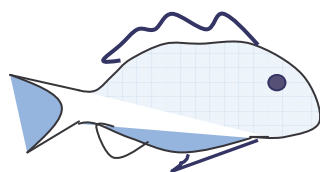
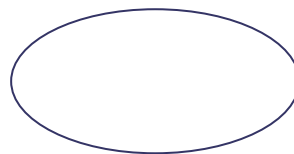
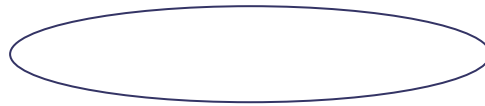


The states of fisheries resources:
**Trends in production and uses,
impact on marine wildlife**



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The State of World Fisheries and Aquaculture (SOFIA) is a Fisheries Department's document. It is published every two years with the purpose of providing policy-makers, civil society and those who derive their livelihood from the sector, a comprehensive, objective and global view of capture fisheries and aquaculture, including associated policy issues.

There are four parts in this report, but we only read some sections of part 1, which are a world review of fisheries and aquaculture. We will explain the status of the fishing fleet, the status of fisheries resources and fish utilization. For this last part, we use also other documents, also not scientific ones, in order to complete the FAO survey.

The status of the fishing fleet.

After years of expansion of the world fishing fleet until the late 1980s and early 1990s, the number of decked vessels worldwide has remained fairly stable at around 1.3 million. Asia represents the majority of the fishing fleet, with 84% of decked fishing vessels.

The aggregate gross tonnage (GT) of large marine fishing vessels (considered to be those above 100 gross tons) increased to a peak in 1992 (24 074 vessels) and has since subsequently declined. The number increased until 2001 and is now stable. In some countries, the decrease of this figure has continued since 1991 (for example in Europe). Since 1992 many countries have begun to limit the catches to conserve stocks.

Russia has the most important fleet in GT, followed by Japan and the United States.

Depending on countries, the age of vessels is globally high, with a lack of young vessels. For those reasons (old vessels are often not conform to current minimum requirements), fishing is considered as one of the most dangerous types of work.

There is a slowdown in the construction of large vessels. But this could change in the next 10 years. FAO, the ILO (International Labour Organization) and the International Maritime Organization (IMO) are working on an international Code about safety in fishing ships, and they control the security on those boats.

The status of fisheries resources and the impact on ecosystems

We heard a lot of things about fisheries resources, before reading this report: environmentalists warn that stocks of many fish are over-exploited; the media tell us that fish are endangered..... For a long time, fish has been considered as an unlimited resource in international laws, but this is not true. Actually, according to the FAO report, 52% of commercial fish species are fully exploited, 17% overexploited and 8% depleted.

After an increase of the production until 1998-2000 (87 million tons), the world marine capture has declined to 84 million tons in 2002, essentially because of a decrease in the South East Pacific and the North West Pacific. The report shows that the state of fish

stock is different from a part of the world to another. The North West Pacific is the most productive one, followed by the Atlantic Ocean and the Indian Ocean.

The quantities of fish catches are irregularly fluctuating, due to different factors like periodic climatic events in the Southeast Pacific. Only two species of fishes represent the majority of catches: the pilchard and Alaska pollock in the Northwest Pacific and three species represent 80% of the catches in the Southeast Pacific (Anchoveta, Mackerel, Pilchard). Both stocks have been declining since the late 1980s, as a result of environmental problems (destruction of habitat, global warming) and overfishing. Nevertheless, overfishing represent $\frac{1}{4}$ of the stock (this percentage is increasing), whereas half of the stock is fully exploited and $\frac{1}{4}$ is not exploited enough and could perhaps produce more.

The composition of catches in species has changed for different reasons, which are difficult to discern: the industry answers to the market evolution, the stocks decrease for certain species, changes in environment. For example, the contribution of molluscs and crustaceans is increasing in Northwest Ocean. Tuna represents the most important source exploited in the high seas, whereas contribution of sharks is minor.

Survey of fish catches and fleet is difficult in some parts of the world, particularly in the Indian Ocean, because of a lack of statistics and control.

Ten species account to 30% of the world production in term of quantities. Seven of those species are globally fully exploited or overexploited.

Global production from capture fisheries and aquaculture supplied about 101 million tonnes of food fish in 2002, providing an apparent per capita supply of 16.2 kg (live weight equivalent), with aquaculture accounting for the growth in per capita supply since 2000.

The global potential for marine capture fisheries is about 100 million, this limit has been reached. So the government must take measures, think about stock recovery plans to rebuild stocks that have been depleted by overfishing and to prevent the decline of the others.

Fishing has other impacts on the marine ecosystems. Intense industrial fishing such as trawling is highly destructive to the seabed. The lack of selectivity in many fisheries causes bycatch and discards. For example, 100,000 albatrosses a year are killed by both legal and illegal longline fishing fleets., but longline fishing fleets also threaten sea turtles, sharks and dolphins.

