

Name: _____

Date: _____

Class: _____

IB ESS

4.3 Aquatic Food Production Systems

Significant ideas:

Aquatic systems provide a source of food production.

Unsustainable use of aquatic ecosystems can lead to environmental degradation and collapse of wild fisheries.

Aquaculture provides potential for increased food production.



Aquatic Food Webs

1. State the trophic level of phytoplankton in an aquatic food web.

2. Distinguish between benthic and pelagic marine organisms.

3. Explain the distribution of varying productivity in marine ecosystems.

4. Explain why the territorial water of a country is of significant value to a nation.



7. Explain how modern fishing practices and technology contribute to the unsustainability of the wild fishing industry. Use the table to guide your answers.

| | |
|----------------------------------|-------------------|
| GPS navigation | <hr/> <hr/> <hr/> |
| At-sea refrigeration techniques | <hr/> <hr/> <hr/> |
| Factory vessels | <hr/> <hr/> <hr/> |
| Indiscriminate fishing equipment | <hr/> <hr/> <hr/> |
| Use of trawlers | <hr/> <hr/> <hr/> |



Controversial Fishing

1. Describe what is meant by the term "biorights".

2. What type of environmental value system is expressed by a person who puts a strong emphasis on biorights?

3. Summarise the arguments against harvesting of seals and whales

4. List some of the products made from whales.

5. State and justify your opinion on the harvesting of whales.



Controversial Fishing – CASE STUDY

To answer the following questions you will need to conduct your own research into whaling in Iceland, and amongst Inuit people. You can use the following resources as a starting point:

iwc.int/

iwc.int/aboriginal

uk.whales.org/issues/whaling-in-iceland

1. What is the International Whaling Commission and what is their role?

2. There is currently a moratorium on whaling. Explain what this means.

3. Summarise Iceland's historical relationship with the IWC.

4. Despite being a member of the IWC and therefore subject to the moratorium, Iceland continued to hunt fin whales (amongst other whale species). What loophole did they use?

4. State and explain the current ruling on whaling for aboriginal groups such as Inuits.



