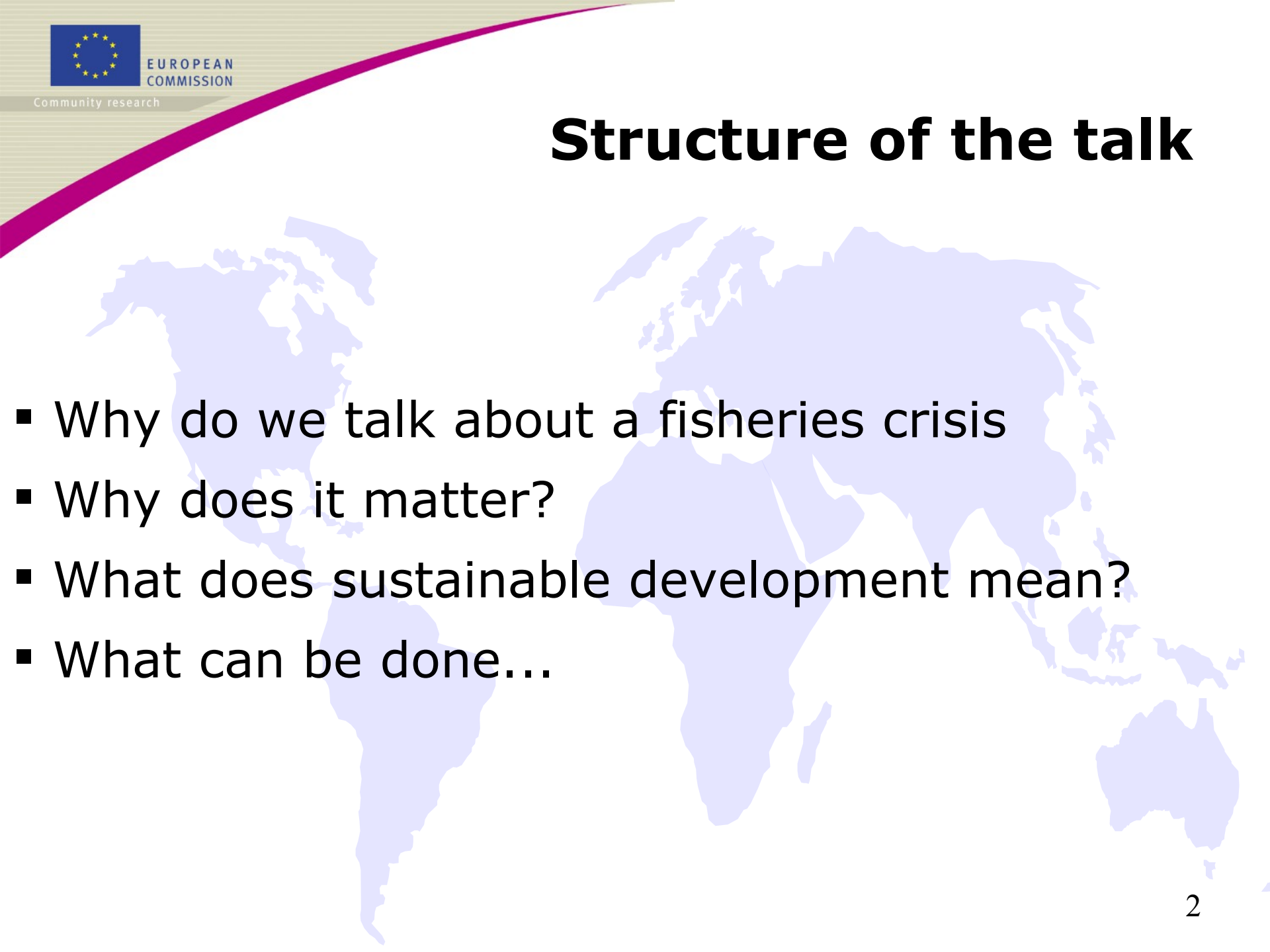




We care for the sea and the people of the sea

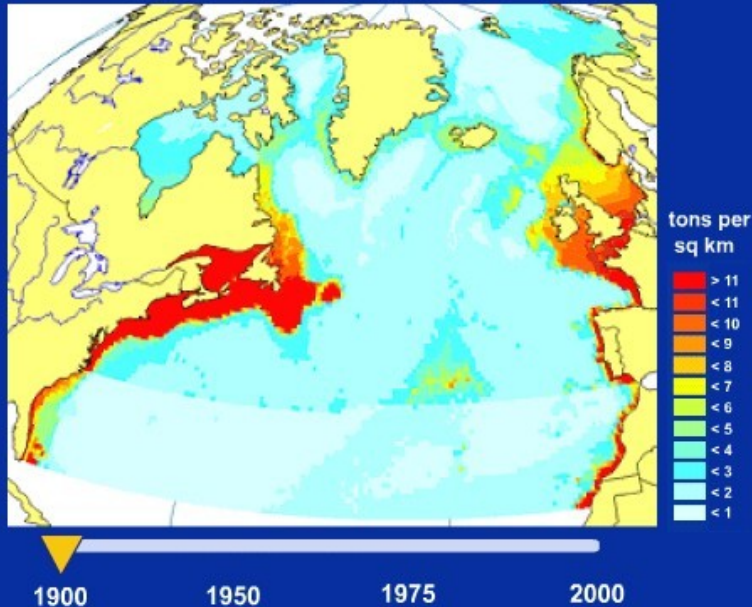
Dr. Cornelia E. Nauen
International Scientific Cooperation
Directorate General for Research
European Commission

