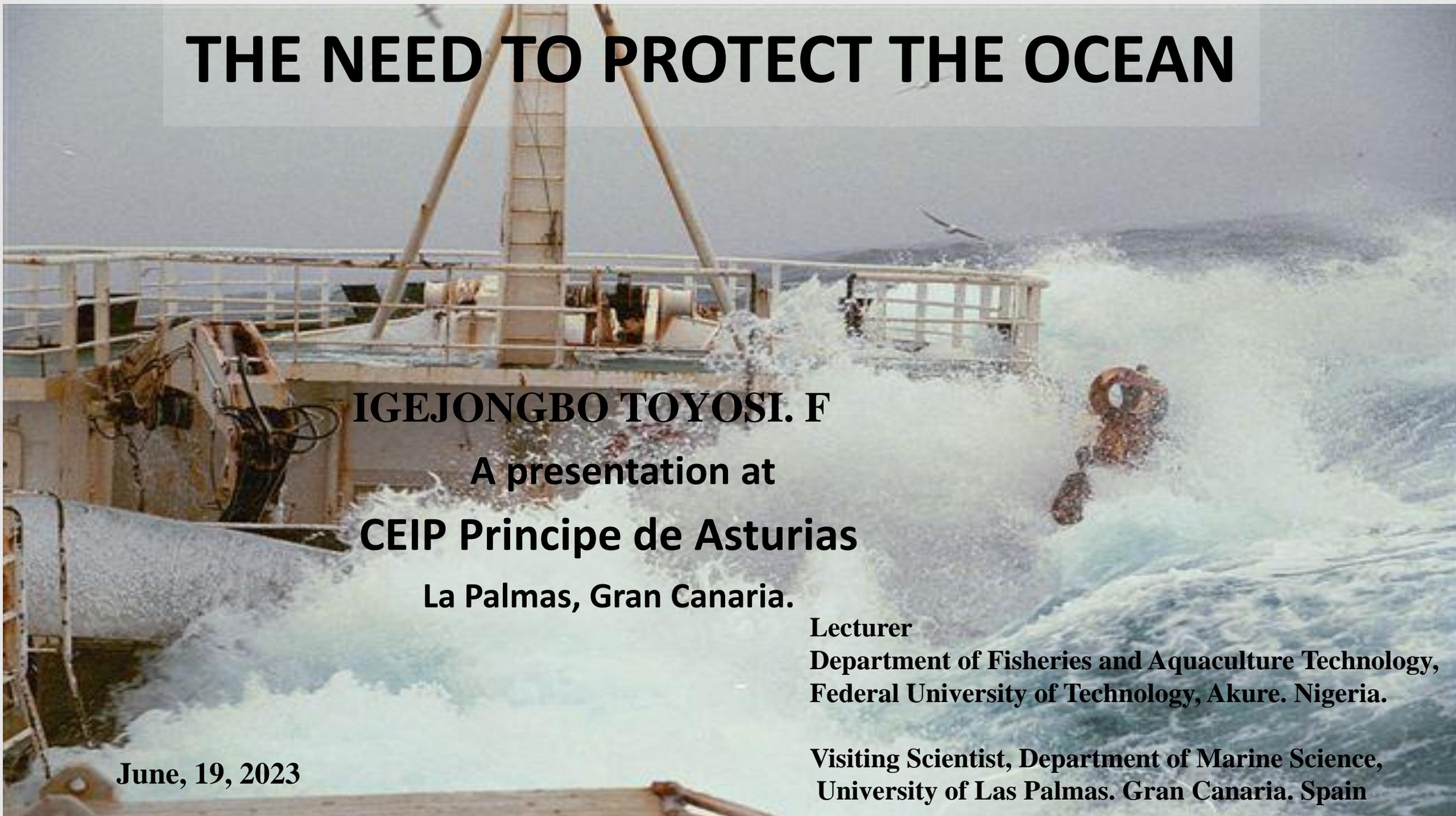


# **THE NEED TO PROTECT THE OCEAN**



**IGEJONGBO TOYOSI. F**

**A presentation at**

**CEIP Principe de Asturias**

**La Palmas, Gran Canaria.**

**Lecturer**

**Department of Fisheries and Aquaculture Technology,  
