not function properly. Except for these two cases, in the rest of the coastal belt, even basic infrastructure is not available to facilitate the activities of fishermen as they arrive on the port. There is a lack of storage space, fuel stations, drinking water tanks and fishing equipment stores. (Recently the Manabi Project of CISP/ FENACOPEC has started a fishing equipment store, in Puerto Lopez province of Manabi).

The lack of basic services causes serious difficulties for the fishermen in their work and significantly increases the cost
of fishing activity. This, in turn, leads to reduction in profits from sales to businessmen who operate on the ports. One example of this is the high price—more than the official price—for fuel which comes from a place far from where the fishing vessel is.

**Essential services in the coastal communities**
The basic infrastructure, health services and education facilities are available only in those coastal communities where there has been some tourist or industrial development as, for example, in Esmeraldas, Manta, Salinas, Playas and Puerto Bolivar.

The majority of small-scale fishing communities are not provided with even the basic services of drinking water and sewerage. Electricity supply and telephones, in many cases, are inadequate.

Health services—dispensaries or health centres—if at all available, do not have the required personnel nor even equipment.

Rural education is characterized by a very low and insufficient budget and the schools are in very bad shape. It could be said, in general, that the schools in coastal areas have been very poorly attended to by the government. Hence, living conditions in these places have not improved and, in some cases, have even deteriorated.

The lack of good roads adds to the pressure on the small-scale fishing industry, by a further increase in the cost of movement and distribution of fish to the principal centres of consumption or processing.
Need for basic training
The limitations in this field are varied and are conditioned by the low literacy levels of the fishermen. In the past, some training work was undertaken, but this was not complemented by follow-up programmes nor any economic support in order to ensure the application of newly acquired knowledge and its extension to other fishermen of the community.

There is a need to develop a highly participatory, global strategy, wherein starting from an activity in the very fishing community, a methodology is developed to awaken the interest of the fishermen in being trained to acquire the necessary knowledge to improve their profits and their living standard.

Organizational development of fishworkers.
The present social organizational development of small-scale fishworkers is extremely poor. Of the 130 fishworkers’ co-operatives, only 50 are affiliated to the FENACOPEC. The majority of fishworkers do not belong to any guild or organization and the few who join these organizations hardly participate in the decision-making activities of the organization. An isolated effort is currently being made by the Manabi Project of CISP/FENACOPEC in the southern zone of the province of Manabi which intends to improve the extent of organizational development of various co-operatives. This experience could be taken as a model for implementation in other areas.

With the negative experience of earlier years, the opinion among fishworkers is that there is a need to bring about major changes in the General Law of Co-operatives and
shape it to suit national reality as well as to establish the referential bases in order to develop an organizational alternative which would offer incentives to fishworkers so that they are fully integrated into group work.

**Need for providing loans for small-scale fishing**

In the past, loan schemes were developed according to guidelines of the National Development Bank and have been characterized by complicated and slow procedures which the fishworkers did not usually understand and which led to their falling into the hands of intermediaries.

Time-consuming procedures have led to a loss of interest in applying for this traditional line of credit, which usually has to be applied for in an office situated very far from the work place of the fishermen.

Recently, attempts at supervised credit are being developed. The fishermen have representation in the committees which offer finance for purchase of materials for fishing. This kind of credit is accompanied by an assessment of the co-operative to which the applicant belongs. It is an interesting possibility which could be a new alternative for financing the activities of traditional fishworkers.

**Need of regulations within the fishing zone**

In the eight miles within which small-scale fishing and industrial fishing for shrimps is allowed, there are conflicts due to competition between these two groups. Lack of control, regulation and management strategies have been responsible for the traditional fishworkers suffering constant pressure from the industrial fleet which prevents them from operating normally in areas where there is
availability of resources traditionally utilized by small-scale fishing.

The competition for shrimps and white fish must be controlled in a way to allow the fishermen to continue to work within the same domain as they have been traditionally working.

In conclusion, the situation of the fishermen is characterized by a series of limitations which impedes the improvement of their living standards, owing to the shortcomings accumulated over the years, changes in the availability and distribution of resources and the lack of a policy directed towards development sustainable over a long period wherein a fisherman would have priority as a person with a right to exploit rationally the available resources.

**Challenges for the future**
Against this panorama, the fishworkers and their leaders have a major and difficult task before them: to draw the attention of the state and to have access to the basic elements which would improve living standards. For this purpose, as the only alternative to the present condition, organizations like FENACOPEC must look for technical and economic support to improve its representational capacity, widen its cadre base to throw up new leaders and strengthen its existing leadership, and develop massive awareness campaigns, at the level of fishing communities, on the need to be organized and technically trained. This way it will be possible to make our presence felt and also demand the implementation of a true policy which could contribute to improving the fishworkers’ income, the working and living conditions of their families and themselves. Though a
difficult and slow task, it is not an impossible one and can be achieved through sheer hard work, reaffirming our rights to adequate nutrition and health, housing and education for our children and the opportunities to work.

As concrete lines of action, we have the following suggestions:

- Implementation of training programmes with emphasis on improving organizational aspects and alternative techniques to diversify the skills of small-scale fishing, as well as awareness regarding rational exploitation of resources and the conservation of the environment.

- A complete review of present small-scale fishing laws, prohibitions and general laws of cooperatives, as they are outdated and irrelevant to the present national reality.

- Establishment of small-scale fishing facilities based on an analysis of the real needs of the communities and with the active participation of fishworkers.

- Implementation of an integral coastal zone development policy, wherein priority would be given for provision of basic infrastructure to communities, and by which fishworkers would be able to enjoy the benefits of the social services offered by the Ecuadorian state.
In Ecuador, the deterioration in the economic situation has seriously affected the quality of life of the most vulnerable groups of the population which is where one can situate the fishworkers who have retrogressed towards poverty and pauperization.

One can see this effect in the sharp tendency towards decrease in production and value as also the reduction, in relative terms, of bio-aquatic species.

The marine areas earmarked for the traditional fishery in Ecuador are eight miles from the coastal contour and the entire Ecuadorian coast.

In the sector of continental waters (marshes, rivers, lagoons, etc), fishing is a minor activity, the major one being prawn aquaculture. These areas are highly representative and are of very important biological formation owing to their species and surrounding mangrove plantations.

It is necessary that the government take into account the traditional fishery sector and extend its support to it with a plan aimed at developing this important human group, keeping in mind that this development has to have objectives achieveable within a short time period. It is also important that the several endeavours presently being undertaken be channelized adequately to improve the living conditions of the traditional fishworkers.

**Traditional Fishery**

Being influenced by the cold Humboldt and hot Nino currents, Ecuador is characterised by an excellent reserve of natural resources and an exuberant flora and fauna. This
unfortunately has been affected by the indiscriminate use of internal and external tensions.

**Production**
The present production of the small-scale fishing sector is notoriously low, compared to past years. This can be explained by reasons such as lack of appropriate technology, obsolete methods and depredation of the seas, apart from the impact on the ecosystem.

Given below is a summary of the small-scale fishing production:

**White fish.** In 1992, the fish caught was 34,113.7 tonnes, captured by 150,000 fishworkers all along the Ecuadorian coast. Of this, 67 per cent was pelagic species.

**River fish.** In Ecuador, continental fishing has decreased notably. The statistics in 1992 show us a catch of 130 tonnes by approximately 500 fishworkers.

**Prawns.** Traditional fishworkers also catch shrimps but this is not very significant because the fishing methods are rudimentary. In 1992, a production of 266.5 tonnes was estimated involving 80,000 persons.

**Prawn culture.** There are fishworkers’ co-operatives which do prawn culture in tanks, but this is for subsistence. In 1992, production decreased considerably, the volume estimated at 570.38 tonnes.

Sea fishing in Ecuador is done mainly by traditional fishworkers. Prawn/shrimp production in 1992 was 82,972...
tonnes, of which the prawn fleet captured 53.37 tonnes. The industrial tuna fleet captured 26,567 tonnes. Traditional fishworkers collect molluscs and crustaceans for internal consumption.

The traditional fishing fleet is presently going through a notable downfall and it is estimated that a mere 30 per cent of the fleet is now working, with a decrease in catch of the same order. This is due to the high costs of operation of row-boats with outboard engines—70 per cent going for fuel (petrol-oil).

**Environmental impacts and conflicts**
Traditional small-scale fishing is plagued by permanent conflicts with the industrial fleet, especially the trawling shrimp fleet with which it has frequent confrontation because it also works within the eight miles earmarked for traditional fishing. Trawling is not selective and, as such, damages the seabed and interrupts the evolution cycle of the species, especially when it is used in shallow depths, as in Ecuador.

The conservation and protection of resources should start with the maintenance of genetic diversity, avoiding the loss of habitual species in natural communities, as happens with the catch of ‘wild’ larvae of shrimps or when regulations on prohibitory periods for fishing or other regulations are not followed properly.

The destruction of mangrove forests has caused an ecological disequilibrium which has serious repercussions for traditional fishing. These have not been protected against external pressures.
The fishing area should be clearly demarcated, the socio-economic and production factors determined and analysed for their local, regional and natural importance in order to decide when activities ought to be undertaken in the ecosystem.

**Condition of the fishworkers**
The condition of the traditional fishworkers is critical. They lack most basic needs and means of subsistence. They do not have the capacity to save. They do not have access to a credit system nor to social security schemes. They are prone to epidemics which keep occurring now and then.

Apparently, low literacy levels have created a dearth of leaders from the communities. There are needs awaiting action but there is no activity aimed towards their fulfilment.

This has led to the infiltration of outsiders into the community and the organization. Added to this is the presence of a chain of opportunist business dealers who make profits by oppressing the people in this sector.

**Co-operative organizations**
Several forms of organizations exist in the fishing community, all motivated by the need to improve their lot and achieve something. These are the commune, formed by farmers and fishworkers for land management, the trade unions, and associations and fishworkers’ co-operatives.

The commune has been a traditional primitive organization in the country. Its evolution has been fairly complex, given that the laws governing it have not been updated.
The fishworkers’ trade unions and associations are organizations which were constituted in the 1940s. Presently, they are going through critical times, as far as organization is concerned. In some cases, the fishworkers who comprise them have lost the spirit of assertion which motivated them. In others, the ‘old ones’ are just not there any more.

Presently, the fishworkers’ co-operatives are the ones surviving, but they too are facing a crisis. According to the archives of the Directorate General of Co-operatives, there are 144 fishworkers’ co-operatives which exist legally in the country. The fishworkers’ organizations comprise mainly men, since women hardly participate in the chores of fishing as such. It would be important for them to have some space through an exclusive programme with an integrated and multi-disciplinary project which would take into account the various roles played by them.

FENACOPEC
The National Federation of Fishworkers’ Co-operatives of Ecuador (FENACOPEC) was constituted as an integrating organization of fishworkers at the national level, aimed at concerted action. Founded by 20 fishworkers’ co-operatives of five coastal provinces of Ecuador, today, 65 organizations are affiliated to it. It was legalised on 6 May 1988 which was when its statutes were approved with the Ministerial Agreement No. 000785. It was registered in the Register of the National Directorate of Co-operatives with the No. 4504 on 5 July 1988. This was published in the Official Register No. 043 on 11 October 1988.

FENACOPEC has carried out massive mobilisations in the short period of its legal existence, in which it has made
significant gains projecting itself as the spokesman of its class. It questions the present Fishing Law, as well as the present policy of the government and aims at concerted action to change these.

**Challenges**

In face of the scourge of hunger which is killing us, the fishworkers in Ecuador are initiating changes, accepting the challenges thrown at them and trying to achieve sufficient stability which would avoid the speculations which associations today confront. It is necessary to have a militant organization of solidarity that participates in state institutions and fights for changes in laws which govern the development of fishworkers.

It is necessary that new leaders be thrown up to mobilize and organize concerted action in decision making and organizational development.

Given the situation described above, we are aware that the main challenge will be to take up training and formal and informal education.

Some of the outstanding programmes of the traditional fishworkers’ associations are: presentation of a plan to the present government, proposing an adequate policy with clear rules for concrete action, and substantial support to sustained productive development, characterised by an administration which would allow real management of work and of the biological reserve aimed at conservation of resources and the well-being of fishworkers through specific programmes.
Our country, occupying the southernmost cone of America, characterized by natural catastrophes, is isolated from neighbouring countries, in the north by an extensive desert and in the south by a zone with permanent rain, and a narrow pass which joins two oceans.

Our geography is dominated by a mountain range of eternal snows and a huge ocean which bathes our coasts. These elements have left a characteristic imprint on those who live in these domains, particularly on us, fishworkers, who live in close proximity with nature.

The Chilean has got accustomed to imposing himself and struggling against adversities. So, it is natural for him to confront problems and find solutions to challenges that are thrown up, until his objectives are fulfilled.

The killing of more than 3,000 saltpetre workers in 1907 during protests for better work conditions was the starting point for the workers to understand that the only way of defending their rights is through organization.

The fishermen of Chile have had, from the start of this century itself, a series of organizations which have given us the strength to face the quotidian problems of our work. In the organization, we find the necessary space to make our solidarity a reality and find solutions to our problems.

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The organization also extended to fishworkers, who started forming unions since 1928 in several communities all through the country.

The production work of small-scale traditional fishworker is carried about mainly in small groups linked to a particular geographical space. The need to manage this space in conformity with the common interests of fishworkers gave rise, in a natural way, to fishworkers’ organizations.

Thus, the early organizational development of this social sector, the extent and type of organization that the fishworkers have adopted as also the strength which the movement has had, have been strongly determined by the historical-national context.

The organizations kept growing till the need to group into a more representative national organization was felt. This took shape in the form of the National Federation of Chilean Fishworkers (FENAPACH), founded in 1938, with the objective of the unification of small-scale fishworkers.

This federation, in accordance with the scheme of the time, engaged itself in a sectarian struggle since it only accepted fishermen as its affiliates and was also very dependent on the political party in power.

In 1970, the state’s participation in the small-scale sector increased considerably through financing, training, technical and administrative assistance and this occasioned a growth of fishworkers’ movement having found a space in which their demands could be heard. But this continued only up to 1973.
With the political breakdown of 1973, the role of the state changed radically, with the military government starting a new model of neo-liberal development, based on private property and initiative as the pillar of economic functioning. In 1984, during the military regime, an effervescence could be felt in the fishworkers’ sector to organize itself, recuperate the lost time and space won and thus unitedly face the policy imposed by the military.

In this way, the fishworkers also contributed to the search for a road to re-win democracy.

The slogan of our struggle was “No to the entry of foreign fleets in our waters”, since such entry was allowed, thanks to agreements made by big capitalists supported by the military regime.

The task was not easy, as the pressure exercised by the dictatorship against the working class was strong. But, as good Chileans and dedicated sea-workers, we continued to gain space through numerous sacrifices, following the example of our previous leaders.

When the dictatorship was overthrown, our national confederation already had 10 regional organizations. Now, in 1994, it comprises 17 federations, with 70 per cent of the 60,000 fishworkers existing in our country.

There has been a massive organizational growth, as once our organization was on its feet, we visualized the need for training in order to face problems and live up to the role that awaited us in our country. Thus, we found the way to resolve this shortcoming, given that a leader without the
capacity to know and demand his rights can do precious little to ensure the movement’s growth.

To that end, the confederation created its own technical organization, CEDIPAC—the Centre for Education, Development and Research for Small-scale Fishing in Chile—which was designed to respond to the needs of the confederation. For this, for the first time, in 1988, leaders from all over met for a 15-day workshop to make a study, design an action strategy and determine training needs, etc.

Training courses for leaders were initiated, including courses such as public speaking, transfer of technology, trade-unionism etc. They utilized a direct methodology of work among fishworkers in which “the fishworker teaches and develops better understanding of the other fishworker.”

This was the starting point of the personal development of the leaders of our national movement. The objective was to prepare a leadership which later, working amongst its mass base, would have the expected multiplying effect, teaching the cadre what they themselves were taught. The result would be measured in time as a function of the quality of the national organization. And the quality of our organization, we believe, has been more than demonstrated with time.

Clarity was needed in the sector on the need to organize and train for the defence of the source of our work. These initiatives took the shape of a gigantic wave which shook and woke up the fishworkers of our coasts. Thus, many local organizations were born which grouped into federations and later affiliated themselves to the confederation, realising that ‘Unity is Strength’. With the training received,
We realized the enormity of the challenge that faced us and the responsibility that awaited us once the military regime was overthrown and the transition to democracy began.

Then, we faced another problem which was the growing appetite of several persons to dictate terms without having gone through the phases of commitment, since at that time our organization was quite solid and the dictatorial hand did not exist any more. Many vested interests also crept in, threatening to divide the organization and make it serve sectarian political ends. But we have successfully dealt with these human weaknesses and the confederation continues to gain space, guiding the national movement of fishworkers of Chile.

Despite the fact that in our country there does not exist a national policy for fishworkers as such and the problems that we must face are numerous, our confederation was able to place and propose a developmental policy to the transitional government, a policy in which no political party dominates but only the development of social, cultural and technological aspects.

To achieve these objectives, some of us have had to pay a very high price. Practically all our time is dedicated to the organization, forsaking, at times, even our own economic well-being and worse, our families also, as the time demanded by the organization is too much, if it has to be able to lead the movement fruitfully.

