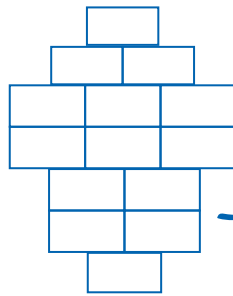


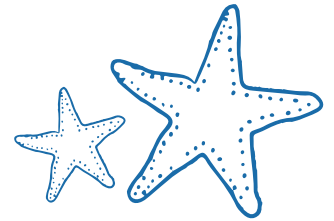
OUR OCEAN

HOW DO WE GET THE BALANCE RIGHT BETWEEN LIFE AND LIVELIHOODS?

Cut out and arrange the ideas into a diamond, with the best ideas at the top and the one you like least at the bottom. You can also write your own ideas. Which is your favourite idea?



Your diamond could be shaped like this.



Stop dumping plastic pollution in our oceans	Listen to diverse voices and ensure that protecting our ocean has benefits for those who live near it and rely on it	Have more marine protected areas, like national parks, where no fishing is allowed
Encourage people to visit and have fun at the seaside	Make sure the people who catch our fish make enough money	Stop fishing and stop eating fish and seafood
Make sure everyone understands how important the ocean is	Take action on climate change	Make sure everyone in the world can afford and access a healthy balanced diet
Pass laws to make harmful fishing illegal	Help fishing boats find ways of catching just the fish they want, not other animals	Choose sustainable seafood to eat
	Your idea	Your idea



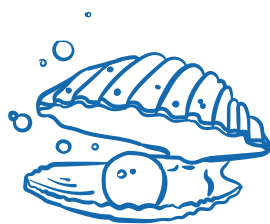
ENQUIRY RESOURCE SHEET



LIFE

The ocean is home to an extraordinary variety of life, from plants and corals, to fish and mammals. It is essential for our survival – helping to regulate our global climate, and providing much of the oxygen we breathe. The health of our ocean ecosystem is linked to our environmental, social and economic wellbeing, with the ocean providing us with food, jobs and recreation. But the ocean ecosystem is under threat from human activities like fishing and pollution and this threatens ocean species across the world.

- The sea produces around half of all the oxygen we breathe (thanks to phytoplankton, tiny single-celled ocean plants)
- The size of marine populations declined by almost half (49%) between 1970 and 2012¹
- 34.2% of global fisheries have been fished beyond sustainable limits²
- An estimated 8 million tons of plastic end up in our ocean every year, and this could double by 2050³
- Around 4% of the world’s seas have official, legal protection (compared with around 16% of land)⁴



¹From <https://www.msc.org/en-au/what-we-are-doing/oceans-at-risk>, source is WWF’s Living Blue Planet Report 2015

²From <https://www.msc.org/en-au/what-we-are-doing/oceans-at-risk>, source is the United Nations FAO’s 2020 State of World Fisheries and Aquaculture (SOFIA) report

³From Evaluating scenarios toward zero plastic pollution <https://science.sciencemag.org/content/369/6510/1455>

⁴From www.wwf.org.uk/where-we-work/oceans

Short films to watch

- How do the oceans help fight climate change? <https://www.youtube.com/watch?v=WxWBvTi-l3s>
- What are marine protected areas and where are they needed? https://www.youtube.com/watch?v=gq_U73i6s1U
- What is biodiversity? <https://www.youtube.com/watch?v=XTC4qiXd36Q>
- Overfishing https://www.msc.org/docs/default-source/default-document-library/education-page/3-overfishing.mp4?sfvrsn=51806387_4

Data source 1

Read or watch “Ode To Our Ocean” by Amanda Gorman <https://www.lonelywhale.org/ode-to-our-ocean>

Articles to read

- Ocean Threats <https://www.nationalgeographic.com/environment/article/ocean-threats>
- Extinction: ‘Time is running out’ to save sharks and rays <https://www.bbc.co.uk/news/science-environment-55830732>
- Should we stop eating fish to save our oceans? <https://www.msc.org/media-centre/news-opinion/news/2019/05/09/should-we-stop-eating-fish-to-save-our-oceans>

Online quizzes – play individually, or as a group

- Why do we need the ocean? Go to [kahoot.it](https://www.kahoot.it) and enter game pin 003642838
- Sustainable Fishing Challenges: bycatch. Go to [kahoot.it](https://www.kahoot.it) and enter game pin 001589971
- Film quiz – overfishing. Go to [kahoot.it](https://www.kahoot.it) and enter game pin 005002747





Data source 2

What do the statistics tell us about the health of our ocean, and the challenges it is facing?

