FISHERIES DISPUTES IN LATIN AMERICA

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ABSTRACT

Fisheries production in Latin America has shown sustained growth over the past decade; in addition to increased landings, international trade in fisheries products has grown substantially. Improved market access resulted not only from the comparative advantages of the products, but also from vigorous policies to find outlets in international markets. In response to the growth in exports from the region, restrictions are increasingly being placed on international trade in fisheries products.

Analysis of the background to disputes shows that two main factors contribute to their developing: first, disagreements over the resources themselves and, second, disagreements concerning markets. Conflicts over markets increase with growth in trade flows and this has been the case with fisheries products.

Certainly, there is increasing demand for the region’s fisheries products and those products are increasingly able to compete in international markets. With that expansion, barriers have begun to be raised in the markets of certain developed countries.

The purpose of this document is to review the most recent fisheries disputes which have affected the region, to identify their causes and to analyse their economic implications for the countries concerned and the means available for dispute settlement, as well as the policies to be adopted in order to avoid such confrontations, which can slow sectoral investment and the growth of the Latin American economies.

The causes of disputes over marine resources are first analysed and events in the corresponding markets examined. The principal fisheries disputes are then analysed, beginning with the dispute that has attracted the most international attention, the United States embargo on imports of tuna caught by ships from Mexico and other countries of the region. The document goes on to review the shrimp trade dispute, which arose owing to a United States provision that shrimps could be imported only from countries using nets equipped with a turtle excluder device (TED). Lastly, it describes disputes over resources of the high seas in the south-west Atlantic, where there are fishing grounds of considerable interest to fishing fleets from the North Atlantic and Asia.
INTRODUCTION

World fisheries production has shown sustained growth over the past decade, and the countries of Latin America have had their share of this growth. In addition to increased production, international trade in fisheries products has grown substantially. The region took an active part in this process, with a significant share in international trade.

Market access resulted not only from comparative advantages in relation to the rest of the world, but also from the major efforts made by the countries of the region; in order to improve the competitiveness of their fisheries products, they have adopted vigorous policies to find outlets in international markets. Some of them began a process of unilateral economic openness, which contributed indirectly to increased presence of fisheries products in regional export patterns. In response to that growth, a series of barriers to trade in fisheries products have been created by countries of the developed world, leading to some friction.

Thus, conflicts which for many years were settled among Governments through their ministries of foreign affairs and experts are now in the headlines. As a result, they have taken on greater proportions, involving a number of different actors. Why do these conflicts arise, and what are their consequences for our countries?

Analysis of the background to the conflicts shows that two main factors are involved. The first is disagreement over the resource itself. The oceanographic characteristics of the region are such that its waters contain a great wealth of hydrobiological resources. Clearly, owing to the overexploitation of resources in the northern hemisphere, countries whose fleets operate in distant seas will be poised to exploit resources in the waters adjacent to the exclusive economic zones (EEZ) of coastal States, or will press for bilateral fisheries agreements.

The second factor leading to disputes is the market. With globalization, the countries of the region are tending to open up their economies and seek improved competitiveness in order to achieve economic development. Current policy is intended to encourage countries to sell what they produce best and to buy what other countries produce best. This would generate funds which could be used for combating poverty, generating income, creating jobs and, consequently, developing the economy. The region has traditionally been an exporter of natural resources, including fisheries resources; thus, competition for markets is increasingly fierce as trade flows increase, as has been the case with fisheries products. In addition, in the case of these products, the catch can take place thousands of kilometres from the landing site. Thus, a South American country may be competing on the European market with the same product, caught off its coast outside the EEZ.

To achieve entry to international markets, the countries of the region have used the macroeconomic and microeconomic tools available to them in order to improve the competitiveness of their products. They have adopted a series of measures to increase their exports, including open trading policies designed to improve the competitiveness of their exports. Since the fisheries sector produces a tradable good, it benefits directly from such policies. As a result, a series of non-traditional products, including several fisheries products, have appeared in the export markets of the countries of the region. The international situation, with sustained growth in the developed economies, has provided a steadily rising demand for the region’s fisheries products.
There has been sustained improvement in the ability of the region’s fisheries products to compete on international markets. From the microeconomic viewpoint, this has been achieved through the introduction of new technology in production processes, the creation of institutions to promote exports, the efforts of the bodies which market the products, improvements in storage and transport, and the development of new products. With this expansion, problems have begun to arise in relation to market entry for fisheries products in certain developed countries.

The purpose of this document is to review the most recent fisheries disputes between the countries of the region and the developed States, to identify their causes and to analyse their economic implications for the countries of the region, the means available for the settlement of disputes, and the policies to be adopted in order to avoid such confrontations, which can act as a brake on the economies of the region in respect of sectoral investment.
A. MARINE RESOURCES

Hydrobiological organisms are very important wherever commercial fisheries activities take place. Such organisms depend on the relationship between biotic and non-biotic factors, and on the degree of fertility, which determines the concentration of species in certain areas and their dispersion in others. These areas are not fixed and have no clear boundaries; their location can change according to the season or from one year to another (this is more marked in pelagic species). Both the concentration of biomass and its biological diversity are important; the latter determines the number of species which are economically important to mankind (see box 1).

**Box 1**

**RESOURCES AND PRODUCTION**

In 1994, fisheries production in Latin America and the Caribbean reached a record level of 24 million tons, 22% of the world total. Small pelagic species made up about 75% of the total catch. The contribution of this sector to the economy was concentrated in coastal areas, where it is the main source of employment and income in some localities. On the national scale, its role is secondary. Consumption of fish for nutritional purposes was less than the global average, at an annual per capita supply of 9 kg (live weight equivalent). Latin American countries are major exporters of fish and fisheries products and account for 11% of world exports. The region’s main exports are shrimp and fish meal.


If resources are being exploited using appropriate conservation measures, the entire fisheries production of a particular area will ultimately depend on the primary productivity of the marine environment, namely, the concentration of microscopic algae known as phytoplankton. Their production and concentration determine which areas are productive for fishing.

In areas where the surface water is displaced away from the coast by the wind, it is replaced by upwellings of water from deeper levels, bringing rich nutrients from the sea bottom. One of the most important and extensive of these zones of upwelling is located off the coasts of Chile and Peru. It is the site of one of the world’s major pelagic fisheries and those two countries are the world’s biggest producers of fish meal. In the south Atlantic, the upwelling of Antarctic currents off the coast of Argentina sustains fisheries based on squid and various other demersal species including hake and Patagonian toothfish. The demersal species do not have the same spatial distribution in the water column as the pelagic species; the former are closer to the sea bed, whereas the latter are caught in the upper area of the water column, closer to the surface. The most important commercial species in this area are anchoveta, sardines, horse mackerel and tunas.

The fishing areas closest to the coast do not owe their productivity to upwellings but to minerals and organic matter which are carried by water running off the land. Natural conditions in coastal environments such as estuaries, mangrove swamps and lagoon areas
have enabled shrimp fishing and shrimp farming to be developed in a number of countries in the region; and salmon farming has been established in areas with very particular characteristics, such as southern Chile. The Amazon delta sustains one of the major fisheries of the Atlantic, producing shrimp and catfish for export by Guyana and Brazil. The Gulf of Mexico, with nutrients from the river basins which empty into it, sustains shrimp fishing.

Latin America is one of the world's richest regions for fisheries, with its areas of high primary productivity and its coasts, which are migration routes for innumerable straddling fish stocks and highly migratory species such as tuna. These are fished by the coastal States and also by fleets from distant water fishing nations. Moreover, the developed countries are always seeking to negotiate fisheries agreements with the countries of the region; such agreements are often harmful to the fisheries interests of Latin America.

The region needs to consolidate a dynamic advantage which was created when the exclusive economic zones (EEZs) came under the control of the coastal States. During the 1950s, certain countries with major fisheries resources adopted legal provisions extending their jurisdiction over marine resources to a band 200 nautical miles wide measured from the baseline.¹ This measure, which was finally accepted in 1982 by all the States taking part in the United Nations Conference on the Law of the Sea, has been ratified by more than 119 countries and has enabled a number of fisheries in the region to be strengthened. These include shrimp fisheries in northern Brazil and pelagic fisheries in northern Chile and southern Peru (which have led to the construction of plants to produce fish meal and its derivatives; this is known as the reduction industry in those two countries) and the tuna fishery in Ecuador.

Two thirds of the total world catch is currently for direct human consumption as food. The remainder is marketed in the form of fish meal, and by-products for animal food and the chemical industry. This proportion has remained stable in recent years, keeping up with the overall increase in the catch (see box 2).

