

BYCATCH

## Bycatch management

The International Guidelines on Bycatch Management and Reduction of Discards were developed through a participatory process initiated by the Food and Agriculture Organization of the United Nations (FAO) involving fisheries experts, fishery managers from governments, the fishing industry, academia and non-governmental and intergovernmental organizations. The guidelines are designed to provide guidance on management factors ranging from an appropriate regulatory framework to the components of a good data-collection

programme, and include the identification of key management considerations and measures necessary to ensure the conservation of target and non-target species, as well as affected habitats. These guidelines are voluntary and constitute an instrument of reference to help States and Regional Fisheries Management Organizations (RFMOs) in formulating and implementing appropriate measures for the management of bycatch and reduction of discards in all fisheries and regions of the world.

[www.fao.org/fishery/nems/40157/en](http://www.fao.org/fishery/nems/40157/en)

FISHERIES ONLINE

## Timor-Leste fisheries statistics

An online national fisheries statistical system for Timor-Leste was launched on 21 June 2012 at a ceremony presided over by Marcos da Cruz, Secretary of State for Agriculture and Fisheries. The system—accessible at [www.peskador.org](http://www.peskador.org)—provides public access to a wide range of statistical and environmental information relating to fisheries in Timor-Leste. This is the first time that such a system has been implemented in Timor-Leste and it is expected to be an important tool contributing to enhanced fisheries management and sustainability of marine resources. The site

is operated by the National Directorate of Fisheries and Aquaculture (N DFA) and was established with the support of the Spanish-funded Regional Fisheries Livelihoods Programme for South and Southeast Asia (RFLP), which is implemented by FAO.

[www.peskador.org](http://www.peskador.org)

## Reducing overcapacity

A new report on member States' efforts to balance fishing capacity with fishing opportunities published by the European Commission supports calls for significant changes within EU fisheries policy. It confirms the very slow pace at which the EU fishing fleet continues to decrease in size.

Overcapacity, that is, too many fishing boats for the volume of fish that can be caught, remains one of the main obstacles to achieve sustainable fisheries.

In 2010 fleet capacity expressed in engine power and tonnage was reduced on average by 2 and 4 per cent respectively.

At this rate, eliminating overcapacity quickly will be difficult, especially as technological progress at least partly compensates for capacity reductions. Several Member States have concluded in their national reports that fleet reductions would contribute to achieve healthy fisheries.

Changes in the current policy are thus necessary. The report's findings put into question the efficiency of publicly financed capacity reductions. A 2011 Court of Auditors' report also finds the failure of the current measures, and advocates either a new approach or better application of existing measures.

[www.seafoodsource.com/newsarticledetail.aspx?id=16786](http://www.seafoodsource.com/newsarticledetail.aspx?id=16786)

ORGANIZATIONAL PROFILE

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## Federación Interregional de Pescadores Artesanales del Sur—Valdivia (FIPASUR)

Per capita fish consumption in Chile is one of the lowest in the world. On average, Chileans consume 7 kg of fish annually, compared to 75 kgs of meat (chicken, beef and pork). Rather, fish is exported or transformed into fishmeal and oil. It can thus be argued that in Chile the fishing industry takes more interest in providing feed for salmon aquaculture than food for the Chilean people.

However, in Valdivia, situated in Los Rios, Chile's fourth most-important fishing region (Region XIV), a group of artisanal fishermen are trying to buck this trend. But they face enormous challenges. Poor sanitary conditions in artisanal fishing boats and at landing centres, illegal fish landings and weak control measures applied by the authorities, the low level of development of value-added products and a lack of promotion for seafood products. Buying power is concentrated in the hands of traders, who manipulate the price paid to fishermen through various strategies. Fishermen are also entrapped by their relations with traders through

the vertical (top-down) control mechanisms they impose on fishermen.

Pesca en Linea, or "Fishing on Line", is an initiative of Federación Interregional de Pescadores Artesanales del Sur—Valdivia (FIPASUR)—the

## FIPASUR

Interregional Federation of Southern Artisanal Fishermen of Valdivia. Pesca en Linea is a social-enterprise company which focuses on the direct sales of high-quality products from the artisanal fisheries sector. It has set social, economic and environmental objectives through which it aims to contribute to marine-resource sustainability, adding value to products, and positioning the artisanal fisheries sector centre stage in direct marketing. The initiative aims to promote responsible consumption through a labelling scheme which informs the consumer about the origin of the product—who has

caught it, date and location of capture, and where it has been processed and dispatched.