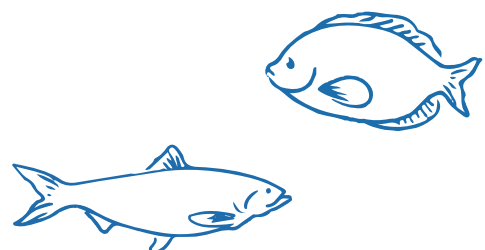
Ocean and Fishing

- **33%**: marine fish stocks in 2015 being harvested at unsustainable levels; **60%** are maximally sustainably fished; **7%** are underfished
- **>55%**: ocean area covered by industrial fishing
- **3-10%**: projected decrease in ocean net primary production due to climate change alone by the end of the century
- **3-25%**: projected decrease in fish biomass by the end of the century in low and high climate warming scenarios, respectively
- **>90%**: proportion of the global commercial fishers accounted for by small scale fisheries (over 30 million people) – representing nearly **50%** of global fish catch
- **Up to 33%**: estimated share in 2011 of world's reported fish catch that is illegal, unreported or unregulated
- **>10%**: decrease per decade in the extent of seagrass meadows from 1970-2000
- **+/-50%**: live coral cover of reefs lost since 1870s
- **100-300 million**: people in coastal areas at increased risk due to loss of coastal habitat protection
- **400**: low oxygen (hypoxic) coastal ecosystem 'dead zones' caused by fertilizers, affecting >245,000 km²
- **29%**: average reduction in the extinction risk for mammals and birds in 109 countries thanks to conservation investments from 1996 to 2008; the extinction risk of birds, mammals and amphibians would have been at least **20%** greater without conservation action in recent decade
- **>107**: highly threatened birds, mammals and reptiles estimated to have benefitted from the eradication of invasive mammals on islands

This data comes from a report by the United Nations (UN) in 2019. You can find this data and more here: <https://www.un.org/sustainabledevelopment/blog/2019/05/nature-decline-unprecedented-report/>

Data source 3

Listen to some or all of a podcast episode – The Life Scientific: Helen Scales on Marine Conservation <https://www.bbc.co.uk/programmes/m000vwqh>





BALANCE

Oceans cover more than 70% of the planet's surface, regulate the climate, and supply half the oxygen we need to survive. The oceans are also home to an extraordinary variety of life. Much of this life is essential to sustain people's livelihoods and to help ensure global food security. We have only explored about 5% of the ocean, and because we do not have enough data about it, we are limited in how we can manage marine ecosystems. In a world of climate change and rising population, a better understanding of the ocean and good management of its resources, are necessary to reduce the risks to the ocean.

- The sea produces around half of all the oxygen we breathe (thanks to phytoplankton, tiny single-celled ocean plants)
- The size of marine populations declined by almost half (49%) between 1970 and 2012¹
- Illegal, unreported, and unregulated (IUU) fishing is one of the greatest threats today to marine ecosystems and ocean health. IUU fishing accounts for up to 26 million metric tons of fish annually and threatens ocean ecosystems and the livelihoods of legal fishers²
- Around 4% of the world's seas have official, legal protection (compared with around 16% of land)³
- Up to 10% of the global population relies on fisheries for their livelihood⁴

¹From [msc.org/what-we-are-doing/oceans-at-risk](https://www.msc.org/what-we-are-doing/oceans-at-risk), source is WWF's Living Blue Planet Report 2015

²From UNFAO [fao.org/fao-stories/article/en/c/1136937/](https://www.fao.org/fao-stories/article/en/c/1136937/)

³From <https://www.wwf.org.uk/where-we-work/oceans>

⁴From <https://www.msc.org/uk/what-we-are-doing/oceans-at-risk/the-impact-on-communities>

Short films to watch

- What is the connection between climate change, our oceans, and the people who depend on them? <https://www.youtube.com/watch?v=Hzd8I5cuFcg>
- Saving Our Fisheries, Protecting Our Oceans <https://www.youtube.com/watch?v=55VqeYnrIFy>
- How saving the Oceans can feed the world <https://www.youtube.com/watch?v=7PIDQNDr-yY>
- Global Fisheries need better governance to sustain key stocks <https://www.pewtrusts.org/en/research-and-analysis/video/2020/global-fisheries-need-better-governance-to-sustain-key-stocks>
- Sustainable fishing https://www.msc.org/docs/default-source/default-document-library/education-page/4-fishing-sustainably.mp4?sfvrsn=f32fd95d_4

Data source 1

- Listen to Sail for Climate Action with Steff McDermott <https://www.lonelywhale.org/52hertz/againstthecurrent/episode2>

Articles to read

- Protect our ocean 'to solve challenges of century' - <https://www.bbc.co.uk/news/science-environment-56430542>
- Why should we care about the ocean? <https://oceanservice.noaa.gov/facts/why-care-about-ocean.html#:~:text=The%20air%20we%20breathe%3A%20The.our%20climate%20and%20weather%20patterns.>