Structure of the talk

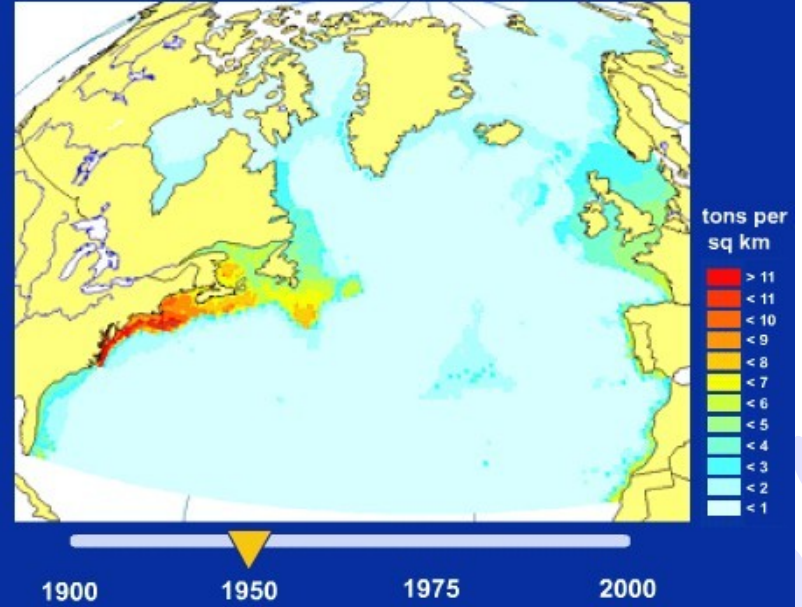
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- Why do we talk about a fisheries crisis
 - Why does it matter?
 - What does sustainable development mean?
 - What can be done...