Our contribution as small-scale fishworkers to the national economy in terms of foreign exchange earned is 40 per cent of the total. This gives us the moral authority to demand
participation in decision-making given, moreover, the fact that we are the principal supplier of fish products for domestic consumption.

The Chilean fishworker, while he does have problems similar to those faced by fishworkers in the rest of the world, has understood that through organized activity and cadretraining, he can successfully face the future. This, we know, will not be easy, keeping in view the social and politico-economic changes that are taking place in the world.

Despite being at one extreme of the world, we are certainly not unaware of the dominant outlook today. Our natural wealth is eyed by many, the big transnationals—especially today—know how to reach our reserves, while fishing resources are overexploited all over the world and our coasts still possess something.

This is not the time to lament, but to know how to confront this monster of the free-market economy, where immediate profit is the dominant motive, whatever be the social costs and where such tremendous pressure is being exercised on the resources by developed countries that many times they end up breaking apart the economy of weaker nations.

When we fish workers of the entire world and of our country understand that we are the masters of this great sea wealth which the supreme provider gives us and when we know how to obtain benefit through it and, on the other hand, also learn to respect it and ensure that others also respect it and not overexploit it, only then will we be talking of justice, equality and the participation of our organizations in the decision-making of the government that be. Only then will
a major part of our problems be resolved. For this, cadre training should be a permanent feature. Our organizations are carrying out training courses in different areas according to the necessity of the community or federation.

The market for our products has grown enormously, specially in developed countries of the North. Between the US, Europe and Japan, we have a big population nearing a thousand million of persons who have high incomes and exercise a strong pressure on our economies.

The policies of the social economics of the market have had bad effects on the stability of our resources. The same has happened to other countries like ours which have massive external debts.

Therefore, often, greater pressure on fishing resources is accepted and exercised as one form of reducing the said debt. In this way, our raw material is given away without adding any value to it. So there is no relation between the volumes captured and foreign exchange earned in return.

This could be resolved if the government had the will to create conditions for adding value to our catch. Then we could be talking in terms of efficiency, lesser catch and more money. This is precisely how the confederation has taken up part of this task, having started commercial undertakings within the guild.

This is where training has played a fundamental role, firstly because these commercial undertakings are the property of the organizations, whereby we have to take utmost care that the social sense of the leadership heading these undertak-
ings be not lost. On the other hand, we have to play along with the ways of the ruling economy.

In this way, even in a free-market economy, if we are the ones who can manage the model, we will have to give a human touch that this cold, calculating model needs.

We are also aware that the sea is a source of wealth but it is not inexhaustible, so we have slowly turned into cultivators of our sea. We have understood that this is the only way to sustain our activity on a long-term basis, for we do not want bread for today and hunger for tomorrow.

The areas of management or marine farms are a fruit of our struggles in the new regulations. We have obtained a belt of five miles exclusively for small-scale traditional fishing. This means a big commitment for us, as we must cultivate and exploit efficiently these five miles.

Finance is another serious problem. Our aspirations remain only half fulfilled if we do not have the necessary finances to take up all the activities which we have proposed. For this, we have found some space with the banks, our national organization being the guarantor. In this way, fishworkers can avail adequate credit to improve their fishing skills, on the one hand, and, on the other hand, specific financing has been worked out through CEDIPAC for several development projects.

These are the general lines along which the confederation has been working. There is still a lot to be done and without the participation of all fishworkers in one national organization, this will not be possible.
I feel honoured to be present here together with Mercy Alexander, representing the struggles of the fish workers of India. I also acknowledge with great pleasure the fact that the existence of the artisanal workers, their struggles and contribution to the national economies of the southern countries have received some attention internationally, as a result of what evolved from the first meeting held in Rome in 1984. This conference, being held now on the 10th anniversary of the Rome Conference, is significant in many ways, as there seems to be a growing need for international solidarity and support for the survival of the artisanal fishworkers.

India, with its 7,517 km. of coast line and innumerable rivers, lakes, lagoons, reservoirs and ponds, has one of the largest population of fishworkers in the world. The total population of fisherpeople is over seven million, with one-third depending on marine fishing and the remaining two-thirds on fishing in a variety of inland water bodies. From time immemorial, we have been the defenders and protectors of the coastal territories of India from all external threats.

Generally, we are great hunters, capable of catching huge sharks from the deep sea, and hence we are used to living a very risky life. Despite having had greater importance in ancient times, the fishing communities are generally very poor and have low social status and very little clout. They have been relegated to the status of low castes in the medieval period.

Still, the community enjoyed a certain autonomy and dignity in the past. While menfolk largely concentrated on fish
harvesting, the women undertook a number of land-based occupations like net-making, fish curing and fish vending. Merchants, middlemen and moneylenders have been, for long, the bane of this community.

From the time of independence in 1947, India has attempted to modernize its economy rapidly, inspired by the technological prowess of the West. Ignoring the skills and potentials of the large number of traditional fisherpeople, the government promoted Western technologies like bottom-trawling and purse-seining for the large-scale harvest of fish.

These new mechanized boats often operated close to the shore in competition with the traditional fishworkers for both space and resource. In many parts of India, this led to a drastic fall of catches of the traditional fishworkers and, in some parts, even to the depletion of certain fish resources. The plight of the inland fishworkers as a result of four decades of development is probably worse.

Only, the problem is not so much a result of government intervention in fishery itself, but more the result of development projects meant for other sectors. Deforestation due to industrialization and other encroachments, construction of huge dams like Burgi, Sardar Sarovar, pollution of water, siltation, and reclamation—all these have drastically reduced fish availability and the livelihood of inland fisherpeople.

In several parts, many of the inland fishworkers have already quit the profession and opted out for some other means of earning a livelihood. Some recent trends in the
fisheries development of the country include the great push given to aquaculture and deep-sea fishing through joint ventures.

These will not only further displace a large number of traditional fisherpeople from our centuries-old water bodies, but also cause irreparable damage to other water wealth and fishery resources.

These threats to our very livelihood have forced the fishworkers to forge new linkages and organize themselves. The growth of the All Goa Fishworkers Union, the Kerala Independent Fishworkers Federation, the Tamil Nadu Fishworkers Union, Kalinga Fishermen’s Union and the West Bengal Fishworkers’ Forum are the result of such trends.

Through a long chain of hunger strikes, sit-in rallies, picketing national highways, railway lines, airports and government offices, blocking harbours etc, the fisherpeople were able to obtain marine fishing regulations in most of the coastal states in India.

Through ongoing struggles, the fisherpeople forced the governments to bring about zonal regulations for the mechanized boats, a ban on night trawling and purse-seining, etc. But these are not strictly implemented. So the struggle continues.

The southern Indian state of Kerala, like all other states, had no jurisdiction to legislate beyond 22 km. from the shore line. But, very recently, a favourable verdict was won in the Supreme Court of India.
This states that Kerala can restrict and regulate fishing vessels which go beyond the 22 km. limit, in order to protect the interests of the small fishworkers.

Women have played an important role in all the fishworker struggles. In addition to marching shoulder-to-shoulder with men on the issues of trawling, fish depletion, displacement, etc., they have also conducted a number of separate struggles to safeguard their own livelihood. There have been a number of gains for fisherwomen. They have succeeded in stopping the Bombay Municipal Corporation from taking over the big fish market in Bombay.

The struggles of the fisherwomen in West Bengal and Kanyakumari against their displacement from net-making as a result of imported net-making machines, need special mention. In West Bengal, they have bypassed male merchants in the production of hand-made nets. Net weavers in Kerala have been able to convince the fishermen to go back to using hand-made nets to enable women to find some income.

Agitations by fisherwomen forced the state government of Kerala to run special buses for fish vendors, while the Tamil Nadu state government allowed them the use of public transport to carry fish. Now, the fisherwomen have separate wagons in the passenger trains from Trivandrum to Quilon. Thus, the struggles of the fisherpeople have been widespread and extensive, involving both men and women.

There have been some other gains on the part of fishworkers in India. We have succeeded in ousting a large corporate company belonging to the house of Tatas from the Chilka
lake, one of the largest lagoons in Asia, which it wanted to convert into a semi-intensive aquaculture farm.

But all these successes are insignificant in light of the new threats we are facing:

- the new deep-sea fisheries policy
- the new inland water bill in some states
- the growth of intensive shrimp farming

The new deep-sea fisheries policy has been created on the pretext that there are large stocks in the EEZ that are unexploited. India is now licensing joint ventures with foreign companies to exploit deep-sea resources. According to FAO data, there is a stock of about two million tonnes of fish available beyond the 50 m. depth.

Of these, only about half a million tonnes can be viably exploited. There are already 148 Indian deep-sea fishing vessels engaged in fishing for the last 20 years, of which only 20 are being profitably run. Yet, the government is still going ahead with 100 percent export-oriented joint ventures and has already issued 46 licences, without even enacting a deep-sea fishing regulation act.

These 46 licences involve an investment of Rs. 8,500 million. Of these 46, we have detailed information about 17 units only. These 17 licensees are permitted to operate a deep-sea fishing fleet of 101 vessels, including 24 stern-trawlers, 12 purse-seiners and three factory trawlers.

A licence has been issued recently to a big Mexican company to operate six huge purse-seiners. The government has set a target of licensing 2,600 deep-sea fishing vessels, all
of which will be 100 per cent export-oriented. From our own experience, we have been seeing the utter failure of 148 Indian deep-sea vessels, most of which have already been discarded or docked.

A government report shows that the contribution of these 148 vessels towards the total marine fish production has been very nominal and very negligible (only one per cent). This performance is mainly owing to the limited availability of commercially viable fish species in our EEZ. Although these 148 vessels were meant for fishing in the deep sea, i.e. beyond 50 m. depth, they have always encroached on the shallow inshore waters and there have been innumerable incidents of destruction of nets and gears of the traditional fishworkers.

Also, there were frequent clashes at sea. On several occasions, the artisanal fishworkers even received bullet injuries from these deep-sea vessels. But the offenders could not be punished in any case due to the absence of proper legislative and administrative mechanisms. It is very important to note here that the amount of fish caught by these deep-sea vessels, as shown in the government reports, almost tally with the fall in the catch of the traditional people of the upper east coast of India—where these vessels are mainly engaged—during the corresponding period. In these circumstances, the government’s illogical determination to issue licences to 2,600 deep-sea fishing vessels is a grave threat to the existence of our marine fisheries and to the survival of traditional fisherpeople.

The National Fishworkers Forum (NFF) has been opposing these joint ventures right from the beginning. In our
endeavour to stop them, we have won the unequivocal support of all the traditional fishworkers, the small-scale mechanised sector, inland fishworkers and fish traders. On 4 February 1994, we organized a successful all-India fisheries strike the first ever in the history of Indian fisheries. Our demands are to:

i. scrap these anti-fisherpeople and resource-destroying deep-sea fishing policy

ii. diversify existing small-scale sector with proper governmental assistance to exploit the deep-sea stocks, and

iii. announce a comprehensive deep-sea fisheries policy with adequate provisions for the conservation of fish resources and the employment of traditional fisherpeople.

Although the government of India has not yet shown any positive sign of rethinking over this disputed fishing policy, the fisheries strike has generated an enormous enthusiasm among the fishworkers and a great deal of awareness among the masses.

The NFF has resolved to go on with the strike and in this effort we have decided to observe 20 July 1994 as ‘Black Day’ and to begin an indefinite fisheries strike all over India from 23 November 1994.

Friends, this is a trying situation for us. We are faced with a demon which is about to kill us. In this moment of great crisis, I, on behalf of millions and millions of fishworkers of
India, and in the name of all the toiling masses of the world, request you to kindly extend your wholehearted support to our struggle and to work out a methodology in your own ways and means to give a push to our efforts to survive by opposing the coming of foreign fishing vessels to Indian waters.

The proposed inland water bill of Kerala state is an area of concern. If the bill is passed at one stroke, it will nullify the customary fishing rights and make the state the sole proprietor of inland waters. This will threaten the livelihood of thousands of subsistence fishworkers and even make them culpable of offence if they pursue their traditional profession.

The rapid entry of private business into export-oriented semi-intensive and intensive aquaculture in many of the coastal states brings along with it a horde of problems, namely, destruction of the soil, degradation of the ecology, displacement of traditional fishworkers and agricultural workers, destruction of forests and many fish species, all ultimately leading to serious damage to natural fish resources.

Fisheries being a subject handled by the state governments, most fishworkers’ organizations in India are at local or state levels. But there is always a need to forge a national alliance since many problems have common origins. The National Fishworkers’ Forum represents the interests of these local movements in India.

In 1989, the NFF organized the ‘Kanyakumari March’ through the entire coastline of India on the theme ‘Protect Waters,
Protect Life’, with a view to creating greater awareness on the environmental problems as well as to forge greater unity among the fishworkers. While uniting all movements of fishworkers at home is essential, it is, we feel, equally essential to see our problems in a much larger context of struggles by other dispossessed and oppressed groups elsewhere.

This larger link-up of all the dispossessed is essential to counteract the process by which the powerful groups in society direct development efforts for their own benefits and destroy both the environment and the livelihoods of large sections of the population.

From the documents of the ICSF conference in Bangkok in 1990, we notice the stress laid on ‘nurture fishery’ to achieve sustainable development, which we too stand for.

If the ICSF is genuinely committed to this, I feel that we, the fishworkers’ organizations, can demand a more concrete commitment from the ICSF in order to support our struggles to:

- highlight and lobby against the ill effects of joint ventures in countries like India
- initiate a consumer awareness campaign against consumption of shrimp grown by environmentally destructive means and processed using female labour in highly exploitative conditions
• stress the importance of safeguarding traditional use rights in fisheries

• collect and disseminate data and information from other fisheries of the world on the effect of such high-tech deep-sea fishing techniques

Before concluding, let me communicate to you once again the greetings of my colleagues from the NFF and express again our desire to see that this conference helps us to arrive at a clear understanding of the world fisheries scenario and thereby assist us to draw some clear lines of action for the future.

It is an article of faith with us that the traditional fishworkers have a birth right to the waters which give them a livelihood. Hence, the ICSF should continue to ensure that it does all it can to support us in our struggles to preserve this right and to protect our divinely designed sacred fishery resource from trespassers.
Allow me to express on behalf of FAO, our appreciation for the invitation to this Conference of the International Collective in Support of Fish Workers. FAO attaches great importance to the activities of the work and the relationship with the non-governmental sector as shown through a long history of cooperation.

FAO was the first of the UN organizations to open its doors to NGOs through the establishment of the Freedom from Hunger Campaign in 1959. Most recently, at its last Session in November 1993, the FAO Conference affirmed that “NGOs should be treated as development agents in their own right, not as alternative deliverers of aid programmes”, and that “cooperation with NGOs should extend throughout the range of the Organization’s technical activities”.

Regarding the fishery sector, since the convening of the FAO World Conference on Fisheries Management and Development in Rome in 1984, there have been many initiatives for closer collaboration with NGOs particularly in view of the necessity to promote the sustainable and responsible development of fisheries.

Throughout the ages, fisheries have contributed to feeding the world population and have been the mainstay of human settlements in coastal areas. At present, fisheries and aquaculture contribute some 70 million tons to world food supply for direct human consumption. This may not be a large quantity compared to other types of food products, but its importance is directly related to the high nutritional value of fish as well as to its role in rural communities and to the populations involved in the sector. Fish continues to provide more than 20 percent of the animal protein supply. In
addition, some 30 million tons of fish are used as animal feed in the form of fishmeal, at raw fish prices which are indeed lower than those for any other animal protein.

There are an estimated 12.5 million fishermen in the world, who with their dependents comprise some 50 million people directly dependent on fishing for their livelihood. A further 150 million are involved in the shore-based auxiliary industries which services the fleets, processes the fish, supports infrastructure requirements and marketing facilities. There are, therefore, about 200 million people associated with fisheries, a fact which underlines its socio-economic importance.

The fisheries sector has specific characteristics according to geographic, climatic and bioecological conditions, as well as to socio-economic development. It is essentially a hunting activity despite the rapid development of aquaculture; and this activity is conducted in a closely defined space allocation system. The resources and the ecosystem characteristics lead to a high level of uncertainty regarding the functioning of the system including the level of the impacts on it and their degree of reversibility. This calls for cautious management and development strategies supported by multidisciplinary research and a wide consultation with users linked to the decision-making process.

The new regime concerning the resources of the world’s oceans, as embodied in the United Nations Convention on the Law of the Sea of 1982 and in the actions and practices of States particularly since the mid-1970s, has resulted in global acceptance of the coastal States’ authority to manage fisheries within their jurisdiction. This authority create
new opportunities and responsibilities for coastal States and brought needs of adjustments to countries operating distant-water fleets.

The Strategy for Fisheries Management and Development adopted at the FAO World Conference on Fisheries Management and Development in 1984 with a view to implementing the new regime of the sea is still valid but needs updating and strengthening in some of its provisions particularly in order to take into account the increasing concern regarding:

- The impact of environmental degradation (including climate change) on fisheries and aquaculture,
- The incorporation of fisheries in the integrated management of coastal areas,
- The need for more responsible approaches to high seas and EEZs fisheries management and development practices,
- The need to ensure access to all consumers of fish and fisheries products to achieve food security and fish product quality,
- The need for more and improved applied fishery research.