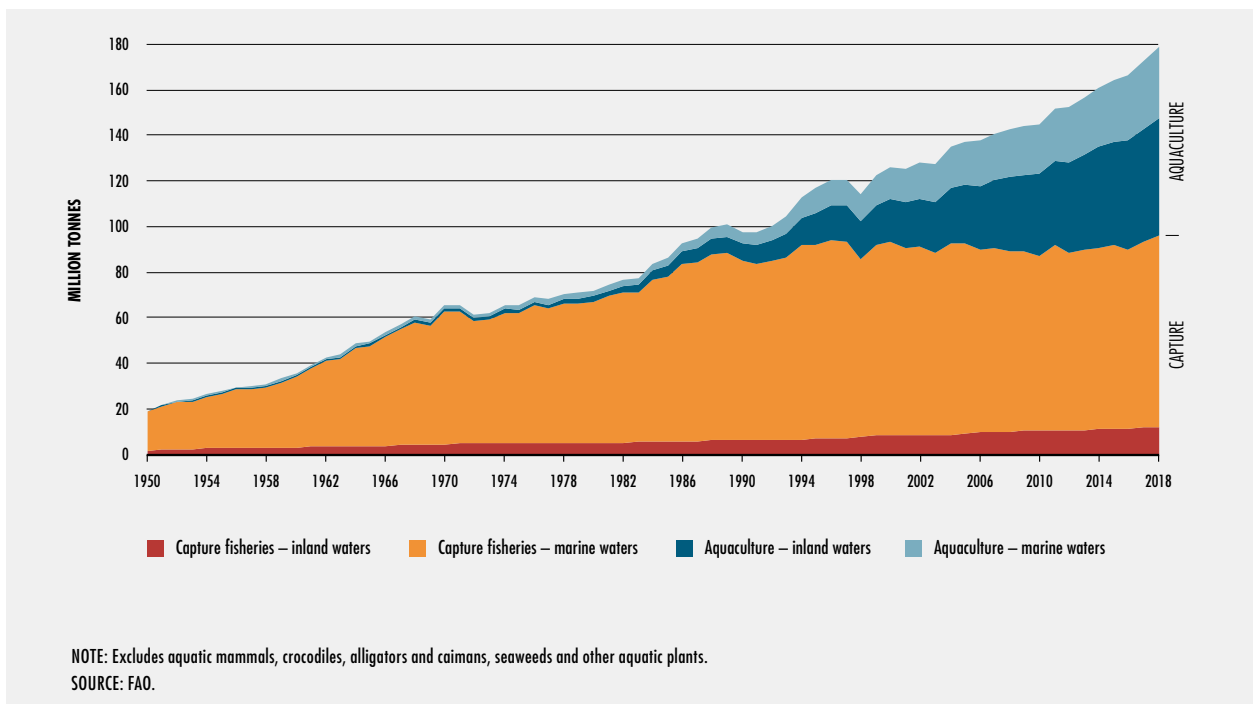
Data source 2

How is the world getting its fish, and how is that changing over time? Are we consuming more or less fish than we used to? Which regions of the world provide more fish?

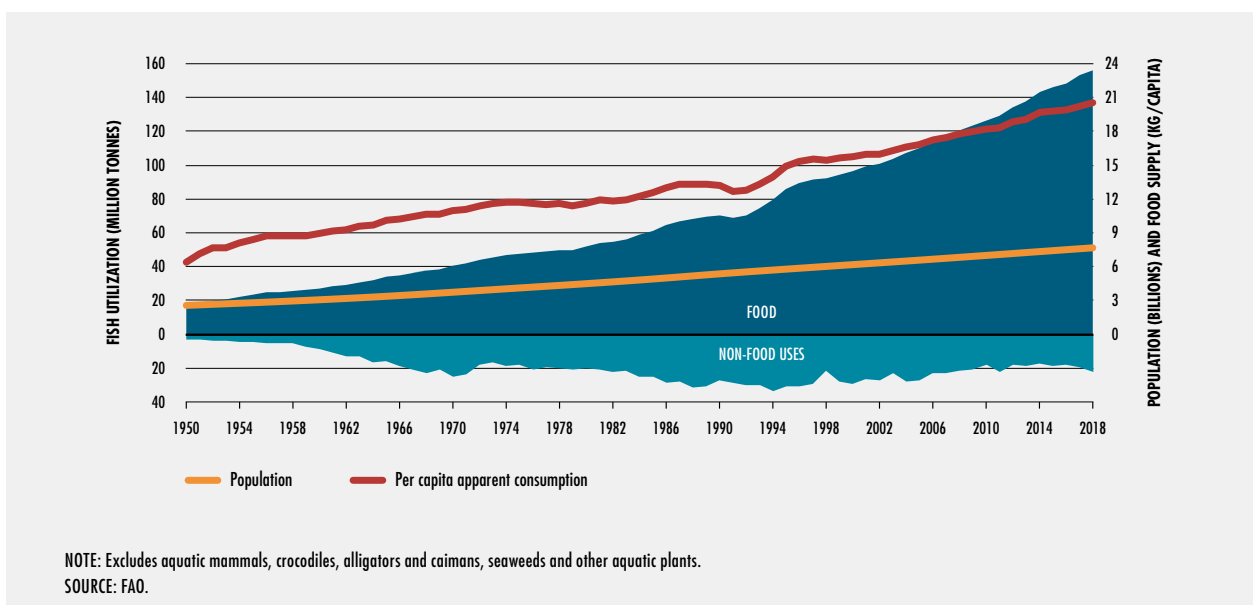
'Capture' means caught from the wild (oceans, lakes or rivers), and **aquaculture** involves farming fish and seafood in the ocean, lakes, rivers or ponds.