Why do we talk about a fisheries crisis? (1)

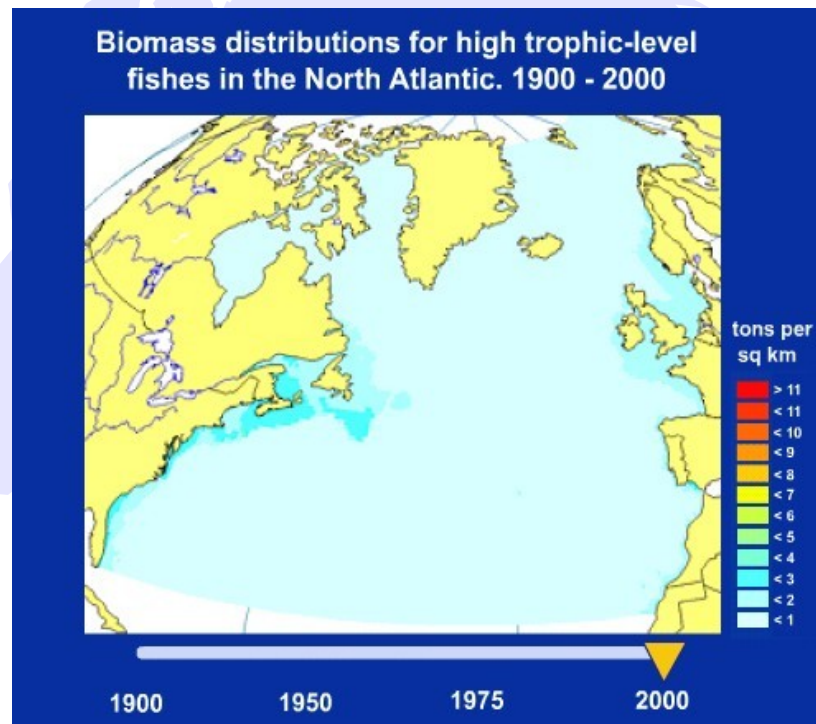
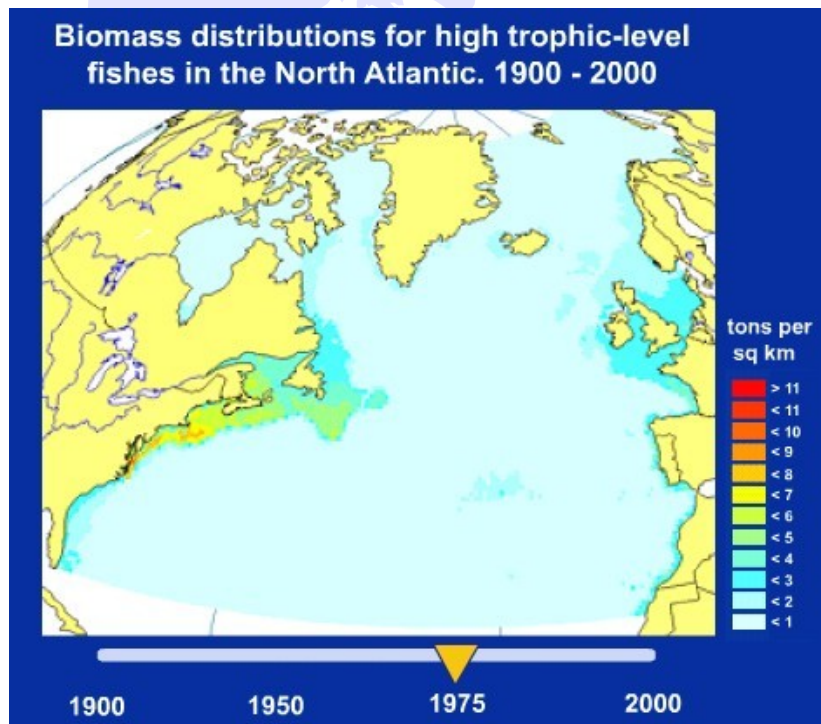
Biomass distributions for high trophic-level fishes in the North Atlantic. 1900 - 2000