Federal University of Technology, Akure. Nigeria.**

**Visiting Scientist, Department of Marine Science,  
University of Las Palmas. Gran Canaria. Spain**

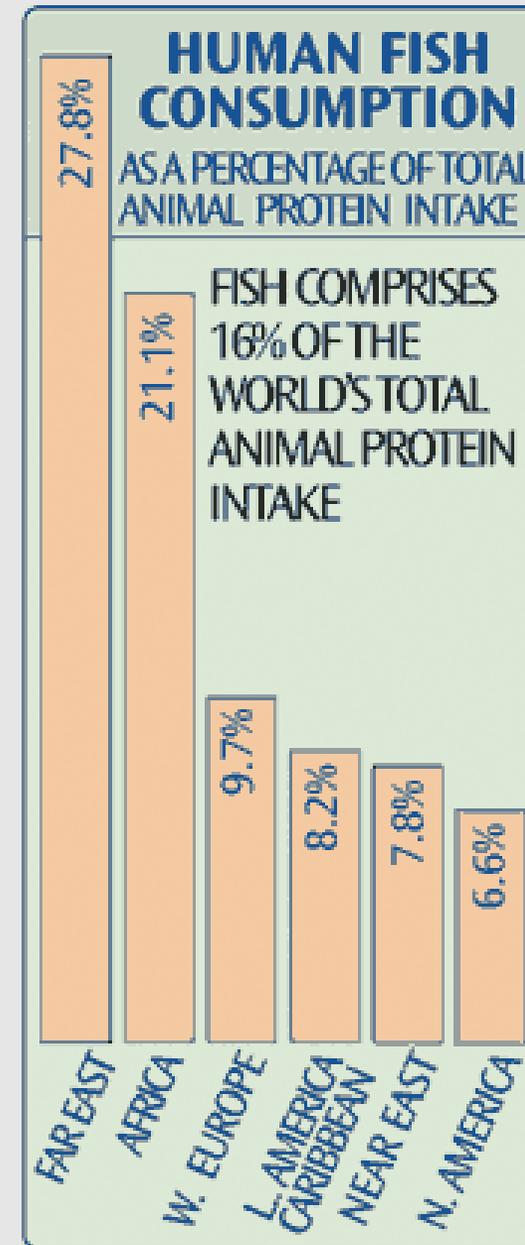
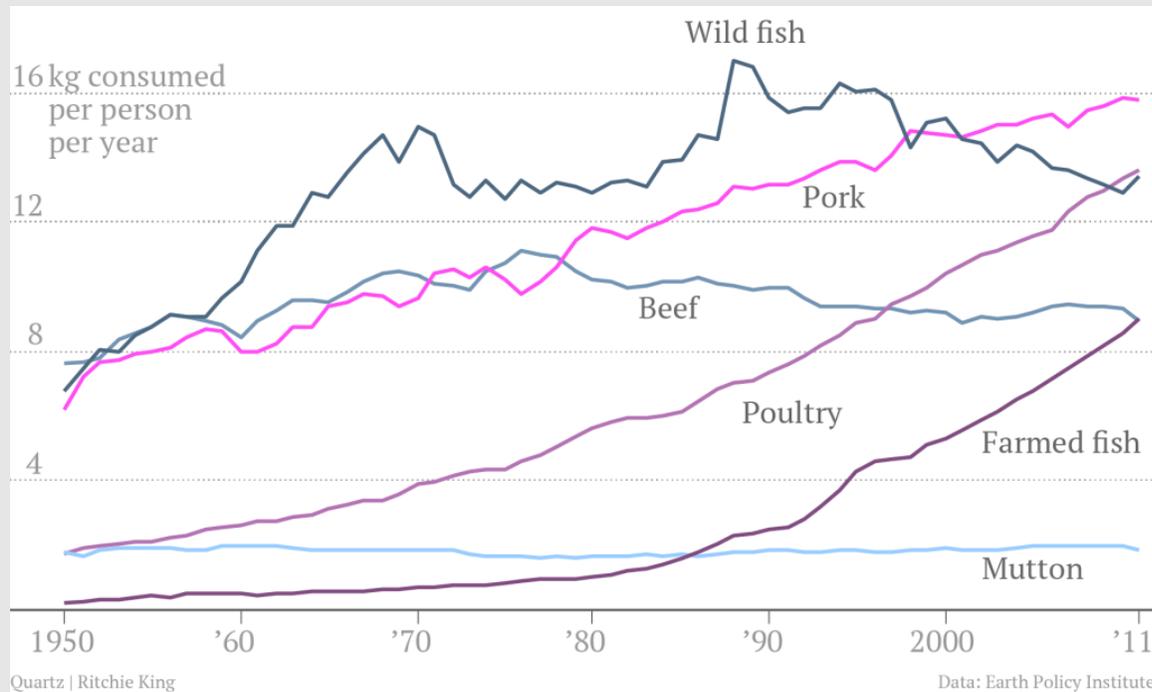
**June, 19, 2023**