You can find this chart and more at *The state of the world's fisheries and aquaculture 2020* <http://www.fao.org/3/ca9229en/online/ca9229en.html#fig1>

WORLD CAPTURE FISHERIES AND AQUACULTURE PRODUCTION

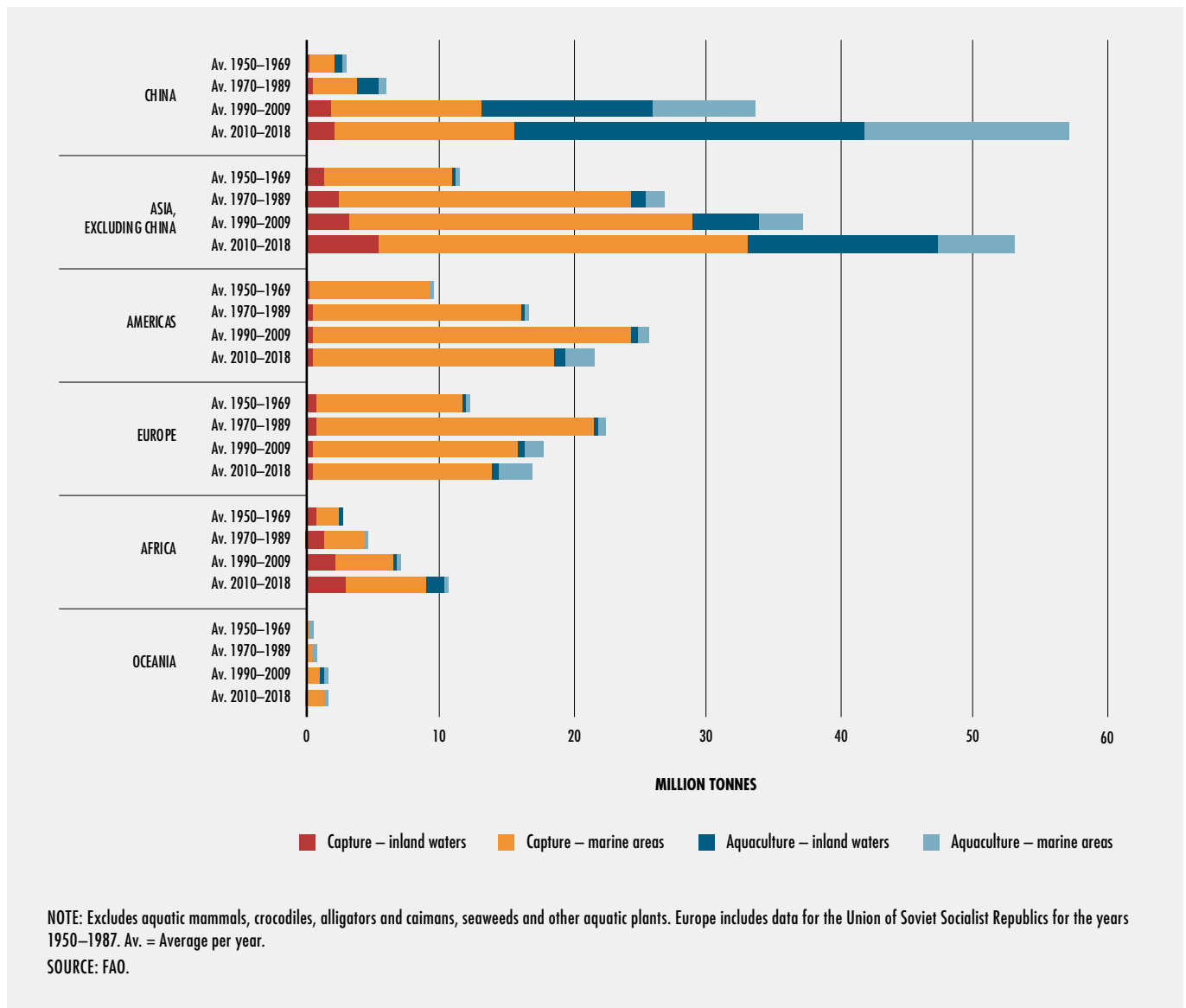


WORLD FISH UTILIZATION AND APPARENT CONSUMPTION





REGIONAL CONTRIBUTION TO WORLD FISHERIES AND AQUACULTURE PRODUCTION



Online quizzes – play individually, or as a group

- Why do we need the ocean? Go to kahoot.it and enter game pin 003642838
- World Tuna Day: a global catch. Go to kahoot.it and enter game pin 005621716
- Film quiz – overfishing. Go to kahoot.it and enter game pin 005002747





LIVELIHOODS

Many communities around the world depend on the fishing industry for food and income. For many people fishing is their livelihood. With increasing population levels and challenges such as climate change, sustainable fishing is important for our global food security and for the livelihoods of millions of people around the world.

- 3.3 billion people get at least 20% of their daily animal protein intake from fish
- There are 39 million fishers around the world, catching wild fish and seafood from our ocean
- Over 50% of the world's traded seafood comes from low- and middle- income countries
- Up to 10% of the global population relies on fisheries for their livelihood
- 85% of the people who work in the fisheries sector are in Asia, 9% live in Africa (9%) and 4% live in the Americas¹.