There is thus a great need for governments to review their individual and collective strategies and policies concerning fisheries management and development. In this period of change, the challenge is to provide a new and improved
basis for the rational management and utilization of world fisheries resources with due regard to the requirements of the new fisheries regime and the need to preserve the productivity of the aquatic systems for future generations. The new fisheries regime, moreover, should enhance the opportunities for fisheries to play a greater role in world food supplies, thereby helping to alleviate under nutrition and contribute to world food security.

Fisheries development should contribute to an improvement in the socio-economic conditions and the uplifting of the poorest sections of the population. In this respect, the reassessment of strategies and policies for fisheries management and development must take full account of the present and potential contributions from marine fisheries, both within and outside exclusive economic zones, as well as from inland water fisheries and aquaculture. Furthermore, the essential factors for production—such as fishing boats, equipment, gear and technology, skilled personnel and research capability—should be considered. Finally, particular attention must be given to the degradation of the fisheries resources’ environment through the impact of land-based sources of pollution and through illegal fishing practices.

The authority of the coastal State over its fisheries resources which, for the most part, were previously accessible to all but are now within the exclusive economic zone, is a necessary but not a sufficient condition for the rational management and optimum use of the resources. Problems remain in exercising that authority which calls for improved management competence. Management systems must encompass all users of the resources, including both domestic
fisheries and other types of uses and, where permitted, foreign vessels. In addition, management difficulties may continue to be experienced with those stocks occurring within the exclusive economic zones of two or more coastal States or both within exclusive economic zones and in the areas beyond and adjacent; or highly migratory species; or inland water species that at different times come under the jurisdiction of more than one country. There is thus a need for continued and, in some cases, strengthened collaboration between all users of the fisheries resources and between countries towards improved practices.

Large fishing fleets, most of them subsidized, have seriously depleted once abundant commercially valuable species in the North Atlantic and North Pacific and in the South East Atlantic FAO records confirm that most of the world’s major fisheries resources are overexploited.

The latest figures for marine fishing showed the catch for 1992 as being 82.5 million tons, well below the 1989 peak of 86.5 million tons.

Unless industrial fishing fleets are controlled through national and international regulation, FAO warns that disastrous social and economic consequences await the entire industry, including food shortages in the coastal communities of developing countries where seafood provides the major source of protein and employment.

The distribution of the world catch and fish consumption has become increasingly unbalanced. According to FAO, 19 countries land 80 percent of the marine catch, while 15 countries consume about 80 percent of it. In value terms, 46
percent of fish traded internationally comes from developing countries.

Under existing open-access or non controlled effort conditions fishermen are involved in a competitive race to maintain their individual share of dwindling fish stocks. Overfishing leads to threatened stock reproduction and to the progressive loss of high valued long-lived species (cod, haddock, grouper, snapper) and its substitution in a number of areas by small, short-lived species with a generally low unit value.

This trend could be reversed if there is a change in the way marine fishing is managed including reduction in fleets, combined with aquaculture and related techniques to rehabilitate environment and stocks. FAO is urging a precautionary approach to fisheries management which would abandon the current approach aimed at the highest possible catch irrespective of its composition and value. In this context, the FAO Committee on Fisheries (COFI, 1991) called for an international understanding for responsible fisheries and the elaboration of a Code of Practice.

In May 1992, the International Conference on Responsible Fishing, organized by the Government of Mexico in collaboration with FAO, adopted the “Declaration of Cancun”, which defined the concept of responsible fishing in terms of “the sustainable utilization of fisheries resources in harmony with the environment; the use of capture and aquaculture practices which are not harmful to ecosystems, resources or their quality; the incorporation of added value to such products through transformation processes meeting the required sanitary standards, the conduct of
commercial practices so as to provide consumers access to good quality products”.

The Cancun Declaration called on FAO to draft an International Code of Conduct on Responsible Fishing, in consultation with relevant international organizations. The Declaration was brought to the attention of UNCED (Rio de Janeiro, June 1992) and it was submitted for consideration in November 1992 by the 102nd Session of the FAO Council, which recommended that resources be allocated for its preparation.

The Code will promote the compatibility between the activities and economic interests of all those involved in fisheries, through enlightened fishermen and ecological principles of conservation, ensuring that the resources and the development opportunities they represent are transferred intact to future generations of fishermen. The Code will have separate chapters on Fishing Operations, Fishery Management Practices, Fair Trade Practices, Aquaculture Development, Integration of Fisheries into Coastal Area Management and Fishery Research. Each of these thematic chapters will include references to legal instruments, internationally agreed standards, technical guidelines and codes of practice.

In March 1993 the FAO Committee on Fisheries indicated that the active participation of non-governmental organizations, governments and experts should be sought during the preparation of the Code. The expectation is that the kind of positive synergy which has characterized FAO/NGO cooperation in areas such as controlling pesticide use and defending farmers’ rights regarding plant genetic resources,
can be extended to the equally delicate and complex realm of the sea.

As a first step, a draft of the “General Principles” which provide the overall framework for the Code has been circulated for comment to a number of NGOs as well as to FAO Member Governments and relevant inter-governmental organizations.

An FAO/NGO informal consultation took place in New York on 29 March 1994 in occasion of the Third Session of the UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks. This meeting gave NGOs an opportunity to air their concerns, seek additional information and clarify channels of communication with FAO. FAO representatives explained the difficulties the Secretariat was facing due to the tight time schedule given to FAO to prepare the draft of the Code, the complexities of preparing all the chapters of the Code simultaneously, the delicate nature of some aspects of the negotiation, and the scarcity of resources to organize consultations of all interested parties.

Nonetheless, FAO promised to involve NGOs by sending them documents for comment and inviting them to attend meetings. At present, FAO is still receiving comments on the Draft General Principles which are being incorporated into a new revised draft.

It was also considered that advantage could be taken of NGO organized meetings related to fisheries, at which FAO staff could serve as resource persons. FAO is grateful for having the opportunity to be here in this important forum to share with you the information and how FAO is dealing with the
preparation of this Code which concerns all those involved in the fisheries sector as a means to achieve sustainable and responsible fisheries.

Furthermore, FAO has sought NGO assistance in circulating information through their networks, since the Organization cannot reach all interested NGOs directly, and in maintaining a balance among organizations representing various interests — environmentalists, artisanal fishermen, fisheries workers, marketing and consumer groups— and between developing and industrialized countries.

The Secretariat is now preparing the Thematic Chapters of the Code and the Introductory Section. A consultation between FAO and NGOs, to be held at the August 1994 session of the UN Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks in New York, will provide an opportunity to bring NGOs up to date on progress in the preparation.

In response to a proposal by the Director-General, the FAO Council has recently approved the convening of an *ad hoc* Technical Consultation from 26 September to 5 October 1994 to review the first draft of the six thematic chapters of the Code and seek further guidance for the further finalization of the Code. Interested NGOs will be invited to this Consultation.

The draft of the entire Code will be presented to the Twenty-first Session of the FAO Committee on Fisheries (COFI) in March 1995, and the FAO Conference in November 1995. It is the intention of FAO that further consultation with NGOs should be held prior to the COFI Session.
The increasing sophistication in the technology to harvest, process, store and transport fish and fish products coupled with rising global demand and the expanding scope of international markets has been a driving force behind fisheries development, both public and private sectors over the past several decades.

Transnational corporations and multilateral development banks have been active in the restructuring of national economies toward market driven, export oriented production. The banks have been successful in shaping this process through pressure on developing countries to service debt on previous loans. This has had a significant impact on southern countries, particularly with respect to natural “resource” exploitation such as fisheries, forestry and agriculture.

The general movement toward free trade and a global market economy is reflected in the recently concluded “Uruguay Round” of GATT negotiations. The likely result of the GATT agreement and the World Trade Organization (soon to be established) will be a reduction in barriers for fisheries products in international markets. The agreement will also likely entail the reduction or access to fisheries (e.g. by transnational corporations), through joint venture and other arrangements, in southern countries waters.

At the political level there is a growing interest in the issue of fisheries from an environmental, social, cultural and economic point of view. Likewise, fisheries are increasingly recognized as an essential element of global food security. Non-governmental organizations (NGOs) from a wide variety of backgrounds have begun to take a more active role in
fisheries issues and this, in turn, has stimulated interest on the part of the international media and press.

Three key developments at the political level over the last several years of interest to fishworkers and NGOs generally are the United Nations Conference on Environment and Development (UNCED—the 1992 Earth Summit), the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks and the FAO Code of Conduct for Responsible Fishing. These are discussed below.

**UNCED Agenda 21**
Agenda 21 is the program of action for sustainable development agreed by all governments which participated in the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil, in June of 1992. Taken as a whole, Agenda 21 is widely recognised to be deficient in many important respects. However, the fisheries provisions of Agenda 21 (Chapter 17, Sections C and D), though fairly general, are arguably the most progressive global fisheries ‘agreement’ negotiated to date.

Chapter 17 of Agenda 21 outlines a program of action for the protection of the oceans and sustainable fisheries. In the Sections of Chapter 17 related to fisheries on the high seas (Section C, 17.46) and in areas under national jurisdiction (Section D, 17.75) governments have agreed to “commit themselves” to the following objectives:

- enhance efforts to use fish to meet human nutritional needs
- promote selective fishing gear and practices and minimize waste and bycatch
• protect and restore endangered species
• preserve habitats

In paragraph 17.75 (b) governments have, in addition to the above, “committed themselves” to taking into account traditional knowledge and the interests of local communities, small-scale and artisanal fisheries and indigenous peoples in fisheries management and development.

These commitments are further elaborated and reinforced in the remaining paragraphs of Sections C and D of Chapter 17. Of particular interest to fishworkers and NGOs are the paragraphs in Section D concerning fisheries within areas of national jurisdiction, inter alia:

Areas under national jurisdiction—Financial, scientific, and technical support for developing countries (17.77, 17.96), the development and availability of environmentally sound technology and criteria for selective fishing (17.79 f, 17.85, 17, 88 c, 17.93 a,b), environmental impact assessments (17.79 f), the use of fish as food to meet nutritional needs (17.79 b,e,g, 17.88 b), traditional knowledge and fisheries management practices (17.82 c, 17.93 c, 17.95 b), international cooperation in the collection and exchange of data concerning fisheries, biodiversity, habitat and human impacts on the marine environment (17.87, 17.93 e), the protection of biodiversity and marine habitat (17.86), the rights and special interests of small-scale and artisanal, indigenous, coastal and women fishworkers (17.79 b, 17.82 b, 17.94 b) and their effective representation in national and international fora (17.82 a, 17.83,17.94 b).
The United Nations Commission for Sustainable Development (CSD) has been established for the purpose of monitoring and reviewing the implementation of the 1992 Earth Summit agreement - Agenda 21. The CSD will review the implementation of the Oceans Chapter (17) in 1996 and Agenda 21 as a whole in 1997. The CSD will review the implementation of Agenda 21 by governments as well as Agencies and organizations such as the UN Food and Agriculture Organization.

How effective this review will be and the extent to which the CSD has the authority to impose changes remains to be seen. However, it is possible that the CSD will be able to exert at least some pressure on the FAO and other organizations (such as UNDP) within the UN system. The CSD may also be in a position to critique or otherwise impact the outcome of the United Nations Conference on fisheries, currently under way.

The United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks (UN Fish Conference)
The United Nations has convened a global Conference on fisheries as a result of an agreement reached by governments at UNCED. The Conference has been convened to address the relative rights and responsibilities of nations regarding the international management of fish stocks which straddle or migrate across the boundaries between national and international waters.

The first “substantive” session of the Conference took place at UN headquarters in New York in July 1993. A second session took place in March of 1994 and a third session is scheduled for August 1994. It appears likely (though not
yet certain) that the Conference will continue into 1995. The Conference is important because it involves further negotiating and elaborating upon certain provisions of the United Nations Convention on the Law of the Sea (UNCLOS) and, as such, may result in an internationally legally binding agreement.

A number of NGOs, including organizations representing fishworkers, have been actively monitoring the negotiations and have attended the Conference as observers. In July of 1993, an NGO Statement was jointly presented to the Conference by the International Collective in Support of Fishworkers (ICSF) and Greenpeace International.

The NGO Statement calls on governments to negotiate and agree to a series of recommendations and reforms pertaining to such fundamental issues as fisheries conservation, the protection of the marine environment and the rights of small-scale fishworkers. The Statement has been endorsed by some 130 organizations worldwide.

Governments have been reluctant to address many of the key reforms advocated by NGOs. It has been clear from the beginning that the UN Fish Conference will remain technically limited to the issue of the conservation and management of straddling and highly migratory fish stocks and that most governments have made every effort to restrict the scope of the Conference to the issue of fishing on the high seas only. Nevertheless, many NGOs have viewed the Conference as an opportunity to establish precedents in international law for the conservation and management of fisheries generally, wherever they may occur, whether inside areas of national jurisdiction or on the high seas.
With the conclusion of the second session in March, it has become clear to many of the NGOs actively monitoring the negotiations that the Conference will largely fail to adequately address these issues.

The Conference may conclude with an agreement which will ultimately result in some improvement in the management of high seas fisheries and fisheries on straddling and highly migratory fish stocks within EEZs.

But such basic issues as excess fleet capacity, overcapitalization, the widespread use of destructive fishing technology, fleet migration from northern to southern waters, fish as an issue of global food security, the rights of fishworkers and the protection of the marine and coastal environments have been addressed superficially at best and in most cases altogether ignored.

Nevertheless, it is important that fishworker and other NGOs continue to exert pressure on governments, at the national and international levels, to adopt the strongest positions possible. The negotiations at the UN Fish Conference appear to be evolving toward concluding a global treaty for the management of straddling and highly migratory stock fisheries.

In addition, the United Nations Convention on the Law of the Sea will enter into force in November of 1994 and the outcome of the UN Fish Conference will likely guide the interpretation and implementation of the fisheries provisions of UNCLOS generally, not solely those provisions which deal specifically with straddling and highly migratory fish stocks.
The FAO Code of Conduct for Responsible Fisheries
The United Nations Food and Agriculture Organizations (FAO) is currently drafting an International Code of Conduct for Responsible Fishing. The Code will be a central focus of the FAO’s political work on fisheries over the next two years.

It has become apparent that the FAO Code of Conduct will assume an important role with respect to the outcome of the UN negotiations. A number of governments have stated that technical aspects of the issues associated with the UN Fish Conference should be elaborated or developed through the Code. In other words the Code should be the means by which to negotiate and set guidelines for the (technical) implementation of political or legal agreements arising from the UN Conference.

The extent to which the UN Conference and the drafting of the Code will be complementary, parallel or competing processes remains unclear. Some governments see the FAO as more amenable to their political interests than the UN process. Conversely, some governments see the UN Conference as a means to check, guide or inform the drafting of some of the components of the Code.

The Code of Conduct however has a much broader mandate than the UN Conference. Furthermore, the drafting of the Code will continue through 1995, at least, and possibly into 1996. Although the FAO obviously will work closely with governments in the drafting of the Code, the final decision and approval with respect to the content of the Code resides, to a large extent, with the FAO itself.
The FAO is the most influential UN institution on fisheries issues. The FAO plays a central role in a number of important negotiations and processes at the international level in addition to the UN Fish Conference including the implementation of the Oceans Chapter of the Earth Summit “Agenda 21”, the Fisheries Development Donor Consultations (involving the World Bank and other multi-lateral development banks, bi-lateral aid agencies, the UNDP and other international agencies), regional fisheries management organizations as well as numerous fisheries development projects worldwide at the national and regional levels.

The FAO has, over the last few years, increasingly recognised and acknowledged the nature and enormity of problems in world fisheries. Nevertheless, past FAO policies and practices have made a major contribution to these problems. The drafting of the FAO Code represents a potential opportunity to effect a shift in FAO policies on fisheries and the role of the FAO with respect to other institutions and international negotiating processes.

In the spirit of UNCED, several NGOs have been pressuring the FAO to open up the drafting of the Code to NGO consultation and participation. At the March 1993 meeting of the FAO Committee on Fisheries (COFI) Greenpeace led a successful effort to convince governments to mandate the FAO to “seek the active participation” of NGOs in the preparation of the Code.

In spite of the COFI mandate, the FAO made little or no effort to consult with NGOs in the drafting of the Code thus far. At the March 1994 session of the UN Fish Conference, NGOs held
a meeting with Dr Krone, the Director of the FAO Fisheries Department, to air concerns. The FAO was presented with a list of the three demands summarized below:

- The FAO provide information on a regular and timely basis to all interested for analysis and comment;
- interested NGOs be afforded the opportunity to attend any “expert consultations” associated with drafting the Code;
- the FAO agree to two NGO/FAO consultations—one in New York in August concerning NGO input into the process and a second later in the year to conduct an NGO review of the draft content of the Code;

The FAO (Dr Krone) responded as follows:
- FAO is willing to provide information on a regular basis and upon request to any interested NGO concerning the content and timeliness for the drafting of the Code.
- FAO is not willing to open up expert consultations to the participation of NGOs other than those international NGOs with consultative status with FAO.
- the FAO agreed to the two NGO consultations including a proposal that the FAO assist with funding NGO participation at one or both meetings.

