

# **Global Governance of the Earth's Oceans**

**2.2.9**

**Managing marine environments**

# Specification content

The concept of the Global Commons and its applicability to the management of the Earth's oceans

Causes and consequences of over-exploitation of marine ecosystems for different people and learner's own lives and places

The need for sustainable management of marine environments to promote long-term global growth and stability, including local no-catch zones, regional quotas limits and marine conservation zones

# The Global Commons

“Global commons have been traditionally defined as those parts of the planet that fall outside national jurisdictions and to which all nations have access.

International law identifies four global commons, namely the High Seas, the Atmosphere, the Antarctica (*sic*) and the Outer Space.

These resource domains are guided by the principle of the common heritage of mankind.”

*From: **Global governance and governance of the global commons in the global partnership for development beyond 2015**, UN System Task Team, September 2013*

[http://www.un.org/en/development/desa/policy/untaskteam\\_undf/thinkpieces/24\\_thinkpiece\\_global\\_governance.pdf](http://www.un.org/en/development/desa/policy/untaskteam_undf/thinkpieces/24_thinkpiece_global_governance.pdf)

# The Global Commons

## How does this apply to the management of the oceans?

> 60% of the world's oceans are 'high seas', i.e. **areas beyond national jurisdiction (ABNJ)**

What's to stop anyone using these areas for their own purpose? (e.g. fishing, dumping waste...)

Concept of the Tragedy of the Commons (Adam Smith 18<sup>th</sup> C, Garrett Hardin 1968 paper in *Science*):

- There's a tendency to over-exploit resources with 'common ownership' (i.e. where everyone has equal rights to exploit and no-one has overall management responsibility)
- Users make rationale but selfish decisions over extraction leading to long-term damage or total destruction as stocks are depleted faster than they can be replenished
- Fishing is a very good example of this as technology improves to enable ships to catch more... (longlining, sonar, factory ships...)
- To prevent complete destruction, management is needed: either through **conservation** or **preservation** (*what's the difference?*)

# Causes of over-exploitation

## Direct causes:

- Increasing population
- Increasing affluence, especially in emerging economies (and increasing demand for high value, luxury/speciality foods)
- Change in popularity of certain foods
- Improvements in technology allowing more effective exploitation

## Indirect causes:

(i.e. impacts on marine ecosystems resulting in them being more vulnerable to over-exploitation)

- Climate change...
- Introduction of invasive species
- Changes (?) in run-off leading to sedimentation
- Pollution: type? from?

# Consequences of over-exploitation

Removal of target species causes imbalances in the ecosystem (e.g.?)

Collapse of a resource has economic and social impacts as a result of job losses

personal experience ('learners' own lives'?)

e.g. Newfoundland Grand Banks cod fishery in late 20<sup>th</sup> C – Student Guide, p75, also

Greenpeace has some useful background to overfishing

Impacts on indigenous populations?

Sustainable management is the only solution that allows for using the resource without permanent damage...

# The Global Commons

To prevent complete destruction, management is needed: either through **conservation** or **preservation** (*what's the difference?*)

Remember this from the Ecosystems unit (Conserving Biodiversity)?

“...**conservation** seeks the proper use of nature, while **preservation** seeks protection of nature from use.”

[US National Park Service (quoted in Wikipedia, 20/09/17)]

*Marine environment examples?*

*What might be some of the pros and cons of these two approaches?*

Sustainable management may be the solution...

# Sustainable Management

“Meeting the needs of the present without compromising the ability of future generations to meet their own needs”

Includes economic, social and environmental sustainability:



<https://sustainabilityadvantage.com/2010/07/20/3-sustainability-models/>

*How can this relate to management of ocean resources?*



# Sustainable management of marine resources

## Methods:

- local no-catch zones – no take zones (NTZs) (*handout*)
- regional quotas/limits – North Sea cod and mackerel fishing around Scotland (*website*), EU Common Fisheries Policy (CFP)
- marine conservation zones (MCZs) – also Marine Protected Areas (MPAs), National Marine Parks (NMPs) – *interesting article on why local communities don't like MPAs in Thailand on website*
- Others: aquaculture (fish-farming), Marine Stewardship Council certification, local community action/consumer campaigns (e.g. Fish Fight)