The idea is to provide relevant information about the product that will promote responsible consumption in ways that contribute to the economy of the *caletas* and coastal communities.

Founded in 1990, FIPASUR groups 22 member organizations of artisanal fishermen and associates—over 1,300 artisanal fishers. It works to improve the skills, working conditions and incomes of its members, and to gain recognition for the social importance of artisanal fisheries.

[www.slowfood.com/slowfish/pagine/eng/resistencia/dettaglio.lasso?ida=66](http://www.slowfood.com/slowfish/pagine/eng/resistencia/dettaglio.lasso?ida=66)

In Spanish: [www.slowfood.com/slowfish/pagine/esp/resistencia/dettaglio.lasso?ida=66](http://www.slowfood.com/slowfish/pagine/esp/resistencia/dettaglio.lasso?ida=66)

In French: [www.slowfood.com/slowfish/pagine/fra/resistencia/dettaglio.lasso?ida=66](http://www.slowfood.com/slowfish/pagine/fra/resistencia/dettaglio.lasso?ida=66)

## World Review of Fisheries and Aquaculture 2012

Capture fisheries and aquaculture supplied the world with about 148 mn tonnes of fish in 2010 (with a total value of US\$217.5 bn), of which about 128 mn tonnes were utilized as food for people, and preliminary data for 2011 indicate increased production of 154 mn tonnes, of which 131 mn tonnes were destined as food. With sustained growth in fish production and improved distribution channels, world fish-food supply has grown dramatically in the last five decades, with an average growth rate of 3.2 per cent per year in the period 1961–2009, outpacing the increase of 1.7 per cent per year in the world's population. World per capita food fish supply increased from an average of 9.9 kg (live weight equivalent) in the 1960s to 18.4 kg in 2009, and preliminary estimates for 2010 point to a further increase in fish consumption to 18.6 kg. Of the 126 mn tonnes available for human consumption in 2009, fish consumption was lowest in Africa (9.1 mn tonnes, with 9.1 kg per capita), while Asia accounted for two-thirds of total consumption, with 85.4 mn tonnes (20.7 kg per capita), of which 42.8 mn tonnes were consumed outside China (15.4 kg per capita).

Overall, global capture fisheries production continues to remain stable at about 90 mn tonnes, although there have been some marked changes in catch trends by country, fishing area and species. In the last seven years (2004–2010), landings of all marine species, except anchoveta only, ranged between 72.1 mn and 73.3 mn tonnes. In contrast, the most dramatic changes, as usual, have been for anchoveta catches in the Southeast Pacific, which decreased from 10.7 mn tonnes in 2004 to 4.2 mn tonnes in 2010. A marked decrease in anchoveta catches by Peru in 2010 was largely a result of management measures (for example, fishing closures) applied to protect the high number of juveniles present as a consequence of the La Niña

event (cold water).

Total global capture production in inland waters has increased dramatically since the mid-2000s with reported and estimated total production at 11.2 mn tonnes in 2010, an increase of 30 per cent since 2004. Despite this growth, it may be that capture production in inland waters is seriously underestimated in some regions. Nevertheless, inland waters are considered as being overfished in many parts of the world, and human pressure and changes in the environmental conditions have seriously degraded important bodies of freshwater (for example, the Aral Sea and Lake Chad). Moreover, in several countries that are important in terms of inland waters fishing (for example, China), a good portion of inland catches comes from water bodies that are artificially restocked.

Global aquaculture production has continued to grow, albeit more slowly than in the 1980s and 1990s. World aquaculture production attained another all-time high in 2010, at 60 mn tonnes (excluding aquatic plants and non-food products), with an estimated total value of US\$119 bn. When farmed aquatic plants and non-food products are included, world aquaculture production in 2010 was 79 mn tonnes, worth US\$125 bn.

Fisheries and aquaculture provided livelihoods and income for an estimated 54.8 mn people engaged in the primary sector of fish production in 2010, of whom an estimated seven mn were occasional fishers and fish farmers. Asia accounts for more than 87 per cent of the world total, with China alone having almost 14 mn people (26 per cent of the world total) engaged as fishers and fish farmers. Asia is followed by Africa (more than 7 per cent), and Latin America and the Caribbean (3.6 per cent). About 16.6 mn people (about 30 per cent of the world total) were engaged in fish farming, and they were even more concentrated in Asia

(97 per cent), followed by Latin America and the Caribbean (1.5 per cent), and Africa (about 1 per cent). Employment in the fisheries and aquaculture primary sector has continued to grow faster than employment in agriculture, so that by 2010 it represented 4.2 per cent of the 1.3 bn people economically active in the broad agriculture sector worldwide, compared with 2.7 per cent in 1990. In the last five years, the number of people engaged in fish farming has increased by 5.5 per cent per year, compared with only 0.8 per cent per year for those in capture fisheries, although capture fisheries still accounted for 70 per cent of the combined total in 2010. It is apparent that, in the most important fishing nations, the share of employment in capture fisheries is stagnating or decreasing while aquaculture is providing increased opportunities.