As stated earlier, while the FAO will be primarily responsible for the drafting of the Code, it must be recognized that this process involves extensive inter-governmental consultation with the FAO and NGOs will need to monitoring the performance of governments, as well as the FAO, in drafting of the Code.
In a paper prepared in July 1993 the FAO states that the Code, as requested by the FAO Council, will draw primarily from the Cancun Declaration, the 1992 Earth Summit Agenda 21, the FAO Technical Consultation on High Seas Fishing and the Strategy of the FAO World Conference on the Development and Management of Fisheries (1984). In addition the Code will take into consideration the outcome of the UN Fish Conference.

The Code will contain an overall set of general principles and be divided into six “thematic” areas. Each of the six “thematic” areas or Chapters of the Code will contain an introductory set of principles specific to the section followed by technical guidelines for their implementation. Following is a description of the six chapters of the Code:

- **Fisheries management practices**: This section will include guidelines on fishing effort, sustainability, precautionary approach, ‘restoration’ and ‘proper maintenance’ of ecosystems, biodiversity, waste, data collection, monitoring, control and surveillance of fishing operations, traditional knowledge, and small-scale fisheries.

- **Fishing operations**: Will include guidelines for the marking of fishing vessels and gear, and will reference or incorporate relevant provisions of marine pollution and fishing vessel safety conventions (e.g. MARPOL, the Torremolinos Convention).

**Fair trade practices**
This section will draw on the Cancun Declaration, GATT and the Codex Alimentarius. This section of the Code will be an
attempt to set guidelines for the international trade in fisheries products particularly, though not exclusively, as it relates to environmental protection.

**Aquaculture**
This section will include guidelines on species introduction and environmental management. With respect to shrimp aquaculture this section will address mangrove and wetlands protection. The FAO will be jointly developing these guidelines with the World Bank.

**Integration of coastal fisheries to coastal management**
The FAO is working with UNEP and the World Bank on policy guidelines for integrated coastal area management as agreed in Agenda 21. FAO is also preparing guidelines on the integration of agriculture, forestry and fisheries management in coastal areas. The emphasis will be on drafting policy and legislative guidelines for use at the national level and will address a broad range of issues related to coastal fisheries including biodiversity, marine habitat, social and economic relationships in coastal fishing communities, consultation and participation. This section will incorporate Code guidelines on aquaculture.

**Fisheries research**
Guidelines for data collection and research on fish, the environment and the industry. Based on information obtained from meeting with the FAO in New York, the FAO will attempt to finalize the General Principles and at least Chapters A-C above by the end of 1995. This will entail final drafts of these sections by the end of this year followed by formal consultation with all FAO member governments at the meeting of the FAO Committee of Fisheries in early 1995.
The Code would then go to the FAO Council and finally the FAO Conference in late 1995 for formal adoption.

The Code will be drafted and adopted by the FAO as a “voluntary” set of guidelines. However, once adopted the Code or parts thereof, may very well become more than simply voluntary. For example, the Code initially included a section related to the responsibilities of States with respect to vessels flying their flags and fishing on the high seas.

As a result of widespread government interest, the FAO accelerated the negotiation of this section and in November of 1993 concluded a FAO flagging Convention (technically titled: Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Seas). This convention will enter into force with 25 ratifications.

The fact that the World Bank is involved in drafting the Chapter pertaining to integrated coastal zone management suggests that, once adopted, this portion of the Code could be attached as a conditionality to World Bank Structural Adjustment Loans. In other words, developing countries could be required to incorporate this section of the Code into national legislation in institutions. Likewise, the Chapter of the Code pertaining to fair trade practices could eventually be adopted by GATT as a mandatory set of rules for the international trade in fisheries products. And various sections of the Code may well serve to guide the implementation of the UN Conference agreement, UNCLOS as it enters into force, and measures adopted by regional fisheries treaty organizations.
World Bank
The World Bank in conjunction with the European Commission, FAO, UNDP and more recently, CIDA (Canada) and NORAD (Norway) has been hosting an ongoing series of Fisheries Development Donor Consultations. One of the aims of these consultations is to attempt to harmonize policies and criteria for fisheries lending and aid amongst major bilateral and multilateral lending and aid institutions.

It is difficult to overestimate the extent of the influence of the World Bank, the International Monetary Fund and the regional development banks, such as the Asian Development Bank, over the economies of developing countries. These institutions are generally dedicated to the promotion of international trade, the restructuring of national economies toward export oriented ownership of production and natural resource exploitation, and paving the way for direct foreign investment and ownership (e.g. transnational corporate) in the economies of developing countries. In spite of the enormous impact on the lives of peoples directly affected by their policies, these institutions have largely operated with little or no public scrutiny or accountability.

As with GATT and the World Trade Organization, it is imperative that the multilateral development banks and aid agencies be opened to public scrutiny, accountability and pressure to change. It is important for organizations of fishworkers to realize and be informed of the role of these organizations in shaping national fisheries development policies, and to work with other NGOs toward holding these organizations publicly accountable for their practices.
Conclusion
There are a number of other treaties and political developments of direct relevance to fishworkers. Amongst these are the Biodiversity Convention, the United Nations Social Development Summit (scheduled to take place in Copenhagen in March 1995), the London Convention (governing the disposal of wastes at sea), the Global Climate Change Convention, and the Convention on the International Trade in Endangered Species.

As mentioned in the introduction, non-governmental organizations have become increasingly interested in fisheries issues. The extent of NGO interest is reflected in two NGO documents negotiated over the last two years — the NGO Fisheries Treaty negotiated in Rio de Janeiro in 1992 during the Earth Summit and the NGO Statement presented to the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks in July of 1993. The NGO Statement reaffirmed the principles contained in the fisheries treaty and included recommendations specific to key issues before the Conference. Both documents assert the fundamental obligation to conserve fish stocks and other marine species, protect the marine and coastal environments from pollution and other forms of degradation, and traditional, indigenous and women fishworkers.

The success of the NGO Treaty in shaping the NGO Statement to the UN Fish Conference is an indication of its value in facilitating the coordination of NGO positions, resolutions, and participation in international political processes. As such, both the Treaty and the NGO Statement can continue to serve as a framework and reference point for NGO efforts at the global level in developing ‘alternative’ NGO
approaches and coalition efforts in a variety of relevant national and international fora. Aside from the political benefits to be derived from these documents and the associated NGO networking, the Treaty and the Statement represent important achievements for fishworkers in terms of gathering support from other NGOs in the efforts of fishworkers’ organizations to conserve fisheries, protect the environment and gain recognition for the rights and interests of fishworkers.

In terms of the UN Fish Conference, the FAO Code of Conduct and other relevant negotiations and political developments, the challenge to fishworker and other organizations is to influence these processes in such a way as to make them directly relevant to work at the local, regional and national level. If, for example, the UN Fish Conference results in a legally binding agreement that would require, among other measurers, that States establish exclusive zones for artisanal fisheries then fishworkers’ organizations would have a powerful tool for pressuring for local and national legislation for establishing such zones.

Concerted action by NGOs, both northern and southern, can be a very effective means by which to promote and hope-fully accomplish the types of reforms of benefit to fisheries conservation, fishworkers and the environment. In greenpeace’s view, fundamental reforms in fisheries management and marine environmental protection are essential to the long term health of fisheries and the oceans. In this regard, Greenpeace hopes to continue to develop working relationships with fishworker organizations and other NGOs to the mutual benefit of all of those working on fisheries and oceans issues.
H. L. Morales presented a paper entitled “The Impact of Coastal Management on the Lives and Work of the World’s Fishermen”. In his paper, he distinguishes between three main sources of degradation of coastal areas:

- activities directly causing pollution
- the tendency of modern civilisation to upset traditional ways of managing resources
- climatic changes caused by natural phenomena

Under the second heading, Morales includes (i) increasing pressure on fish resources due to rising international demand; (ii) industrialisation of fishing methods; (iii) development of tourism, industrial and military activities on the coast or interior valleys.

Given the high levels of resource degradation, conflicts on the sea between traditional and modern fleets, social, economic and cultural destructuring of fishermen communities that follow from the above forces, fishermen have been led to organise themselves in order to stop these processes (examples given from Chile, South India). One of the demands of these organisations is that they be consulted whenever decisions are taken about activities that have an effect on their marine environment and livelihood. Such a demand has been actually met in Norway and in the North Atlantic regarding oil-related activities.

Numerous interventions supported the analysis of H. L. Morales. It was however pointed out that fishermen themselves can have ambiguous attitudes vis-a-vis conservation of their resources, as exemplified by their resistance against establishing marine sanctuaries as protected areas.
In his paper, Michael Belliveau draws a short history of the Maritime Fishermen’s Union (MFU) of Canada. An important moment of this history happened when the MFU collaborated with the government to help the lobster fishery develop through local enforcement of conservation measures. The position of the MFU and its members got further strengthened when the industrial seiners left the place after the collapse of the herring fishery which subsequently recovered. This situation contrasts with that of Newfoundland where the collapse of the cod fishery caused a disaster among fully specialised industrial operators and their crew.

An important lesson from the postwar Canadian experience is that the government failed to manage the fisheries effectively whereas fishermen organizations achieved some significant measure of success, partly because of the multi-species nature of their fishery. Recognizing this, the government approach is now increasingly to delegate to a professional fisherman organisation the task of holding the licenses and the quotas and, thereby, to co-manage the fishery.

M Belliveau describes in detail the sociological evolution of the MFU and its gradual transformation into a “kind of property organization that seeks to entrench fishermen in a professional status with powers to control entry and impose standards”. This process is a cause of worry insofar as it follows a “corporatist” line rather than a genuine union approach.

In the debate that ensued, several speakers mentioned the fact that fishermen organisations in their country are not
empowered to co-manage their resources. M Belliveau referred to a phenomenon known as the “Northern oscillation” which caused a cooling down of the Canadian seas in the early eighties and led to a significant decline of stock levels. Therefore, he argued, the quotas set on the basis of earlier production levels were not appropriate any more. Hence the difficulty of fixing quotas when the ecology of the resource is not fully known.

Jean Vacher then presented a communication about “Working Conditions and Social Security of Fishworkers”. Based on the observation of difficult working conditions for crewmen on long-distance vessels and the lack of social security provided to them, the need for a formal regulation of these working conditions by FAO/IMO is stressed. Unfortunately, this regulation has not been enforced so far due to non ratification by the requisite number of countries. Moreover, no provision has been contemplated regarding boats of less than 24 metres.

Some participants expressed their disappointment that the paper focused only on fishworkers on long-distance vessels while artisanal fishworkers and workers in fish processing factories were left out of the picture. A participant from Spain then highlighted the fact that even in her country social security provisions for workers on industrial vessels still leave much to be desired.

A paper on “Technology and Energy Use in Fisheries”, by Brian O’Riordan was the next on the list. In this paper, he emphasises the need to take the ecological impact of fishing techniques into account while assessing their comparative efficiency. In addition to the ecological dimension of any
technological choice, attention ought to be paid to quality-of-life and safety considerations: to be acceptable, a fishing technique thus has to be both “human friendly” and “nature friendly”. His whole argument is to show that traditional techniques meet these two criteria to a much larger extent than modern ones.

Industrial fisheries tend actually to be ecologically, economically and socially unsustainable. Recent developments in artisanal technology have advantages as well as shortcomings that need to be weighed carefully while deciding upon how to orient such technical progress. Regarding aquaculture, Brian O’Riordan draws the same contrast between modern and traditional practices (in Asia).

A lot of interventions followed. A number of them pointed out that:

- The distinction between “traditional” and “modern” fishing techniques becomes increasingly blurred (some artisanal techniques can be quite high-tech)

- Also gender relations and social relations of production are bound to evolve as technical change occurs. A discussion then took place about the possibility of using less intensive methods in aquaculture. The shortcomings of the intensive practices followed in the Scotland’s salmon fishery (where pesticides banned in agriculture are used) have been brought to light.
The last presentation was by Aliou Sail about “Transnational Linkages in Fisheries”. Five issues were raised by this presentation:

- international fishing agreements
- international cooperation
- international trade
- maritime cultural links
- international support networks

The first issue arises mainly with respect to the West African coast and involves questions about the risk of overfishing and competition with artisanal fishermen following the entry of European vessels into local waters. The second issue covers co-management of resources, solidarity links with fishermen groups in other countries, etc. The third issue concerns the effects of trade liberalisation (through GATT) and structural adjustment while the fourth one raises the possibility of exchanges of experiences between different countries regarding important aspects of the fishworkers’ lives. Finally, the fifth issue points to the need to build up international support networks for the purpose of lobbying on important problems for the fishworkers.

A participant from Indonesia mentioned the existence of a “debt-swap” mechanism set for the repayment of the Indonesian external debt.

A participant from Vietnam deplored the fact that small lobsters are being exported from his country to Japan, thus endangering the future of this resource. Whether integration of Mexico into NAFTA is going to affect fishworkers’ situation and, if yes, in which direction, was a last question raised in this debate.
In this working group, participants were asked to share local and national experiences of fishworkers dealing with, and proposing strategies for coastal environmental protection.

It should be noted that experiences dealing with environmental issues and strategies for coping with them will vary from country to country, as there are different levels of freedom of speech and action in the various countries. Thus, one specific strategy may not necessarily be relevant in all countries.

Within the limitations of working across different language groups and the short time available, a number of experiences and proposals were put forward.

The following examples of threats to coastal environment which affect fishworker communities came out of the discussion:

- Trawling and other destructive catch-all techniques
- Deforestation, heavy commercial deforestation and illegal logging
- Destruction of mangroves
- Intensive aquaculture
- Building of tourist facilities
- Industrial installations
- Piers and harbours
- Irrigation projects
- Dykes and coastal defences
- Coastal roads and highways
- Industrial pollution
Mining and mining pollution
Power station construction (pollution, danger and displacement)
Construction of dams
Poor or non-existent warning of cyclones
Dynamite and cyanide fishing
Effects of natural disasters like volcanic eruptions
Declining catches due to overfishing
Fish diseases in inland water bodies due to pollution
Effects of deep-sea fishing on coastal resources
Establishment of Military zones/Naval Bases

All of these, in one way or another, may displace fishing communities, affect fishworkers’ access to resources and/or damage the resources themselves.

Impacts are felt by women, especially in marketing and processing, and also increasing problems in drinking water and sanitation. Catches have also been reduced. Either way, it results in loss of jobs, security, income and livelihood.

The following are some examples of where fishworkers have taken actions to safeguard their coastal environment.

In Chile, fishermen through CONAPACH succeeded in having the government establish a law of fishing and aquaculture which prohibits operations of foreign fleets. In Peru, Chile, Ecuador and Argentina, fishermen have publicly demonstrated against access of the long-range fleets of the
European Economic Community, principally under Spanish flag.

CONAPACH, through its regional federations has denounced before the Supreme Court of Chile the state mining company responsible for contamination of wide coastal zones. It has succeeded in having the Congress of its country declare the Bay of Talcahuano as a zone of ecological catastrophe.

In Brasil, MONAPE, the national movement of fishworkers, has developed national campaigns against the destruction of extensive zones of the Amazon and the emission of waste waters in the bays which have destroyed the zones of traditional fishing by artisanal fisherfolk. Brazilian artisanal fisherfolk have developed major national campaigns in recent years working to influence public opinion, both nationally and internationally, in defense of the environment and to prevent the expulsion of traditional fishing communities.

Peruvian fishermen have denounced the fishmeal and fishoil industry for polluting the sea with more than 10 millior tonnes of fish in the form of waste waters during the last 5 years as a consequence of using technologies of the 1960s.

The National Network of Riverine Fishermen of Mexico has denounced its government for the following environmental destruction:

- in Petacalco in the state of Guerrero where the wetlands have been destroyed as a consequence of the installation of an electric power plant
in Michoacan as a consequence of the industrial wastes in the zone of Lazaro Cardenas
- in Tabasco by discharges from the state oil company Pemex.

Mexican fishermen from Puerto Marquez, members of the National Network have mobilized against the Tourism Project of Punta Diamante which has destroyed the bivalve fisheries.

In Kerala, India, the catches of small-scale artisanal fishworkers have been reduced by years of destructive inshore trawling for prawn by the mechanised sector. This has had a double effect on women fishworkers. They have less local catches to market and are forced to make arduous journeys to trawler landing ports.

But there, they are at a great disadvantage since catches are larger and they are marginalised by the big merchants who have greater buying power. The fishworkers’ union campaigned for almost a decade and succeeded in getting a ban on trawling during the critical months of June, July and August. Now the mechanised sector begin to realise themselves that this ban is beneficial to the fishery.

This is just one example of the trawling menace, but almost all participants cited trawling as a major threat to their coastal environment.

Other areas where fishworkers and especially women have been particularly effective is the campaigning for compensation to inland fishworkers when the inland fishery was devastated by fish disease.
In 1989, the National Fishworkers Forum and environmental groups mobilised an all India campaign with the slogan “Protect Waters-Protect Life” to raise awareness in all communities on the value of both inland and marine water resources. They marched down both coasts of India meeting at the southern point demanding that the government respond to their demands for action on a variety of issues concerning water users; for example displacement and danger from dams, power stations, pollution, military bases, overfishing, etc.

India’s seas are now being threatened by the government offering some 2,600 licenses for deep-sea joint venture fishing operations. Even if these vessels stayed in the deep sea, there is great threat to marine resources, but as there is no mechanism to ensure that they stay in the deep sea, the coastal environment is also severely threatened. The mechanised and small-scale sector fishworkers are uniting to oppose this threat and demanding that the government withdraw all licenses issued so far and that no new licenses be issued.