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<thead>
<tr>
<th>Box 2</th>
<th>CONSUMPTION</th>
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<tr>
<td>The total amount of fish available for direct human consumption in 1995 was 80 million tons, 3.4 million more than in 1994. This increase was greater than the estimated demographic growth for the same year. Consequently, the average annual per capita availability of fish for human consumption increased to 14 kg. According to FAO projections, demand for fish for human consumption in 2010 will be about 110 to 120 million tons (live weight), compared with 75 to 80 million tons in 1994-1995. It is estimated that about 31.5 million tons were used for the extraction of by-products.</td>
<td></td>
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¹ Three Latin American countries, Chile, Ecuador and Peru, were leaders in the formulation of this new legal concept, which only received worldwide recognition in the 1982 United Nations Convention on the Law of the Sea.
B. DISPUTES OVER MARINE RESOURCES

Ninety-five per cent of the global catch is made on the continental shelf of coastal States, and the remaining 5% in the high seas. Aquaculture has increased throughout the world in recent years, with continental catches growing by 7.2% between 1995 and 1996, while deep-sea catches grew by 0.95% during the same period. Noteworthy fisheries in the region include salmon farming in Chile, shrimp farming in Ecuador and farming of various inland fish species in other countries.

After the Second World War, fisheries worldwide slowly returned to normal. Nominal catch figures rose from 20 million tons in 1950 to 112 million tons in 1995. This represents 45 years of sustained growth, during which there were few instances of falling catches; the most significant fall was the 1972 collapse of the anchoveta fishery in Peru.

According to FAO data, the growth of the world catch can be divided into two long periods: the first from 1948 to 1971, when the annual growth rate was 6%, and the second from 1971 to 1990, when it was only 2.3%.

In 1995, the world's five major fisheries countries included two Latin American countries, Peru and Chile, which occupied second and third place respectively in terms of volume of catch. Unlike China, the world's leading fisheries country, the two Latin American countries obtain the bulk of their catches from extractive marine fishing; the growth of the Chinese catch is accounted for by aquaculture.

The dispute over resources between the Latin American fisheries countries and the developed countries is most intense in the south-west Atlantic. The main cause of the dispute is the fact that the fishery resources of the north-west Atlantic, where the fishing fleet of the European Union, mainly Spain, operates, are decreasing. According to FAO data, there was a fall in their nominal catches of about one million tons. As a result of this decrease, the fleets moved towards the north-east Atlantic, leading to a confrontation with Canada over cod. Following the reduction in its catch in the northern hemisphere, the European fleet is moving towards the south-west Atlantic. To enable it to operate there, a fisheries agreement was signed between the European Union and Argentina; however, other fleets have taken to fishing on the high seas, making illegal catches off the coasts of Patagonia (see below and box 3).

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2 One of the main species of salmon farmed in Chile, the Atlantic salmon, had an annual growth rate of 41.8% between 1990 and 1995; the harvest grew from 9,000 to 54,000 tons.
Box 3
THE STATE OF FISHERIES RESOURCES: THE PROBLEM OF FISHING LICENCES

Catches have increased significantly in recent years, reaching record levels in 1996. This has caused concern throughout the sector because of the danger that is thought to exist for Argentina's main fisheries resources.

The fisheries agreement with the European Union and chartering by Asian fleets have had a considerable impact on hake and squid catches respectively. Overall catches greatly exceed the maximum levels recommended by the National Institute for Fisheries Research and Development (INIDEF) of Argentina.

A report by the Ministry of Natural Resources and Sustainable Development has stated that fishing licences are the main cause of the problem.

Source: INFOPESCA, Noticias Comerciales, No. 08/97.

Straddling and highly migratory fish stocks are a source of disputes between the Latin American countries and developed countries. The main group which is the object of such conflicts is the Scombroidei suborder, composed of tuna and related species.

The sustained increase in the world catch has been reflected in increased global trade in fisheries products. The index of the world catch (base: 1979-1981=100) rose to 151 in 1994. In comparison, the trade index for the 206 countries or areas which represent 99.9% of the world catch, based on the same years (1979-1981=100) rose much more than the index for the catch, reaching 203 in 1994. According to FAO, 43.84% of the 1994 catch was traded on the international market (FAO, 1996).
C. MARKET DISPUTES

Of the world's 40 major fisheries States, seven are in Latin America and the Caribbean, including Peru and Chile, the second and third largest producers respectively. Those two States are, however, anxious to increase the value added of their end products, particularly those intended for export. Their fish meal production has a low market value compared with other products such as shrimp, lobster and frozen salmon. Peru landed almost nine million tons of fish in 1995, but received on average just US$ 428 per ton for its fisheries exports. Chile, which received on average US$ 1,179 per ton, was in a somewhat better position, coming in eighth place among fish exporting countries. Thailand, the world's biggest fish exporter in 1995 in value terms, received US$ 4,366 per ton, thanks to its shrimp exports. Norway, which exports a high percentage of frozen fish, was the third biggest exporter of fisheries products in 1995, receiving US$ 2,074 per ton (FAO, 1995).

It is worth examining the factors which determine the relatively low unit value of the region's exports. Some have to do with market access: for example, exports of frozen fillets of demersal fish encounter differential tariffs in the markets of the developed countries, so the countries of the region have to export the fillets in blocks for reprocessing, mostly in European countries.

There have been some changes recently, particularly in the case of Chile, with an increase in aquacultural production and rapid growth in the salmon industry. This diversification has enabled the country to offer new products and improve the profitability of its fisheries exports. Exports to the United States have reached such high volumes that a formal accusation of dumping was submitted to the Department of Commerce of the United States on 12 June 1997. The accusation concerned all forms of Atlantic salmon produced in Chile and exported to the United States. In 1996, the United States market represented 83.2% of exports of refrigerated fresh Atlantic salmon and 35% of frozen Atlantic salmon, which represents one of the biggest markets for this product (Aquanoticias internacional, July-August 1997, Instituto de Fomento Pesquero (IFOP), Market Information Systems (SIM) No. 38, March 1997).

Argentina does not export its fishery products directly to the developed countries, but has signed fisheries agreements permitting countries with deep-sea fishing fleets, mainly those of the European Union, to operate in its coastal waters, which, until recently, had large fish populations, especially of squid and demersal species that have a high value on international markets. The Argentine coastal fishing fleet concentrates its efforts on the South Pacific hake and its production is mostly destined for Brazil, its partner in the customs union known as the Southern Common Market (Mercosur).

Ecuador has the best position on the list of exporters among the fisheries States of the region, thanks to shrimps from its marine aquaculture, its main fisheries product. It receives good prices for its shrimp exports on international markets and demand has increased in recent years.
D. PRINCIPAL MARKETS FOR LATIN AMERICAN PRODUCTS

The major markets for fisheries products are currently Japan, the United States of America and the European Union. Japan has a fisheries industry which is considered to be one of the most efficient in the world, but it has become a major purchaser of fish for reasons connected to falling productivity in traditional fishing areas; Japan imported fish worth about $17.8 billion in 1995, which made it the world's biggest importer of fisheries products (see box 4).

Access to the Japanese market requires a top-quality product which complies with the expectations of Japanese consumers. To improve the competitiveness of the region's fisheries products intended for that market, it will be necessary to adopt policies to allow for crew training to improve shipboard handling of fish; improvements in technical storage processes both on board ship and on land; and improvements in transformation processes. From the institutional viewpoint, competitiveness is being developed through public policies designed to avoid rejection of shipments in the target markets, by including with export products a health inspection certificate issued by a public institution. Quality control analysis is carried out in independent laboratories. This approach has been followed in Chile, where the fish is inspected by the National Fishing Service (SERNAP); as a result, the Chilean products are favourably received in world markets.

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<th>Box 4</th>
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<tr>
<td>INTERNATIONAL TRADE</td>
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<td>The value of international fisheries trade continues to increase. According to preliminary estimates of global fish exports, their value exceeded US$ 50 billion in 1995, compared to US$ 47 billion in 1994 and almost tripled the 1985 figure of US$ 17 billion.</td>
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<tr>
<td>The developed countries absorbed about 85% of total fish imports in 1995, in terms of value.</td>
</tr>
<tr>
<td>Japan continued to be the world's largest importer of fisheries products, with about 30% of the world total.</td>
</tr>
<tr>
<td>Source: FAO. <a href="http://www.fao.org/NEWS/new97-6.HTM">www.fao.org/NEWS/new97-6.HTM</a>.</td>
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The United States is one of the world's largest importers of crustaceans; it is also the largest market for shrimps from Latin America and the Caribbean. The main difficulty in gaining access to this market lies in the distribution system, which is in the hands of a small number of intermediaries. This enables them to control the product flow onto the market, since it is possible to control prices. The competitiveness of the Latin American product in the United States market will have to be improved through political negotiation, since in recent years the United States has implemented measures to restrict the entry of fisheries products from Latin America and the Caribbean on account of ecological problems. This was the case for the ban on Mexican tuna because of the killing of dolphins during fishing operations using purse seine nets. A ban has also been placed on shrimp imports from countries where the turtle excluder device (TED) is not used to prevent turtles from being caught by trawlers. Furthermore, the quality of the product must not be neglected, because of the standards
imposed by the United States Food and Drug Administration (FDA), which requires rigorous compliance with strict quality standards, technical specifications and inspection procedures.

