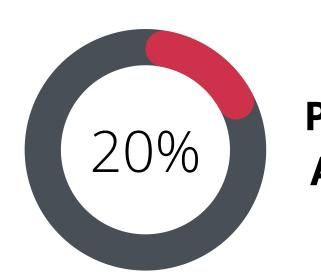
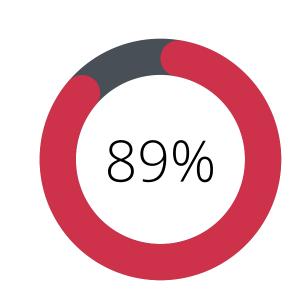
## Industry and Ecology: Searching for Balance in the Fisheries

Cade Creighton Nisha Patel Hillary McDaniel Advanced Authentic Research Period 7

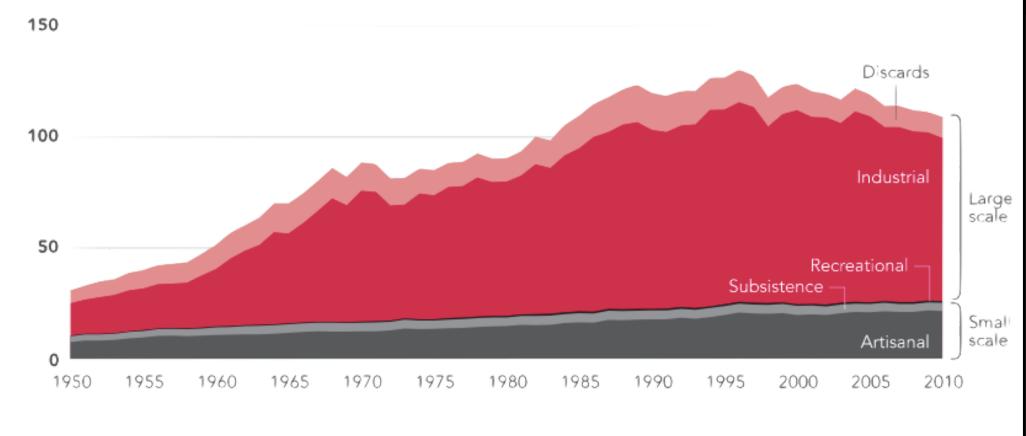
### Preliminary Data



Percent of Global Fish Catch Attributed to Illegal Fishing



Percent of Global Marine Fish
Stocks That are Exploited or
Overfished



Global Fish Catch 1950 to 2010 (millions of metric tons)

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### Our Relationship with the Seas

- Fisheries of the world are controlled by industrial processes while most ocean organisms are neither domesticated nor easily farmable.
- Contemporary legislature is often detrimental to fishery economics. Limits and Restrictions only damage production levels.

To find viable solutions, both ecological data and economic profitability must be taken into account.

### **OBJECTIVE**

As the condition of our planet deteriorates due to the effects of human processes, it is imperative that we maintain the health and condition of our sources of food and energy. Oceans have provided reliable and historic source of calories for human populations.

### **METHODOLOGY**

- Previous studies, research and experiments serve as a base to build new data and solutions off of.
- Opinions and experiences of experts and leaders in the fishing industry prove to be the most useful in managing fish stocks and finding solutions for future management and legislation.

# CREDITS

Special Thanks to Real Good Fish Co. and
Mentor Nisha Patel

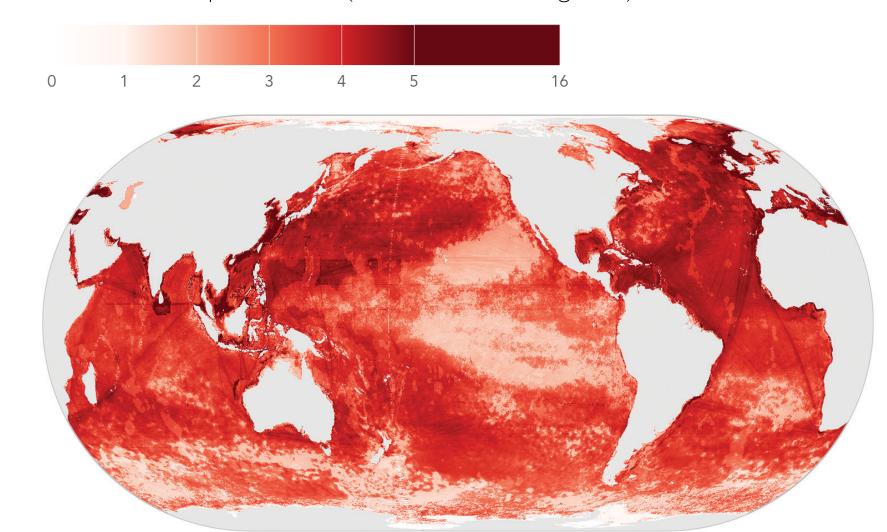
### **Conclusions**

### ~35 Billion USD is spent annually by world governments to support fisheries.

While subsidies can be helpful to small economies and important economic sectors such as food supply, in fisheries they can have negative effects on ocean health and fish stock depletion in the long term.

The most negative subsidies come in the form of fuel subsidies, which transfer under 10% of their monetary value to directly benefit fisheries.

### Cumulative Human Impact on Marine Ecosystems (2013) Impact Score (0, lowest, to 16, highest)



Subsidies with the goal of benefiting business and management aspects of fisheries have the highest potential to be more economically effective as well as less environmentally destructive. Additionally, they deliver more relative benefits to smaller fisheries.



Image: Taiki Yamamoto prepares bait on a fishing expedition at Moss Landing, California

### Implications and the Future of Fisheries

Today, we obtain 17% of our global meat production from the oceans, but this number is expected to rise significantly.

By 2050, the yield could rise by 36 to 74%. To feed a rising population, the food production capabilities of the oceans will depend on increases in supply chain efficiency, political policy reform, and new technology and data, which only results from scientific research.