Short films to watch

- Our oceans can feed a billion people a day <https://www.youtube.com/watch?v=5Z7WhInKlow>
- Short film from the World Economic Forum <https://www.youtube.com/watch?v=5qEf3b9Bwps>
- Fish in food security and nutrition <https://www.youtube.com/watch?v=MMPPrPfkOMGc>
- The life of a fisherman https://www.msc.org/docs/default-source/default-document-library/education-page/1-the-life-of-a-fisherman.mp4?sfvrsn=2ba71ba_4

¹Taken from <https://www.msc.org/what-we-are-doing/oceans-at-risk/the-impact-on-communities> all figures from the UNFAO SOFIA 2018 [Report](#).

Articles to read

- Protecting the Oceans: why turning vegan can't be the only answer <https://www.greenpeace.org/international/story/46985/protect-the-oceans-why-vegan-cant-only-answer/>
- The world could eat more fish if we try to catch less <https://www.msc.org/en-us/media-center/blog/2021/03/24/the-world-could-eat-more-fish-if-we-try-to-catch-less>
- Keep eating fish; it's the best way to feed the world <https://blog.oup.com/2019/05/keep-eating-fish-best-way-feed-world/>

Online quizzes – play individually, or as a group

- Why do we need the ocean? Go to kahoot.it and enter game pin 003642838
- World Tuna Day: a global catch. Go to kahoot.it and enter game pin 005621716
- Film quiz – overfishing. Go to kahoot.it and enter game pin 005002747