The main characteristic of the European market is a high level of protectionism in the area of fisheries products. European fishermen are highly organized, and constantly campaign for products from third-party States outside the European Union to be classified separately from local products. Recently, the Chilean scallop was classified as a different species from the French scallop and preference was given to the European product. Europe is also a major importer of fish meal for use in cattle and poultry farming, activities which are subsidized by the Common Agricultural Policy (CAP). Control of the market, and thereby of products from Latin America and the Caribbean, is carried out by means of tariff and non-tariff barriers.³ Europe has strengthened protectionist measures of sanitary and even ecological nature, as a means of classifying products according to quality and obtaining advantages in the pricing of fisheries products (see box 5).

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**Box 5**

**CONCERN OVER LOSS OF EMPLOYMENT AND INCOME IN SPANISH PORTS**

"Not only do the Spanish consume a great deal of fish, but they also pay high prices for fish compared with the surrounding countries. There is no doubt that Spain currently does not have sufficient domestic fisheries resources.

Owing to pressure from Spanish fishermen and other European Union countries in 1993, restrictive measures against imported fisheries products were adopted. At the demand of Spain, imported fish was required to comply with European Union health and quality standards. The Spanish authorities opposed the sale within the European Union of imported fish that do not comply with the minimum sizes for fish caught in European Union waters; France demanded that reference or entry prices should be increased by 30% and producers’ organizations throughout the European Union such as the Vigo Shipowners’ Cooperative, demanded that certain imports from Russia, Chile, Norway and Sweden should be completely frozen, that duties should be increased and that import quotas should be established.

The European Union fears an invasion of fish imports, adding to the problems of its fisheries sector, which is already being restructured owing to lack of resources in its fishing grounds. Spain, for its part, fears that increased external purchasing would lead to even greater contraction, resulting in loss of employment and income for its ports."

Source: V. Mate, 1993, "Los pescadores de España y la CE se rebelan contra la invasión de productos pesqueros de terceros países", América Azul, No. 4; April 1993.

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Following European Community directive 92/118/EEC on fisheries products, there is a growing need for the Governments of the region to train the officials responsible for issuing the veterinary certificates which are required for products exported to Europe by third States. It is also recommended that the Governments of the region should take this opportunity to establish health inspection mechanisms for intraregional trade in fisheries products. A regional meeting should be held, involving experts and government authorities responsible for inspection and for issuing health certificates for export products, with a view to

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³ See the issues of the Official Journal of the European Communities containing directives 90/425/EEC, 92/118/EEC and others, and the record of the meeting of the Fishmeal Exporters Organization (FEO) with the European Commission in June 1993, on the subject of clarification of the "Bala" directive.
coordinating policy on health inspection, sampling and microbiological testing at the production, storage and shipment stages, in order to harmonize standards of analysis.

Establishing and maintaining a secure share of international markets calls for constant innovation, with regular improvements in the value added of commodities, including fisheries products. This in turn requires sustained efforts to raise the skills of the labour force and strengthen the domestic entrepreneurial base, including the various opportunities and modalities for linkages with sources of foreign investment. The countries of the region should set up appropriate structures for consultation and refrain from resorting to price wars in order to consolidate their market shares; such attitudes only benefit the importing countries, to the detriment of the development of the region.

Production trends and the absorption of technical progress are decisively influenced by the nature of internal relationships in enterprises and branches of industry; these in turn affect the institutional, social and political structure of each country. International organizations must therefore support integration among the countries of the region, to avoid losing the benefit of efforts to consolidate the competitive development achieved in recent decades.

The competitive development of the fisheries sector must be maintained in order to fulfil one of the main objectives of the countries of the region, namely, to strengthen the international linkages of their economies and to generate sufficient resources to finance their growth.
E. THE GENESIS OF FISHERIES DISPUTES

Concern is being expressed as to the impact of a free trade regime on fisheries resources. There are two dimensions to that concern: on the one hand, it is thought that market expansion may lead to increased pressure on certain resources and may also contribute to environmental damage; and on the other hand, some countries may maintain deficient regulation in the area of fisheries and environmental management in order to favour producers who establish themselves under their jurisdiction.

The first of these dimensions relates to overfishing of resources and the incidental catch of accompanying fauna caused by insufficiently selective fishing methods. The advantages to be gained from increased growth in production and sales are offset by increased intensity of fishing and the use of equipment lacking the necessary environmental safeguards. In the absence of State regulation and technological progress, the environmental impact may negate the advantages to be gained from increased participation in international trade.

The second dimension relates not only to the possible effects of environmental regulation on decisions regarding the location of industries, but also, more generally, to distortions in the patterns of international competitiveness of various countries. This competitiveness will be affected by whether or not producers have to absorb costs related to overfishing or the impact of using fishing methods harmful to the sea bed.

In addition, the increased worldwide demand for fisheries products is leading countries to move their fleets in search of better fishing grounds. As a consequence, conflicts are becoming centred on straddling and highly migratory fish stocks. Disputes are worse in seas to which there is still unrestricted access. Intensified fishing by one country results in complaints from others and conflicts arise which can have a great variety of outcomes.

Another element in direct disputes over resources is the pressure on countries of the region to enter into fisheries agreements with distant water fishing nations; other unrelated agreements are often made conditional on a fisheries agreement. This pressure is due to the fact that, according to FAO, there is worldwide overinvestment in fishing fleets; in other words, there are too many fishing vessels. Another reason is the collapse of demersal fisheries in the North Sea, as a result of which fleets from the European Union countries, particularly Spain, have moved to the South Atlantic in search of new fishing grounds.

In the case of conflicts over markets, in parallel to the trend towards greater openness in trade through the lowering of tariffs, there has been an increase in non-tariff barriers in the developed countries. The most notable of these are public health measures and "ecological" barriers which use environmental issues as the basis for prohibiting the entry of fisheries products from Latin American countries.

One of the factors leading Governments to deny access to their markets for Latin American fisheries products is the existence of producers' associations in the developed countries —created by specific interest groups for particular products or activities, such as salmon production or canning industry— which lobby their Governments to protect their products from competition. Events have often developed in the same way as in other sectors: when a subsector of fisheries production in the United States has felt threatened, it has made
use of the recourse available to it under United States law and begun a legal action for dumping.

The environmental issues relating to fisheries are the over-exploitation of certain resources and the impact of that exploitation on the environment or on species which are caught incidentally. In this case, special interest groups are often supported by environmental campaigners, who lobby Governments to adopt embargoes. As we shall see, typical examples of such protectionist mechanisms include the tuna embargo imposed by the United States against the countries of the region because of the killing of dolphins, and the shrimp embargo owing to the accidental death of turtles in the trawl nets used in tropical areas.
F. THE MAIN FISHING DISPUTES

The use of international trade instruments for the purposes of preserving natural resources is not just a recent phenomenon. One of the first multilateral treaties relating to the protection of fauna was the 1890 Convention aimed at the conservation of wild animals, birds and fish in Africa, whereby a system of export permits was adopted in respect of certain exotic and endangered species (Procópio Filho, 1994).

In 1891, Great Britain, Japan, Russia and the United States signed an agreement concerning the preservation and protection of seals. The agreement contained a recommendation that these four countries prohibit imports of skins of seals caught in the northern Pacific Ocean. This agreement can be considered one of the first successful efforts to protect marine resources within and outside national jurisdiction.

In a similar vein, in 1921, Great Britain, Italy and the former Yugoslavia signed an agreement to prohibit trade in fish caught using methods harmful to fisheries resources and which thus threatened species. The main method called into question was fishing with explosives.

Many of these bans have as a rationale the preservation of species or environmental protection, and have not caused undue conflict between nations. Disputes arise when countries that prohibit the entry of certain fisheries products into their own markets are also producers.

Today, there are some 11 declared or potential disputes between Latin American and developed countries. The reasons behind these disputes are very diverse, as are the fisheries resources involved. Some have a higher profile among the general public than others; some are being conducted behind the scenes, but this does not make the tensions generated any less important (see table 1).

1. The dispute between Mexico and the United States over the tuna/dolphin case

One fishing dispute that has had major international repercussions is the United States embargo on imports of tuna caught by the fishing fleets of Mexico and other countries in the region. The most recent embargo dates from February 1991 and, according to the arguments put forward by the United States, occurred because Mexico violated the Marine Mammal Protection Act (MMPA) of 1972, as well as the 1989 amendments thereto; dolphins are one of the species protected by that body of legislation. The 1989 amendments to the Act permit tuna imports only in cases where the exporting country respects United States guidelines on dolphin protection, i.e., seine fishing of tuna must not exceed a specified number of dolphins caught incidentally.