In Bangladesh, one of the greatest threats to the coastal environment, to fishworkers and their families is the cyclone. The maritime warning system is poorly suited to the fishing communities, so they have been experimenting with a simpler, three-symbol code to give a better warning to the communities. Their problems during cyclones are worsened by the effects of deforestation in the inland and upland areas.

In Papua New Guinea, huge logging operations and giant trans-national mining operations were cited as amongst the
most serious factors affecting the coastal environment in addition to trawling.

In Papua New Guinea, some 6,000 landowners (which includes fishworkers) have mobilized to force the mining company to build a tailings dam to control the pollution flowing downriver. They are claiming through the Courts some $3 billion in compensation for damages and displacement, and are prepared if necessary to build the dam themselves from these funds.

In Philippines, in 1982, fishworkers mobilised to force a geothermal power plant that was causing land, sea and air pollution, to install pollution control measures. Eleven years later, in 1993, the plant was finally fitted with pollution control devices. It is noted here that all these struggles take a long time and therefore require great commitment and organization.

Around Laguna lake, fishworkers are being displaced as the area is planned for fresh water for irrigation and domestic supply and increasing industrialization around the Lake. This is yet another example of the battle between fishworkers and aggressive capitalism.

Fishworkers are also empowered to apprehend vessels fishing with prohibited gear, but the problem they face is that the legal system permits the craft to be released for a small fine and therefore works against the small fishworkers.

In Indonesia, they operate a system called sasi, which is a system of customary law handed down from generation to generation and based on traditional wisdom. With this
system, the community, through the village council on which each extended family has representative, decides on the times and levels of harvesting of specific resources such as coconuts, timber, fruits and also pearls, conch, sea cucumber and other fish species. The communities are also taking action to prevent the destruction of coral reefs and mangroves.

The traditional community have “sea tenure” rights on the coastal waters off their villages but these are increasingly violated by fishing companies.

**Strategies**

Fishworkers organizations have developed different types of actions aimed at protecting the environmental and natural resources which are the bases of their livelihood. These different forms cover a wide range of actions from street demonstrations to participation in government forums on environmental conservation.

In view of the diversity of actions and experiences it is recommended that:

- There should be education and awareness campaigns both among fishworkers and in the wider community about the long-term effects of environmental degradation on coastal areas.

- In any form of action for environmental protection there is a need for community mobilization in which fishworkers take environmental conservation as their own struggle.
Fishworkers must take leadership in these actions from the beginning, and also seek cooperation with other social and environmental groups that follow similar strategies.

It is important to explore legal solutions and seek assistance from lawyers and technical people.

In general terms, fishworkers’ organizations must exhaust all legal means before going to direct actions and more radical forms of social pressure.

Fishworker communities should engage in alternative programs, such as replanting mangroves, building artificial reefs, developing community management of gear-use and enforcing closed seasons.

Fishworkers’ organizations should be technically and legally prepared in order to request adequate compensation for damages caused to their environment and/or natural resources.

Public campaigns organized by fishworkers’ organizations may also seek international support from organizations such as ICSF and other international institutions.

Fishworkers’ organizations must develop a “nurture” perspective towards the care and protection of the coastal environment, taking particular note of the strong role that women play in this work.
Recommendations to ICSF

- ICSF facilitate more networking between fishworker organizations.

- ICSF to lobby and provide international advocacy for action on issues affecting fish workers

- ICSF to document examples of successful coastal environment management and share with fishworker organizations globally.

- To learn from and communicate destructive fishing practices that have been used in various parts of the world; eg intensive aquaculture, and to share these with fishworkers organizations globally to prevent similar misconceptions and practices.

- ICSF to facilitate the formation of an international network of fishworkers’ national organizations which could operate as a sister operation to ICSF.

- ICSF to campaign against the use of destructive gear anywhere, whoever uses them.

- ICSF continue and strengthen its Women in Fishery (WIF) Programs.
The participants of this workshop were from Senegal, Togo, Mauritius, Canada, France, Madagascar. They represented artisanal fish workers’ organizations. Due to the fact that there were no processing workers in the working group, the perspective of their organizations/unions was not presented.

Importance of the role of Fishworkers’ Organizations
For developing countries the main advantage is the negotiating power that they acquire through their organization when they confront the government and fish buyers. Mass Strikes have achieved successes, as much in the establishing of prices for the sale of fish as in the negotiating for the purchase of inputs.

These successes and the negotiating power they have achieved have given the organizations a respect in negotiating with governments around fishing issues. In certain cases governments have delegated to fishworkers’ organizations the management of material donations and of international aid. More and more they are being consulted by government. They have been able to request necessary research for the improvement of the fishery and the marketing of the product.

Another important point is the creation of mutual help funds which give some material security to the fishers and ensure some financial autonomy.

It is important to distinguish between two types of organization Some organizations are of a cooperative type (community based) which permits the collective purchase of materials and a collective marketing of fish. Other
organizations are more lobbying groups (unions) whose work is to develop policy and to negotiate.

It is very important that the fishworkers’ organizations take responsibility for the management of their resource. They must acquire a good biological knowledge of the fishery in order to transmit it to the research organizations and ensure that the governments take the necessary management measures to conserve the resource.

The fishworkers’ organizations must promote a reflection on environmental issues, establish policies, be in contact with environmental movements. If not, measure for marine protection will be imposed on them.

Problems of Fishworkers’ Organizations

The fishworkers’ organizations both north and south have a number of common problems but also some different concerns.

In Africa and also in other countries of the South there exists a long tradition of control of community organizations by the State. The main mechanism of this control is the continual flow of “gifts” generally obtained through international aid and which are administered by the Fishery departments. Fishers are accustomed to the advantages of receiving various types of equipment and in return they are expected to participate in structures that are effectively controlled by the State and are driven by political motives. As a result the fishworkers find themselves in positions of dependency and now they have a hard time to adjust to the present economic situation which has put an end to gift giving. The external help is necessary but it has led to certain
dependence. A whole of process of education is required which will allow fishworkers to develop autonomous organizations to become aware of their own strengths.

In the North there is a failure of fishworkers’ organizations to defend the interests of their members. In France the fisherworkers’ organizations have not been able to analyse and adapt to the changes brought about by the EEC. A lack of a perspective has ended in the destruction of the fishery and also of the fishworkers organizations which has resulted in revolts from the more violent sectors.

Another example cited was the failure in Canada of the fishworkers’ organizations to contend with the loss of the cod stocks. They have not been able to prevent the crises as they were too late in imposing measures to save the resource. In other parts of the North they have been faced with a lack of support from the base. One of the problems which threatens all organizations over time is the bureaucracy which brings division between leadership and the members. This phenomenon affects the great majority of the fishworkers’ organizations in France.

Most of the organizations (unions, cooperatives, local fishworkers’ committees) are administrative structures where the role of the members is limited. This phenomenon is reinforced by the nature of fishing that maintains the fishers at sea for as much as 15 days. One of the ways to limit this problem could be to strengthen the role of the fishworkers’ wives in the organization. In the past women were participating in the management of the boat. The putting into place of management groups displaced them of their role. On the occasion of the last strike of fishworkers
in France, the fishworkers’ wives reclaimed some of this work with the approval of the men. Women can play an important role in the mobilisation and accountability of the leadership of the fishworkers’ organizations.

All fishworkers’ organizations are facing a financial problem which is linked very often to their problem of being autonomous from their funders and creates problems in mobilising their members.

The personal contributions and community support funds, and credit unions do not cause the same problem. However the collection of dues in the union sense is difficult everywhere.

The fishworkers organizations could finance themselves by doing consultant work through government contracts. They can take advantage of the direct access to the knowledge of the fishers on fisheries issues.

However there exists a risk that such contracts are very time consuming for staff people and prevents them from doing organizational work and defending the interests of the members.

The role of women in the fishery has been little discussed. They are practically absent in the harvesting sector and mostly involved in the processing where they work under very difficult conditions for extremely low salaries and rarely have the chance to unionise. It was emphasised the often divergent interests of the fishers and the processing workers. The fishworkers’ organizations must work to develop a solidarity between different sectors in the fishery
Regional Networks
All fishworkers organizations feel the necessity to form regional networks so that different organizations can focus their energy on negotiations on fisheries agreements. This is especially felt by the West African fishworkers but also in Europe.

Recommendations to the ICSF
- That the ICSF supports the creation of regional networks particularly in West Africa, Europe and Latin America.
- That the ICSF monitors aid projects in the fishery that too often interfere in the autonomy of fishworkers’ organizations.
- That the ICSF monitors the implementation of development projects. Too often in the same communities different development organizations (eg, World Bank) bring different development agendas that brings about the destabilisation of the organizations and destroys their autonomy.
In Latin America, fishworkers’ organizations reflect the diversity of politics, workers’ movements, pastoral movements and the history of organizing in each of the countries in the region.

In some countries, fishermens’ organizations were formed as a result of leftist political activities.

In others, these were formed along religious lines in response to global changes or environmental considerations.

Fishworkers have evolved, however, towards greater autonomy, working specifically on the conservation and management of resources, the defence of the environment and the work and livelihood of fishworkers.

These organizations have recognized the need for training and education to better facilitate their work.

We recommend that ICSF provides support for training and capacity building, including the role of women.

Fishworker organizations are stronger if their leaders and staff are themselves fishworkers.

Fishworkers benefit from assistance from other organizations but they must maintain their autonomy and must be clear in their objectives and goals.
The Group had delegates from Philippines, Japan, India, Solomon Islands, Canada, Netherlands and Germany with fishworker representations from the first four countries. The discussion was quite loosely structured, but post facto the topics discussed could be identified as the following:

- Sharing on Fishworkers Organizations represented and their basic concerns
- Organizational issues like financing organization and activities
- Forms of struggles to achieve goals
- Expectations from ICSF.

The following briefly summarises the points discussed under each topic.

**Sharing on Organizations represented**

*Philippines*

Three national organizations KAMMPI, BIGKISLAKAS & PAMALAKAYA and one local organization from Northern Cebu were present. Despite differences on approach and style all the fishworkers organizations were associations aimed at protecting the marine wealth from foreign exploitation and to enable the Filipino fishworkers to gain control over the fish resources. All were involved in getting a new Fisheries Code and Community Resource Management Bill passed in the Senate and Congress. While the Senate has approved the Fisheries Code, the Congress is still uninterested in the issue while the Resource Management Bill is yet
to be taken up by either house. All the fishworkers organizations are part of a coalition called NACFAR to lobby for the Code and Bill. In addition to lobbying for the new legislation which will supercede the hated PD 704 of Marcos, the organizations were also involved in some programmes for members and have had some successes locally in cooperation with some local governments to patrol the sea to protect the 7 mile limit in the sea from encroachment by big vessels.

India
The National Fishworkers’ Forum (NFF) and the South Indian Federation of Fishermen Societies (SIFFS) were represented in the Group. The NFF is a Trade Union of fishworkers with 11 state level trade unions from 9 states affiliated to it. Basically a category of fishworkers (marine, inland, fish vendors, net makers, fish processing labour, etc.) could be members in the NFF and it is open to taking up issues concerned with all of them. But basically is an artisanal fishworkers’ union with its member unions struggling against coastal mechanised vessels (mainly trawlers) of Indian ownership which encroached the areas resource for traditional fishermen.

The primary concern of the NFF is the protection of marine environment and fish resources for the benefit of the artisanal fishermen and undertakes various struggles towards this objective. The all India Fisheries strike on 4th February organised against the promotion of Joint Ventures in Deep Sea Fishing by the government of India is an example in this case. The NFF also organises training and education programmes for the union leaders to strengthen their activities.
SIFFS is the apex body of a large network of fishermen cooperatives in South India. The activities of the network include fish marketing, bank loans, savings, new technology development, boat building, outboard motor servicing etc. The 6,000 fishermen of SIFFS sold fish worth US $4.5 million through 69 village co-operatives in 1993-94.

**Japan**
The Japanese representatives were pole and line fishermen from a co-operative in Chiba prefecture, which was responsible for resource management.

Their main concerns were the decline in the skipjack stocks as well as of ‘round-haul seine’ operations and the occasional poaching in their ‘control area’ by boats from other prefectures. They are trying to have a dialogue with cooperatives in neighbouring prefectures to sort out the poaching problems.

**Solomon Islands**
The woman fishworker present was from a union in fish processing plant and she shared information of the attempt of their union in improving the welfare of their members.

**Netherlands**
Though no fishworker was present Netherlands, the ICSF member from there described the activities of the Netherlands Association of Fishermen which took up problems of the members like welfare and security measures. The association also runs an insurance scheme for its members. One of the problems is the growing conflict of interests between members who own smaller and larger vessels. Despite this they have preferred to stay together.
Financing strategies for fishworker organizations
Basically the discussion centred around the financing methods of the Indian fishworker trade unions and the Filipino fishworker associations. The NFF explained that trade unions in India were not allowed to receive foreign grants or do business for profit. They had to largely depend on contributions from fishworkers.

But the NFF and its member unions could get only limited contribution as monthly subscription from members and therefore could afford only a skeleton office run by parttimers and volunteers.

For expenses during various struggles, collections would be made from fishworkers, supporters, the general public. Charity shows and ticket sales were done at time to raise funds. For training and educational activities, staff of sympathetic NGOs would often provide assistance.

The Filipino association also had member subscriptions as a source and also received help from NGOs. It was generally felt that the fishworkers organizations had great difficulty in expanding the activities due to financial difficulties.

Form of struggles
Given that the demand of fishworkers for conservation of resources and protection of small-scale fishworkers were quite similar in India and Philippines it was interesting to discuss the form of struggle are obviously determined by
the kind of political system and ethos prevailing in each country. Yet it was felt that it would be worth sharing the strategies and methodologies. The Philippine groups explained that the most common method used by them was lobbying with the bureaucracy and top politicians. This approach has been successful in getting the Fisheries Code passed in the Senate.

But it has not had any effect on the Congress where a large number of Congressmen have stakes in illegal fishing and the privatisation of natural resources. The fishworker organizations are quite frustrated at the slow pace of progress of their struggle. The Indian representatives shared their approach which was largely based on mobilising large numbers of fishworkers for massive public demonstrations, picket of Government offices, courting arrest, etc.

In addition, direct action is taken at sea capturing trawlers that violate the laws and holding them captive till negotiations are done with the artisanal fishworkers. Legal methods of going to court seeking redress is also being done.

The Filipino representatives responded to this saying that they also have rallies and demonstrations but the Filipino politicians do not like such ‘pressure’ tactics and it is the gentler lobbying methods that are more acceptable in the Philippines.

The Indian comment was that it was a pity that the large membership of the fishworker organizations could not be taken advantage of in such a situation. Some Filipino example of direct action like occupying abandoned ponds by the fishworkers were also mentioned.
Suggestions to ICSF
The following suggestions emerged from the discussion

- more fishermen exchanges need to be organised between countries. For example, it would help if Filipino fishworkers can visit fishworkers of countries like Japan and Taiwan with whom the Philippines has fishing agreements.
- ICSF needs to conduct in-depth studies in countries where fishworker movements need greater information to be effective. In particular, Philippines fishworkers request help in obtaining the current fishery statistics of the Philippines as they have access to information only till 1982.
- ICSF should organise international solidarity when fishermen struggles are taking place in a particular country.
- ICSF should lobby in international fora like FAO, ILO, UN in favour of fishworker struggles.
- Regional committees need to be set up to exchange information between fishworker organizations in particular regions and to take up common actions. For example Pacific area could take action on skip-jack stocks suggested the Japanese fishermen.
- Technical exchanges are also necessary. The Japanese fishermen felt that they could offer many interesting gear technologies which may entail only small improvements over traditional methods and yet produce good results.
The Group decided to discuss 3 main sectors: *Industrial - Production; Industrial - Processing; Artesanal - Production and Processing.*

**Main Issues Raised in the Industrial Production Sector**

Most of those working in fishing boats are men. As fishworkers, they suffer from:

**Lack of sea-worthiness and safety measures on the fishing boats** making the fishworkers more prone to accidents particularly during stormy weather.

For example, in Galicia, Spain, the fish boats have no safety devices like life boats. When the inspectors come, the boat owners have a means to warn the others and they lend each other the necessary safety gears. Thus no one is caught. We also heard about how grants for safety equipment are used for lengthening boats, making them even less seaworthy.

**No social security for fishworkers and their families** particularly for fishworkers on occasional contract or those hired through recruitment agencies in third world countries. For example, wives and families of those missing or have died at seas have to wait for ten years to get their compensation—if there is no body there is no payment. Fishworkers from such countries as the Philippines and Bangladesh who are hired by Taiwanese of Korean fishing boats, are not insured.

**No security of tenure for many fishworkers.** For example, fishworkers hired by foreign companies are often terminated before the end of their term based on some excuse or problem created by the owner. They end up in foreign soils
without any pay. Further, there are cases when owners of the boat change before the end of the fishworkers’ term and the new owners refuse to recognize the old crew members.

They are sent home without being paid. Because the vessel is under flag of convenience and in a foreign port, there is no legal framework to retain the vessel or pressure the owner to pay the fishworkers.