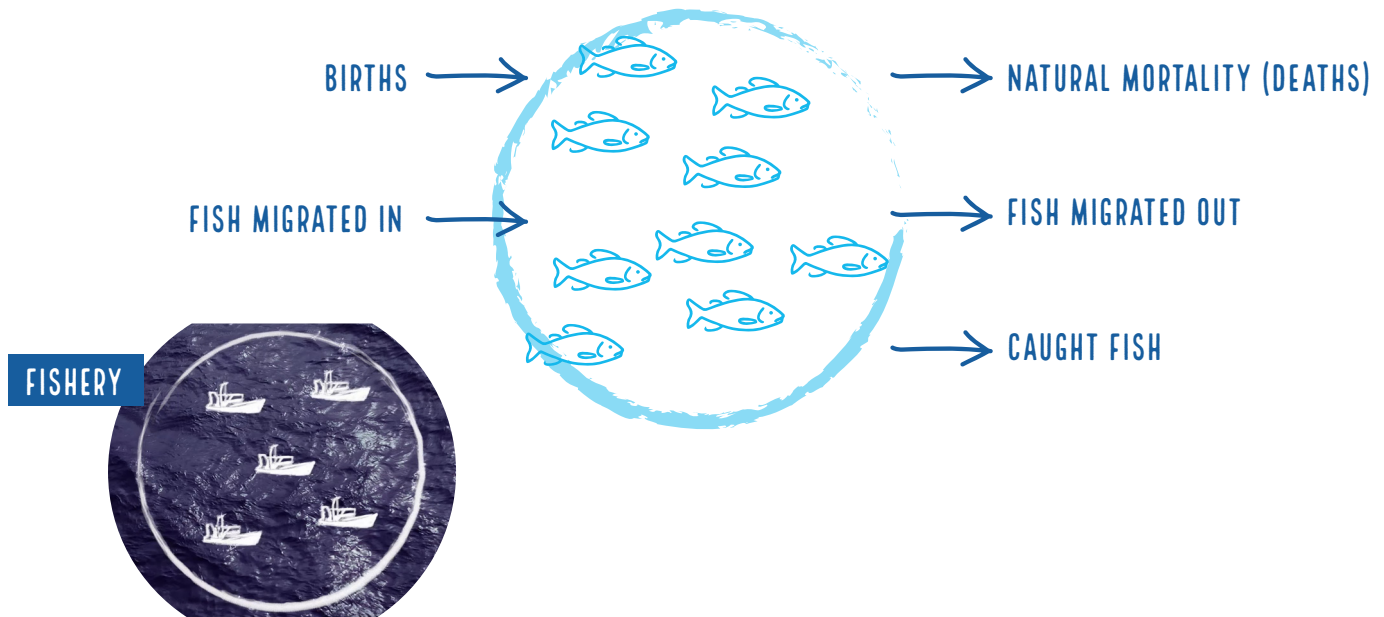


Data source 1

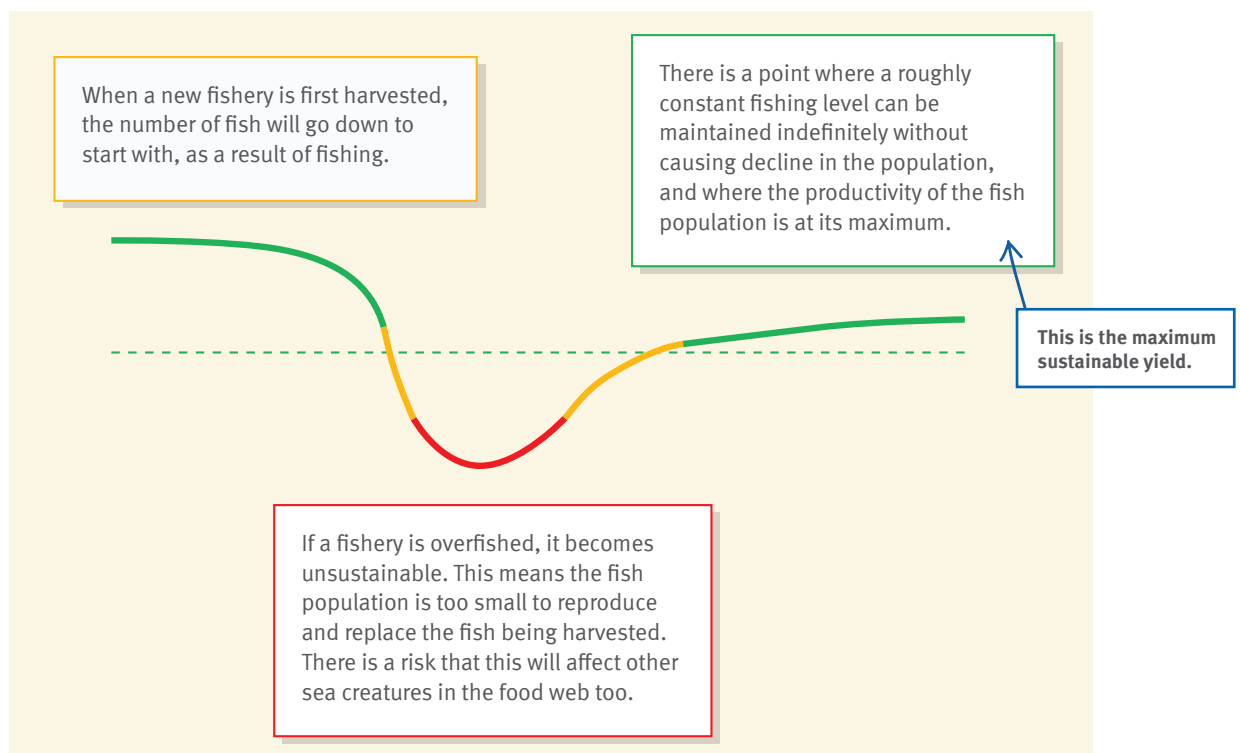
What do fishers and scientists need to know about the ocean to manage its resources sustainably? Where in the world are fish stocks more, and less, healthy? Why do you think this is?

