STATUS OF THE 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 Albingi MANAGEMENT OF STRADDLING FISH STOCKS AND Erindi nr. p 121 / 81 HIGHLY MIGRATORY FISH STOCKS komudagur 14/11 1996 As at 6 November 1996 Adopted on 4 August 1995 by the United Nations Conference on Straddling Fish Stocks and Highly Migratory Fish Stocks NOT YET IN FORCE: Entry into force of the Agreement requires 30 ratifications or accessions STATUS: Signatories 54 Ratification/accession 5 In accordance with its article 37, the Agreement is open for signature at United Nations Headquarters from 4 December 1995 until and including 4 December 1996 by all States and the other entities referred to in article 305 (1) (a), (c), (d), (e) and (f) of the United Nations Convention on the Law of the Sea of 10 December 1982 Date of Date of Ratification/ Signature State/Entity Accession 2 4 December 1995 Argentina 4 December 1995 Australia 27 June 1996 Austria 4 December 1995 Bangladesh Belgium 3 October 1996 4 December 1995 Belize 4 December 1995 Brazil Burkina Faso 15 October 1996 Canada 4 December 1995 6 November 1996 China Cote d'Ivoire 24 January 1996 27 June 1996 Denmark Egypt 5 December 1995 European Community \*/ 27 June 1996 Fiji 4 December 1995 27 June 1996 Finland Gabon 7 October 1996 Germany 28 August 1996 27 June 1996 Greece Guinea-Bissau 4 December 1995 Iceland 4 December 1995 Indonesia 4 December 1995 Ireland 27 June 1996 4 December 1995 Israel 27 June 1996 Italy 4 December 1995 Jamaica Luxembourg 27 June 1996 8 October 1996 Maldives Marshall Islands 4 December 1995 21 December 1995 Mauritania 4 December 1995 Micronesia Morocco 4 December 1995 19 April 1996 Namibia Netherlands 28 June 1996 4 December 1995 New Zealand 4 December 1995 Niue Norway 4 December 1995 15 February 1996 Pakistan Papua New Guinea 4 December 1995 30 August 1996 Philippines 27 June 1996 Portugal 4 December 1995 Russian Federation 12 December 1995 9 August 1996 Saint Lucia

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\*/ "Entity" referred to in article 1, paragraph 2(b)(ii), of the Agreement.

\*\*/ On 4 December 1995, the Government of the United Kingdom of Great Britain and Northern Ireland signed the Agreement on behalf of Bermuda, British Indian Ocean Territory, British Virgin Islands, Falkland Islands, Pitcairn Islands, South Georgia and the South Sandwich Islands, St. Helena including Ascension Island, and Turks and Caicos Islands.

Subsequently, in a communication received on 19 January 1996, the Government of the United Kingdom informed the Secretary-General that the Agreement would also apply to Anguilla.

\*\*\*/ On 27 June 1996, the Government of the United Kingdom signed the Agreement on behalf of the United Kingdom of Great Britain and Northern Ireland.



Food and Agriculture Organization of the United Nations

# THE STATE OF WORLD FISHERIES AND AQUACULTURE

## MARINE FISHERIES PRODUCTION AND ISSUES

Marine living resources provide an important source of protein in many countries and their use is of major importance to local communities and indigenous people. Such resources provide food and livelihoods to millions of people and, it sustainably utilized, offer increased potential to meet nutritional and social needs, particularly in developing countries. These have significantly increased their share of the total world catch and international trade during the 1970s and 1980s, overtaking that of the developed countries since 1985.

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At the beginning of the 1990s, about 69 percent of the world's conventional species were fully exploited, overexploited, depleted or in the process of rebuilding as a result of depletion. This situation is globally nonsustainable and major ecological and economic damage is already visible. The satisfaction of the demand for food from the sea in the next two decades requires progress in both fisheries conservation and management and in aquaculture. Improved management requires emphasis on: the control of fishing effort and the reduction of industry's overcapacity; resource allocation decisions; the establishment of more effective user's rights; greater participation in decision-making on resource use; and the adoption of multispecies and ecosystems based on precautionary approaches to fishery conservation and management.

Mariculture and coastal aquaculture offer significant potential for improvement of ocean productivity but their potential will not be realized without improved environmental management.

Major changes are therefore required in fisheries development strategies, as well as in defence of fisheries habitats and environments from non-fisheries activities, in order to improve the economic viability of fisheries and the conservation of their resource base. To realize this potential requires improved knowledge of marine living resources, particularly of underutilized stocks and species, transfer and use of new technologies, better handling and processing facilities to avoid wastage, and improved training of the skilled personnel required to manage and conserve effectively the marine living resources.

It must also be recognized that problems extend beyond fisheries. Coral reefs and other marine and coastal habitats, such as mangroves and estuaries, are among the most highly diverse, integrated and productive of the earth's ecosystems. They often serve important ecological functions, provide coastal protection, and are critical resources for food, energy, tourism and economic development. In many parts of the world, such marine and coastal systems are under stress or are threatened from a variety of sources, both human and natural.