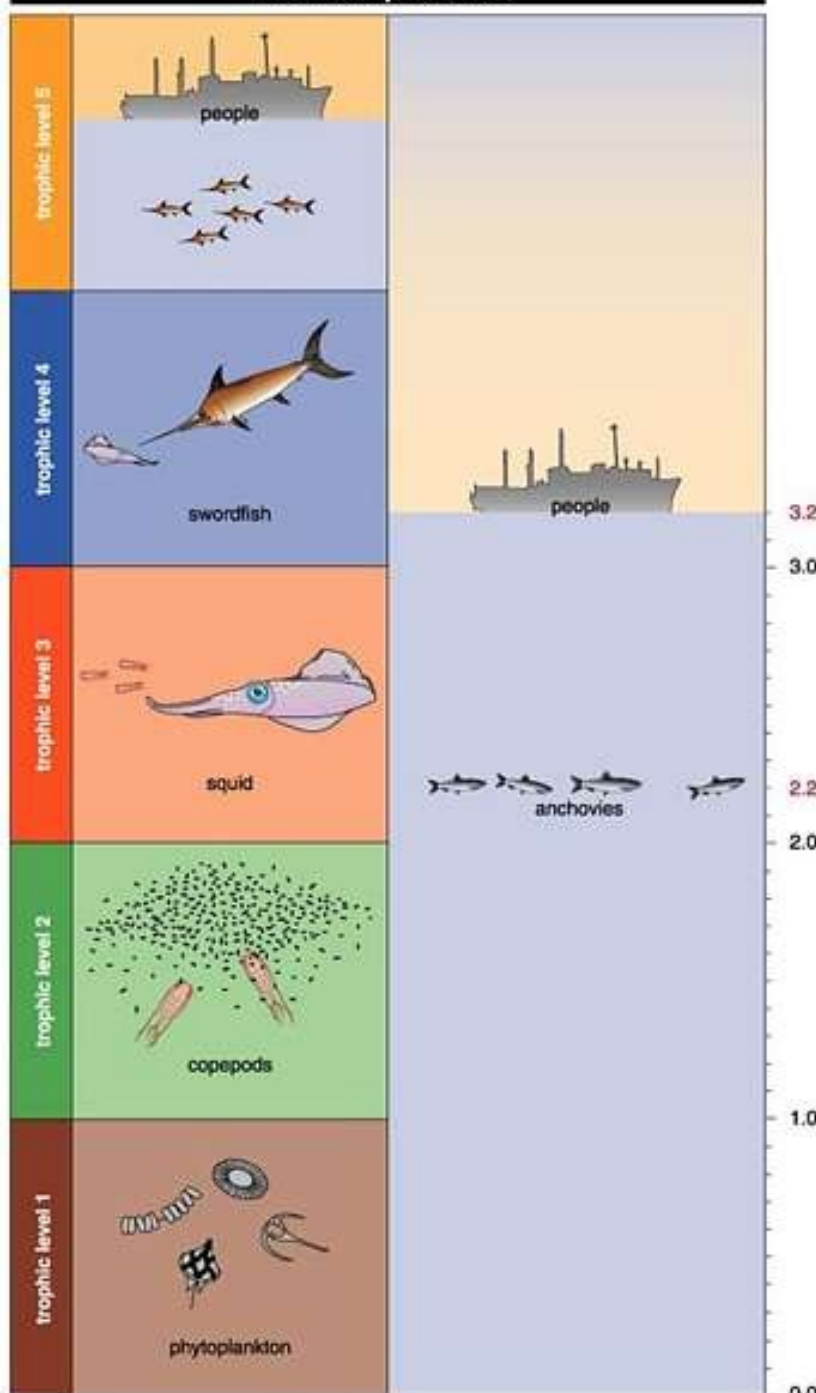


Biomass distributions for high trophic-level fishes in the North Atlantic. 1900 - 2000



Why do we talk about a fisheries crisis? (2)