1. FISHERIES AND FISH STOCKS

A fishery is an area of the sea that different boats can use. Fish migrate in and out of the fishery, and fish are born and die others are caught. So this means the number of fish - the fish stock - changes in number over time.



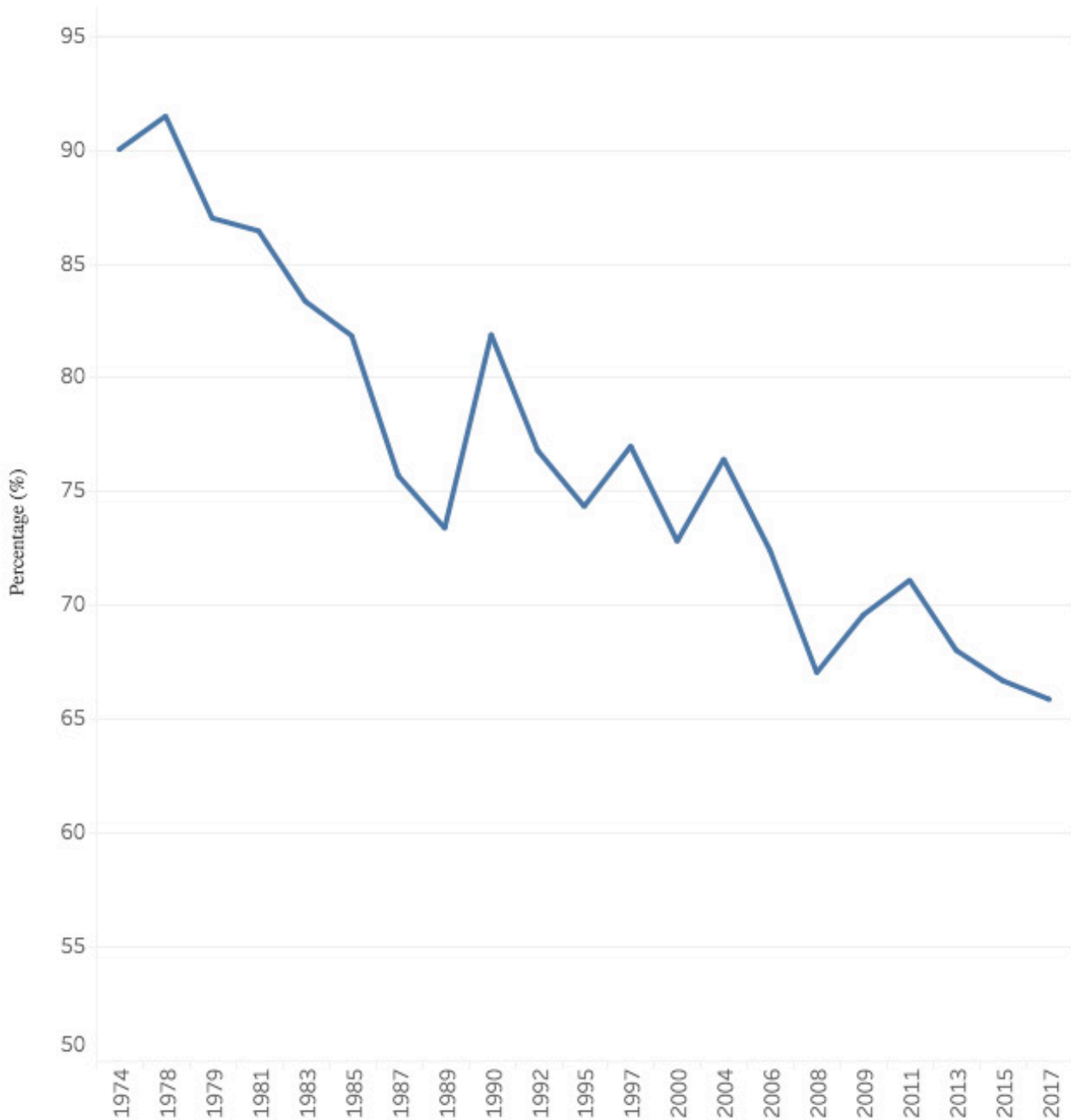
2. WHAT IS MAXIMUM SUSTAINABLE YIELD?