**Increasing trend in deep sea fishing is to use recruitment agency for hiring fishworkers to escape from paying benefits.** Neither the boat owner nor the recruitment agency claim any responsibility over the fishworkers. So, the fishworkers have no one to turn to for redress of any injustice or infraction of their rights.

**Indifference of the government to the plight of the fishworkers.** The governments will not act on its own to act on the demands of the fishworkers. Organized pressure have to be exerted by the fishworkers and their supporters to make the government take notice.

For example, in Galicia, although Spain is not a signatory of the Treaty of Torremolinos, Rosa Dos Ventos (an association of fishworkers’ wives), joined as an associate.

Rosa Dos Ventos also campaigned in the local community, made representation to the government, got 30,000 signatures, and attended the European Commission on Fishing, and then the Spanish government took some steps to provide protection to fishworkers at sea. Rosa Dos Ventos obtained helicopters, tugboats and speedboats for rescue operations (from the EEC).
**Conventions flouted:** International conventions exist, but they are flouted by fishing companies. Flags of Convenience are a widely used system for flouting international conventions and national laws.

**Recommendations**

- ICSF should campaign for the setting-up of National tripartite boards composed of boat owners, fishworkers’ unions and government in each country so that the demands of the workers in terms of better working conditions and social security could be heard and acted on. Also that the position of intermediaries and Contract Agents can be weakened, and responsibility properly assigned to the State and fishing company.

- ICSF should take a clear stand against deep-sea fishing because it is uneconomical, energy consuming and socially uncontrollable. Much capital and energy is needed for the venture and to profit, the lives of the fishworkers are risked. There is likewise a need to study the impact of deep-sea fishing linking the economic to the social and environmental cost. Economic costs that should be borne by the fishing company are externalised, and have to be borne by fishworkers (equipment is unsafe, boats are un-seaworthy, working conditions are sub human, and the environmental costs are high).

- ICSF lobby for the development of deep sea fishing act when national fisheries come under government control. This act should specify types of boats, minimum standards and kinds of conditions of
work among others. It should bring national fisheries under the control of the state, and provide fishworkers with recourse to law to settle grievances on conditions, compensation, and payment of salary.

- ICSF should raise awareness and campaign against Flags of Convenience. Pressure should be brought to bear on fishing companies who register under these, and the nations which provide Flags of Convenience services.

Main Issues Raised in the Industrial Processing Sector
In contrast, those involved in fish processing are women. Those working in processing plants are usually:

Paid low wages barely enough for the daily sustenance of their families. For example, workers in the Solomon Islands get about US$5 per day plus a fixed housing allowance and an attendance allowance which varies depending on the number of days worked by the women. Her salary is only enough to provide her family with one meal a day.

Lack of job security. In the government-owned processing plan in Fiji, only 20% of the workers are permanent. The rest are either temporary or contractual. Lay-offs are not unusual particularly if the reason given is low catch. And as in the example from Namibia, the 64 workers laid-off due to dwindling catch were not given any severance or separation pay. Those who do not belong to the union are also often tricked into signing “green pay passes” which permits the company to lay them off for a while in exchange for the promise that they will be called-back if the catch improves.
Long hours of work. Often depending on the volume of catch that have to be cleaned and processed. The money which they get for overtime is not enough compensation for the havoc wreaked on their health by their prolonged hours.

Bad working conditions that affect their health. For example, in Fiji and the Solomon Islands, long hours of standing-up have caused varicosity and numbness of feet among the women.

If in fish catching, the means used to circumvent legal requirements include the “flag of convenience” ploy and the use of recruitment agencies for hiring workers, the methods employed in the fish processing aspect are:

- the closure and transfer in another name of a company with labour problems to another part of the country or to another third world nation.

- the putting-out or sub-contracting system. In the later system, the company gives the work to another person for dividing among a group of women who finishes it at home. They are paid on a per piece basis.

An example is the shrimp/prawn beheading work given to women in some places in the Philippines and India. They remove the head of the shrimp/prawn and are paid only after they are able to reach a certain quota. The beheaded shrimp/prawn are shipped to other countries like Japan in cold storage. The shrimp/prawn beheaders are paid low wages; they have no rights or benefits under the law. And they do the work at home while taking care of the children.
and in-between household tasks. While the former is used as the threat of the company to keep the host country from enacting pro-worker laws or from letting the workers exercise their rights.

Recommendations

- That ICSF look into women’s employment and campaign for better working conditions in processing plants

- That ICSF initiate consumer campaigns in countries where products from the putting-out or subcontracting system are sold. Campaign should stress on the un-ecological and unsocial aspect of how the product was produced

- That a consumer awareness campaign on the conditions of women prawn peelers/headers be linked to actions on trawling that ICSF may take, for example, promotion of ‘eco- and human friendly’ prawns

Main Issues Raised in the Artisanal Sectors
The definition of what comprises the artisanal sector changes from country to country. In developed countries like, France and Canada, the artisanal fishworkers use big boats capable of going far to sea. While in third world like India, Mexico, Bangladesh and Senegal, artisanal fishworkers use small boats, with or without motor, and very simple gears.

Artisanal Fish Production
Artisanal fishworkers in third world countries live in extreme poverty. They fish in highly polluted and overfished
waters which provides low yields. Thus, their family is a state of constant want. They do not have access to health facilities and services nor to education. Many of them remain illiterate and thus easy prey to interests which often use their organization for partisan political ends. They have no insurance or social security. Thus their families are left to fend on their own when the husband dies or meets an accident. For example in Bangladesh, the wives of those lost at sea cannot claim compensation unless they present a body.

The artisanal fishworkers likewise meet unfair competition from big fishing fleets that use “efficient” gears. In Bangladesh, the artisanal fishworkers have the additional issue of constant cyclones which kill thousands of people and render many families homeless.

In Mexico, the problem are tourism projects that ease out the fishworker families. While in India and the Philippines, the big industrial and infrastructure projects are causing displacement of whole communities of artisanal fishworkers.

The issue of water rights was also raised by Bangladesh and India. In Bangladesh, this takes the form of the municipalities dividing the coastal areas into zones which, in turn, are leased out to private individuals. For the fishworkers, this means paying a lot of money just to fish elsewhere or to get their products to the market. In India, where the traditional practice of water rights have been eliminated, is seeing a resurrection of the practice but now as rights given to big companies and joint ventures. In both circumstances, the existence of these rights deprives the artisanal fishworkers of their access to their fishing grounds.
Recommendations

- That ICSF pressure ILO and FAO to provide information, and advice on social security, insurance and working conditions.

- That ICSF produce pamphlets for artisanal fishworkers explaining their rights, where they can go for help and how they can tap support. These should be made available to fishworker support organizations, fishworker leaders, groups providing support to fishworkers and the government.

- That ICSF lobby for a more understandable warning system for storms at sea for artisanal fishworkers. But also to raise international awareness about environmental changes that are causing more frequent storms, and their impact.

- That ICSF take up the issue of water rights where fishworkers have to pay tax to leaseholders of areas of rivers.

- That ICSF campaign for an insurance on boats and gears.

Artisanal Fish Processing

Women fish processing often have to work in polluted conditions, caused by waste from factories, sewage and waste water. This affects their health and the quality of their product. They are also vulnerable to tourism, industry and military projects that displace and force them to move elsewhere. They also lack space for work and storage facilities.
Recommendations: Industrial Extraction

- ICSF should campaign for the setting-up of National tripartite boards composed of boat owners, fishworkers’ unions and government in each country so that the demands of the workers in terms of better working conditions and social security could be heard and acted on.

Also that the position of intermediaries and Contract Agents can be weakened, and responsibility properly assigned to the State and fishing company.

- ICSF should take a clear stand against deep-sea fishing because it is uneconomical, energy consuming and socially uncontrollable. Much capital and energy is needed for the venture and to profit, the lives of the fishworkers are risked.

There is likewise a need to study the impact of deep-sea fishing linking the economic to the social and environmental cost.

Economic costs that should be borne by the fishing company are externalised, and have to be borne by fishworkers (equipment is unsafe, boats are unsea worthy, working conditions are sub human, and the environmental costs are high).

- ICSF should lobby for the development of deep sea fishing act when national fisheries come under government control.
This act should specify types of boats, minimum standards and kinds of conditions of work among others.

It should bring national fisheries under the control of the state, and provide fishworkers with recourse to law to settle grievances on conditions, compensation, payment of salary etc.

- ICSF should raise awareness and campaign against Flags of Convenience. Pressure should be brought to bear on fishing companies who register under these, and the nations which provide Flags of Convenience services.

**Recommendation: Industrial Processing Sector**

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- That ICSF initiate consumer campaigns in countries where products from the putting-out or subcontracting system are sold. Campaign should stress on the un-ecological and unsocial aspect of how the product was produced.

- That a consumer awareness campaign on the conditions of women prawn peelers/headers be linked to actions on trawling that ICSF may take, for example, promotion of ‘eco- and human friendly’ prawns.
Recommendations - Artisanal Sector

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- That ICSF take up the issue of water rights where fishworkers have to pay tax to leaseholders of areas of rivers

- That ICSF campaign for an insurance on boats and gears
There was a fairly wide ranging and unfocused discussion where each participant shared their concerns about technology and energy use. The issues raised, and the areas where a broad consensus was reached are summarised below:

- Small-scale fishworkers have little say in technology choice. Outside factors and interests beyond their control make certain options available. Fishworkers have certain needs to satisfy, and have to make their livings, so have to use whatever is available—they are often forced into making decisions they do not want to. Small-scale fishworkers have no say in how technology is developed, how then can they have any say in what is available?

- Consciousness must be raised about the implications of technology choice, and political space created to ensure that decision makers who favour capitalist interests do not dominate.

- Legal constraints may also limit technology choice. In some countries (e.g., India and Senegal) the government ban the use of radios at sea.

- Technology is not neutral, it can damage the environment, it can work against people and their development. Technology can reduce labour requirements, women can be marginalised by it, and it can damage the environment. It is important to establish criteria for technology and its development which do not encourage these tendencies.
On the subject of banning technologies, the Group considered the implications of banning trawling and intensive forms of aquaculture. With regard to a trawl ban, the Group felt that there was a strong case to be made for initiating some steps towards a ban.

Despite a general feeling that a ban was necessary (particularly from the point of view of ecosystem damage and energy use), various notes of caution were sounded: whilst trawling is not a traditional technique in the South, it is in many countries of the North. A ban that was not first of all discussed with fishworkers would not be effective. Also ICSF should have some concrete alternatives to offer to trawling.

Further study was needed, but at this stage ICSF should make its position clear—ie that it is against trawling. Regarding aquaculture, ICSF needs to be clear about what kind of aquaculture it is against. A clear definition is needed. In the mean time an information campaign could be instituted to persuade consumers to boycott prawns caught by trawling, or produced through intensive monoculture. The Japanese participants had a particular concern with Skipjack Tuna. Suggestions were made that ICSF should set up a task force on trawling and intensive aquaculture.

On the subject of criteria, there was quite a wide ranging discussion. Generally it was felt that fishworkers had little say in technology choice, but if they did, it should be: ecofriendly, small-scale, not dependency creating. Fishworkers should be able to participate in its design and development.
There are strong links between use of technology, resource depletion and job loss. Employment and livelihoods could be lost directly by technology displacing labour, or indirectly by excessive technology use depleting resources and thus displacing labour. Generally women are more affected than men.

Industrial scale fishing disrupts small-scale fishing directly by competing for space and resource, and through accidents at sea. Communal strife can be caused by small-scale fishworkers taking jobs on these boats, although these jobs may be dangerous and poorly paid.

Some specific issues
- There was a specific request from the Senegalese fisherwomen regarding technology. They want help from ICSF in alternative fish drying technologies (smoke from fish drying is harmful to health) and alternative technologies for fish processing and preservation. Ice is a problem, and they want to know about alternatives

- It was suggested that ICSF take on an information campaign to draw attention to the plight of women and technology - that they lack access to technology and information

The working group considered several different aspects of transnational linkages including fishing agreements, international cooperation and support networks, international trade and maritime cultural links. Owing to time constraints not all of them could be discussed in great detail.
The group clarified the meaning of internationalisation of fisheries so as to obtain a framework for discussion.

Globally, the recent GATT agreement is not expected to have a significant impact on fisheries trade because tariffs of fish and fishery products have been already low. However, several ACP countries may lose their special trade status with the European Union (EU) under the Lome Agreement which may affect the economic viability of, for example, tuna canning factories.

In these countries, this may lead to the closure of canning plants and to the loss of employment opportunities for mostly women. On the other hand, new working opportunities may be created in other countries. In this connection, the group considered the working conditions of women in canning factories which were often poor.

Continuing internationalization of fisheries trade is likely to occur with possibly undesirable consequences on the capacity of local consumers to afford fish as local supplies decrease and consequently prices increase due to higher exports. While the export of luxury fish species may not be of concern, monitoring is required to ensure that poor consumers for whom fish is an important source of protein are not affected by rising fish prices.

Worldwide many economies are in a period of structural adjustments which aim, among others, at removing price distortions which have led to misallocation of scarce resources. Two kinds of price adjustments have been of great significance in fisheries as well as in other sectors of the
economy, namely the devaluation of the exchange rate and the rise in the price of capital (e.g. real interest rate).

On the example of the CFA, different effects of the exchange rate devaluation were discussed. In export-oriented fisheries, devaluation may benefit fishworkers because it makes them more competitive internationally and allows them to realize higher export revenues provided that fish markets function effectively.

As many artisanal fishermen target on species sold locally devaluation is unlikely to increase revenues but net incomes may decline because of higher prices of imported inputs. This is especially relevant in many African countries where very few fishing inputs were produced locally.

In the absence of effective management, devaluation of the exchange rate may enhance overexploitation of fishery resources because higher export revenues may attract additional excessive fishing capacities into fisheries. This has been observed, for example, in the export-oriented trawl fisheries for shrimp in Kerala, India, with the result of greater conflict and competition with artisanal fishermen.

The often observed significant distortion of the price of capital in many developing countries had the effect that production technologies in fisheries, as well as in other economic sectors, were more capital intensive than they would have been otherwise.

This has had direct negative repercussions on the artisanal fisheries sector with limited access to institutional credit. Investors in capital intensive fishing technologies were able
to appropriate fisheries resources traditionally exploited by artisanal fishermen. An additional feature of subsidized capital was that demand for it outstripped supply thus requiring a state-managed rationing system which generally favoured politically motivated credit allocation in favour of big commercial interests.

The overall economic and social effects of structural adjustment programmes were questioned, especially on poorer people in developing countries. It was noted that with few exceptions, these programmes failed in African countries to arrest economic decline. The evaluation of the impacts of structural adjustment is a complex undertaking and requires to be based on a comparison of conditions with and without adjustments. The working group concluded that more detailed studies were needed to ascertain these impacts on fishworkers.

Following the adoption of the new Law of the Sea in 1982, long distance fleets of developed countries, especially in Europe (e.g. Spain, France, Poland, Russia, etc.), were left with significant overcapacities. This put pressure on them to find other fishing grounds for their fleets. Fishing agreements provided a means to maintain access to fishing grounds off developing countries which were historically exploited by long distance fleets. In this respect, reference was made to the provision contained in the Law of the Sea for coastal states to make available to foreign fleets fisheries resources not exploited by local fleets taking into account relevant biological, economic and social considerations.

There was a need to distinguish at least three types of fishing agreements: (i) government to government,
(ii) government to private fishing company, and (iii) private fishing company to private fishing company (e.g. joint venture).

Normally, greatest transparency of the conditions of the agreements is available with intergovernmental agreements. The conditions and stipulations of the other types of agreements are often not available to the general public and thus offer significant scope for corrupt practices.

It was noted that the fishing agreements of the European Union with developing countries has many undesirable features such as capacity limits but no catch quotas, highly unsatisfactory catch reporting practices by the participating fishing companies, trespasses of local fisheries regulations, and interference with local artisanal fisheries. The political dimensions of many agreements of the EU were highlighted as exemplified by the recently renewed agreement with Senegal.

The role of ICSF with regard to fishing agreements was to monitor their impact on fishworkers, lobby for just, fair and transparent agreement conditions, and, if requested, support local movements of fishworkers in their struggles against agreements which negatively affect their lives.

Regarding international cooperation and support networks, it was pointed out that developmental NGOs often have very little awareness of and experience with maritime problems and issues, especially in fisheries. The expansion of international support networks would require better information exchange and also an educational role of ICSF with respect to non-fisheries NGOs. This role was already partly fulfilled...
through SAMUDRA, Monographs and other materials produced by ICSF but could be further strengthened.

The need for ICSF participation in regional consultative mechanisms and structures was pointed out. This could relate to regional fisheries commissions and other suitable bodies.

Continuing efforts by ICSF were needed through ILO to work towards international legislation in support of the working and living conditions of fishworkers including women in fish processing plants.

The suggestion was made that ICSF seek official accreditation with FAO. Such a status would have several advantages including regular and free supply of relevant technical information and regular invitations to attend FAO’s governing bodies and technical meetings including regional fisheries commissions which ICSF could selectively make use of.

The right balance of the activities of ICSF was discussed between its mandate of supporting national fishworkers’ movements on the one hand and lobbying and advocacy work at the international level on the other hand. The working group felt that while both required attention, the prioritization of activities needed to be established.