**Water covers the planet up to 70%**

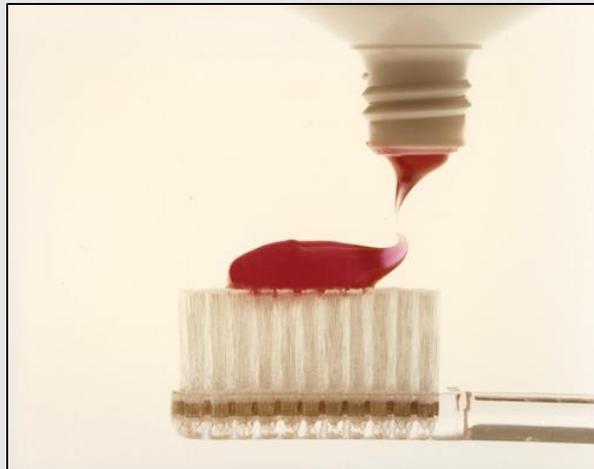
# Fish as food

- Fish comprises 16% of world's total animal protein intake
- More than 3 billion people obtain one-fifth or more of their animal protein from fish



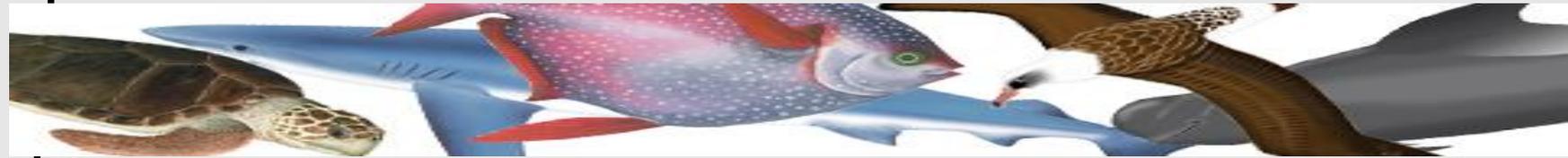


# Food & Non-Food Products from the Sea



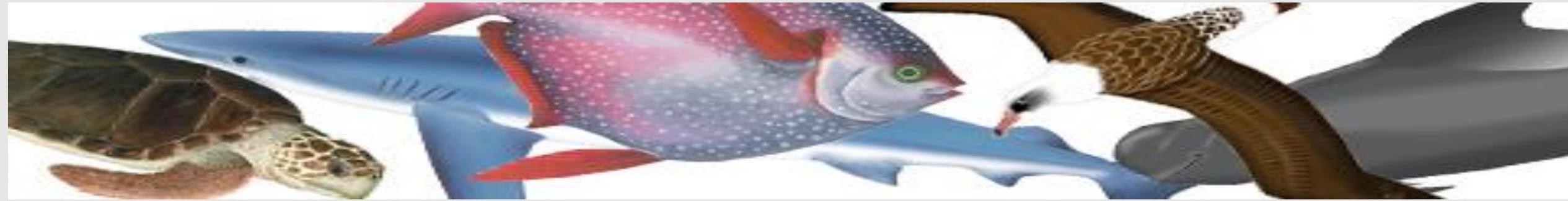
# Importance of Fisheries to Developing Countries

- 1.5 billion people depend upon fish for food, income & livelihood
- 2.6 billion people receive more than 20% of their animal protein from fish, compared to 8% in developed countries
- Up to 50% of animal protein in some countries



- Fisheries contribute to:
  - 🐟 Secure livelihoods (commercial & small-scale/artisanal)
  - 🐟 Human health (food security and nutrition)
  - 🐟 Economic and community development
  - 🐟 Regional & international trade, export earnings
  - 🐟 Environmental health and biodiversity conservation
  - 🐟 Security