In 1990, the Inter-American Tropical Tuna Commission (IATTC), meeting in San José, Costa Rica, agreed to establish an international programme to reduce by-catch mortality among dolphins caught along with tuna during seine fishing in the tropical eastern Pacific Ocean. The Governments’ main objective was to reduce dolphin mortality significantly, while at the same time maintaining optimal utilization of tuna resources.
<table>
<thead>
<tr>
<th>DISPUTE</th>
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<th>COUNTRIES INVOLVED</th>
<th>SANCTION</th>
<th>RESOURCE</th>
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<tr>
<td>Tropical Pacific tuna fisheries</td>
<td>Dolphin by-catch</td>
<td>Mexico, United States, European Union</td>
<td>Export embargo</td>
<td>Yellowfin tuna</td>
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<tr>
<td>Shrimp trawling</td>
<td>Turtle by-catch, damage to sea bed</td>
<td>Brazil, Ecuador, Guatemala, Honduras, Mexico, Panama, Venezuela/United States</td>
<td>Export embargo</td>
<td>Shrimp</td>
</tr>
<tr>
<td>Intensive shrimp farming</td>
<td>Damage to mangrove swamps and local communities</td>
<td>Ecuador, Mexico/United States</td>
<td>Non-tariff barriers</td>
<td>Shrimp</td>
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<tr>
<td>Fish meal and fish oil industry</td>
<td>Coastal and atmospheric pollution, overexploitation of resources. Associated species</td>
<td>Chile, Peru/European Union, United States</td>
<td>Sanitary barriers</td>
<td>Horse mackerel, anchoveta, patagonian grenadier</td>
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<td>Export of fleet overcapacity from European Union to Latin America</td>
<td>Straddling stocks, overfishing out of the 200-mile zone</td>
<td>Argentina, European Union (Spain), Chile/Spain</td>
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<td>Southern fisheries of Chile</td>
<td>Excessive increase in fishing effort</td>
<td>Chile/RGI, a Norwegian-owned firm</td>
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<td>Patagonian hake</td>
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<td>Illegal fishing in the south Atlantic</td>
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<td>Totoaba (Cyonoscinc macdonaldi) by-catch</td>
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<td>Farming of Hawskill turtle</td>
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<td>Cuba, Japan/United States, European Union</td>
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</tbody>
</table>
The tropical tuna fishery is one of the oldest in the region; its origins can be traced back to the beginning of the century. With demand for canned tuna on the rise, the fishing ground was extended, increasing the fleet's operating range both southwards and westwards. At that time, the most widely used fishing methods were angling and long-line fishing. Both methods are considered to be more selective than seine fishing, currently the most widely used technique.

The introduction of synthetic fibres in the fishing industry made it possible to invent new fishing methods featuring much larger nets, thus greatly increasing the potential catch. It was in this context that purse-seine fishing developed in the late 1950s. This technique is notable for its low selectivity, which makes it possible to catch huge shoals; the result was that the catch per unit of effort increased dramatically. This new technology has also enabled the tuna-canning industry to expand rapidly.

It is not just this method's low or practically nil selectivity which causes harm to dolphin populations. There is a further contributing factor, linked to nature: the association between tuna and dolphins, principally adult specimens of yellowfin tuna (Thunnus albacares), spotty dolphins (Stenella attenuata), spinner dolphins (Stenella longirostris) and the common dolphin (Delphinus delphis). For reasons not yet clearly explained by science, these mammals share the same areas of distribution as tuna, with adult yellowfin tuna even swimming below schools of dolphins. Fishing boats take full advantage of this phenomenon when conducting their operations.

With the assistance of air reconnaissance, fishing boats locate schools of dolphins swimming very close to the surface of the ocean, and chart a course towards the fishing areas; in this manner, the time the fleet spends searching for fish is reduced. This leads to a significant decrease in the number of fishing days, and hence the total cost of each trip.

Once the tuna boats have located the dolphin schools, they put speedboats into the water to encircle the dolphins, grouping them together as much as possible, before proceeding to cast their nets. After the encirclement is completed, both tuna and dolphins are caught in the net and when it is pulled up, the dolphins remain trapped in the folds and die of asphyxia. It has been estimated that, from the time seine nets began to be used in tuna fisheries in the tropical Pacific until the time the Mexico tuna ban went into effect, around 6 million dolphins died after becoming entangled in the nets of tuna fleets in the eastern Pacific Ocean.

In the 1960s, the first studies were conducted with a view to reducing dolphin mortality in seine nets. At that time the "Medina" panel was introduced, consisting of an insert in a portion of the net with a mesh size, hanging ratio and a bolt rope with floating capacity that are different from the rest of the net, thus enabling the dolphins to escape. To date, the mechanisms employed have not succeeded in eliminating mortality among dolphins, but they have reduced it considerably.

The tuna embargo did not come out of the blue in 1990; the conflict can be traced back to the early 1980s, especially to the time when negotiations on the law of the sea, which established riparian countries' economic sovereignty over a 200-mile zone, were nearing completion. On 14 July 1980, the Government of the United States announced a trade ban on Mexican tuna in retaliation for the sanctions imposed by Mexico on six United States vessels caught fishing in its territorial waters; this is generally recognized as the first embargo on Mexican tuna.

The other development that preceded the embargo imposed in 1990 by the Government of the United States was the unilateral decision by several of that country's canneries to stop purchasing tuna from fleets that caught dolphins. Accordingly, the H.J. Heinz company, which owned Star Kist, whose tuna canny in Puerto Rico then had a capacity to process 600 tons of fish daily, ended purchases of Mexican tuna on 12 April.
1990. At that time, practically every fishing fleet in the world sold its catches to this firm. H.J. Heinz was not the only firm to act; two other United States canneries, Van Camp Seafood Inc. and Bumble Bee Seafood, along with their Asian owners, P.T. Mantrut and Unicord, subsequently announced they would no longer purchase tuna yields that were disrupting dolphin populations. That meant in effect an end to purchases of yellowfin tuna yield caught by any vessel operating in the eastern Pacific, unless accompanied by an observer from either the Inter-American Tropical Tuna Commission or the United States National Marine Fisheries Service, who could check for any associated mortality. Almost overnight, three quarters of the canned tuna market in the United States, the biggest in the world, undertook to adopt a dolphin safe tuna policy (Greenpeace International, 1991).

Within months, close to 84% of the United States canned tuna market was being supplied by firms which were striving to adopt a dolphin safe tuna policy. On 11 October 1990, these firms' voluntary undertakings were set in law by the United States Fisheries Conservation and Management Act.

The ban on tuna imports was extended to other countries, such as Costa Rica, France, Italy, Japan, Panama and Venezuela. The aim was to stop purchases of canned tuna from any European country that bought the raw material from Latin American countries, chiefly Mexico.

**GATT and the embargo**

In September 1991, Mexico requested the convening of a GATT panel, arguing that the ban was a violation of GATT rules. For its part, the United States maintained that the GATT principle of national treatment permitted the ban, in line with guidelines established by the Marine Mammal Protection Act, which regulates the sale of tuna provided that catches do not affect dolphins. Mexico, which was accused of failing to comply with that legislation, asserted that its products were being discriminated against.

The GATT panel ruled in favour of Mexico, having come to the opinion that article III of GATT (which deals with national treatment and states that the treatment of imported products should not differ from that accorded to domestic products) had not been respected by the United States, as it was the products of exporting or importing countries, rather than their regulations on production, that should be compared. Accordingly, the United States should not have banned imports of Mexican tuna on the grounds that the regulations relating to tuna yields did not comply with the provisions of United States legislation.

The United States contended that the ban on tuna imports was justified under article XX of GATT, which contains exceptions that permit measures designed to protect animal health and exhaustible natural resources. The GATT panel justified its rejection of the embargo by declaring that article XX did not, in the opinion of the experts, authorize a contracting party to adopt trade measures in order to impose its national laws on animal health or exhaustible natural resources outside its own jurisdiction.

In explaining its ruling in favour of Mexico, GATT also argued that United States legislation aimed at protecting marine mammals was in violation of article XI, because it imposed quantitative restrictions.

In essence, GATT did not want world trade restricted as a result of a unilateral decision. The important thing was to ensure that countries' decisions were in line with multilateral agreements, this being the very reason for the existence of GATT and, today, of the World Trade Organization (WTO). Were GATT to accept the United States decision, it would be giving its approval to the embargo; that would be tantamount to a declaration that multilateral agreements had no role in a world characterized by the globalization of trade (see box 6).
Box 6

THE TUNA PARADOX

"The issue of the United States tuna embargo against Mexico appeared to be playing out its final chapter when the General Agreement on Tariffs and Trade (GATT) ruled in Mexico's favour, judging the embargo to be contrary to the main objective of the multilateral trading system.

In an extensive study on the reasons for the embargo, GATT criticized the United States position, since it involved the imposition of trade restrictions on the grounds of differences with respect to the protection of natural resources. In point of fact, the United States is deemed to have violated the rules of international trade by proclaiming the embargo.

