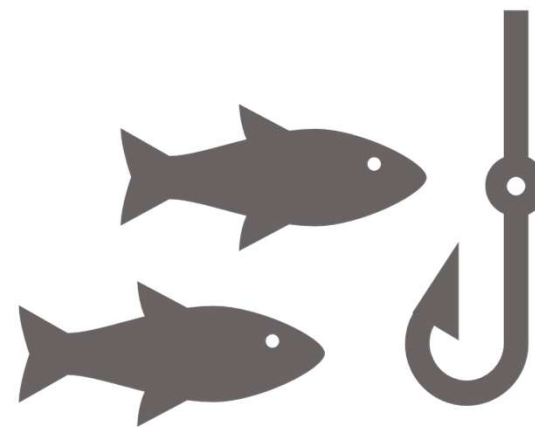


FISH

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IN THIS PRESENTATION, WE WILL TELL YOU ABOUT:

- Icelandic fishing industry
- Fishing industry in Finland
- Norwegian fishing industry
- Comparison of the fishing industry between countries
- Fish farming
- Land-based fish farms
- Challenges
- Conclusion

ICELANDIC FISHING INDUSTRY

- The fishing industry is one of the key industries in Iceland.
- Iceland has created one of the most modern and competitive seafood industries in the world.
- Icelandic fisheries are managed by a catch limitation system.
 - o Transferable between vessels
 - o Prevents overfishing
- Iceland uses cutting-edge fish processing technologies to reduce waste.
 - o Up to 80% of Icelandic fish are used
- Icelandic aquaculture has both fish farming and land farming.



The fishing industry is one of the key industries in Iceland and directly employs around 7,500 people, or approximately 3,9% of the total workforce. There are 1,535 fishing ships in Iceland of which 678 are decked vessels, 818 undecked vessels and 39 trawlers.

Iceland has created one of the most modern and competitive seafood industries in the world, based on sustainable harvest and protection of the marine ecosystem. The Icelandic fisheries management system was put in place to ensure responsible fisheries. Iceland maintains a 200 nautical miles exclusive fishing zone (around 758,000 square kilometers) that includes some of the richest fishing grounds in the world.

The fishing management in Iceland is primarily based on extensive research on the fish stocks and the marine ecosystem and biodiversity.

Icelandic fisheries are managed by a catch limitation system that allots each species a Total Allowable Catch (TAC) each year. Individual vessels are then given a specific share of that catch, which is transferable between vessels and prevents overfishing. Lastly, Iceland uses cutting-edge fish processing technologies to reduce waste – up to 80% of Icelandic fish are used (a stark contrast to the world average of 50-60%).





FISHING INDUSTRY IN FINLAND

- Finland produces around 15 million kilos of edible fish every year, 95% of which is rainbow trout.
- The most typical fish species in Finland are
 - Perch, Pike and Salmon
- Fish farming brings jobs and livelihoods to the regions.
- Farmed fish has the lowest carbon footprint of all forms of animal production.
- Profits and jobs in the fishing industry are flowing abroad, as is business ownership.
- There is not much fish farming in Finland compared to other countries.





NORWEGIAN FISHING INDUSTRY

- Fish is a big resource for Norway
 - Economy
 - Expands the work market
- Fish farming is the most common
 - Mostly salmon
 - Over 1,5 million tons every year
 - Stands for a lot of the salmon production in the world



Fish is a big resource for Norway and has been for a long time. It has been a big part of the economy, job market and a resource that strengthens the communities around the coast of Norway for hundreds of years. In the last 50 years there has been a big increase in the number of fish farms and a big change in how the fish industry is in Norway. Before there was mostly fishing from boats, but in the 1970s fish farms became a big new industry. Fishing has long been very important for the towns on the coastal part of Norway.

In 2017 Norway produced over 52% of all Atlantic salmon mostly thanks to fish farms and breeding. Per year Norway exports over 1,5 million tons of salmon. There has been much criticism against the Norwegian fish industry in terms of the fish welfare and how sustainable it is. There are very divided opinions, but the Norwegian government is very certain on making the industry more eco-friendly and healthy for the fish.





COMPARISON

- In Norway, fish farming is the most common.
- All countries farm salmon.
- Iceland and Norway has more fish farming than Finland.



FISH FARMING

- Form of aquaculture in which fish are raised in enclosures to be sold as food.
- Commonly farmed species:
 - Salmon
 - Tuna
 - Cod
 - Trout
 - Halibut
- The farms depend on wild fish species lower on the food chain.



Fish farming is a form of aquaculture in which fish are raised in enclosures to be sold as food. It is the fastest growing area of animal food production. Today, about half the fish consumed globally are raised in these artificial environments.

Commonly farmed species include salmon, tuna, cod, trout and halibut. These the farms often depend on wild fish species lower on the food chain, like anchovies, in order to feed the larger, carnivorous farmed species. These “aquafarms” can take the form of mesh cages submerged in natural bodies of water, or concrete enclosures on land.



LAND-BASED FISH FARMS



- **Better for the Sea**
- **Fights lice and diseases**
- Costs more money
- Enviornmental problems



1. Farming fish on land results in less pollution and waste entering the ocean, making it a cleaner method for producing fish.
2. One of the significant issues with farming fish in the sea is the quick spread of lice and diseases. Land farms are better equipped to control this problem because the fish are isolated from the open ocean.
3. Building and operating these land-based farms is costly. The technology and energy required to control the farming environment add up.
4. Setting up land-based fish farms requires a considerable amount of space and often uses areas where wildlife resides. This can lead to environmental harm by displacing homes for wildlife and transforming regions that were once forests or wetlands into fish farms.





CHALLENGES

- Wild fishing
 - Overfishing
 - Damage to the bottom of the ocean
 - CO₂
- Fish farming
 - Lice
 - Diseases
 - Escaping
 - Waste from food and feces
 - Predators



Overfishing exceeds fish reproduction rates, disrupting marine ecosystems and posing threat to the fish population. Lice infestations in crowded aquaculture spread swiftly, threatening fish health and industry sustainability. Escaping farmed fish harms wild stocks and genetic diversity. In sea-based fish farms, unregulated waste pollutes oceans, degrading environments.

Addressing these challenges requires sustainable fishing, improved disease management, responsible aquaculture, and effective waste control.

1.Overfishing: Overfishing occurs when fish are caught faster than they can reproduce, posing a threat to fish populations and marine ecosystems.

2.Lice: Lice are small parasites that can adversely affect fish, especially in aquaculture facilities where crowded conditions can lead to outbreaks.

3.Diseases: Diseases can spread quickly in fish farms due to the crowded conditions, and they can cause significant losses of fish if not controlled.

4.Escaping: Escaping of farmed fish can occur if the netting around the facility is damaged by weather or other influences, which can have negative consequences for both wild stocks and ecosystems.

6. Waste from food and feces is a big problem with sea-based fish farms especially. It goes right into the ocean if you don't have any regulations on it.





CONCLUSION

- Fish farms on land can be the future
- Make a lot of jobs for people
- Can be sustainable



THANK YOU!