## Issues?

- Unintended consequences:
  - e.g. discarding by-catch that cannot be landed due to CFP
  - Unemployment in local fishing communities
  - Diseases/parasites spread from fish farms into wild populations

# Sustainable management of marine resources

...needs general agreement between states and people that conservation and/or preservation is required

...is possible, given effective approaches (e.g. whaling)

# Sustainable management of marine resources

With reference to two from the following list, contrast their effectiveness in helping to manage marine resources sustainably. Real world examples should be included to support your arguments. Mini-essay - one side A4:

- *EU Common Fisheries Policy (regional quotas)*
- *Marine conservation zones (Marine Protection Areas, MPAs)*
- *No-catch zones (No Take Zones, NTZs)*
- *A campaign – e.g. Fish Fight*
- *International Whaling Commission*
- *Marine Stewardship Council*
- *Aquaculture*

## Resources:

- The Student Guide 5 (pp76-7) has some good examples, including international efforts to manage whaling (we've also looked at the role of the IWC in the first section)
- North Sea cod and MPA handouts

# Sustainable management of marine resources

## Britain's fishermen: stitched up again?

When Britain joined the EEC in 1973, the country's fishermen were "betrayed", said Stephen Glover in the Daily Mail. As a condition of membership, they were forced to share their fishing grounds: today, thanks to quotas set by the EU's Common Fisheries Policy, boats from other member states take up to 80% of the catch in UK waters, while British vessels take only a fraction of that amount in other member states' waters. As a result, fishing communities strongly backed Brexit. But, sadly, it seems that they are to be stitched up once again. The deal agreed with the EU last week makes it clear that during the transition period, until the end of 2020, Brussels will continue to set fishing quotas. Britain will have no say in the process, merely the right to be consulted. Worse still, the EU wishes to maintain its existing reciprocal access to UK territorial waters after Brexit, in return for a trade deal.

Hard-line Brexiteers are spoiling for a "fish fight", said the FT. Last week, Nigel Farage boarded a trawler and flung dead haddock into the Thames in front of Parliament in protest. But the truth is that Britain will probably have



*Farage jettisoning haddock*

to compromise. Fishing is a tiny industry. It was always likely that in negotiations the Government "would use it as leverage" for the benefit of other, more crucial sectors such as financial services or aviation. Besides, British fishermen export most of the fish they catch to Europe. If Britain "plays hardball" over EU access to UK waters, the bloc can easily retaliate by slapping tariffs on British fish exports. Furthermore, the Common Fisheries Policy, for all its faults, has recently succeeded in managing Europe's fish stocks so that many are now sustainable.

Tearing up existing treaties "risks undoing all that progress and encouraging a free-for-all".

True, fishing makes up less than 0.5% of the UK economy, said Ross McCafferty in The Scotsman. But in many coastal areas – particularly in northeast Scotland – it is both a key employer and an "important source of local pride". And in this "island nation", the fishing industry exerts a strong "emotional pull". If it transpires that the fishermen can't "take back control" of our territorial waters, people will be very, very angry.

The Week  
31/03/18



# Sustainable management of marine resources

## **Tackling “ghost” fishing**

The impact of “ghost” fishing nets is a serious concern to conservationists. Lost or discarded by commercial fishing boats, these nets can drift around the oceans for years, trapping fish, turtles and other marine life as they go: according to some estimates, as many as 650,000 marine creatures die in them each year, leading to more losses of already depleted stocks. Researchers in Norway have come up with a new way of reducing this death toll: a tag that can be fitted to fishing gear so that lost nets can be located and retrieved. Known as PingMe, the device reflects acoustic signals transmitted from vessels’ sonar systems in such a way that they can be matched to a particular boat. If a crew lose one of their own nets, they can look for their signal on their sonar, which would reveal the tag’s location and depth (up to 500 metres away); if they come across other tagged nets, the signal should be able to tell them which vessel lost or dumped it. Lost or discarded fishing gear is believed to account for 10% of all marine debris, and includes thousands of miles of highly durable synthetic fishing nets and lines.

**The Week**

20/10/18