**This is the place to note down your ideas! Feel free to add to the document and discuss what’s on here!**

*Note:* tentative problem statements should start with “how might we …”

How might we facilitate the detection of illegal fishing networks by law enforcement?

Is it important?

Yes

Can our group influence it?

Yes

Do we need new ideas to do this?

So so

How might we detect illegal fishing behaviour at sea?

Is it important?

Yes

Can our group influence it?

Yes

Do we need new ideas to do this?

So so

How might we estimate how much fish stock was obtained by a ship in a given window of time?

Is it important?

Not by itself, but as a part of something larger

Can our group influence it?

Yes

Do we need new ideas to do this?

Yes

Make sure any food you eat has been farmed sustainably.

How might we help consumers make an informed decision about the marine products they purchase?

i.e.:

How might we allow stakeholders to monitor how much of a ship’s products might have been obtained illegally?

Is it important?

Yes

Can our group influence it?

Yes

Do we need new ideas to do this?

Yes

How might we help law enforcement enforce real consequences for illegal activities at sea?

Is it important?

Yes

Can our group influence it?

Yes - if we limit scope to Canada

Do we need new ideas to do this?

No

As of my preliminary research regarding Illegal Fishing and following Stefano structure adding my concerning topics as per the category:

**Logistical Perspective:**

1. How might we / to establish global rules & regulations for illegal fishing and build an ethical model for commercial fishing?

Is it important?

Yes

Can our group influence it?

Yes - if the scope is limited to canada

Do we need new ideas to do this?

Yes - for the ethical model of commercial fishing

**Technical Perspective:**

1. How can we build a solid network infrastructure and enhance the automatic identification system to track vessels and regulate illegal fishing?

Is it important?

Not the network, maybe the legal aspects

Can our group influence it?

Yes

Do we need new ideas to do this?

Not necessarily

1. How might we develop a behavioural model to detect and determine illegal fishing and utilizing Dark Vessel Detection Platform or similar platform heightening satellite image to real-time data to combat illegal fishing globally?

Is it important?

Yes

Can our group influence it?

Somewhat

Do we need new ideas to do this?

Somewhat

**Legislative Perspective:**

How might we enforce laws and regulations to commercial fishing concerning proper technical and analytical aspects and maintain integrity in national and international water fishing?

Is it important?

Yes

Can our group influence it?

Nope

Do we need new ideas to do this?

To an extent (technology) but not about laws

“Please see attached comments for conceptual terms.

By: Amlan Nag”

**Save the fish : From Aaron**

Threats to fishes:

1. Rising water temperature and changing climate impose threat to the existence of fishes

2. Ocean has become more acidic from absorbing carbon fuel emission, which is harmful for the coral and oysters which support the wellbeing of fishes

3. Fishes are losing habitat because of increasing number of water dam

4. Overfishing is responsible for the decreasing population of fishes

5. Increasing water pollution is causing death of fishes and thus threatening their existence

6. Without experience of diving people go to dive near to fish. As a result, for the tourist fish are getting in danger day by day.

7. Sunscreen contains a lot of chemicals which are entering everyday by the tourists who are going to swim in the ocean and these chemicals are killing the fish.

How to help saving fishes:

1. Prevent pollution to control global warming which increases water temperature

Is it important?

Yes

Can our group influence it?

Probably not

Do we need new ideas to do this?

Nope

2. Preventing water pollution to save fish habitats and species which supports fish under the water

Is it important?

Yes, but not as important as illegal fishing

Can our group influence it?

Maybe, but likely not a large impact

Do we need new ideas to do this?

Maybe not for preventing, but for water treatment certainly

3. Prevent overfishing to sustain fishes

Is it important?

Yes

Can our group influence it?

Yes

Do we need new ideas to do this?

Yes

4. By reducing carbon footprint

Is it important?

Yes

Can our group influence it?

Probably not

Do we need new ideas to do this?

Nope

5. Take reusable bottles and containers for food rather than buying plastic.

Is it important?

Yes, but less so than illegal fishing

Can our group influence it?

Yes

Do we need new ideas to do this?

Nope

6. Choose an ethical sunscreen.

Is it important?

Yes, but not as important as illegal fishing

Can our group influence it?

Probably not

Do we need new ideas to do this?

Nope

7. Make sure any food you eat has been farmed sustainably.

8. Avoid swimming near the coral reef or other sensitive area to prevent harming these useful species that support the existence of fishes under water

Avoid ocean harming products such as cosmetics containing shark squalene, coral or sea turtle shell jewelry, souvenir shells

Links:

1. <https://oceana.org/living-blue/10-ways-you-can-help-save-oceans>

2. <https://www.washingtonpost.com/climate-solutions/2021/03/18/climate-change-oceans/>

3. <https://www.bloomberg.com/news/articles/2021-05-03/global-wto-effort-to-save-dwindling-ocean-fish-faces-moment-of-truth>

4. <https://www.nationalgeographic.org/encyclopedia/sustainable-fishing/>

5. <https://oceana.org/living-blue/10-ways-you-can-help-save-oceans>

6.<https://haroldgoodwin.info/five-problems-facing-fish-in-our-oceans/#:~:text=Five%20problems%20facing%20fish%20in%20our%20oceans.%201,3%20Ocean%20Acidification.%204%20Diving.%205%20Sunscreen.%20>

1. <https://www.newswire.ca/news-releases/government-of-canada-launches-international-program-to-track-illegal-fishing-using-satellite-technology-885586184.html>
2. https://www.seafoodsource.com/news/environment-sustainability/canada-launches-dark-vessel-program-to-combat-iuu

Summary :