In response to public opinion about protection of wild life and problem of stocks depletion, government and international organizations like FAO are working to encourage the protection and management of ecosystems and not only stocks of fish. Surveys concern the impact of intensive fishing on habitats, ecosystem interaction (predator-prey, reduction of prey for mammals, birds and sharks) and bycatch, but also climate change on stocks.

Fish uses and consumption:

Fish production is used for human consumption (76%) and for animals (fishmeal... 24%).

In China, 75.5% of it is used in fresh form, whereas in the rest of the world 70 % of the world's fish production is processed (frozen, cured and canned).

The use and consumption of fish production show marked continental, regional and national differences.

In some countries where there is a lack of alternative protein food, fish is really important. It can contribute up to 180 kilocalories per capita per day.

The fisheries sector could play an important role in the alleviation of poverty, if it is integrated in the policy documents.

The consumption is influenced by availability, income, prices, tradition and tastes, demographic and lifestyle trends.

It seems that the general public is more and more concerned by consuming quality products, also for fish. Fish oil supplements sales are increasing for health, giving the famous Omega 3 for children. But environmentalists warn about dwindling fish stocks. More ever, toxins like dioxins are concentrated into fish tissues. To solve those problems, FAO has published a list of sustainable and healthy fish.

Fish farming could be a solution to protect marine resources, but the concentration of fishes represents danger a contamination, and pollution. In addition, two catches fishes are need to feed and product only one fish in a farm.

The EU policy is supposed to conserve endangered species, but it also subsidises big trawlers, which destruct oceanic ecosystem.

Vocabulary

A drift net: Large net for catching fishes, extended by weights at bottom and floats at top and allowed to drift. (Filets dérivants)

Accurate: information, measurements and statistics are correct to a very detailed level

Agregate gross tonnage: total of tonnage

Akin to: If one thing is akin to another, it is similar to it in some way

Assessment: estimation, calculation

Average age: found by calculating or estimating, for example the average of 3 and 5 is 4.

Bait: food which you put on a hook or in a trap in order to catch fish or animals.

Bycatch: other species catch by fisheries but not the species wanted, for example : dolphins, turtle sea... are bycatch.

Can: when food or drink is canned, it is put into a metal container and sealed so that it will remain fresh.

Cure: when food, tobacco, or animal skin is cured, it is dried, smoked, or salted so that it will last for a long time.

Deck vessels: vessels with a deck, referring to the form of the boat

Deplete: to reduce

Depleted stocks: exhausted stock

Developed and developing countries: developed countries are wealthy and have many industries; developing countries are poor and have few industries

Different species of fishes: Scallop, Cod, Pollack, Coley, Prawns, Plaice, Brown crab, Herring, Skate, Mussels, Hake, Whiting, Halibut, Seabass, Lobster, Spiny dog-fish are different species of fish, molluscs...

Environmental issues: environmental problem

Fisheries are areas of the sea where fish are caught in large quantities for commercial purposes

Fishing fleet: boats, for example of a country, employed to fish

Fleet: A fleet is a group of ships organized to do something together, for example to catch fish. Une flotte

Hinterland: the hinterland of a piece of coastline or a large river is the area of land behind it or around

Improvement: if there is an improvement in something, it becomes better.

Inedible: if you say that something is inedible, you mean you cannot eat for it.

Intake: it's the amount of a particular food that you eat.

Mainstreaming: integration

Offals are the internal organs of animals, for example their hearts and livers, when they are cooked and eaten

Per capita: per inhabitants, per person

Pole-and-line fishing : Method applied to types of fish (such as tuna or large size mackerel) having a high individual value. (pêche à la canne)

Supply and demand: the amount of goods, etc... available and the amount wanted by people.

To be drowned: noyé

To be snared: piégé

To dredge: draguer

To occur: to take place, to happen, to exist...

Trend: A general tendency or direction

Versatile: Applies to a fishing vessel that can pursue several types of fishing.

Vessels: A ship, a boat

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Questions

- 1) In your mind, what is the state of global fleet?
- 2) In your mind, what is the status of fisheries resources?
- 3) What are the trends of fisheries production? In aquaculture, in capture?
- 4) What is the main source of capture fish? Is it the marine ecosystem or the inland one?
- 5) What is the main source of aquaculture fish? Is it the marine ecosystem or the inland one?
- 6) How can you explain these trends?
- 7) On the map: can you explain the distribution of the fish supply: economic, development...
- 8) What are the concerns about fisheries?
- 9) What can we do to reduce these concerns (bycatch, overexploitation...)?
- 10) What is the main fish producer in the world?
- 11) Do you know what the FAO is?
- 12) What are the fish uses?
- 13) How many times a month do you eat fish?
- 14) In general, do you buy fresh fish? Cured fish? Or frozen fish?
- 15) What are the species you usually eat?
- 16) What are the sustainable ones?
- 17) Can you comment on this figure?
- 18) What are the main marine capture fishes?
- 19) Inland capture?
- 20) In your opinion, are there fish conservation policies?