# Importance of Fisheries to Developing Countries



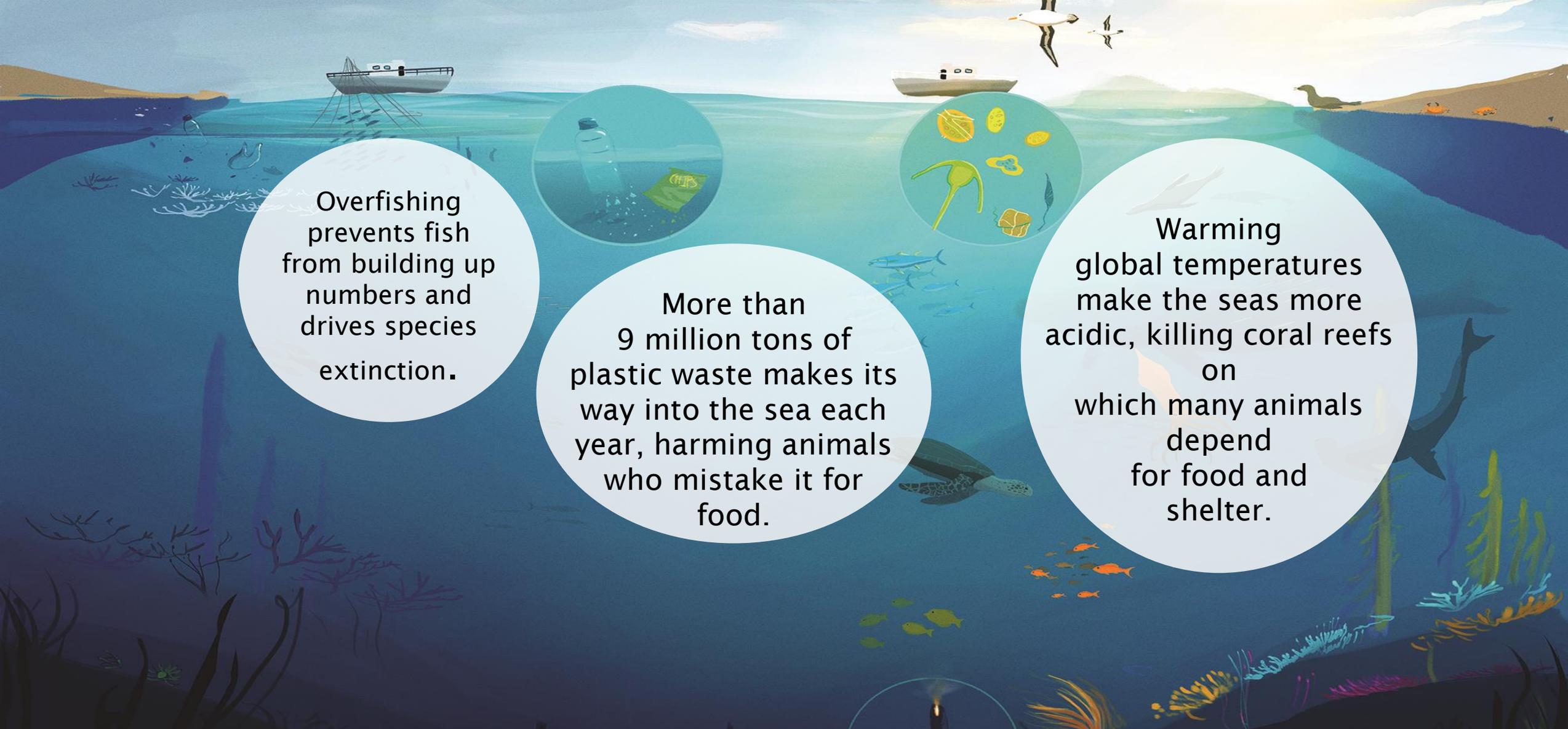
- Fish are the most heavily traded food commodity and fastest growing international “agricultural” commodity
- Developing countries provide 77% of global fishing production
- Net exports of fish in 2002 earned \$17.4 billion in foreign exchange for developing countries

🐟 Greater than combined net exports of rice, coffee, sugar & tea!

# TYPES OF FISHERIES

- Industrial fisheries – factory trawlers, corporate fishing
- Recreational fisheries
- Traditional fisheries
- Commercial versus subsistence (fish not traded or sold)





Overfishing prevents fish from building up numbers and drives species extinction.

More than 9 million tons of plastic waste makes its way into the sea each year, harming animals who mistake it for food.

Warming global temperatures make the seas more acidic, killing coral reefs on which many animals depend for food and shelter.

# What's the problem?

# DANGER ALERT

- Depletions are the norm world-wide



## 'Only 50 years left' for sea fish

By Richard Black

Environment correspondent, BBC News website

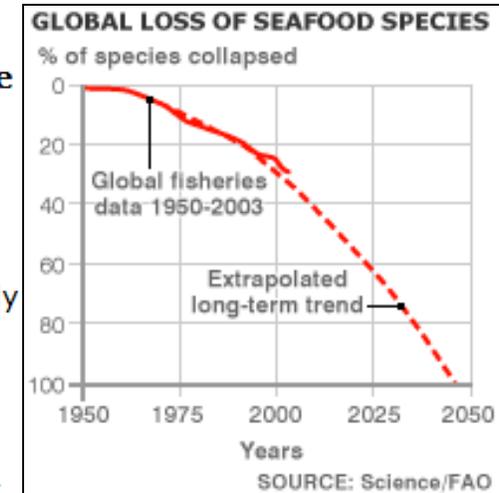
**There will be virtually nothing left to fish from the seas by the middle of the century if current trends continue, according to a major scientific study.**

Stocks have collapsed in nearly one-third of sea fisheries, and the rate of decline is accelerating.