The need was expressed to have, within the purview of ICSF, in-depth discussion on the mechanisms underlying international economic relations and their impact on the fisher-ies sector.
The Tenth Anniversary of the International Conference of Fishworkers and their Supporters (Rome Conference) and the Triennial Conference of the International Collective in Support of Fishworkers (ICSF) took place in Cebu, the Philippines, from 2 to 7 June 1994. It was attended by about 100 participants from 31 countries spread across Asia, Africa, the Pacific, Europe and the Americas. The participants included fishworkers representing important fishworkers’ organizations from different countries, social and physical scientists, community organizers and NGO workers.

Almost a decade has gone by since the Rome Conference. This period has seen a rise in clashes at sea and on land between conflicting groups while the growth of the world’s fishing fleets has outpaced the regenerative capacity of the seas. Moreover, fishworkers, particularly in the artisanal and small-scale sectors, have yet no guarantee to either resources or their traditional means of livelihood. Undoubtedly, these are disturbing trends which have to be immediately addressed if they are to be reversed.

The theme of the Cebu Conference, “The Struggle of Fishworkers: New Concerns for Support”, ought to be located within this perspective. By providing a forum where people directly concerned with these problems could interact and exchange ideas and experiences, the ICSF hoped to promote fresh solutions and support mechanisms. The Conference addressed five different but related topics, namely, coastal environment and fishworkers, fisheries and fishworkers’ organizations, technology and energy use in fisheries, transnational linkages in fisheries, and work and social security conditions in fisheries. The Conference
adopted the following statement of concerns and recommendations.

**Coastal Environment and Fishworkers**

Numerous threats to the coastal and marine environment affect the lives and working conditions of fishworkers’ communities. These include natural calamities, destruction of mangroves, water pollution, irresponsible tourism, development of coastal infrastructure, destructive fishing techniques, privatization of fisheries resources and deforestation. All of these, in one way or another, may displace fishing communities, affect fishworkers’ access to resources and/or damage the resources themselves. They also eliminate jobs, security, income and livelihood. The protection of coastal environments and active mobilization to ensure this are priorities for a sustainable future for small-scale fish-worker communities.

Importantly, fishworkers’ organizations around the world have acted to safeguard their coastal environment. In Chile, the National Confederation of Artisanal Fishworkers of Chile (CONAPACH) succeeded in having the state Congress declare the Bay of Talcahuano a zone of ecological catastrophe. In Brazil, the National Movement of Fishworkers (MONAPE) has launched campaigns against the destruction of extensive zones of the Amazon and the emission of waste waters in the bays which have destroyed the zones of traditional fishing by artisanal fisherfolk. Peruvian fishermen have accused the fishmeal and fishoil industry of polluting the sea. The National Network of Riverine Fishermen of Mexico has mobilized opinion against the tourism project of Punta Diamante which has destroyed the bivalve fisheries. In India, the National Fishworkers’ Forum and
environmental groups organized an all-India campaign around the slogan “Protect Waters-Protect Life” to raise awareness about the value of both inland and marine water resources. In Bangladesh, fishworkers have been experimenting with a simpler, three-symbol code for better cyclone warning. In Papua New Guinea, fishworkers and landowners have got together to force a mining company to build a tailings dam to control the pollutants flowing downstream. In the Philippines, fishworkers campaigned for pollution control measures in a geothermal power plant that was causing land, sea and air pollution. In Indonesia, fishing communities have fought to prevent the destruction of coral reefs and mangroves.

These examples highlight the potential of organized actions by fishworkers and other resource users for corrective measures in the coastal zones. To be effective, their efforts often need to be supported by technical and legal expertise as well as by social and environmental groups at the national and international levels.

In the light of these facts, the Cebu Conference recommends that:

- ICSF should promote and facilitate greater awareness on coastal environment issues affecting fish-worker communities as well as help to develop nurture strategies for a sustainable future;

- ICSF should facilitate greater networking among fishworkers’ organizations involved in such struggles and also between them and other movements sharing the same concerns;
• ICSF should provide international advocacy for appropriate action against coastal degradation and should document and publicize examples of successful coastal environment management; and

• ICSF should monitor relevant developments concerning negotiations and treaties for the protection of the environment at the international level and inform fishworkers’ organizations of these developments.

Fishworkers’ Organizations
Fishworkers’ organizations refer primarily to the trade unions and cooperatives working in all departments of the fisheries sector. They reflect the diversity of their country’s historical experience in terms of social movements and the links with political organizations, aid agencies, religious institutions, as well as government agencies. Such organizations are often confronted with difficult problems. In some countries, they operate in harsh political contexts where authoritarian rule prevails. In others, a long tradition of narrow dependence on state patronage make it difficult for fishing communities to develop and operate in an autonomous manner.

Although constantly swimming against the tide, several fishworkers’ organizations can boast a few significant milestones in their struggle for equity and conservation. In India, the fishworkers’ movement could wrest from the government a seasonal ban on bottom trawling in the near-shore waters. The South Indian Federation of fishermen Societies an apex body of a network of fishermen’s
cooperatives has been successfully undertaking credit and fishmarketing, boat-building, development of new technology and servicing of outboard motors.

In Senegal, fishworkers have forced the government to establish minimum prices for their disposable catch and for purchase of fishing inputs. In Canada, the Maritime Fishermen’s Union (MFU) was able to pressurize the government to include inshore fishermen under the legislation for collective bargaining rights. Co-management initiatives between the MFU and the government have resulted in the better management of the lobster fishery.

In the Philippines, several fishworkers’ organizations have lobbied the government to legislate anew fisheries code that protects the interests of artisanal and small-scale fishermen. The National Federation of Fishworkers’ Cooperatives of Ecuador (FENACOPEC) is active in lobbying their government to implement programmes for sustainable management of fisheries resources and for the well-being of fishworkers. In Chile, CONAPACH has been able to force changes in government regulations in coastal fisheries. As a result, a five-mile zone has been reserved for small-scale fishermen for cultivation of seaweeds.

One problem that over time threatens all organizations is bureaucracy which brings a division between leadership and the members. This may be due to an administrative structure where the role of the members is limited. It may be reinforced by the nature of fishing which keeps fishworkers away from home for relatively long periods of time. One way to limit this problem could be to strengthen the role of women in fishworkers’ organizations. They can play an
important role in the mobilization and accountability of the leadership. Fishworkers’ organizations often face financial problems due to the poverty of their members, to dependency vis-à-vis external donors, and to a lack of understanding of, or interest in, the objectives of these organizations.

As the experience of some fishworkers’ organizations reveals, they could overcome this difficulty by undertaking direct sale of fish, supply of inputs into the fishery and by doing consultancy work for government, taking advantage of their basic knowledge of fishing communities and fisheries resources.

Given the rapid resource depletion and degradation in many coastal fisheries, the fishing communities dependent on these resources for their livelihood have an important role to play in the designing, monitoring and enforcement of management strategies.

But they are usually unable to do so for lack of knowledge and effective organizations. The granting of stewardship over the resources is necessary to stimulate greater interest in fishworkers’ organizations to undertake resource management.

In an increasing number of countries, fishworkers’ organizations have adopted a variety of forms of struggle, ranging from massive public demonstrations, litigation, lobbying and advocacy, to more militant methods. These have often led to concrete achievements such as bans on trawling and the establishment of exclusive zones for artisanal fishing.
While these are significant gains, they should be seen only as first steps towards community control over fishery resources which would also allow, in certain instances, for effective co-management with the state. Whether such control requires that specific quotas be granted to fishermen’s organizations and whether these quotas ought to be made transferable are complex questions that deserve to be carefully studied.

The Cebu Conference recommends that:

- Should an international network of fishworkers’ organizations emerge, ICSF must support such an initiative through exchanges, strategic information and expertise on fisheries management and technological improvements;

- ICSF should lobby for the interests of fishworkers in international forums like the International Labour Organization (ILO), the United Nations and its organs like the Food and Agriculture Organization;

- ICSF should determine whether aid and development projects jeopardize the livelihood of fishing communities and should forewarn all concerned if these projects interfere with the autonomy of fishworkers’ organizations;

- ICSF should facilitate regional meetings among fishworkers’ organizations to address problems related to the exploitation of shared fishery resources, and other issues of common interest;
• ICSF should help to conduct training programmes for capacity-building of leaders;

• ICSF should continue to support and strengthen the participation of women in fishworkers’ organizations, particularly at the decision-making level; and

• ICSF should undertake a programme to consider the viability of various measures (state control, community management, co-management, individual transferable quotas, etc) that are being suggested to ensure better management of fishery resources.

Technology and Energy Use in Fisheries

The development of fishing technology has been influenced by many different factors such as the kind of fishing ground (inshore, offshore, high seas, rivers, lakes, etc), physical aspects of the sea, availability of resources and different levels of demographic pressure. While certain types of technology have been destructive, others have contributed to improve people’s lives. Any evaluation of technology, therefore, has to take into consideration these factors.

Small-scale fishworkers have little choice in adopting modern technologies because of factors and interests beyond their control. The case of Canada is an example where bottom trawling technology has been largely responsible for almost completely destroying one of the largest fish biomass of the world the cod stocks of the Atlantic coast.

This is of specific concern in fisheries because sharp competition under open access conditions compels fishermen to adopt the most effective technology in use, in order to maintain their relative catching capacity. This technological
race not only causes a tremendous waste of energy and capital assets but it is also likely to deplete fishery resources.

Capital-intensive harvesting technologies reduce labour requirements at sea and on shore. They tend to marginalise small-scale fish marketers and women fish processors since the landed quantities are beyond their handling capacity due to limited access to technology, information and credit.

There is increasing international awareness and recognition of the highly destructive capacity of bottom trawling. There is also firm evidence of the negative social and economic impacts of this technique on millions of small scale fishworkers worldwide, particularly in tropical multi-species fisheries of developing countries.

Equally worrisome is the rapid spread of intensive aquaculture, especially of shrimp, in coastal areas. The negative environmental and socio-economic effects of this monoculture practice are becoming increasingly evident.

The Cebu Conference recommends that:

- ICSF should promote awareness about the economic and social consequences of inappropriate technology choice and inadequate fisheries management. It should assist to set up guidelines for R&D and adoption of suitable technologies;

- ICSF should launch an international campaign to achieve a complete ban on bottom trawling in tropical waters. This requires seeking widespread support from national fishworkers’ organizations,
environmental movements, and consumer groups, especially in developed countries;

- ICSF should strengthen its present programme to monitor the impact of intensive coastal aquaculture on small-scale fishworkers and the environment and extend it to the Asian region;

- ICSF should assist interested fishworkers’ organizations to access appropriate technology through exchange of information and should raise awareness about the displacement of women as a result of unfair technological developments; and

- ICSF should facilitate continued discussion amongst fishworkers’ organizations and help draft and elaborate a general set of agreed criteria against which to measure the social and ecological impacts of fishing technology to determine the acceptability of various technologies.

Transnational Linkages in Fisheries
Two important recent events which are liable to affect the fisheries sector are the new rules of the General Agreement on Tariffs and Trade (GATT) on liberalization of international trade, on the one hand, and economic liberalization (including adjustments in the exchange rate and the cost of capital) under the aegis of structural adjustment programmes, on the other.

The Cebu Conference expressed concern about the possible effects of these on the fishworkers, including women in fish processing plants. It is a priori difficult to determine what
is the net impact of these changes. Increasingly, fishing agreements provide a means to maintain access to fishing grounds which were historically exploited by long distance fleets off the coasts of developing countries.

These agreements often have undesirable features such as capacity limits but no catch quotas, highly unsatisfactory catch reporting practices by the participating fishing companies, violations of local fisheries regulations, and interference with local artisanal fisheries.

There is a need for better international cooperation and strengthening of support networks, particularly with development NGOs which often have little awareness and knowledge of the specific problems of the fisheries sector.

The Cebu Conference recommends that:

- ICSF should continue to monitor fisheries agreements and assess their impact on fishworkers, lobby for just, fair and transparent agreement conditions, and, if requested, support local movements of fishworkers in their struggles against agreements which negatively affect their lives;

- ICSF should monitor the evolving situation of the fishworkers with regard to the impacts of international trade, structural adjustments, and other aspects of international economic policies (especially as they affect food security in certain countries) and promote the exchange of information on these questions among the fishworkers’ organizations of different countries;
ICSF should disseminate information on international fisheries issues, especially those of concern to local fishing communities, to development NGOs, the media and other networks, as well as to established organizations of all types in the maritime sector; and

ICSF should actively participate in relevant development and environment NGO networks and regularly inform fishworkers’ organizations of the activities of these networks.

Work and Social Security Conditions in Fisheries
The working conditions on board industrial fishing vessels are often poor due to inadequate facilities and lack of physical safety and social security. There have also been several instances reported where crews on high seas vessels were subjected to severe physical and other human rights abuses.

Flags of convenience are often used to circumvent national and international labour laws. This is particularly the case with regard to vessels involved in high seas fishing. In fish processing factories where most of the workforce are usually women, working conditions are often unsatisfactory and job security is low. Women are known to suffer from work-related health problems.

In artisanal fisheries, drudgery of manual labour, poor navigational and emergency life support aids, bondage to middlemen, and payment of wages/shares at levels below subsistence, dispossession of fishing rights and
displacement from traditional fishing sites persist in several countries. In many developing countries, artisanal fishworkers are not entitled to old age pension and accident benefits.

The Cebu Conference recommends that:

- ICSF should request the creation of adequate national tripartite structures in which boat owners, fishworkers and government can meet to decide on appropriate measures to improve the situation described above;

- ICSF should campaign against the practice of using flags of convenience and for the adherence of all countries to relevant international conventions;

- ICSF should continue to study and raise awareness about women’s working conditions in industrial and informal fish processing activities;

- ICSF should lobby ILO to work towards international legislation in support of the working and living conditions of fishworkers, including women in fish processing plants; and

- ICSF should assist national fishworkers’ organizations in education campaigns on fishworkers’ rights, work and employment conditions, and problems of social security and safety at sea.
Conclusion

In the course of the decade since the Rome Conference, fishworkers have voyaged a considerable distance. The fishworkers’ organizations that were formed or strengthened during this period have taken several bold steps to enhance the participation of fishworkers in decision-making processes. They have also undertaken measures for better protection of the coastal environment as well as for improved resource management.

Many of the problems, however, are far from being resolved. Clearly, efforts must continue in this direction to further understand the dynamics of environmental degradation of coastal waters and the inequity of inappropriate technologies. It is imperative to take better cognizance of the implications of new trade regimes, structural adjustment policies and the increasing globalization of fisheries. Viable alternatives have to be explored and adopted.

To enable fishworkers to enter the new millennium with greater hopes of a just and improved livelihood, resulting from better and equitable management of coastal fisheries resources, all the above recommendations of the Cebu Conference need immediate attention.
Day 1: 2 June
09.00-11.00  Opening session
11.00-11.30  Break
11.30-13.00  Session I: Plenary: Fishworkers’ Struggles and their Expectations from ICSF (Presentations by fishworkers’ representatives)
13.00-16.00  Lunch break
16.00-17.30  Session I: Plenary: Fishworkers’ Struggles and their Expectations from ICSF
17.30-18.00  Break
18.00-19.30  Session I: Plenary: Fishworkers’ Struggles and their Expectations from ICSF
19.30  Dinner
Cultural programme

Day 2: 3 June
08.00-10.30  Session II: Theme Papers and discussion:
I. Coastal Environment and Fishworkers: Luis Morales
II. Fisheries and Fishworkers’ Organizations: Mike Belliveau
III. Work Conditions of Fishworkers and Social Security: Jean Vacher
10.30-11.00  Break
11.00-13.00  Session II: Theme Papers and discussion:
IV. Technology and Energy Use in Fisheries: Brian O’Riordan
V. Transnational Linkages in Fisheries: Aliou Sall
13.00-16.00  Lunch break
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<thead>
<tr>
<th>Time</th>
<th>Session III: Parallel sessions of Working Groups</th>
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<tr>
<td>16.00-17.30</td>
<td>Working Group I: Coastal Environment and Fishworkers</td>
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<tr>
<td>18.00-19.30</td>
<td>Working Group IV: Technology and Energy Use in Fisheries</td>
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<td>19.30</td>
<td>Dinner</td>
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**Day 3: 4 June**

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<tr>
<th>Time</th>
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<tr>
<td>08.00-09.30</td>
<td>Working Group II: Fisheries and Fishworkers' Organizations</td>
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<tr>
<td>10.00-11.30</td>
<td>Working Group III: Work Conditions of Fishworkers and Social Security</td>
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<tr>
<td>12:00-12:30</td>
<td>Presentation by Margarita Lizárraga, FAO</td>
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<td>12:30-13:00</td>
<td>'Code of Conduct for Responsible Fisheries’</td>
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<td>13.00-16.00</td>
<td>Presentation by Matthew Gianni, Greenpeace International</td>
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<tr>
<td>16.00-19.00</td>
<td>'International Negotiations of significance to Fishworkers'</td>
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<tr>
<td>19.00</td>
<td>Dinner</td>
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**Addendum Programme**

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<tr>
<th>Time</th>
<th>Activity</th>
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<tr>
<td>16.00-19.00</td>
<td>Preparation of Working Group reports (and their translations)</td>
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<tr>
<td>19.00</td>
<td>Dinner</td>
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Preliminary decisions 
Agenda for Day 3

Preparation of Working Group reports (and their translations)
**Day 4: 5 June**

08.00-10.30  Finalization of Working Group reports and translations

10.30-12.30  **Session V: Plenary:** Presentation of Working Group reports

12.30-14.00  Lunch break

14.00-16.30  **Session V: Plenary:** Discussion of Working Group reports

16.30-17.00  Break
17.00-19.30  Informal meeting of fishworkers (with interpretation)

19.30  **DINNER**

**Day 5: 6 June**

Exposure Programme
Preparation and translation of the final conference statement

19.30  **DINNER**

**Day 6: 7 June**

08.00-10.30  **Session VI: Plenary**

Presentation of the final conference statement and discussion

10.30-11.00  Break
11.00-13.00  Concluding session

13.00-15.00  Lunch break
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About a hundred delegates from 31 countries, including fishworkers, scientists and national and international policy makers, are meeting in Cebu in the Philippines from 2 to 7 June to discuss issues of crucial interest for fishworkers all over the world. This conference The Struggle of Fishworkers: New Concerns for Support is organized by the International Collective in Support of Fishworkers (ICSF). It marks the tenth anniversary of the Rome conference, the first ever international conference of fishworkers and their supporters, and is a triennial conference of the ICSF, where its agenda for future action is decided on.