There is now news that a federal judge in San Francisco has banned yellowfin tuna imports into the United States from countries which buy the tuna from fleets that kill dolphins. This ruling has far wider consequences than the previous one, given in August 1990, as it blocks the United States from buying tuna from any other country that allows tuna imports from any other country included in the United States embargo, in this case Mexico. This measure has an immediate impact on five countries that purchase Mexican tuna: Japan, Italy, France, Panama and Costa Rica, though many other countries are also expected to be affected.

Talks have again started at the international level concerning the need to eliminate protectionist barriers, and GATT members are attempting to overcome their differences in order to complete the Uruguay Round. In addition, the first draft of the Free Trade Agreement project is being prepared. In the context of these developments, it is paradoxical that the case of the tuna embargo against Mexico is being reopened; this is all the more so given Mexico's well-publicized efforts to protect dolphins through a special programme aimed at eliminating the incidental fishing of that mammal.

The tuna embargo is a typical example of what are termed non-tariff barriers. Acceptance of the arguments used by the United States in applying the measure to Mexico would pave the way for any country to act in a similar fashion, banning imports of a particular product from another country in order to force it to adopt its environmental laws.

The case of the tuna embargo aimed at Mexico and the recent ruling by a Henderson district judge are clear examples of how United States trade practices can be distorted in such a way that what it proclaims as a paradigm for its trading partners is not applied in the same manner to foreign products entering its own market."


In spite of the favourable decision by GATT, Mexico chose not to bring the ruling before the GATT Council, whose decision was final in arbitration on trade disputes, as it was in the middle of negotiations with the United States and Canada over the North American Free Trade Agreement (NAFTA). The Mexican authorities believed that any complaints about their future partner would set the talks back. Consequently, the embargo remained in place and it is only recently that the United States has begun to raise the prospect of removing the ban.

Steps taken by Mexico to prevent the killing of dolphins

In view of the importance of tuna fisheries to its fishing industry, Mexico felt it necessary to offer greater protection to the dolphin species associated with tuna and to head off possible international sanctions; accordingly, the Government of Mexico established the National Programme for Tuna Development and Dolphin Protection (PNAAPD) (Compeán and Botello, 1993).

The origins of this national programme go back to 1977; in that year, it became a requirement for tuna boats to accept national observers on board and for information on the incidental mortality of dolphins to be recorded in a logbook.
In 1991, PNAAPD was restructured around three subprogrammes: evaluation of the performance of tuna boats in the presence of trained observers, scientific research and technological development.

From 1991 onwards, the procedure for selecting the on-board observers became more strict; observers were required to undertake a training course before being allowed on tuna boats. Their duties involved gathering information in PNAAPD formats and submitting data on fishing and dolphin mortality via a weekly radio report.

By 1992, PNAAPD had extended coverage to 100% of the fishing fleet, while one third of all fishing trips undertaken were subject to scrutiny by the Inter-American Tropical Tuna Commission (IATTC).

The scientific research subprogramme regularly generates data on fish development and the relative abundance of the resource, in respect of the casting technique and fishing days for the two types of vessels in the Mexican fleet. The subprogramme also collects information on more than 70 species of marine mammals, birds, turtles, sharks, barracuda and other ocean fish found in areas where the Mexican tuna fleet operates (Compeán and Botello, 1993).

The technology development subprogramme seeks to encourage the use of sounds to put dolphins off following commercially harvested species; the programme also aims to develop a system of apertures in nets that enable dolphins to escape before the nets are turned out, and to promote the use of flares in place of the explosives used to separate dolphins from tuna.

In addition, Mexico organized the first International Conference on Responsible Fishing, which was attended by representatives from 66 countries and 8 international organizations. The Conference adopted the Declaration of Cancun, which highlighted the nutritional importance of fish products and set out an international code of conduct for responsible fishing. The Food and Agriculture Organization of the United Nations (FAO), which helped organize the Conference, presented the recommendations in a document entitled Code of Conduct for Responsible Fisheries, which was unanimously adopted on 31 October 1995 by the FAO Conference. The Code is not binding, but is of great assistance to countries formulating fishing policies and enacting measures for fisheries management which ensure the sustainable development of living aquatic resources.

**Environmentalists and the embargo**

Many interests come into play in the conservation of marine mammals. One set of interests is that championed by international environmental groups such as Earth Island Institute, founded in 1985 and based in San Francisco, and Greenpeace, the environmental watchdog that since 1983 has expressed concern at incidental dolphin deaths in the eastern Pacific.

Environmental groups undoubtedly played a major role in the United States decision to place a ban on tuna from Latin American countries. However, there was also dissenting voices, against the ban, within the ranks of the environmentalists. For instance, a split occurred within Greenpeace, as the Latin American chapter objected to the form the ban took (see box 7).
Box 7
ENVIRONMENTAL CONTROVERSY

"With an attitude characterized as erratic by observers, Greenpeace has, at various times and in various ways, switched between support for and rejection of the tuna embargo against Mexico. Greenpeace categorically opposed the imposition on environmental grounds of embargoes or penalties that could affect the economies of developing nations, commented at the time Mr. Juan Carlos Cárdenas, a member of the oceans campaign run by the Latin American chapter of Greenpeace.

When the embargo was at its height, he stated emphatically that Greenpeace did not believe such measures were of any real use in solving the problem, which needed to be tackled at its source: the disintegration of Latin America's economies. He added that the organization he represented could not support the measures adopted by the United States in the tuna case, as it was not clear how they would contribute to halting the decline of the dolphin population, since they were taken unilaterally and offered no real alternatives that would enable Mexico or any other country to prevent incidental dolphin deaths during tuna fishing.

The problem was a real one, he acknowledged, but [an embargo] was not the appropriate way to tackle it. If the authorities were truly concerned about the environment, they should offer suitable technology under preferential conditions, establish a programme with short-, medium- and long-term goals, and set up commissions made up of members from both countries, etc. 'Nothing of the sort has been undertaken. We believe that that is the only real way to solve the problem facing marine mammals. Recourse to embargoes, today of tuna, tomorrow of shrimp, and so on and so forth, only causes greater poverty in the less developed countries, which as a result have fewer financial resources at their disposal to deal with environmental problems', said Mr. Cárdenas in a statement to the press at the outset of the embargo.


At that time, the Earth Island Institute headed what was known as the dolphin coalition, which brought together 35 groups interested in their conservation. By 1987, this group had consolidated its leadership in tuna/dolphin matters and spearheaded the suit against the United States Department of Commerce for failing to ensure compliance with the Marine Mammal Protection Act. The group also promoted a boycott of tuna products, filming on board tuna boats and presenting footage of dolphin deaths at meetings held to discuss the issue of the tuna trade.

The Earth Island Institute believed that these actions prompted the decision by H.J. Heinz, which owned Starkist Sea Food Co., to stop buying, processing or selling tuna either caught by casting over dolphins, as referred to above, or landed from boats engaged in drift-net fishing. Bumble Bee, a Thai firm, and Van Camp, an Indonesian firm, followed suit.

In this manner, environmental and economic interests were combined, and a series of joint activities was initiated worldwide. One year after the embargo came into effect, it received legal backing from a San Francisco court. Meanwhile, a number of firms and environmental groups joined forces to promote a Save the dolphin policy entailing, among other things, a demand for dolphin mortality associated with tuna fishing to be reduced to zero, for all tuna boats to have IATTC observers on board; and the immediate, irrevocable adoption of these measures in the countries of origin of canning firms and their subsidiaries in other parts of the world.

Greenpeace International joined the Earth Island Institute in promoting the tuna ban. However, the Latin American chapter of Greenpeace voiced its objections to the embargo. Although opposed to the embargo, the chapter maintained that it was important to prohibit dolphin associated tuna harvesting, which it considered a destructive practice (see box 7).

In this case, Greenpeace Latin America adopted a position that took into account the economic and social conditions of the region, and supported a multilateral resolution of the
dispute. This would require genuine political commitment, from Governments, the scientific community, consumers and environmental groups.

**The effect on the Mexican tuna industry**

It is important when analysing the impact of the ban on the Mexican tuna industry to distinguish between two periods: 1981-1991 and 1991-1997. The first period was notable for the impact caused by the United States embargo of 1980-1981. It was followed a decade later by a second embargo, this time imposed by a United States federal court, in a markedly different context of global trade and United States Mexican relations.

At the time of the first embargo, Mexico was slipping into a deep economic and financial crisis. The ban also coincided with a major slump in the United States tuna industry and the rise of Asian producers, especially in Thailand. Furthermore, Europe was experiencing a boom in tuna consumption, forcing United States multinationals to change their strategies (Delgado, 1996).

Thus, while Mexican exports of frozen tuna were shut out of the United States market, the market in Europe, and particularly in Italy, was expanding; in addition, Mexico was able to place some of its production in the Japanese market. The Government of Mexico embarked on a policy of encouraging domestic consumption, as a result of which Mexico became the country with the fifth largest per capita consumption of tuna in the world. Thus, not only did Mexico manage to reduce the harm done to it, in trade and economic terms, as a result of the 1980-1981 embargoes, but the national tuna fleet increased in size, becoming one of the largest in the eastern Pacific.