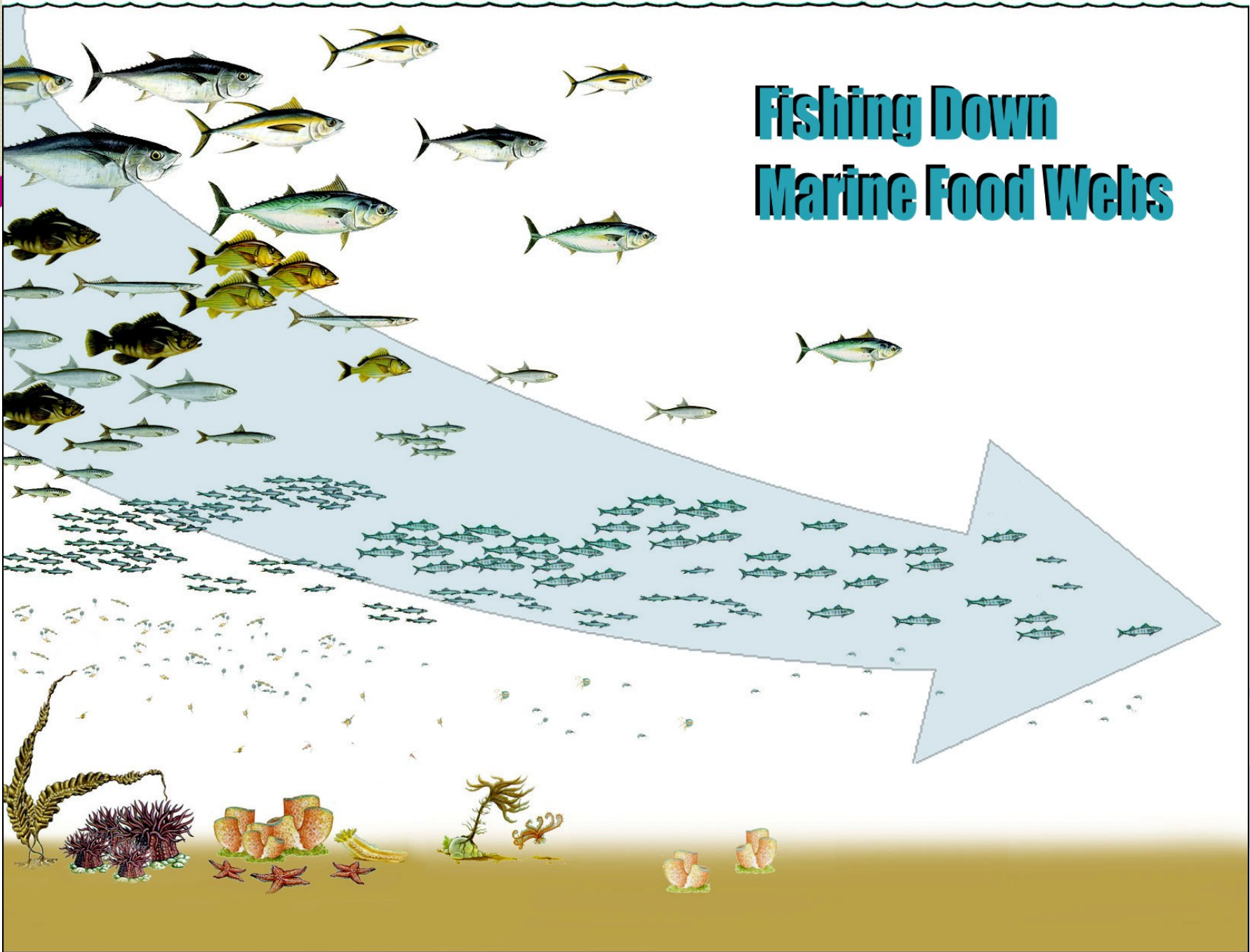


Why do we talk about a fisheries crisis? (3)

In an ecosystem, where big fish or whales eat small fish or other organisms, we distinguish trophic levels from level 1 (phytoplankton as primary producers capturing the energy of the sun) to levels 2 to 5 (consumers feeding on plants and animals). Humans are consumers at the top of the food web.