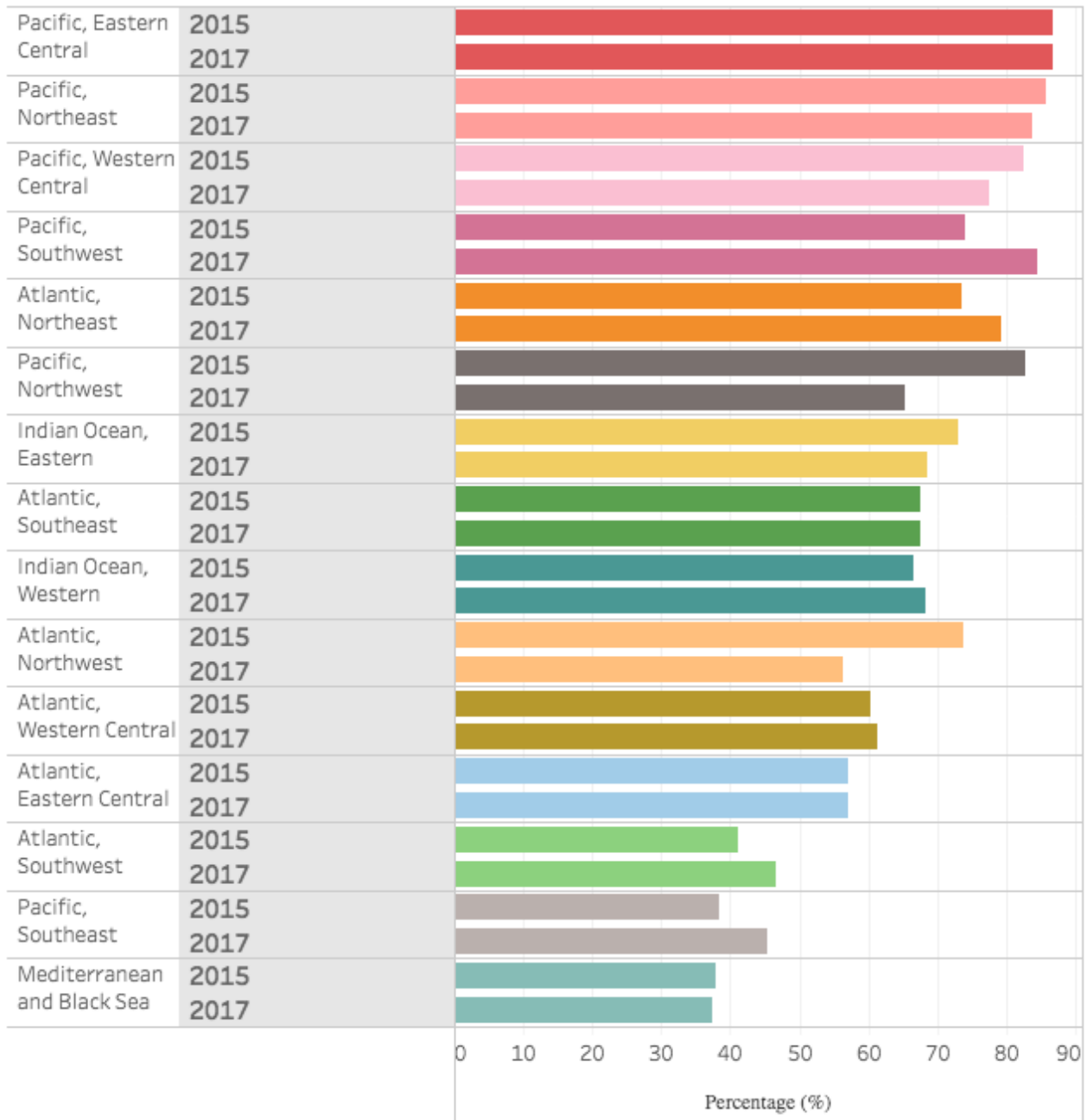
3. PROPORTION OF FISH STOCKS

GLOBAL PROPORTION OF FISH STOCKS WITHIN BIOLOGICALLY SUSTAINABLE LEVELS (1974-2017)





PROPORTION OF FISH STOCKS WITHIN BIOLOGICALLY SUSTAINABLE LEVELS BY FISHING AREA (2015 & 2017)





You can find these charts and more at [fao.org/sustainable-development-goals/indicators/1441/en/](https://www.fao.org/sustainable-development-goals/indicators/1441/en/)



HOW DO WE GET THE BALANCE RIGHT BETWEEN LIFE AND LIVELIHOODS?

Complete this sheet for each resource you use in your enquiry.

TITLE OF RESOURCE:	
Format: film, article, data, something else?:	
Year produced:	
How did you find this resource?	Who made this resource?
Whose voice is included (fishers, government, environmentalists, activists)? Where in the world are they?	
What were its messages? 1. 2. 3.	
How would you summarise it?	
What perspective do you think this resource is coming from?	
Do you trust this resource? 	Rate this resource 
Why (not)? What made you decide to trust or not trust it? Is it about its age, who is speaking, what they say, the quality of the film? Or something else?	