According to Raúl Delgado (1996), in the period 1981-1991, the United States imported approximately 36,045 tons of fresh and frozen tuna from Mexico. Over the same period, three countries of the European Union (France, Italy and Spain) imported 290,637 tons of Mexican tuna; Italy alone took 265,255 tons, equivalent to over 90% of the total imported by the three countries. Thus the European market was far more important for the Mexican tuna industry than that of the United States.

In short, the embargoes of the early 1980s did not have an overly adverse impact, thanks to new and expanding markets such as those in Europe, and other mature and high-demand markets, such as that of Japan. The Government of Mexico also provided substantial assistance to the tuna industry and fleets in the form of subsidies, tax exemptions and a major drive to boost domestic consumption and promote exports.

The 1990 and 1991 bans on Mexican tuna affected exports to the United States and European markets alike. Since this embargo took in products of third countries, it had a far greater impact on the Mexican tuna industry than the embargo of the early 1980s. On top of this, the “Dolphin safe” campaign damaged the image of Mexican tuna, which was mainly comprised of yellowfin, further depressing exports.

The consequences were not long in coming. In 1992, Mexico recorded losses of US$ 44.4 million (Delgado, 1996). The same year, 30,000 tons of unsold tuna had to be stockpiled in the country's cold storage plants. In the port of Ensenada alone, some 15,000 tons of tuna were stored on refrigerated-cargo ships in 1993 (Rodríguez, 1993).

Under these conditions, Mexico saw its receipts from tuna exports decline dramatically. In 1993, such receipts stood at only 31% of their level in 1989, one year prior to the ban. Assuming constant income at least the 1989 level of US$ 73 million for exports, the cumulative loss over this period, for this item alone, can be evaluated at US$ 149 million. If, using data from official sources, we then add the estimated US$ 50 million in income forgone over subsequent years, net losses between 1990 and late 1996 can be put at close to US$ 300 million (see table 2).
Table 2
FORGONE FOREIGN EXCHANGE EARNINGS OWING TO REDUCTION
OF EXPORTS OF FRESH AND FROZEN TUNA. MEXICO, 1990-1993
(Millions of dollars)

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<tbody>
<tr>
<td>Actual</td>
<td>73.00</td>
<td>55.40</td>
<td>36.00</td>
<td>28.60</td>
<td>22.70</td>
<td>142.70</td>
</tr>
<tr>
<td>Forgone</td>
<td>-</td>
<td>73.00</td>
<td>73.00</td>
<td>73.00</td>
<td>73.00</td>
<td>292.00</td>
</tr>
<tr>
<td>Difference</td>
<td>-</td>
<td>17.60</td>
<td>37.00</td>
<td>44.40</td>
<td>50.30</td>
<td>149.30</td>
</tr>
</tbody>
</table>


It is believed that the impact on the Mexican tuna industry would have been worse had the moratorium provided for by the International Dolphin Law of 1992 been accepted. Such a moratorium would have entailed the loss of several thousand jobs in the tuna fleet and industry, as well as the disruption of an economic sector worth over US$ 2 billion. It is also logical to assume that Mexican imports of tuna would have risen in the absence of domestic production, which would have necessitated spending foreign exchange.

The embargo also had an impact on the Mexican fishing fleet. According to the National Chamber of the Fishing Industry (Canaemplates), in 1989 the fleet consisted of 70 vessels, with a capacity of 50,000 tons; five years later, only 54 vessels were operating, with a capacity of 35,000 tons. Thus, over that period, the fleet experienced a 24% drop in the number of boats and a 30% reduction in capacity.

However, not all the effects of the embargo were negative: the tuna industry focused its efforts almost exclusively on the domestic market and, as a result domestic consumption rose by 90% in five years. Thus, between 1994 and 1996, more than 100,000 tons of tuna were consumed, compared to a figure of just 63,000 tons in 1989 (El Nacional, 2 May 1997).

Prospects for an end to the embargo

In August 1997, the United States Senate ratified the International Dolphin Conservation Program Act, a first step towards lifting the tuna embargo on Latin American countries, as part of a modern multilateral framework for managing and protecting the living resources of the high seas. That same year, the Governments of Mexico and the United States issued a joint declaration in which they stressed the considerable progress made in protecting tuna associated dolphins during seine fishing in the eastern Pacific, by virtue of the international dolphin protection programme; that programme would be strengthened with the implementation of the Panama Declaration of October 1995.

This achievement was the result not only of arduous meetings between Mexico and the United States, but also efforts by the Latin American States to persuade the United States to lift the embargo.

The countries of the region focused their energies on two main activities; the first consisted of meeting the standards required by the United States, with the incorporation of observers in the tuna fleets. By 1995, all tuna vessels operating in the eastern Pacific had observers on board. At the same time, the Latin American countries affected embarked on extensive coordination both within the region and with the United States, with a view to achieving a consensus on how to deal with the embargo. As a result, the following instruments were signed:
• The La Jolla Agreement, of 1992, seeking to implement the objectives of the Marine Mammal Protection Act;
• The San José Declaration, of July 1995, signed by the Governments of Colombia, Costa Rica, Ecuador, Mexico, Panama and Venezuela, calling upon the Government of the United States to eliminate unilateral and inappropriate policies that cause unnecessary and irresponsible destruction of the ecosystem and tuna resources in the eastern Pacific;
• The Panama Declaration, of October 1995, in which the Governments of Belize, Colombia, Costa Rica, Ecuador, France, Honduras, Mexico, Panama, Spain, the United States, Vanuatu and Venezuela reaffirmed their determination gradually to reduce dolphin mortality in eastern Pacific fisheries and to develop environmentally sound methods of catching tuna not associated with dolphin.

The Panama Declaration was supported by a number of international non-governmental organizations such as the Center for Marine Conservation, Greenpeace and the World Wildlife Fund.

This joint undertaking by the Latin American countries\(^4\) in terms of the above-mentioned instruments paved the way for the United States, in accordance with legislation passed by the Senate in August 1997, to lift the embargo if it deemed the Panama Declaration a sufficiently effective instrument for protecting dolphins.

According to sources in the tuna industry, there is incalculable potential for the export of Mexican tuna to the United States; the expectations for growth once the ban is lifted are therefore very high. In this and other cases, all the countries in the region are interested in finding a formula for environmental cooperation that reduces the scope for unilateral initiatives.

2. The shrimp trade dispute

Latin American countries practise two methods of shrimp production: the traditional trawling method and the second more recent method of shrimp-farming. Shrimp trawling has been the target of criticism since turtles are captured as by-catch and pressure from environmental groups in the United States has led to an embargo by that country against this method.

With respect to shrimp farming, some environmental groups are starting to press for a ban on imports of shrimp from this origin on the grounds that ponds constructed for shrimp farming have destroyed mangrove swamps in various countries and displaced traditional communities. According to reports, this measure affects not only Latin America but also the countries of South-East Asia, especially Malaysia, which is today the principal exporter of cultivated shrimp to the United States market. Depending on the clout of such environmental lobbies, other fisheries disputes may well arise.

In the case of shrimp trawling, the trade dispute leading to the United States embargoes on shrimp imports dates back to 1989, with an amendment to the United States 1973 Endangered Species Act. Under this law, the nets used on United States boats must be equipped with a turtle-excluding device (TED). This device consists basically of a component which prevents turtles from passing into the inner part (bottom) of the seine, thus allowing them to escape through the top of it. This legislation also places a limit on the trawling time of these vessels.

United States companies claimed that use of the TED made them less competitive. Their main argument was that operational costs were higher and that the device scared away the shrimp. These higher costs and smaller catches gave the competitive edge to Latin

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\(^4\) The Latin American Fisheries Development Organization (OLDEPESCA) provided substantial support to this joint effort; see OLDEPESCA, 1997 (b).
American countries so that companies in the United States asked Congress to place a ban on shrimp imports.

Enforcement of the embargo was through "certification". This means that countries that adopt the turtle-excluding device in their fleets and take the same measures as those imposed on the United States fleet are granted the required certification, which is valid for one year. Thus, each year, prior to 1 May, a committee of United States experts travels to the shrimp-exporting Latin American countries to decide whether or not to award the certification.

For example, in early 1997, United States officials were in Ecuador and Colombia and noted "violations" to the measures for protection of turtles during fishing of wild shrimp and, therefore, could hardly have been expected to deliver the certificate for export to the United States. An exception was granted for the product of shrimp farms provided that a certificate of origin was issued by the competent authority.

On the other hand, Brazil obtained certification from the United States Department of State in early May 1997, authorizing it to continue exporting shrimp caught with dragnets to the United States market.