Apart from the primary production sector, fisheries and aquaculture provide numerous jobs in ancillary activities such as processing, packaging, marketing and distribution, manufacturing of fish-processing equipment, net and gear making, ice production and supply, boat construction and maintenance, research and administration. All of this employment, together with dependants, is estimated to support the livelihoods of 660–820 mn people, or about 10–12 per cent of the world's population.

The total number of fishing vessels in the world in 2010 is estimated at about 4.36 mn, which is similar to previous estimates. Of these, 3.23 mn vessels (74 per cent) are considered to operate in marine waters, with the remaining 1.13 mn vessels operating in inland waters. Overall, Asia has the largest fleet, comprising 3.18 mn vessels and accounting for 73 per cent of the world total, followed by Africa (11 per cent), Latin America and the Caribbean (8 per cent), North America (3 per cent) and Europe (3 per cent). Globally,

60 per cent of fishing vessels were engine-powered in 2010, but although 69 per cent of vessels operating in marine waters were motorized, the figure was only 36 per cent for inland waters. For the fleet operating in marine waters, there were also large variations among regions, with non-motorized vessels accounting for less than 7 per cent of the total in Europe and the Near East, but up to 61 per cent in Africa.

Over 85 per cent of the motorized fishing vessels in the world are less than 12 m in length overall (LOA). Such vessels dominate in all regions, but markedly so in the Near East, and Latin America and the Caribbean. About 2 per cent of all motorized fishing vessels corresponded to industrialized fishing vessels of 24 m and larger (with a gross tonnage [GT] of roughly more than 100 GT) and that fraction was larger in the Pacific and Oceania region, Europe, and North America.

Data from some countries indicate a recent expansion in their fleets. For example, the motorized fishing fleets in Malaysia, Cambodia and Indonesia increased by 26, 19 and 11 per cent, respectively, between 2007 and 2009, and Vietnam reported a 10 per cent increase in offshore fishing vessels (those with engines of more than 90 hp) between 2008 and 2010. The case of Sri Lanka illustrates potential overshoot in efforts to re-establish a fishing fleet, of which 44 per cent of the motorized vessels were destroyed by the tsunami that swept the region at the end of 2004, with the result that by 2010 there were 11 per cent more motorized vessels than before the tsunami.

Many countries have policies to reduce overcapacity in their fishing fleets. China's marine fishing vessel reduction plan for 2003–2010 did achieve a reduction by 2008 close to the target, but since then both the number of vessels and total combined power have started

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to increase again. Japan implemented various schemes that resulted in a net reduction of 9 per cent in the number of vessels, but a net increase of 5 per cent in combined power between 2005 and 2009. Other important fishing nations that achieved a net reduction in fleet size in the period 2005–2010 include Iceland, Norway and the Republic of Korea.

—These excerpts are from *The State of World Fisheries and Aquaculture (SOFIA) 2012*, published by FAO

## INFOLOG: NEW RESOURCES AT ICSF

ICSF's Documentation Centre ([dc.icsf.net](http://dc.icsf.net)) has a range of information resources that are regularly updated. A selection:

### Publications

*Religion, Culture and Fisheries Co-management: A case of Kuruwitu beach village in north coast Kenya*

Halinishi N. Yusuf, Graduate School of Development Studies, International Institute of Social Studies

[http://oathesis.eur.nl/ir/repub/asset/10702/Halinishi\\_Yusuf\\_Final\\_Research\\_Paper\\_16.11.2011.pdf](http://oathesis.eur.nl/ir/repub/asset/10702/Halinishi_Yusuf_Final_Research_Paper_16.11.2011.pdf)

This study looks at fisheries co-management and specifically focuses on the role cultural repertoires and religion may have in influencing local community participation in fisheries co-management.

*Handbook for Improving Living and Working Conditions on Board Fishing Vessels*. ILO, 2010

The handbook has been developed to assist competent authorities and the representative organizations of employers and workers in the fishing sector gain a better understanding of the Work in Fishing Convention, 2007 (No. 188) and Recommendation No. 199 of the International Labour Organization (ILO).