Writing in the journal *Science*, the international team of researchers says fishery decline is closely tied to a broader loss of marine biodiversity.

But a greater use of protected areas could safeguard existing stocks.

"The way we use the oceans is that we hope and assume there will always be another species to exploit after we've completely gone through the last one," said research leader Boris Worm, from Dalhousie University in Canada.



A film by Rupert Murray  
Narrated by Ted Danson

# THE END OF THE LINE

Where have all the fish gone?

ARCANE PICTURES, CALM PRODUCTIONS, DARTMOUTH FILMS present "THE END OF THE LINE"  
with a film by CHARLES CLOVER. Executive Producers: CHRISTOPHER HIND, JESS SEARON  
with CLARE FERGUSON. Producers: CLARE LEWIS, GEORGE DUFFIELD. Narrated by TED DANSON  
Directed by RUPERT MURRAY



 NATIONAL GEOGRAPHIC  
**OCEAN NOW**  
TV 13+ | DVD | Blu-ray

DSK & Casey:  
Trial by media

Why it's time  
to revamp  
Head Start  
BY JOE KLEIN

Fan Fiction:  
Where *Harry  
Potter* never ends

Sudan:  
The violent  
birth of two  
nations

# TIME

## THE FUTURE OF FISH

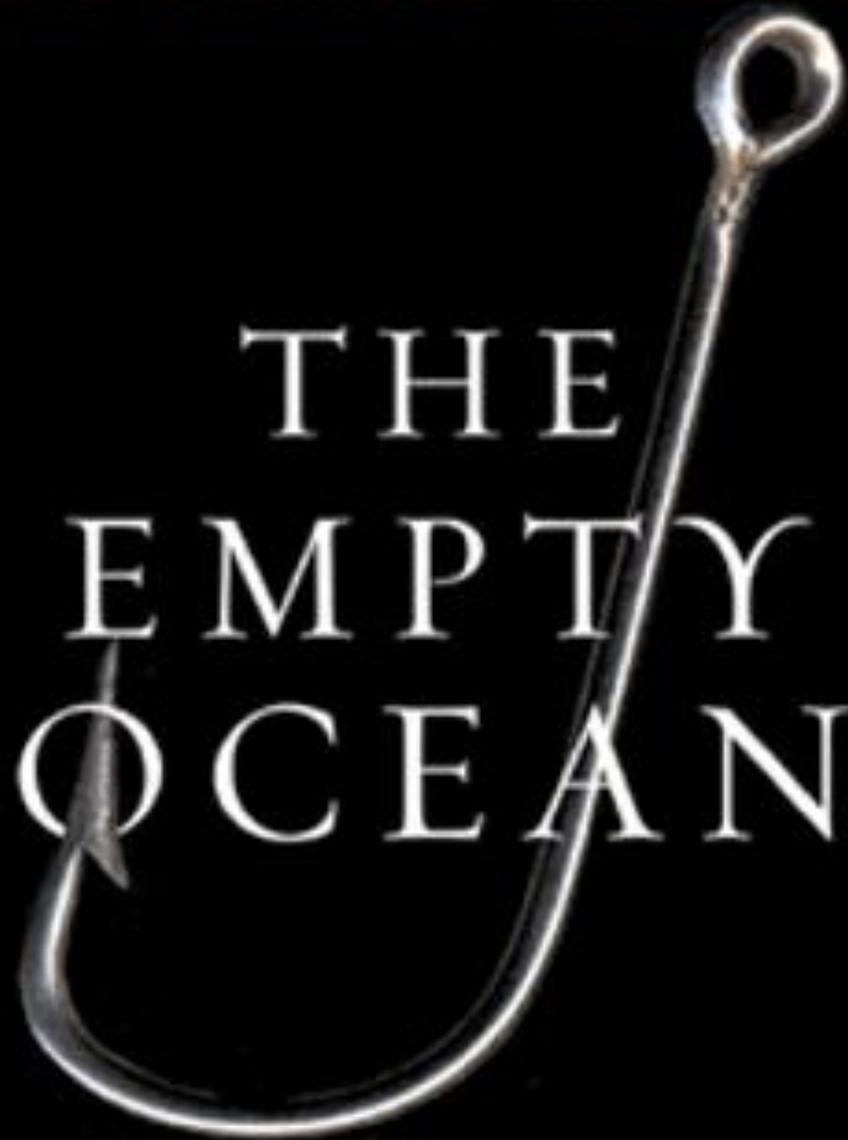
Can farming save the last wild food?

