

Globalisation affects those who work in industrial fishing

*Mr. David Ardill
Secretary, Indian Ocean Tuna Commission
F.A.O., Seychelles*

Introduction

I will attempt in this presentation to demonstrate that, although the effect of globalisation has been greatly amplified in recent times, it is not a new phenomenon. Both in historical and in modern times, globalisation has had at the same time negative and positive effects on the livelihood of fishers. It appears, however, that the positive effects are gradually becoming predominant as technology improves, as the World becomes more concerned with conservation and the environment, and as the international legal regimes and enforcement mechanisms mature. It is clear that good legislation, well respected, is conducive to peace. While progress may be slow, it is clear that there is a synergy of pressures leading in this sense.

The end effect should be fewer fishers, with better living conditions, protected against abuse and with a higher standing. Similarly, good management should lead to less over-exploitation of resources and better catch rates.

I will, however, begin by some definitions of terms, followed by a chronological account of the development of industrial fisheries, then indicate the extent to which various situations have an effect on the life of fishers and processors.

What is globalisation?

There are many views of what elements might constitute globalisation. In order to avoid confusion, I will define my understanding of this term, in the context of this presentation, as any element affecting industrial fishing that operates on a wider level than any single nation. These elements can include technical and legal measures conditioning the exploitation of areas and fisheries, markets and living and working conditions of fishers. This definition therefore goes beyond the particular issue of global corporations.

What is INDUSTRIAL fishing?

Fishing can be categorised as “Subsistence”, “Artisanal” or “Industrial”.

Subsistence fishing is primarily intended to provide food for the fisherman or his immediate circle. Subsistence fishers frequently have other activities such as farming or hunting. Only occasionally will a subsistence fisher produce sufficient surplus for marketing although some communities, such as the Inuit (Eskimos) may constitute stores of frozen or dried fish for periods when they cannot fish or hunt.

Artisanal fisheries usually produce a small surplus for marketing locally. These fisheries typically operate with a limited range for trips lasting less than a day. The majority of the fisheries in developing countries fall into this category.

In **Industrial** fisheries, the catch is intended for marketing. This presupposes rapid distribution or some form of preservation for the catch which permits extended range. Although it is sometimes assumed to be so, industrial fishing is not a function of vessel size.

Historical perspective of industrial fishing

Ancient times

Industrial fishing therefore depends on the possibility of getting fish to market. Until the late 1800s when ice began to be used on fishing vessels, this could only be done by keeping the fish

alive in nets or fish ponds, by grilling or smoking the fish, or by salting, drying, preserving it in oil or fermenting. Archaeological and historical records show that all those methods were used in many early civilisations, such as in Assyria and in ancient Egypt, Greece and Rome. It is known, for example, that dried, salted or pickled fish was imported to Rome from as far away as the Azov Sea.

Herring and cod

A thousand years later, fish started becoming a more important commodity, with large catches, and one which was even worth fighting for. The Hanseatic League developed in the 12th Century, and salted herring and stockfish (cod air-dried in winter) were among its trade staples. Records show that, by 1520, 7 500 fishing boats were producing up to 10,000t of herring annually in the Scandinavian fishery.

By the 17th century, the Dutch herring fishery employed as many as 50,000 fishermen, on 2-3,000 vessels, with total employment in the sector of 450,000. In 1614, no less than 150 000t of herring were exported from the Netherlands, a quantity that is important even by today's standards.

In the 16th Century, European States started having large permanent navies, and salt cod gained importance as a staple food which could be kept on long voyages. This led to the development of the Grand Banks fisheries. Already, by 1508, 10 % of the fish sold in some Portuguese ports was salt cod from Newfoundland – by mid-century 60 % of fish sold in Europe was cod.

Mechanization

Mechanization, when it started to affect fisheries in the late 18th Century, brought about a “regime shift” in extending the range of fishing activities, both in terms of fishing depth and by leading to larger vessels.

The 60s also saw the development of factory vessels and deep freezing, which brought a new category of workers on board fishing craft: those whose work was mainly on fish processing lines.

Employment

Employment data for earlier periods are only available for specific fisheries and countries. Over the last thirty years, direct employment in fishing has doubled.

Asia dominates the employment and also the increases. Africa has the second position, far behind and has also shown some increase in employment. Conversely, Europe and Oceania show decreases in employment. This reflects a situation where people from “OECD” countries are ever more reluctant to go to sea for a living. In fact, it is now frequent to see vessels where only the skipper and perhaps the chief engineer are from developed countries, the rest of the crew coming from poorer areas. Nevertheless, it is clear that most of the increase in employment in the fishing industry has come from the artisanal and subsistence sectors.

Fish catches

Fishery statistics at a global level only go back to 1950. Prior to that, the only figures available relate to specific fisheries or countries and provide an incomplete picture of global fish production. In the last fifty years, though, we have seen a constant progression of catches, but which now appear to have levelled off.