In order to avoid an embargo on its shrimp production Mexico has reinforced the measures taken under the National Turtle Protection Programme to protect marine turtles. Since 1992, through the National Fisheries Institute, it has been studying the efficiency of shrimp fishing and the extent to which associated species have been excluded through the use of various types of excluding devices, including the TED.

Evaluation of the different models of TED has made it possible to enforce the mandatory use of these devices by Mexican commercial shrimp trawlers operating in the Gulf of Mexico and the Caribbean Sea as from April 1993 and off the Mexican Pacific coast as from 1996.

Latin American countries have taken active steps to prevent the enforcement of such measures and have succeeded in obtaining a series of postponements. Regional efforts have overcome the mere imposition of restrictions under the relevant United States legislation. Under the auspices of the Latin American Fisheries Development Organization (OLDEPESCA), the region started work in 1994 in preparation for the signing of the Inter-American Convention for the Protection and Conservation of Sea Turtles. During the fourth round of negotiations, held in 1996 in Salvador de Bahía, Brazil, the text of this convention was adopted and the latter is open for signature and ratification by interested States at the Ministry of Foreign Affairs of Venezuela, the depository country. From 1 December 1996 to date, this convention has been signed by Brazil, Costa Rica, Nicaragua, Peru, the United States and Venezuela.

The World Trade Organization (WTO) and the embargo

The question that comes to mind on observing the United States method of classification is: to what extent can a country restrict international trade in the name of protection of an endangered species?

With a strong global trend in favour of free international trade, it is logical that such disputes will reach the arbitration committees of the World Trade Organization (WTO) as occurred with the United States ban on Mexican tuna. In this way this organization is likely to play a very important role for the future of many of the fisheries of the region.

A request that a panel be established to consider the shrimp embargo was presented to WTO by India, Malaysia, Pakistan and Thailand. This multilateral organization is therefore examining whether the restrictions imposed by the United States on shrimp fishing carried out without special devices for the protection of sea turtles violate international trade standards. The panel, which consists of three members, has to determine whether the
United States prohibition is discriminatory or not. The panel's ruling will be fundamental for the understanding of developed countries in their practice of imposing trade restrictions in an attempt to avoid ecological damage. Towards the end of 1997, the panel was awaiting the results of scientific research which might clarify whether the turtle excluding device was the only effective method of turtle conservation.

The United States Department of State maintains that the ban on shrimp imports which entered into force in 1995 has not violated international trade standards. According to the provisions of the Endangered Species Act, the embargo is in keeping with the rules of free international trade which provide for exceptions for the purposes of environmental protection. Whatever the ruling, it will be very important—for varying reasons—for a large number of Latin American countries, in particular Brazil, Colombia, Ecuador and Nicaragua. If the World Trade Organization accepts the United States claim, it could set a precedent for an embargo that affects cultivated shrimp on the grounds that this practice causes damage to mangrove swamps. Environmental disputes in international trade tend to have a multiplier effect and the decision taken by the World Trade Organization during the course of the decade will be crucial for the future of the trade of fishery products in the region.

3. The dispute over resources of the high seas in the south-west Atlantic

Despite the adoption on 4 August 1995 of the United Nations Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea of 10 December 1982 relating to the Conservation and Management of Straddling Fish Stocks and Highly Migratory Fish Stocks, disputes still exist between coastal States and distant waters fishing nations. In this section, the focus will be on the dispute over hydrobiological resources of the south-western Atlantic. This corresponds to the fisheries area falling within the exclusive economic zone (EEZ) of Argentina and the area surrounding the Falklands/Malvinas Islands. Fishing activity ranges north and south of 48 degrees south latitude. A brief look at events in area 48 of the Food and Agriculture Organization of the United Nations (FAO) classification, a subantarctic zone where States countries are in dispute over the Patagonian toothfish, will also be useful.

The Patagonian fishing grounds, which are a great attraction for North American and Asian fishing fleets have proved to be one of the greatest potential sources of international fisheries conflict. The relatively undeveloped Argentine fisheries industry and the need for an effective fishery effort in its EEZ have led the Argentine State to encourage a development model with a large foreign capital component. It has also favoured agreements with distant waters fishing nations and the establishment of companies using foreign and domestic capital. By opening up its waters to distant water fleets, it has attracted Japanese, Korean and Taiwanese freezer-factory squid ships operating under the charter system and Spanish and Chilean vessels practising demersal fishing.

This pressure on resources in the south-west Atlantic has occurred because, from the early to mid-1970s, fishing in the area had been limited mainly to small-scale coastal fishing for the domestic market. With the development of fishing along the Argentine coast, this region became one of the most sought after by fleets from a number of countries. Argentina almost tripled its catch in the past decade and landings increased from 420,000 tons in 1986 to 1,148,000 tons in 1995 (FAO, 1996) (see box 8).

The abundant fishery resources in the southern seas include a large number of commercially valuable species, including Argentine hake (Merluccius hubbsi), Patagonian hake (Merluccius polylepesis), Patagonian grenadier (Macruronus magellanicus), southern
blue whiting (Micromesistius australis), marbled rockcod (Notothenia rossii), Argentine shortfin squid (Illex argentinus), common squid, (Loligo spp.) and Patagonian toothfish (Dissostichus eleginoides).

**Box 8**

**Pressure on resources**

“In recent years, world fisheries have become a market-driven, dynamically developing sector of the food industry and coastal States have striven to take advantage of their new opportunities by investing in modern fishing fleets and processing factories in response to growing international demand for fish and fishery products. By the late 1980s it became clear, however, that fisheries resources could no longer sustain such rapid and often uncontrolled exploitation and development, and that new approaches to fisheries management embracing conservation and environmental considerations were urgently needed.”


Disputes in the Patagonian seas have arisen because of the abundance of fishery resources in the region, compounded by pressure from excess capacity of the world’s fishing fleets.

According to FAO data, world fishing fleets have increased steadily, reaching 26 million tons gross registered tonnage (GRT) in 1992, with a total of 3.5 million vessels, or 136,000 more than in 1989. The South American fleet thus represents a small fraction of this total (3.1%); Europe owns 12% of the world fleet and Asia, 42%. The excess capacity meant that ships from distant waters fishing nations set sail in search of new maritime frontiers. Thus, on 30 November 1992, Argentina signed a fisheries agreement with the European Union, which is of direct benefit to Spain.

This movement of fleets towards the south-west Atlantic is attributable to the sharp decline in the catch per unit of effort in traditional fishing grounds, especially those of the North Sea, which have caused a drop in profitability to levels below operating costs. For this reason, and as a survival tactic, several countries encourage and broker agreements to enable their fleets to operate in Argentine waters as previously indicated, while some other fleets do so illegally (see box 9).

Patagonian waters attract not only European and Asian fishing vessels but also Chilean fishing boats, some belonging to Spanish companies which previously operated in southern seas. This relocation of the Chilean fleet to the south-west Atlantic is due to the depletion of stocks in fishing grounds off southern Chile. Current catch levels in this zone are not profitable for factory ships. Moreover, Chilean legislation contains a provision whereby, with effect from 31 December 1996, companies operating factory ships off the coast of Chile are required to make investments on land. Many of the foreign companies that use this system of fishing show no interest in changing their operating procedures and making investments on land and therefore have abandoned the Chilean coast in search of more hospitable countries; in this respect, Argentina is the country that offers the best facilities for the operation of foreign fleets along its coasts. Notwithstanding all these facilities, Argentina has to contend with raids by fleets that operate illegally.
Box 9

ILLEGAL FISHING IN ARGENTINE WATERS

Apart from the captain and chief engineer, the entire crew of the Spanish fishing vessel, the Arpón, detained since 13 May 1997 in Bahía Blanca (Argentina) and fined US$ 600,000 (116 million pesetas) will be repatriated as soon as seats are available on flights to Spain.

Awaiting repatriation are the 22 Galician seamen who have remained in Argentina since their trawler was seized on the grounds of operating in Argentine waters. The Arpón is being held in port pending payment of the fine.

Coast-guard authorities imposed a very high economic sanction on the vessel, the maximum charge being US$ 1 million, surrender of one net and the seizure of 89 of the catch of approximately 640 tons. They have confirmed that the vessel had been operating within the 200-mile exclusive zone.


With the increase in fishing fleets in the south-west Atlantic fishery activities in this region mobilise large amounts of capital creating strong links between this area of production and consumer markets and generating growing pressure on fishery resources, in many cases to the point of over-exploitation.

Spread of conflicts in the south-west Atlantic to other areas

The positive results of exploratory fishing conducted by Norwegian fishing vessels in subantarctic waters in search of new fishing grounds for Patagonian hake have led a number of fleets to relocate to this region, transforming the entire subantarctic area, the south-west Atlantic and part of the Indian Ocean into a zone of constant dispute over resources. It should be recalled, moreover, that there is no legislation governing the management of high seas fishing grounds (see box 10).