BY BRYAN WALSH



RICHARD ELLIS

THE  
EMPTY  
OCEAN



HOW OBAMA CAN NAVIGATE THE CLIMATE CRISIS, *Bill McKibben*  
THE GREENING OF MODERNITY, *Jackson Lears* // A PRESIDENT ON THE BRINK, *John B. Judis*  
THE ENERGY VILLAIN IN YOUR NEIGHBORHOOD, *Bradford Plummer*  
EDMUND BURKE IS BACK! *Lois Waudhler* // THE STRANGE FALL OF ARTHUR MILLER, *Adam Kirsch*

*The New*  
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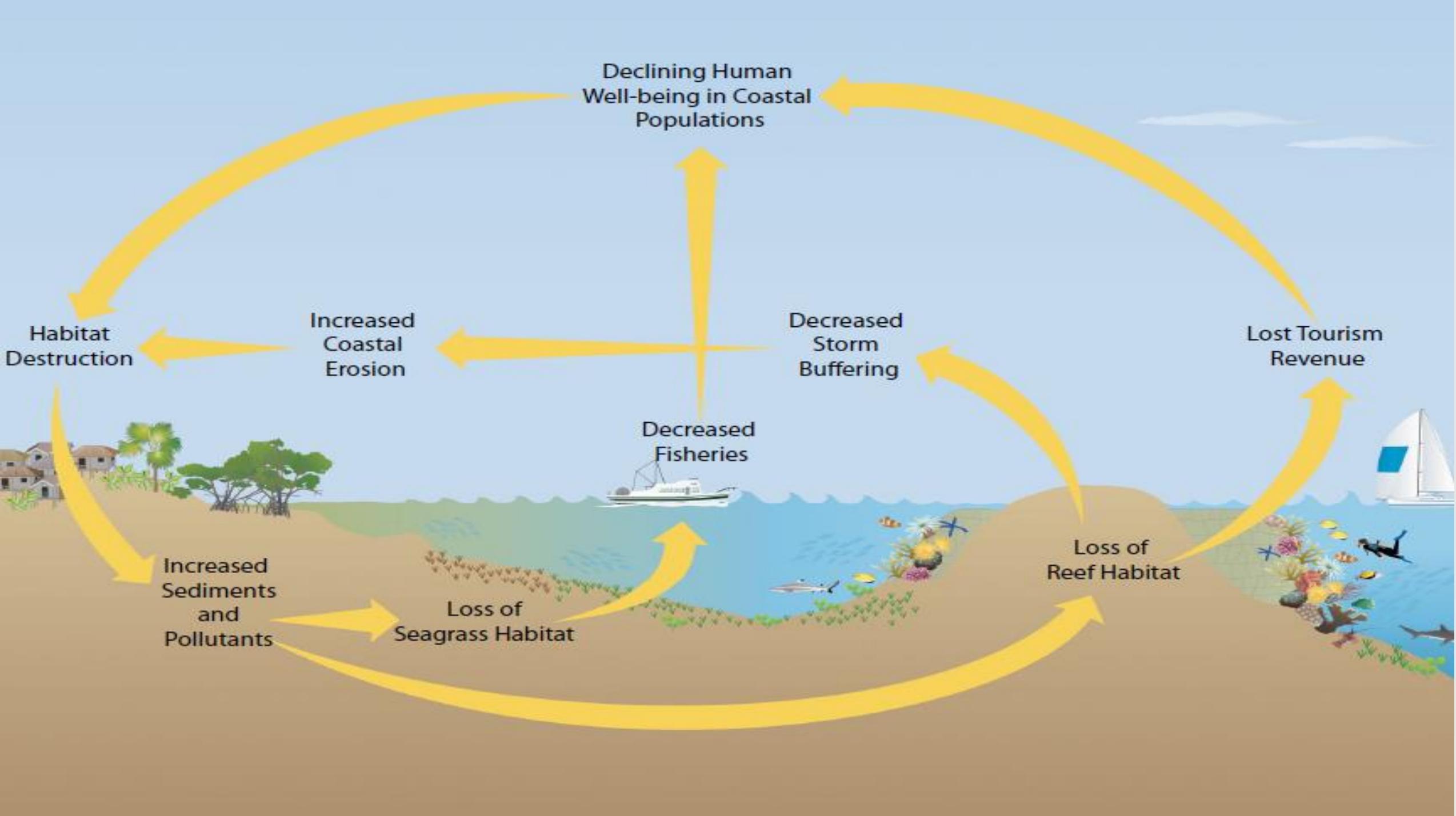
*The Environment Issue*