#### CATCH LEVELS

Although marine catches have increased over the last 20 years, there have been important changes (Figure 4). In 1973 the catch of Alaska pollack exceeded that of any other single species. The catch of Atlantic cod was the second largest. The remaining principal species were the pelagics. By 1983, Alaska pollack catches had increased further and it remained the principal species. Atlantic cod, however, had fallen to fifth place. By 1993 Alaska pollack was second and cod ninth in importance, after skipjack tuna.

The significance of these changes is that increases in marine catches have, since 1983, primarily come from four shoaling pelagic species as well as from Alaska pollack. The cods, hakes and haddocks have been in steady decline, with the exception of increased haddock catches in the northeast Atlantic after 1991.

Eighty percent of world marine catches are taken by 20 states. This has been the pattern since 1970 although some of these states have changed, primarily as a result of national extensions in fisheries jurisdictions. These 20 states are indicated in Figure 5. Additional information on catches by states producing 150 000 tonnes or more in 1992-93 is given in Annex table 8.

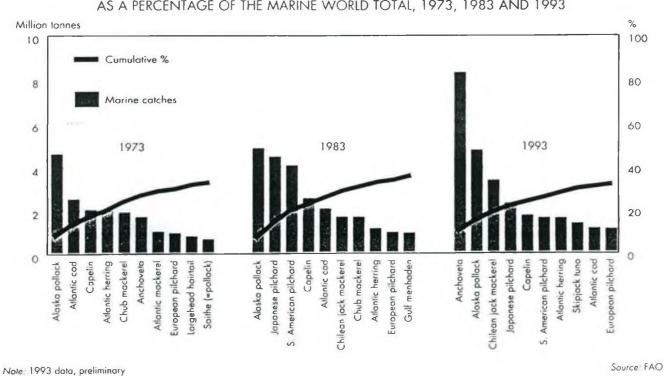
FAO has previously highlighted<sup>4</sup> the decline in the landings and stock conditions of high-

<sup>\*</sup> See FAO. 1993. World fisheries ten years after the adoption of the 1982 United Nations Convention on the Law of the Sea. Document COEI/93/4; FAO. 1994. Review of the state of world marine fishery resources. FAO Lisheries Technical Paper No. 335. Rome. 136 pp; and FAO. 1995. Review of the state of world fishery resources: marine fisheries. FAO Fisheries Circular No. 884, Rome. 103 pp.



Figure 4

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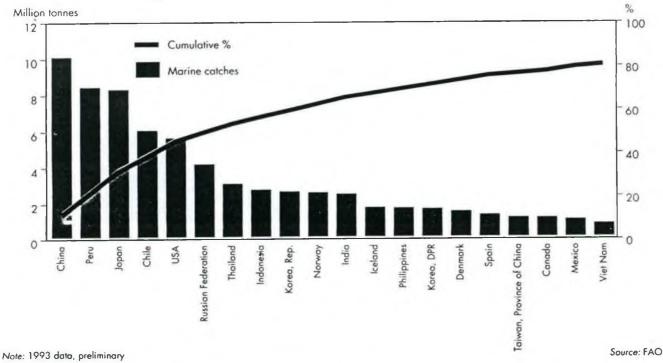
### MARINE CATCH BY PRINCIPAL TEN SPECIES AND CUMULATIVE CATCH AS A PERCENTAGE OF THE MARINE WORLD TOTAL, 1973, 1983 AND 1993

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WORLD MARINE CATCH BY PRINCIPAL PRODUCERS AND CUMULATIVE CATCH AS A PERCENTAGE OF THE WORLD MARINE CATCH, 1993



value demersal and shellfish species, and the frequent substitution of these species by other species of a lower economic value. Particular concern focused on the considerable excess in fishing capacity as a primary cause for the overexploitation of resources, and the need to ameliorate the imbalance between fishing effort and the productive capacity of stocks.

In 1993 at the Twentieth Session of the Committee on Fisheries it was reported that 69 percent of the world's marine stocks, for which data are available, were either fully to heavily exploited (44 percent),<sup>5</sup> overexploited (16 percent), depleted (6 percent), or very slowly recovering from overfishing (3 percent), and therefore were in need of urgent corrective conservation and management measures. This situation indicated that the main concern, at the global level, was to control fishing effort and to reduce it where necessary.

Figure 6, which is based on data presented in the *Review of the state of world fishery resources: marine fisheries*, indicates that more than 69 percent of the stocks of demersal fish, pelagic fish, crustaceans and molluscs located in various areas of the world's oceans are in need of urgent corrective conservation and management measures. Figure 6 also shows the number of stocks and areas for which no assessment is available and for which precautionary management measures are required (see Box 2).

#### STATUS OF SOME MAJOR FISH STOCKS AND FISHING AREAS

Many of the world's major and commercially important species of fish and/or fishing areas are subject to overexploitation. The status of some of these stocks and areas is summarized in Figures 7 and 8.

