

# Activity: Commercial Fishing and Aquaculture

Fish provide nutrition, jobs, and recreation for many people. In fact, the United Nations estimates that fish support the livelihoods of 10-12% of the world. Fishing is often divided into three types: recreational, subsistence & small-scale, and commercial fishing. In developing coastal and island countries, subsistence and small-scale fishing is necessary for nutrition and income for the local communities.



Unfortunately, commercial fishing operations can put fish populations in jeopardy. Demand for seafood continues to grow and commercial fishing technology allows fishermen to efficiently process their catch on the boat, increasing catch size. This can reduce biodiversity in marine biomes and take income from small-scale fishermen.

Fish farming, called aquaculture, is a developing industry that aims to offset the environmental impacts of global seafood demands by growing fish in dense populations rather than harvesting existing wild populations. There are some real benefits to aquaculture, but there are a few downsides, as well.

## Pros:

- Creates jobs
- Increases stability of income for fishermen
- Feeds a growing world population without pressure on wild fish species
- Reduces fuel consumption required for fishing
- Requires smaller areas of water for fish populations



A fish farm in Greece.

## Cons:

- Puts pressure on wild fish populations used to make fish feed
- Excess nutrients and antibiotics from feed and wastes can pollute surrounding waters
- Can introduce diseases into surrounding wild fish populations
- Can alter genetic diversity if farmed fish and wild fish interbreed

Many aquaculture enterprises try to offset these impacts. Despite the drawbacks, if global seafood demand remains the same, aquaculture will certainly be a part of our future.

**Background:**

Your small town of Sandburg, Maine is a coastal community that has relied on commercial lobster fishing and tourism for decades of stable income. Unfortunately, lobster hauls seem to be decreasing lately as younger fishermen use larger boats and harvest nearly all year. The lobster industry in Sandburg may be in danger of overfishing, as had historically occurred with cod, herring, and flounder. Lobster regularly fetches a high price per pound because it can't be easily farm-raised. Lobsters are susceptible to disease, require a lot of nutrients, and grow slowly. A new aquaculture company, however, has come into your town and claims to have solved the lobster-farming problems. They would like to begin a lobster-farming operation off the coast of Sandburg and hire locals to help run it.

**What questions would each individual have for the aquaculture company?**

Fisherman	Restaurant Owner	Tourist	Animal Rights Activist

**Would aquaculture be in this individual's best interests? Why or why not?**

Fisherman	Restaurant Owner	Tourist	Animal Rights Activist

**Based on the individuals, does it seem like this aquaculture company will be welcome in Sandburg? Why or why not?**

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