**AQUACALYPSE NOW**

The End of Fish

*Daniel Pauly*





Declining Human Well-being in Coastal Populations

Habitat Destruction

Increased Coastal Erosion

Decreased Storm Buffering

Lost Tourism Revenue

Decreased Fisheries

Increased Sediments and Pollutants

Loss of Seagrass Habitat

Loss of Reef Habitat

# When Humans Declared War on Fish

By PAUL GREENBERG and BORIS WORM MAY 8, 2015

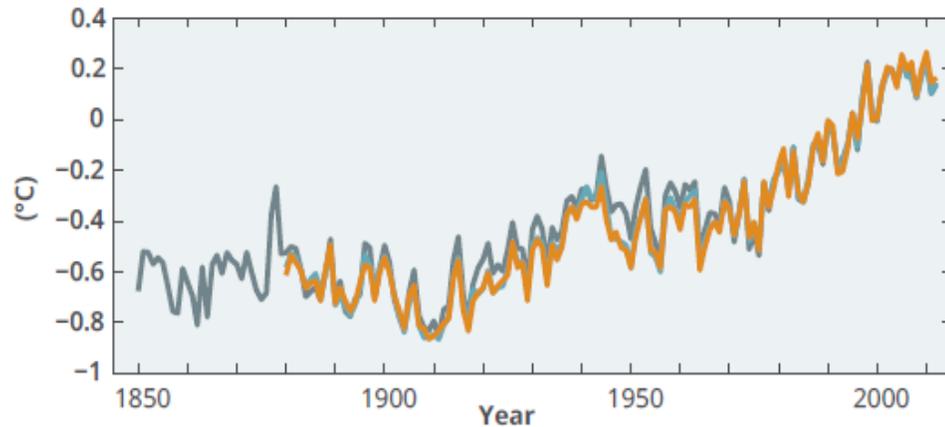


# Fisheries Mismanagement



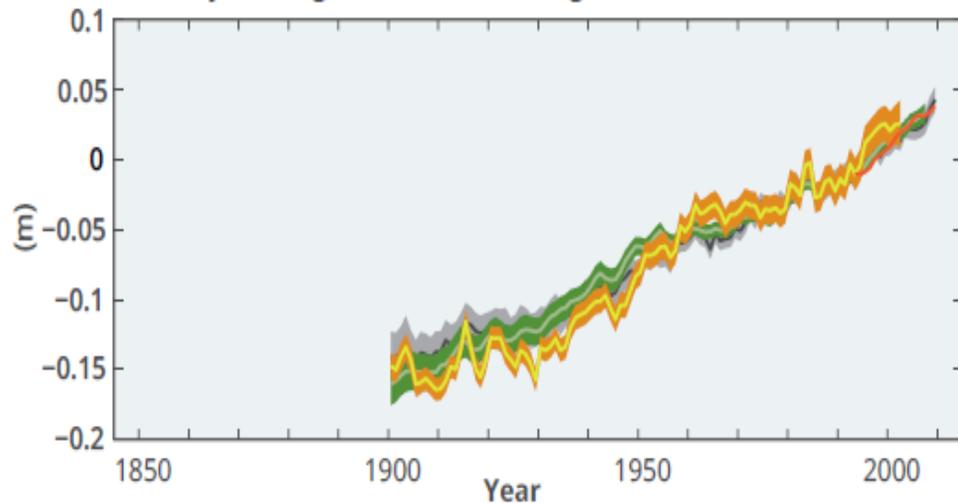
# Observations and other indicators of a changing global climate system

a. Globally averaged combined land and ocean surface temperature anomaly



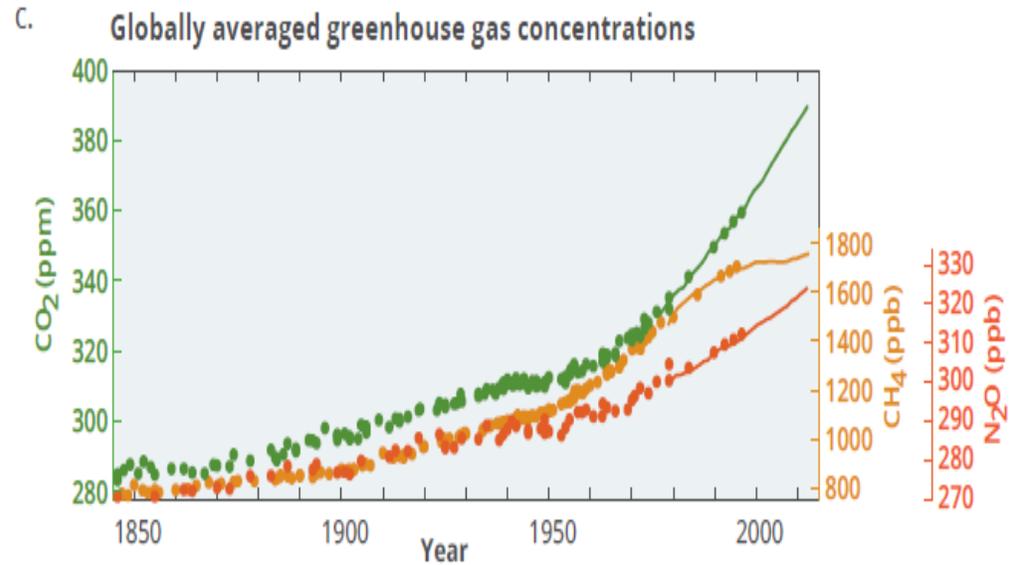
a) Annually and globally averaged combined land and ocean surface temperatures anomalies relative to the average over the period 1986 to 2005 in the longest-running dataset. Colors indicate different data sets.