Founded in 1986 in Trivandrum, India, ICSF is a global network of community organizers, teachers, technicians, researchers and scientists working in close association with fishworkers’ organisations in their respective areas of work. Basing its action programme on specific demands made by fishworkers’ organisations, ICSF has been active in campaigning against processes that have an adverse impact on the fishworkers’ access to resources, livelihood and working conditions, and in monitoring the impact of technology, legislation and aid programmes on small-scale fishworkers. ICSF has active links with fishworkers’ organisations in more than thirty countries around the globe. ICSF is admitted to the special list of international non-governmental organisations of the International Labour Organisation (ILO).

The conference will take place in the Holy Family Retreat Centre in Cebu. Participants at the Conference will come from countries such as Senegal, India, Chile, Mexico, Fiji, Papua New Guinea, Japan, Canada, Solomon Islands, France and the Philippines. The first day of the conference will comprise presentations by representatives of fishworkers’ organisations of various countries, drawing attention to issues of importance to them. In the following days, theme papers will be presented on five major areas, followed by intensive working group sessions. The five areas identified for specific focus in the conference are coastal environment and fishworkers, fisheries and fishworkers’ organisations, working conditions of fishworkers and social security, technology and energy use in fisheries, and transnational linkages. The conference will conclude by drawing up an agenda for work in the next three years by the ICSF in support of fishworkers.
The Cebu conference will address the debilitating impact of many modern, intensive aquaculture practices on the coastal environment and on fisheries, as well as problems of fisheries management due to overfishing and overcapacity. It will also look into various forms of coastal degradation, such as pollution, siltation, mangrove deforestation, etc. The appalling working conditions and the dismal absence of health, safety and social security provisions for fishworkers, especially in the industrial sector and in processing plants, will be discussed in detail. The impact on fisheries of joint ventures as well as of international agreements such as the General Agreement on Tariffs and Trade (GATT) will also be addressed by the conference.

Another matter of concern is the overexploitation of fishery resources by high technology in combination with big capital interests, which poses a clear threat to the sustainability of the resource base as well as to the lives and livelihoods of artisanal and small-scale fishworkers. The conference will consider the question of banning the use of destructive technologies such as bottom trawling.

A major focus of the Cebu conference will be the issue of coastal fisheries and area management. The privatization of waters through the allocation of individual transferable quotas (ITQs) is increasingly proposed as a way of preventing the overexploitation of marine resources through overcapacity and overfishing. This is a matter of grave concern for access rights of artisanal and small-scale fishworkers. The World Bank is considering the introduction of such privatization as a conditionality for concessional loans from multilateral funding agencies. The conference will discuss the viability of community fishery management as an alternative to both the privatization of waters and full state control. This alternative involves communities and governments working together within a framework of co-management, combining traditional knowledge of fish habitats and ecology with modern management regimes.
A Uniquely Destructive Gear
All fishing gears offer advantages as well as disadvantages. These are normally judged in terms of how target species are selected and the kind of adverse impact the gears have on marine living resources and fishing communities. For thousands of years, traditional communities in different parts of the world have been depending on coastal waters for their lives and livelihoods. They have been catching various kinds of fish, using selective gears that are not very destructive. Bottom trawling, however, presents an entirely different case. The negative features of this particular technology are unique. In fact, they are far more damaging than all other fishing gears put together. Not surprisingly, therefore, bottom trawls have often been referred to as the Hoovers of the shelf bottom or as bulldozers mowing down fish and other benthic species. No wonder that ever since its introduction, fishermen in different parts of the world have voiced emphatic concern about its destructive impact. There is evidence from England, as early as 1376, of fishermen vehemently giving voice to such fears.

Threats to Fishing Communities
Wherever it was introduced, bottom trawling always ran into rough weather. In many developing countries, its introduction (primarily to catch shrimp) was opposed by gill-net gear groups and often led to bloodshed in the sea. Artisanal and small-scale fishermen have long been complaining about its negative impact on marine habitat and on their catch potential. In the shrimp fisheries of tropical countries, trawls compete with the subsistence, artisanal and small-scale fishermen. The competition is often for space and resource in the overcrowded inshore waters. When shrimp catches dwindle, trawlers shift to stocks that are traditionally caught by the artisanal sector. This further exacerbates conflicts.

Many countries still witness clashes between trawlers and traditional gear groups. Small fishing canoes have been rammed down by trawlers and their gears destroyed. In the Malacca Straits, both off Malaysia
Indonesia, for example, several people have lost their lives, while numerous trawlers were burned down. In this severe social and economic disruption, communal strife has also been carried to the land where fishing communities have often become divided between those who work as crew on trawlers and those who work in gill net or line fisheries.

Too Menacing a Technology
Two features of trawling make it a distinctively destructive form of fishing. First, the heavy trawl doors (or otter boards), which keep the mouth of the net open, literally plough up the sea bed, thus destroying the structures that help provide fish stocks with their necessary environment. In the process, other sea life gets buried, and trawl fishing areas can ultimately become ‘marine deserts’, devoid of life.

Second, trawling is a non-discriminatory or ‘catch-all’ fishing technique. This means that any fish in the net’s path will be captured. Once caught in the ‘cod end’, the fish are severely pummelled, often for many hours, before being hauled to the surface, dead or dying. In mid-water (or pelagic) trawling, the fish are less battered, but the relative high speeds required of trawl fishing, together with the weight of fish, crush and asphyxiate them.

This inevitable killing and dumping of fish has two effects. Firstly, it lessens the biodiversity of the marine ecosystem, and could disrupt predator-prey relationships in the food chains. Secondly, it pollutes the environment, causing severe localised biological loadings and oxygen depletion. A combination of these two factors has catastrophic consequences for other gear groups, particularly in the artisanal and small-scale sector. The catch potential of their traditional fisheries is directly threatened.

Substantial information is available today to vindicate the fears of artisanal and small-scale fishermen about bottom trawls. There are several examples from many of the world’s fisheries which clearly demonstrate how trawling decimates ground stocks and devastates the resource base. The dramatic collapse of the cod fishery of Canada, the depletion of the Cape Hake fishery of South Africa and the overfishing of shrimp resources in many Asian countries stand brutal testimony to the destructive impact of bottom trawling.
A recent book succinctly presents the findings of various studies on trawls (see the attached excerpts). The by-catch of shrimp trawls worldwide, for example, amounts to nearly 19 million tonnes this is about 20 per cent of the world’s entire catch. Bottom trawl fisheries have a staggering discard rate of 200,000 individuals per tonne of target species the highest in the world.

In contrast, high seas driftnet fisheries which is now under a United Nations moratorium, reports a discard rate ranging from a mere 50 to 300 individuals per tonne of target species. Other studies for example, in the Gulf of Mexico have further shown that discards from the shrimp fishery can diminish the population levels of non-target species.

New developments in trawling technology are also a matter of great concern for the future of fish and fishworkers. Assisted by sophisticated satellite and radar navigational aids and sonar fish finding equipment, trawlers are now able to hunt down the last shoal of fish whether in mid- or surface waters or on the seabed.

Evidently, bottom trawl technology can not be effectively controlled. Worldwide experience reveals that monitoring, surveillance and enforcement regimes have consistently failed to protect both resources and the livelihood of inshore fishworkers. Moreover, there is growing conviction that political circumstances the world over do not permit any wise management of trawl fisheries.

Many developing countries, for example, face various compulsions that prevent them from implementing adequate management measures. The powerful lobbies of trawling interests, the pressure to ensure jobs for both crews and processing workers, governments’ preoccupations with quantitative targets, and the need to chase foreign exchange all stand in the way of effective management of fisheries.

Management regimes by their very absence or their poverty have led to a dramatic expansion in the number of shrimp trawlers in the last two decades in response to rising demand for shrimp and other high value species. The mono-species orientation of trawl fisheries has meant social disaster for millions of small-scale fishermen who traditionally catch a wide variety of different species using a multiplicity of gears, thereby minimising the negative impact on the marine ecosystem.
Simply put, the fish that remain at sea should be capable of replenishing the fish that are removed.

Bottom trawling not only prevents this, but it also creates insurmountable problems for other gear groups. Further, unmanaged trawling uses up large quantities of fuel, destroys animals, and produces little food for direct human consumption.

The negative externalities of this technology in operation are formidable. A large portion of the revenue from this operation amounts, therefore, to a totally undeserved environmental subsidy. What is needed are technologies that can catch the target species with minimum fuel and capital, and little or no impact on non-targeted species.

Time to Lump It?
In the face of this overwhelming evidence, is it not ludicrous for anyone to continue to support trawling? It decimates fish stocks, devastates ecosystems, displaces coastal communities and disrupts social harmony. How can such a technology continue unleashed?

In economic, social and environmental terms, bottom trawl fisheries are the worst kind. The time has come for those involved in fisheries to reassess the assumed value of this technology. Perhaps it is also time for appropriate national and international bodies to look seriously into the possibilities of globally outlawing this technology.

A ban on trawl fisheries is not only inexpensive but also less difficult to implement. Fishworkers’ organisations, environmental and consumer groups should join hands in a broad-based campaign to demand such a ban.

Consumers, particularly in the European Union, Japan and the USA the biggest markets for shrimp should also take an active role in insisting on demand management. They should make it very clear that they will boycott fish caught by trawlers.

This is especially necessary considering that there indeed are successful alternatives to bottom trawls, like trammel nets, for example. These, while ensuring inflow of foreign exchange, remain highly selective and labour intensive. Their passive and small-scale character contributes
substantially to savings in both fuel costs and capital investments in big boats and engines.

**Issues for Consideration**

- Should the ban relate only to specific types of trawling (e.g., shrimp trawl, other multi-species bottom trawl)?

- How should this campaign be successfully organised?

- Should it be at the national and international levels?

- What ought to be the involvement of environmental groups?

- Should a formal request be made to the United Nations for a ban on trawling?

- What emphasis should be given to the role of consumers?

- Is it possible to develop a label for trawl-free shrimps, so as to exert pressure on countries/fishing industry to change their destructive practices?
Trawling

At least since 1376, when England’s House of Commons petitioned the king over its concern about destruction of underwater vegetation by trawling (Graham 1955), people have suspected that trawling harms the seabed and its species. The reason for concern has grown as nets and boats have become larger and more powerful.

Trawling profoundly disturbs the seabed. Like storms and turbidity currents, it churns and resuspends sediments. But its effects are felt deeper than storm-generated waves, and it occurs more often. A shrimp trawler with nets 20 meters (65 feet) in width towing at 5 km. per hour (2.7 knots) scrapes 1 sq. km. (0.39 sq. miles) of seabed in ten hours. Shrimp fisheries in the northern Sea of Cortez (Mexico) and the northern Gulf of Mexico (USA) sweep the entire trawling grounds several times per year; in the Kattegat (Denmark), the frequency can exceed 10 times per year (Riemann and Hoffmann 1991).

Trawling affects benthic communities both directly and indirectly. Direct effects include damage (and often death) of target and nontarget species due to contact with the trawl and physical alteration of the seabed. Indirect effects include the resuspension of sediment particles, toxic chemicals, and nutrients, as well as the discarding of bycatch, which undoubtedly affects food webs.

The reason that trawling is destructive might not be obvious to non-experts. The seafloor is not covered by homogeneous, featureless accumulations of sediments. Rather, sandy and muddy bottoms are communities with complex structure that comes from nonliving objects (rocks, shells, worm-tubes, logs), living organisms (seaweeds, sponges, bryozoans, mollusks), and, most of all, the results of biological activities such as burrowing. Most of the structures are either too small to be readily seen or lie below the sediment-water interface. But the high structural complexity they provide markedly increases the diversity of species that the seabed accommodates.
Trawling disrupts this “layer-cake of life” (McAllister 1991a), altering not only species composition and structure but also ecosystem processes including carbon fixation, nitrogen and sulfur cycling, decomposition of detritus, and the return of nutrients to the water column. Communities dominated by benthic photosynthesizers, such as algal beds and seagrass beds, are particularly susceptible, a realization that led to the prohibition of trawling near eelgrass beds within Puget Sound (USA) (Reeves and DiDonato 1972).

Bottom trawling also affects the benthos when churned-up sediments resettle. Riemann and Hoffmann (1991) found that suspended particulates increased an average of 1,000 percent shortly after trawling. In addition to burying benthic organisms, resuspended sediments can diminish photosynthesis in the water column, and they inhibit feeding and raise the metabolic costs of clearing sediment particles in suspension-feeding organisms.

As a result, frequent resuspension can change the dominant species in the benthic community from suspension-feeders to deposit-feeders. By removing accumulated sediments, trawling can also expose underlying layers of barren clay, rock, or sand with little potential for recolonization (Nunny and Chillingworth 1986) by soft-sediment dwellers. Given the prevalence of trawling and its potential to affect marine ecosystems, there has been astoundingly little research on its environmental impact.

**Incidental Take**
Trawls are funnel-shaped nets that are towed behind vessels. Animals are swept into the net and collect at the end of the funnel. The proportion of nontarget species caught in trawl fisheries can be very high. Bricklemyer et al. (1989) estimated the worldwide bycatch of finfish in shrimp trawls to be 4.5 to 19 million metric tons (10 to 42 billion pounds) a figure roughly equivalent to 5 to 20 percent of the world’s entire seafood catch compared to total shrimp landings of 2 million metric tons (4.4 billion pounds).

Including other taxa killed in great numbers sponges, jellyfishes, soft corals, crabs, squids, sand dollars, starfishes and sea turtles would provide an even clearer picture of the astounding magnitude of bycatch from the shrimping industry. Andrew and Pepperell (1992) estimated the total bycatch from the world’s shrimp fisheries to be 8.2 to 16.5
Bycatch in other fisheries, while probably less than that in shrimp fisheries, can nonetheless be very large. Nontarget species constitute 76 percent of the yellowtail flounder (Limanda ferruginea) trawl catch off the northeastern USA (Murawski 1991). Effects of trawling on community structure have been documented in the Gulf of Mexico (Powers et al. 1987), Georges Bank in the Northwest Atlantic (Murawski and Idoine 1989), North Sea (Anonymous 1991), and the Northwest Shelf and Gulf of Carpentaria of Australia (Sainsbury 1988).

US shrimp trawl fisheries in the Southeast Atlantic and Gulf of Mexico are estimated to take and discard more than 10 billion fishes (Pellegrin et al. 1981) and 5,500 to 55,000 sea turtles annually (National Research Council 1990a), including critically endangered Kemp’s ridleys. TEDs have recently required in US shrimp fisheries to minimize sea turtle bycatch. Incidental take from shrimp trawling has severely reduced red snapper populations in the Gulf of Mexico (Goodyear 1990).

The effects of shrimp trawling bycatch on invertebrates is unknown. The development of bycatch reduction devices that enhance the proportion of shrimp in trawl catches could substantially reduce the mortality of other species if the devices are widely adopted.
For quite some time now, global fisheries have been ravaged by successive ‘crises’. These have their roots in overfishing, technological overkill as well as the widespread disregard for the needs and priorities of the artisanal and small-scale fishing communities.

As issues that fundamentally concern fishworkers the world over, they are also the concerns that form the mandate of the International Collective in Support of Fishworkers (ICSF), an international NGO affiliated to the Economic and Social Council of the UN and admitted to ILO’s Special List of Non-Governmental International Organizations.

These questions were first addressed at the International Conference of Fishworkers and their Supporters, held in Rome in 1984. To mark the tenth anniversary of The Rome Conference, as well as to conduct its triennial conference, ICSF organized an international meeting at Cebu, the Philippines in June 1994. More than 90 participants from over 30 countries gathered to debate, share opinions and exchange views on the state of the world’s fisheries, its impact on their lives and how this could be managed.

This publication is the official record of what transpired at Cebu. It is a compendium of papers, reports and special contributions on topical concerns in global fisheries management. It also contains the reports of the various working groups which tackled the conference’s themes. These converged in a final declaration which detailed the recommendations of The Cebu Conference.

As a work of reference, this publication will be of immense use to researchers, activists, environmentalists, NGOs, journalists, policymakers and just about anyone concerned with the world of fisheries and fishworkers.