[www.ilo.org/wcmsp5/groups/public/ed\\_dialogue/sector/documents/publication/wcms\\_162323.pdf](http://www.ilo.org/wcmsp5/groups/public/ed_dialogue/sector/documents/publication/wcms_162323.pdf)

### Videos/CDs

*Grinding Nemo*

The Swedish Society for Nature Conservation (SSNC) and Swedwatch present *Grinding Nemo* and *Do You Know What Your Dinner Ate for Breakfast?*, a film and a report, respectively, about reduction fisheries, the fisheries that grind perfectly fine food-fish into fishmeal in order to supply the growing aquaculture industry. SSNC investigated trawl fisheries in Thailand, which supplies the so-called trash fish to the fishmeal industry as well as anchoveta fisheries and fishmeal production plants in Peru. In the Thai fishery several atrocities were discovered, including severe human-rights abuse of illegal immigrant labour, and illegal trawling on coral reefs within marine protected areas.

<http://www.eeb.org/index.cfm/news-events/news/grinding-nemo-new-film-and-report-unveil-the-filthy-fishmeal-industry-which-supplies-prawn-and-salmon-farms/>

<http://www.youtube.com/watch?v=MqW8V4Qj1I>

## FLASHBACK

### Fishermen's rights

Filipino fishermen have suffered a great deal on Taiwanese boats. Living conditions on those boats were denounced at the international seminar held in Manila last February. All over the world, unknown fishermen undergo the same or worse treatment and have no way to defend their basic rights.

International agencies and governments do little or nothing to solve these problems. Industrial fleets have hurt small artisanal fishermen in numerous countries, either directly by fishing in their waters, or indirectly, by negotiating with governments to obtain larger



fishing quotas. Many national organizations aspire to have a zone reserved for artisanal fishermen, and we can see the day when that right will be universally accepted as a norm.

Women do not participate in organizations and are generally kept in an inferior position. Even though they always participate in the task of processing the catch, they are not allowed to occupy leadership positions. Also, governmental decision-making agencies do not accept the participation of fishworkers' leaders, who are, therefore, forced to use pressure tactics to be taken into account.

We can see some signs on the horizon that allow us to hope for a better day for fishworkers who lack basic rights. Chile has promulgated a law for fishing and aquaculture, which provides for the participation of representatives of fishermen's organizations in fishing councils. It also establishes a five-mile zone reserved for artisanal fishing, a fisheries development fund, and priority access to aquacultural concessions. Fishermen from Brazil, Ecuador, Mexico, Bolivia, Colombia, Senegal, the Philippines, India, Norway, France and other countries are active in their organizations to achieve better living and working conditions. This progress marks the beginning of a long and difficult road that fishermen's organizations will have to travel to ensure that their members are respected as human beings and can defend their sources of work threatened by pollution and plunder. Fishermen and fishworkers of the entire world should raise their voices to make room for the participation of women and demand from their governments reserved fishing areas. Credit and technical assistance should be channelled through projects that are elaborated with the active participation of fishermen themselves at every step of the process.

—from the Comment in SAMUDRA Report No. 4, May 1991

## ANNOUNCEMENTS

### EVENTS

#### 11th meeting of the Conference of the Parties to the Convention on Biological Diversity

8–19 October 2012, Hyderabad, India

One of the agenda items of COP 11 is Marine and Coastal Biological Diversity, focusing on identifying ecologically or biologically significant marine and coastal areas, and conducting an in-depth review of the Programme of Work on Island Biodiversity.

#### 30th Anniversary of UNCLOS

An international conference "Commemorating the 30th Anniversary of the Opening for Signature of the United Nations Convention on the Law of the Sea" is being organized at the Yeosu World Expo, Republic of Korea, on 12 August 2012.

The Conference is co-sponsored by the United Nations (Division for Ocean Affairs and the Law of the Sea, Office of Legal Affairs), the Ministry of Foreign Affairs and Trade of the Republic of Korea and the

Korea Maritime Institute, in co-operation with the Organizing Committee for the Expo 2012 Yeosu Korea.

### WEBSITES

#### FAO at Rio+20

[www.fao.org/rioplus20/en/](http://www.fao.org/rioplus20/en/)

This website provides complete information on FAO activities at Rio+20. It lists events as well as various reports from Rio, video interviews and background documents.

#### Global Partnership for Climate, Fisheries and Aquaculture

[www.climatefish.org](http://www.climatefish.org)

PaCEFA is a voluntary global-level initiative among more than 20 international organizations and sector bodies with a common concern for climate-change interactions with global waters and living resources and their social and economic consequences.