b. Globally averaged sea level change

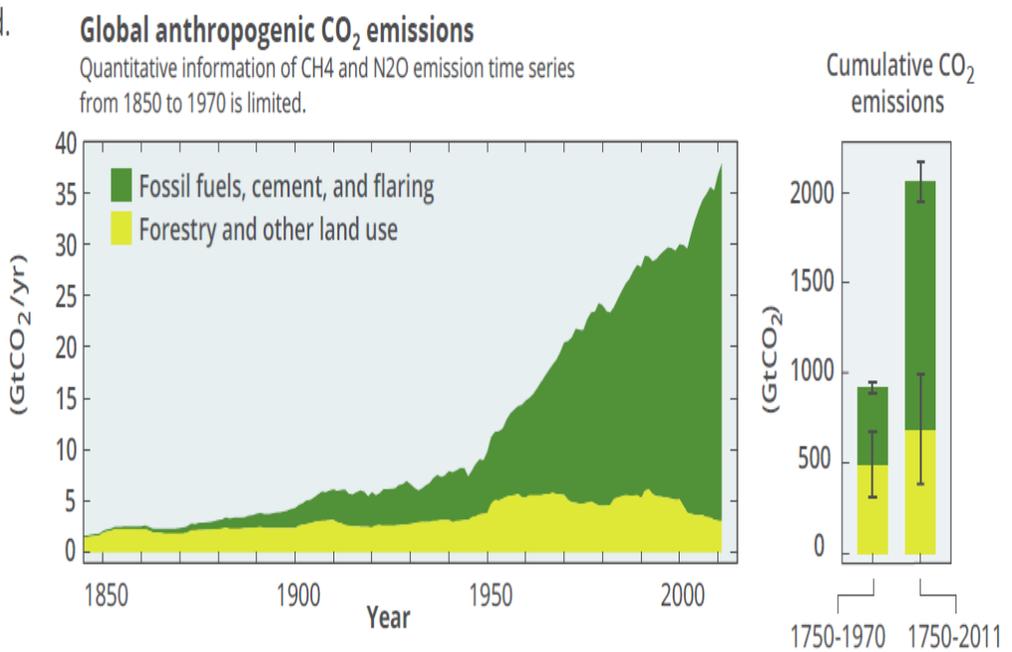


b) Annually and globally averaged sea level change relative to the average over the period 1986 to 2005 in the longest-running dataset. Colors indicate different data sets.

# Observations and other indicators of a changing global climate system



- ✓ Atmospheric concentrations of GHGs carbon dioxide (green), methane (orange), and nitrous oxide (red) determined from ice core data (dots) and from direct atmospheric measurements (lines).



- Global anthropogenic carbon dioxide emissions from forestry and other land use as well as burning of fossil fuel, cement production, and flaring. Cumulative emissions of CO<sub>2</sub> and their uncertainties are shown as bars and whiskers.

# WAY FORWARD

- 🐟 Overfishing and excess fishing capacity
  - 🐟 Open access
  - 🐟 Illegal, unreported and unregulated (IUU) fishing
  - 🐟 Lack of information
  - 🐟 Enforcement and compliance
  - 🐟 Low participation in decision making
  - 🐟 Conflict
  - 🐟 Weak management institutions and corruption
  - 🐟 Inappropriate policies
- 

## Global change

- Create Marine Protected Areas in costal waters
- Need for an international treaty to protect high seas from overfishing, mining and shipping

## Individual actions

- Buy sustainable fish and seafood
- Reduce plastic use, reuse and recycle
- Reduce use of fossil fuels that contribute to global warming
- Hold businesses to account
- Ask politicians to protect oceans



# HAPPY WORLDS OCEAN DAY



**THANKS FOR LISTENING**

**MUCHAS GRACIAS**