Box 10

THE HIGH SEAS, RES NULLIUS

"When we speak of the high seas, we refer to the expanse of ocean that does not fall within the jurisdiction of any State; we are thus referring to an immense expanse of ocean, which is part of the global heritage and in which all States may play a role, with equal rights of access and non-discrimination.

This regulation corresponds to the Grotius principle, of which the most developed version may be found in the Geneva Convention on the High Seas (1958), which established freedom of navigation, fishing, laying of submarine cables and pipelines.

Grotius's theory dates back to 1609 and corresponds to the historical context and perspective of the world in the seventeenth century. Marine resources, he claimed, were immeasurable, and no State could appropriate them or any group of States assign them. Reality and technological change have put paid to that theory.

Notwithstanding the evidence, the interests, inequalities and development potential based on ocean resources have deferred any attempt to adapt the Grotius principle to modern times. This is mainly because the concept of unrestricted freedom is very convenient for developed countries.

National legislation is usually silent on this complex issue, while establishing that States' sovereignty —based on the definition of the exclusive economic zone (EEZ) for the exploration, exploitation, conservation and management of resources— extends to 200 miles beyond the coast.

Source: Pavez, P., Preocupación e inquietud por la pesca en alta mar. Revista Chile Pesquero.
According to Munita (1993), problems arose in 1993 after Chilean vessels were intercepted and charged with operating in the zone under the jurisdiction of the Convention on the Conservation of Antarctic Marine Living Resources. Repercussions were felt not only at the national level, where four charges were laid on account of the violation of the principles of the Convention, but also at the international level.

Illegal fishing takes place in this zone because yields in international waters of the region are very poor, 3 to 4 tons per day on average in the sparse fishing grounds known to exist. Considering that no one is prepared to incur expense fishing in areas where operating costs are relatively high on account of the length of the voyage or time at sea, it may be concluded that the fish caught are the product of forays into restricted fishing zones, in violation of the provisions of the Convention, by ships flying the Chilean flag.

The disputes in such distant waters and under such difficult navigation conditions have taken on epic proportions; today, there is talk of a new category of fishermen operating in southern waters: the so-called “south sea pirates”. The fishing vessels involved in so-called pirate fishing resort to every form of cunning to get around the controls, the most common being to switch flags (using flags of convenience). Between 1992 and 1996, 13 Chilean vessels were fined under the Convention, of which Chile is a signatory (Gonçalves, 1997) (see box 11).

**Box 11**

**SOUTH SEA PIRATES**

“The accusation by the Government of France on 20 February that the “Puerta Ballena” a vessel belonging to the Pesca Chile company, had been sighted the previous day operating within the exclusive economic zone of the Crozet archipelago (south-east of South Africa), has raised the issue of pirate fishing, which, despite its harmless fictitious ring, has become a thorn in the side for Chile in the area of international relations. Dozens of Chilean boats —some of which have switched flags so as to operate “in peace”— are transgressing international fishing standards and, although they are not the only culprits, have been the boldest in exploiting new areas and venturing into zones that are considered highly perilous as far as navigation is concerned.”


The main target of such illegal fishing operations is the Patagonian toothfish, a species that is already suffering the ill effects of this illegal activity. Scientific studies show that the size of specimens caught has been declining steadily and now averages between 30 and 40 centimetres, compared with earlier specimens of as much as one metre in length.

The so-called “pirates” of the south seas fish in the close season, exceed allotted quotas, work during daylight hours—which is forbidden in order to reduce albatross mortality, since this bird fishes during the day—and operate without authorization within exclusive economic zones (EEZ) irrespective of the country involved (Gonçalves, 1997).

One of the measures proposed for controlling pirate fishing is the use of highly reliable “tracking satellites” to detect the position of such vessels.

At the consultative conference of the Convention, held in New Zealand in May 1997, illegal fishing of Patagonian toothfish was one of the issues raised. On this occasion, Simon Upton, the Deputy Minister for Foreign Affairs of New Zealand, pointed to the difficulty of putting an end to illegal fishing of a resource which could fetch as much as US$ 7,000 per ton. Some claim that the fishery companies have found a gold mine in this subantarctic zone. The pressure that can be exerted on fishing grounds and the threat to species continue to be a source of concern.
This concern is based on the fact that the fishing effort makes no allowance for the time species need for recovery. This suggests that fishing companies in the various countries that operate in these waters have a very short-sighted approach.

As it is very difficult for countries to control illegal fishing in their EEZ and to avoid the plunder of stocks, coastal States affected, for example Argentina, have set up a licensing system. Foreign companies, who want to cash in on this opportunity, form joint ventures with local companies in order to be entitled to operate in the respective EEZ.

In Chile, those involved in the fisheries business point out that Chilean fleets are already operating in the third ocean—the Indian ocean. It should be borne in mind that these boats belong, for the most part, to joint venture companies and that, while the crews may be Chilean, the technology and knowledge often originate with foreign, mainly Spanish, companies.

It should be recalled, as mentioned earlier, that if fishing fleets are heading for the subantarctic, where good Patagonian toothfish fishing grounds are to be found, this is mainly because at least 60% of world fishing fleets have nowhere to fish and are in search of new fishing areas (Bonfill, 1996).

The situation of Spain is a case in point: with domestic demand for products from the sea traditionally in excess of supply, Spain has for several decades been obliged to sign fishery agreements with some 20 countries in order to facilitate access by Spanish vessels to the EEZ of these countries. Moreover, Spain’s entry into the European Union was concluded on unequal terms with respect to fishing rights compared with those enjoyed then and now by the other member States.

As a result of the excess fishing capacity of the fleets, disputes over fishery resources and markets between Asian, European or North American companies and between coastal States and distant waters industrial fleets are becoming increasingly common.
CONCLUSIONS

Oceanographic conditions off the coasts of Latin America allow the exploitation of large volumes of fishery resources. This maritime comparative advantage, together with the potential of inland waterways for aquaculture, places the region in a good position to develop its fishing industry, provided that this is done within the framework of sustainable development. Countries of the region should therefore try to increase the value added of their products and conduct research into new products and not content themselves with the role of exporters of protein in a primary form from their fishery resources.

In order to achieve this, coordinated action between the public and private sectors is necessary in order to address the issue of the elimination of undue obstacles to processed fish products from developing countries in international forums and free trade treaties. This would enable countries to carry out the necessary research into new products that represent value added not only in technological terms but also in terms of knowledge.

The region must avoid the economic enclave formula for development of the sector, such as granting authorizations to factory ships. The award of licences or locally financed joint ventures enabling foreign companies to operate factory ships in Latin American EEZs generates very few jobs. On the other hand, the installation of plants on land promotes the development of input and processing industries, thus giving a greater boost to the economy of the sector. To this end, it is very important to have a regulatory framework without major control mechanisms, which, in the long term, are inefficient and lead to corruption. It is necessary to treat the thematic area of fisheries development as a whole, in which various branches of a country's economy interact to achieve a common goal: sustainability of fisheries.

One issue that should be addressed directly in the region is the energy efficiency of the fish meal industry. A means of reducing the chain of protein conversion must be found in order to ensure that a portion of current catches is set aside for direct human consumption. Energy savings and higher income may ensue, once a higher value product is obtained. This process should be gradual, beginning with those species that can be used directly for human consumption. Here, once again, it must be borne in mind that this effort must be shared between developing and developed countries; the latter should, as a matter of priority, strive to reduce tariffs for new products from the industry when it is in the process of restructuring.

Efforts should not be directed exclusively towards the establishment of a policy for penetrating the markets of developed countries; intraregional trade in fishery products should also be promoted. Once markets have been consolidated within the region, it will be much easier to find outlets for fishery products in more protectionist markets where quality standards are higher.

Before setting out to export fishery products, it is necessary to formulate a policy that promotes sectoral development based on the sustainable use of fishery resources. For this purpose, it is important to have a system of research into, and study of, fish stocks in coastal areas of the region, whether these are confined to the EEZ or fall into the category of straddling and highly migratory fish stocks. It is important to define the levels of effort that are appropriate for a rational form of exploitation that does not jeopardize the existence of the
populations on which commercial fisheries depend. Where necessary, there should be no hesitation in proceeding to freeze fishing efforts and to promote programmes for fleet restructuring, including scrapping of surplus ships.

The region must speed up its technological research programmes to avoid incidental catch and improve the selectivity of fishing gear and to find the ways of using incidental catch instead of the current practice of throwing it back into the sea after completion of the casting. Fleets, should in this way, be able to increase their operating income and obtain a higher rate of return on their fishing activity. On the other hand, it should not be left to environmental groups of developed countries to set the standards for responsible fishing that should be adopted in the region. Care for the environment and protection of fishery resources are fundamental for the survival of the sector, contrary to the very short-term outlook that prevails today regarding Patagonian toothfish in subantarctic waters.

Latin America is endowed with abundant natural resources and these can be turned to advantage as an important factor in its development strategy. To this end, developed countries must reduce their protectionist practices and allow the region to develop its fisheries industry in accordance with responsible fishing practices.
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