Why is management needed?

The apparently rosy picture of increasing global catches masks a worrying trend: the increase in catches has been achieved by tapping new resources, usually of progressively lower-value fish. In fact, most of the major fish resources which have provided food for human consumption are now fished to such an extent that the stocks are diminished and are unable to sustain catches. The famous Newfoundland cod fisheries suffered such a collapse and have been closed for a decade, the fishers on the dole. We now know, therefore, that the resources of the oceans are not limitless.

As a fish stock is depleted, progressively more fishing effort has to be deployed to catch the fish. As a fish species becomes rarer, its value also tends to increase, thereby justifying further increase to the fishing effort despite low catch rates. Furthermore, many States place a great deal of importance on their fishing industries, often for employment or nutritional reasons. These States frequently subsidise their fleets in a variety of ways, which may include subsidised shipbuilding, fuel, technical development and support, etc. This has contributed to the current situation of high over-capacity in the world fishing fleets, a situation which is worsened by constant technological improvements which increase the catching power of fishing vessels.

The Law of the Sea – EEZs and high seas

Since time immemorial, the oceans have been considered common property, belonging to no-one. This notion was modified by that of territorial waters which were established at three nautical miles (nmi), the distance a cannon-ball could carry, but territorial waters were only related to defence, not to fishing.

Fishery limits

In 1490, one of the first treaties dealing with fishing as concluded with Denmark, giving English ships rights to fish off Iceland under licence. In 1609, the English claimed part of the North Sea and started capturing Dutch fishing vessels.

The first international convention relating specifically to fishing was signed in the Hague in 1822 between France, Germany, Netherlands, Denmark and Britain. This was the North Sea Fisheries Convention which established a 3 nmi fishery limit. In 1945, the US claimed the continental shelf to a depth of 200 m and extended the notion of seabed resources to fisheries. Iceland, a country where fishing is of crucial importance, then became the prime mover in extending fishery limits, to 4 nmi in 1950 and extending territorial limits to 12 nmi in 1958. These moves led to the “cod wars” between Britain and Iceland. The UK recognized 12 nmi limit in 1961, then Iceland extended its fishery limits to 50 nmi in 1971 (effective 1972), resulting in the 2nd cod war.

UNCLOS

The first United Nations Convention on the Law of the Sea (UNCLOS) met in Geneva in 1958. At this meeting, the concept of maximum sustainable yield of fishery resources (MSY) was adopted. In 1973, the UN Seabed Committee endorsed the 200 nmi zone concept, and at UNCLOS 3 in 1974, 130 States adopted the Convention. Iceland claimed a 200 nmi exclusive economic zone in 1975, leading to the third cod war with the UK. However, the European Community adopted the 200 nmi EEZ in 1976, effectively obliging the UK to follow suit.

The UN Convention on the Law of the Sea was signed at Montego Bay in 1982 but only entered into force on the 16th November 1994 after the 60th ratification. The generalisation of EEZs effectively placed 90 % of known fishing zones within 200 nmi, but left high seas resources open to all.

The Fish Stocks Agreement, Code of Conduct and Compliance Agreement

It was soon realised that, although only a small proportion of the World's fishery catch comes from the high seas, some high seas species, such as the tunas, have an extremely high value, assessed at as much as a quarter of the value of global fish landings.

Under the threat of some parties to extend their EEZs to 500 nmi or even to the central point of each ocean, it became clear that some other legal regime was needed to cover the high seas. This resulted in two Instruments – the Compliance Agreement, which is voluntary, and the 1995 Fish Stocks Agreement, adopted under UNCLOS, which is binding for those States which have ratified it. States are obliged to take responsibility for fishing vessels flying their flags and fishing on the high seas and are obliged to adhere to the regional fishery management bodies (RFMBs) responsible for any stocks their vessels might be harvesting.

Another voluntary instrument, the FAO Code of Conduct for Responsible Fishing, reinforces the notion of Flag State responsibility, and International Plans of Action have been adopted in areas of major concern, including the catch of sharks, the accidental catch of seabirds, the over-capacity of fishing fleets and to combat illegal, unregulated and unreported (IUU) fishing.

The Precautionary Principle

It is extremely difficult to assess the state of fishery resources as, unlike terrestrial animals or crops, fish cannot be counted. Most of the World's fishery resources are thus still unquantified, despite the fact that indicators such as falling catch rates and diminishing sizes of the fish caught may indicate that the stocks may be heavily exploited.

The "Precautionary principle", adopted at the Earth Summit in Rio, has provided a useful weapon for conservation. This states that lack of knowledge on the state of a resource is not an excuse for not taking management measures, and that the more uncertainty there is in our knowledge, the more precautionary should be our management actions.

