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## Sustainability- allows us to meet current needs without compromising this ability for future generations.

## Aquafarms (Administration-2017)

- United States fisheries are scientifically monitored, regionally managed and legally enforced under 10 national standards of sustainability
- 50% of fish consumed come from aquacultures which emit lower greenhouse gases than wild fisheries.
- Fisheries and aquaculture contribute \$100 billion per year and about 260 million jobs to the global economy, thus providing economic and social sustainability.
- Water in fish farms is reused rather than using and discarding more.

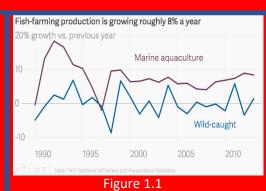


Figure 1.1 shows the increase in aquafarm production since 1990. The increase in aquafarms is crucial for the growing demand for seafood as a food source. (FAO Yearbook of Fishery and Aquaculture Statistics, 2015)



Together, farming and deforestation contribute the largest part of all foodrelated greenhouse gas emissions and land use.

## Environmental sustainability (Meyer-2017)

- Eating less beef can reduce land use by 50% to 70%
- The demand for meat is increasing, in order to keep up with this we must deforest land which in turn:
  - affects biodiversity
  - increases greenhouse gasses due to the loss of trees.
- As water resources are becoming equally scarce as land, it is important to consider the significantly greater water footprint of beef production as compared with alternative meat and plant sources
- Fish are not taken from the ocean for aquafarming, so overfishing does not occur
- Fish farms eliminate the risk of removing environmental niches, so the trophic dynamic would be unaltered.

## Nutritional benefits (U.S Department of Agriculture-2018)

- A 3-ounce serving of most fish and shellfish provides about 30-40% of the average daily recommended amount of protein.
- Most fish and shellfish contain less than 5 percent total fat, and even the fattiest fish, such as mackerel and king salmon, have no more than 15 percent fat
- studies show that eating seafood can decrease the risk of heart attack, stroke, obesity, and hypertension.
- Seafood provides essential nutrients for developing infants and children.



Seafood is rich in vitamins and minerals and is known to provide many health benefits including heart, brain, eyes, and muscle health.

(U.S Department of Agriculture-2018)

U.S. Department of Agriculture, 2018, Seafood Nutrition Overview, https://www.seafoodhealthfacts.org/seafood-nutrition/healthcare-professiona Administration, National Oceanic and Atmospheric. 2017. Understanding Sustainable Seafood. June 25. https://www.fisheries.noaa.gov/insight/understanding-sustainable-seafood Meyer, Nanna, and Alba Reguant-Closa. 2017. "Eat as If You Could Save the Planet and Win!" Sustainability Integration into Nutrition for Exercise and Sport. April 2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5409751/.
Statistics, FAO Yearbook of Fishery and Aquaculture. 2015. Fish-farming production is growing roughly 8% a year. https://www.theatlas.com/charts/4JtsLRqi.