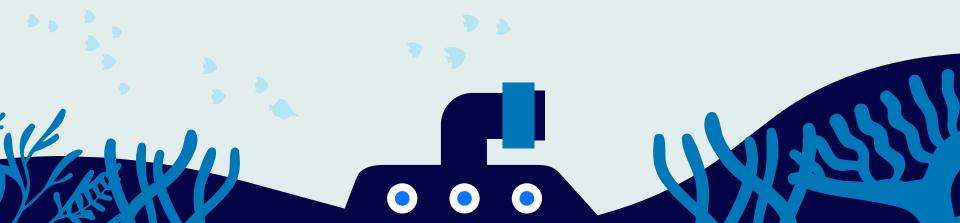
## AVOIDING OVERFISHING

Presented by: Kei Lei Mui



## What is 'Overfishing'?

Overfishing is the act of catching too many fish at one time, leading to the breeding population to be too consumed to bounce back.

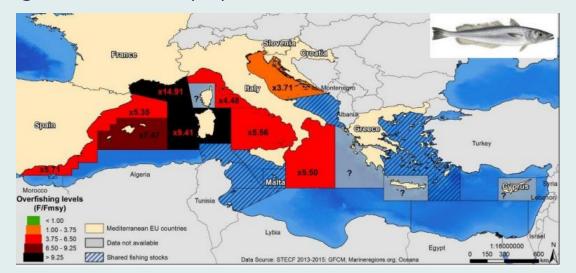
### Who does overfishing affect?

Mediterranean is the world's most overfished sea, but the act of overfishing affects billions of people worldwide that rely on fish and other seafood for survival. Some countries include China, Indonesia, India, Vietnam, and the Philippines.



### **Overfishing Levels**

The fishing rate of the Hake fish is above sustainable levels as shown from the map. Most places are highlighted in red and black, meaning their demand is higher than the oceans supply. This will lead to a huge decrease in population of the Hake fish in the sea.





Map provided by Oceana Europe. https://eu.oceana.org/sites/default/files/oceana\_fs\_med\_overfishing.pdf

#### **Ecosystems affected**

Overfishing can impact the entire ecosystem of the ocean and further up the chain. From changing the size of the remaining fish to how they will reproduce and even their rate of their growth.

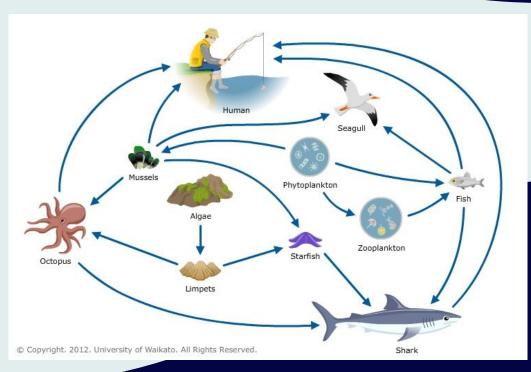
When overfishing occurs, it creates a dent to the food web and causes the organism higher up to suffer as well. Especially vulnerable species like sea turtles and corals.



End web diagram in next slide.

#### **Marine Life Food Web**

This diagram shows the food web of the ocean, if fishes were removed, it would affect planktons, sharks, seagulls, and humans directly. It will also lead to a domino effect since they all rely on each other for a stable system.



## Effects of Overfishing on stakeholders

Overfishing will affect stakeholders, the fishermen and their representative organisations, by causing them to waste more money. Overfishing relates 'bycatching.' This is the capturing of huge amounts of unwanted fish which are then thrown out.

#### How to mitigate the hazards

#### **Cooperations**

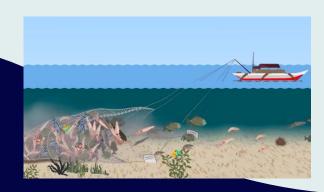
Stop trawling! The use of the big nets to fish pick up any animal that is in reach. This hurts many marine life since they get tossed out if not wanted.

#### **Consumers**

Spread the word or think about avoiding seafood/ animal products if possible. The less we consume, the less corporations will overfish.

#### **Citizens**

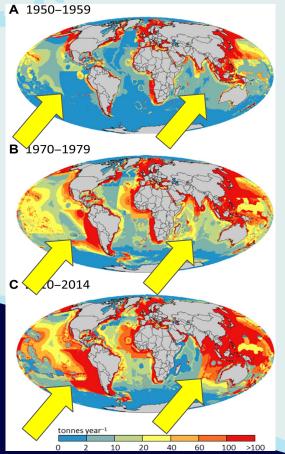
We can volunteer and help marine protected areas by promoting more no-catch zones and allow fish populations to regulate and replenish.







Increase of fishing

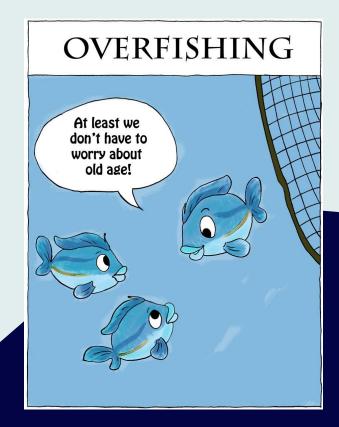


From this map, it is shown the global patterns in total fisheries catches from more than 50 years. It is seen more red appears throughout the years, representing more than 100 tonnes of fish are caught per year. I have put arrows indicating the dramatic change.

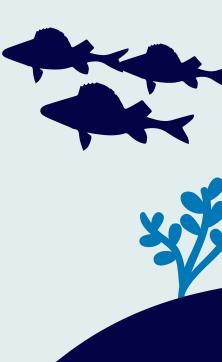
#### **Personal reflection**

This topic matters to me greatly since I am an Environmental Studies major, however it should matter to a lot of people because our marine ecosystem is being pushed to the edge. You do not need to be majoring in a related to topic to realize this is a serious and saddening matter. This issue is hard to completely solve since the ocean is a huge area. The government and higher officials can lay laws down but it will be difficult to monitor everyone and everything. I just hope that corporations realize that they cannot overwork the oceans. It will hurt them in the end when the fish populations are near zero and they can not farm anymore product. It is saddening to realize what is happening to our planet and seeing people take advantage of it.

Kei Mui



# Thank you for listening!



#### Sources

- Davis, Elizabeth. "What Is Overfishing? Facts, Effects and Overfishing Solutions." WWF, World Wildlife Fund, 23 Oct. 2020, www.worldwildlife.org/threats/overfishing.
- Europe, Oceana. "Mediterranean Sea." Europe Oceana, Feb. 2016, eu.oceana.org/sites/default/files/oceana\_fs\_med\_overfishing.pdf.
- Link, Jason S., and Reg A. Watson. "Global Ecosystem Overfishing: Clear Delineation within Real Limits to Production." Science Advances, American Association for the Advancement of Science, 1 June 2019, advances.sciencemag.org/content/5/6/eaav0474.
- Smith, Griffin. "Overfishing." Overfishing | The Earth Times |
   Encyclopaedia, 10 Jan. 2012,
  www.earthtimes.org/encyclopaedia/environmental-issues/overfishing/.