Ecosystem management

In the 1970s, 300 000 dolphins were killed each year by purse seiners in the eastern tropical Pacific and by driftnetters in other parts of the world. This intolerable situation was attacked vigorously by environmentalist NGOs and taken up notably by certain South Pacific States, to such an effect that, in 1992, large scale high seas driftnetting was banned by a decision of the UN General Assembly. In parallel, the NGOs brought in "ecolabelling" – a system whereby canned tuna could only be sold on certain markets if accompanied by a "dolphin safe" label certifying that no dolphins had been harmed in catching the tuna.

These measures were certainly justified at a time when dolphin populations in the Pacific were fished at an unsustainable level. However, there is a strong feeling in certain sectors of the fishing industry that man is sometimes the loser in relation with some marine species. For example, damage to nets by seals off Norway is estimated at \$2,500/fisherman/yr, 1million tonnes of fish are thought to be eaten by seals off Namibian coast, and the Japanese estimate that more fish are eaten by whales than by humans.

We can therefore expect to see more interaction in the future between those whose primary interest lies in the environment and those involved in the industry.

Fishery interactions

In certain cases, fish caught by one fishery may reduce the catch of another fishery. This effect is known as “fishery interactions” and can lead to restrictions placed on the fishery judged responsible for the interaction.

An example of this situation is currently being discussed in the Indian Ocean tuna fisheries. Bigeye tuna, is caught in numbers as juveniles, which have little value, by purse seiners fishing under drifting objects. This results in a loss of catch to the longline fishery and could lead to a decision to restrict fishing of purse seiners on tuna aggregated in this manner with a loss of 20-40 000t of skipjack catch, the main target species of the purse seine fleet. The result would be a loss of revenue to one sector of the tuna fishery because of a species which is of interest to a totally different fishery, exploited by other countries.

Regional fisheries management bodies

States only have jurisdiction on their own vessel on the high seas, such that resources there can only be managed through Regional fishery management bodies. RFMBs have existed for over a century, initially with a purely advisory role, and subsequently with powers which oblige Contracting Parties to follow management decisions.

The “resource management” RFMBs normally have the task of agreeing on the total allowable catch for each resource under their management mandate, then have to allocate a quota to each of their members. This has to date proved to be a very difficult task as some distant water fishing nations (DWFNs) have a large investment in vessels, employment and often also domestic markets. The Indian Ocean Tuna Commission, however, guarantees that the interests of developing coastal countries will be taken into account in allocating quotas, which gives some assurance that they will have access to the resources off their coasts.

The management measures taken by these organizations, however, are mandatory only for their members. This created an unjust situation where the management measures taken by RFMB members, often at a considerable cost to their industry, would have benefited illegal, unregulated and unreported fishing (IUU) vessels that were making no effort to conserve the resources.

The IUU issue

The IUU problem, to a large extent, had its roots in early fleet reduction measures of major fishing parties. Schemes to limit the number of vessels licensed for any particular fishery, often with subsidies at the same time for the construction of new vessels, gave an incentive to reflag the displaced vessels in a foreign country and resulted in increased capacity.

In most cases the vessels reflagged in countries having an open registry, (so-called “Flags of Convenience”) that take no responsibility for the activities of their vessels. The end result was to increase the fleets of irresponsible parties, while limiting those (at least nominally) of more responsible players.

Most countries have strict regulations to cover accommodation standards, food and working schedules and sometimes the nationality of the crew. In addition, these vessels are obliged to carry insurance and are thus subject to periodic surveys by specialised agencies. On FoC vessels, none of these conditions apply, and it is therefore frequent to see fishing vessels which are in deplorable condition, with heterogeneous crews, poorly paid and subject to harsh working and living conditions.

Fleet reduction measures in Japan, Taiwan and EU

The practices of reflagging vessels from fleet reduction programmes have now ceased, as most of the major distant water fishing parties are scrapping vessels taken out of their fleets. Japan, for example, has scrapped 20 % of its long range longline fleet and is cooperating with China, Taiwan to purchase vessels sold to the latter entity in earlier fleet reduction programmes for scrapping.

The European Community has announced recently that aid for vessel withdrawal will be increased, but there will no more support for renewal, modernization and export of vessels. New fleet “reference levels” will be set, and adjusted downwards when capacity is withdrawn with public aid. The new Fisheries policy will lead to 28,000 additional jobs lost in the fishing (cf. to the present decline of 8,000/year).

Port State control, trade & catch documentation

RFMBs have been taking a number of resolutions obliging their Contracting Parties to take Port State control measures. These can include refusing entry to IUU vessels into their ports (other than in cases of *force majeure*) and discouraging their citizens and companies from dealing with IUU vessels and products.

The problem remains, however, of identifying IUU vessels. This has led to the development of various catch documentation schemes.

The Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) is responsible for toothfish resources South of the Antarctic Convergence. Any toothfish traded must be accompanied by a certificate has been caught in conformity with the CCAMLR management regime.

IOTC and ICCAT have instituted “statistical document schemes” for species which are considered overfished. These schemes only cover fish in international trade, the main objective being to quantify the catch of these species from non-reporting sources and to identify the fishing vessel.

These schemes have been reinforced by an EU directive. As an aftermath to the “mad cow” disease, the EU is enforcing traceability on all products entering the food chain. This traceability extends from the fishing vessel to the final market, and will reinforce attempts at quelling IUU fishing.

International trade barriers

Countries with a significant investment in a fishery have generally placed barriers to protect their interests. Traditionally, these barriers have involved customs duties, but there have also often been non-tariff barriers, often based on hygienic criteria. However, raising hygiene standards in exporting countries has ensured that there is less product spoilage (i.e. more gets to the markets) and often has resulted in better working conditions on the processing lines as clean and air-conditioned premises are imposed.

The emergence of free trade zones has contributed greatly to the reduction or elimination of customs barriers. In the tuna industry, ACP (Asia, Pacific and Caribbean) countries have benefited from exemption from a 24 % import duty of canned tuna to the EU. This has allowed some ACP countries to develop new processing industries, an effect beneficial to their employment and economy, but which may have contributed to low wages in countries not having this protection and having to keep costs down to sell their product on the EU market. This type of situation is now in

the process of being dismantled as the World Trade Organization (WTO), is progressively removing both tariff and non-tariff barriers to trade.

Multinational companies

Although, at a national level, relatively few companies might control the majority of fishing enterprises, this is rarely the case at an international level. Most of the major multinational corporations which are involved in the fishing industry have entered through the fish trade, rather than through the exploitation level. In the fishmeal, processed fish and canned tuna trade, a very small number of operators are, however, in a quasi-monopolistic position, usually controlling both the processing and the marketing of the product. These companies have frequently been able to dictate the price of the fish landed, obliging vessel operators to cut costs, often at the expense of the crew.

The condition of fishers in a global economy

Notably, although there are few written records, the Romans considered fishers to be *‘poor and deplorable people’*, a judgement that has not changed much over 2000 years!

How then has the condition of fishers evolved over the ages?

Living conditions

The evolution of the size and operating range of fishing vessels has had largely opposite effects. Large ships are undoubtedly more comfortable than smaller ones and the conditions for sleeping, eating and even recreation are immeasurably better on the biggest ocean-going ships. However, modern catch preservation technology has often resulted in longer trips.

In the tuna longline fleets, the effect of deep freezing and later of super freezing was particularly trying for the crews as it brought about a return to the extremely long cruises of sail and salted fish. In longline fisheries, a cruise can last six months or more, with 18 hour working days and no rest periods. The mixture of crews from different cultures has also created problems extending from unpalatable food to isolation. Every year there are mutinies, usually ending in murder.

This situation has been worsened by the modern equivalent of slavery. This has been seen under two conditions:

- allegedly, some fishing vessels have been used as the modern equivalent of the galleys, with the crew constituted of common law prisoners, given the “choice” of serving their sentence afloat. As can be expected, these crew members have often been exploited ruthlessly.
- a more pervasive and better documented activity has been seen recently on IUU toothfish longliners operating in Antarctic waters. In several cases where these ships have been arrested, the crew were found to have been recruited in poor communities, flown to unknown destinations in foreign ports to meet the ship and placed aboard with no papers or money. The vessels themselves were old and in a deplorable state of repair, often barely seaworthy and rarely carrying insurance.

Dangers

Fishing has the unenviable record of being the sector with the most work-related deaths. The latest data show 24,000 deaths annually in fishing, although the real figure is probably much higher, as few developing countries keep any record of accidental deaths at sea. A study of the

crews in the British trawler fleet some years ago also demonstrated that fishers were in generally bad health due to fatigue, poor food and the ever-present risk of injury, with difficult access to medical treatment.

It is clear that the sea will always be a dangerous place and fishing, which involves work in inhospitable conditions using dangerous equipment, is among the most hazardous of occupations. Nevertheless, the trend is clear, with better designed ships offering some protection from the elements to the crew and increased automation which reduces manpower requirements.

Another trend is also clear, with the rapid reduction in employment in the fishing industry in the richer countries. For some years, as has been seen recently, increasing numbers of fishers will come from developing countries, although some developed countries are trying to stem this effect through legislation obliging owners to employ only their citizens. Finally, the fight against IUU fleets is being progressively won through market pressures and this should either reduce these fleets or force the “Flag of Convenience” countries to better regulate their fishing fleets.

As a conclusion, therefore, we can hope that, over the coming decades, the effect of globalisation, acting through markets and more comprehensive legislation, will change the condition of fishers from being *‘poor and deplorable people’* to being productive and respected workers.