Fisheries affect ecosystems very heavily by taking fish and other organisms out of their web of relations.

Fishing Down Marine Food Webs



Why does it matter? (1)

At current trends in overfishing worldwide, we will not have the fisheries we know today by about 2050, many have already collapsed.

Namibia, a country in Southwest Africa (between South Africa and Angola) had **15 million tons of fish** in its water and was able to get a good portion of that through fishing – that was a good deal for many years.

Overfishing led to the collapse of the fisheries and now Namibia has **12 million tons of jellyfish** and very little fish.

Why does it matter? (2)

Deploying ever more sophisticated industrial vessels with more powerful engines, satellite navigation, sonar fish finders etc. has several negative effects:

- Trawlers 'plough' the bottom and destroy habitat
- They need large amounts of energy to drag the nets
- They fish indiscriminately, not only the target species
- Non-target species are thrown overboard and die
- They often produce lower quality food
- They offer only modest employment

Why does it matter? (3)

A retrospective analysis of global fisheries catches reported by the Food and Agriculture Organisation of the United Nations (FAO) shows that

- Earlier reports about increases were wrong, because China reported twice its true production.
- Taking into account such misreporting, world production decreases by about 300,000 tons/year since the early 1990s.
- Taking into account the best estimates of discards at sea of non-target species, the decrease may actually be almost 700,000 tons/year.
- It means **we eat more fish, but there is less in developing countries.**

What is sustainable development?

Sustainable development means meeting contemporary needs without jeopardizing those of future generations

(Brundtland Report - WCED World Commission for Economic Development - 1987).

Another way of saying it is:

Sustainable development refers to the wise use of resources within a framework in which environmental, economic and social factors are integrated. It is about maintaining and improving the quality of life while safeguarding the quality of life of generations to come.



Environment



Economics

Social

Towards Sustainable Development



Small scale fisheries are mostly much more sustainable. They

- They use less energy
- They are less destructive
- They are more selective
- They employ more people
- They produce high value fish.

What can be done? (1)

- Get involved in favour of sustainable fisheries and healthy coastal zones, help cut fishing overcapacity
- Stop government subsidies to bad fisheries – Asia US \$ 11.5 billion, Europe \$ 5 billion, Latin America and Caribbean \$ 4.5 billion
- Help establish marine protected areas – the Convention on Biological Diversity foresees to protect part of the oceans - some progress - yet less than 1% are protected (probably 0.1% effectively)
- Buy only fish certified from sustainable fisheries.

What can be done? (2)

- Check whether your supermarket labels fish correctly (at least correct scientific name, region of origin, is the fish from aquaculture or fisheries?)
- Express through arts a healthy ocean – revert the impoverishment of ecosystems and fish up marine food webs again
- Help collect local fish names in different languages (e.g. through twinning with schools elsewhere) and connect local names (and local knowledge) to scientific names and scientific knowledge – are they compatible with one another?

What can be done? (3)

- Collect more information – ask scientists, ask youngsters in the Senegalese fishing village, Kayar. Play with the fish quiz in www.fishbase.org and learn more about fishes – see their pictures and more.
- Have you experienced the beauty of the coast and the sea? Have you read Rachel Carson's famous book 'The Sea Around Us'? - her tribute to the beauty and the power of the sea.
- Do you think all fishing is bad? Or are some types of fishing more respectful of nature than others? Should some fisheries and the associated culture be maintained?

For more ...

<http://www.fishbase.org>

<http://www.incofish.org>

<http://www.icsf.net/icsf2006/jspFiles/icsfMain/>
(Samudra magazine on artisanal fisherfolk)

<http://www.fischimhandy.de/>



Thiof (*Epinephelus aeneus*) or White Grouper used to be Senegal's national dish – the youngsters in **Kayar** (fishing village north of Dakar, Senegal) may not have seen very big ones recently.

Possible partners

- Kayar (Senegal)
(north of Dakar)
- Lagos (Nigeria)
- Others?