Conservation and management action has been undertaken by some states in some areas of the world as a means of rebuilding stocks. Highly restrictive conservation and management action has been taken in the *northwest Atlantic* by both Canada and the United States, as a result of a sharp decline in a number of commercially important stocks. Most of the major demersal groundfish stocks in the *northeast Atlantic* remain at a low level and some stocks continue to show long-term downward trends. If the current levels of fishing mortality of these stocks in the North Sea continue, these levels are expected to remain close to, or beyond, safe biological limits, and effective conservation and management action is overdue.

Arctic cod in the area of the northeast Atlantic has, however, responded well to the effective conservation and management measures imposed in the late 1980s. Nonetheless, the Icelandic cod stock is in serious difficulty at a dangerously low level. The history of all Atlantic cod landings is shown in Figure 9.

In the *Baltic Sea*, cod has been exposed to high and steadily increasing fishing mortality which, combined with adverse environmental conditions causing poor recruitment, has led the International Council for the Exploration of the Sea (ICES) to recommend a total ban on cod fishing in the central part of the sea.

Total landings in the *Mediterranean* and *Black Sea* combined are in decline from earlier production levels. This decline is primarily a result of the very low levels of Black Sea landings of anchovy, caused by the accidental invasion of jellyfish (ctenophore). Work has been initiated to identify possible control measures to restore the Black Sea's ecosystem to productive levels.

In the *southeast Atlantic*, the conservation and management regime imposed by Namibia has resulted in increasing stock recovery, while in the *southwest Atlantic* improvements have been made in the joint management of squid in the offshore area of the Falkland Islands (Malvinas).

The Indian Ocean continues to be one of the few fishing areas with increasing catches, primarily of skipjack and yellowfin tunas. In the southern area, Australia continues to adjust its conservation and management regimes over a number of fisheries, and attention is now being given to the shark fishery.

Catches from the *northwest Pacific* have declined since 1990, mostly as a result of variations in the abundance of Japanese pilchard. These decreases, however, have been offset by increased mariculture production of invertebrates by China. The overfishing of the Alaska pollack fishery in the Sea of Okhotsk and Nemuro Strait areas has necessitated international action. The increasing proportion of landings taken from the area consisting of

<sup>&</sup>lt;sup>5</sup> The determination of the level of exploitation of stocks "fully or heavily exploited" is based on the position and value of the maximum sustainable yield (MSY) and, given the uncertainty over the exact position, the level of effort is considered to be close to, or slightly beyond, that required to produce the MSY.

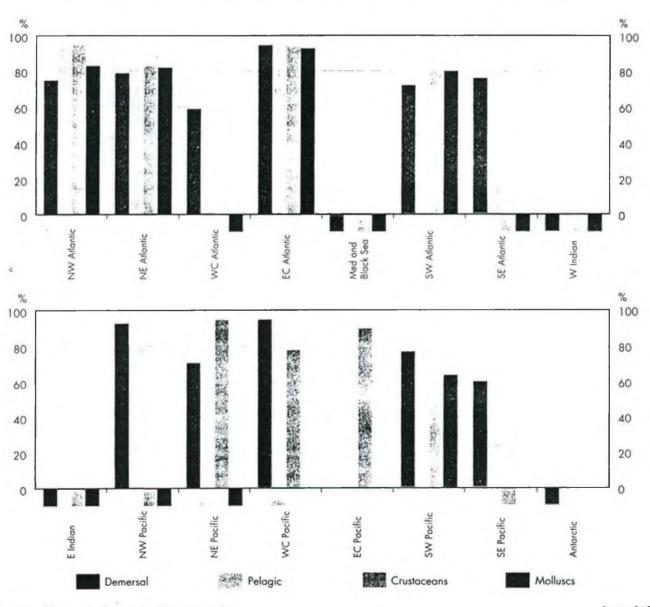
low-value, undifferentiated fish continues, and is now over 20 percent of total landings.

The large shelf area of the *western central Pacific*, stretching from Malaysia to the Arafura Sea, is rich in demersal resources, but declining catches are occurring overall. This reflects overfishing of certain stocks in several areas, although the magnitude in the decline of these stocks is offset by increased catches from new fishing grounds. In order to sustain increased overall production from these new grounds, conservation and management are required for overexploited stocks to prevent further declines. The tuna fishery in this area experienced reduced landings in 1992, primarily because of a contraction in distant-water fishing operations, although increases in tuna catches are considered possible.

The *southeast Pacific* is the second largest producing area in the world, after the northwest Pacific. Total production has recovered to the levels preceding the 1972 collapse of the anchoveta fisheries, but the species composition of production is now very different, consisting mainly of anchoveta, sardine and Chilean horse mackerel.



PERCENTAGE OF FULLY FISHED, OVERFISHED, DEPLETED AND RECOVERING STOCKS, 1992



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