

Achieved

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Bottom Trawling

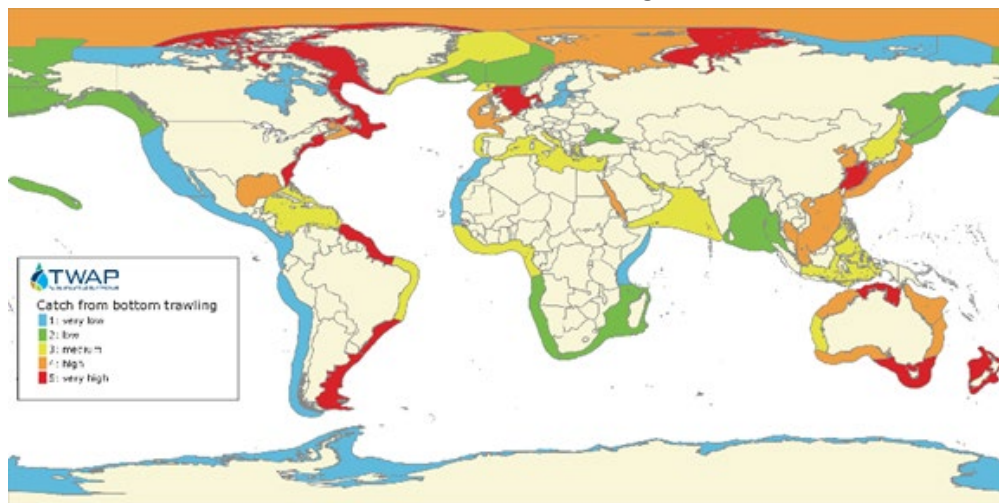


Figure 1: bottom trawling around the world

Task 1

Bottom trawling is a NZ geographic issue because it is a major form of commercial fishing over a large part of the ocean and New Zealand's exclusive economic zone (EEZ) shown in the map above, with natural and cultural impacts.

What and where is bottom trawling

Bottom trawling is the process of trawling along the seafloor. This process is done by boats dragging large, weighted nets along the seabed, which allows the net to catch copious amounts of fish while ripping up the seabed. Bottom trawling is a common issue with different laws all around the world. In most countries it is illegal but in 7 countries, including New Zealand, Cook Islands, Faroe Islands, South Korea, and Spain, still allow for bottom trawling. This method tends to be liked by commercial companies as it can be used to catch copious quantities of fish. Fishermen tend to target popular species such as Orange Roughy, Hoki, and Schnapper, but since bottom trawling is done with a net, other fish can be caught as well. The trawling footprint for NZ has fallen about a third since 2007-8 from an estimated 92,000 km² to 68,000 km² but it is still affecting large areas of seabed and sea life.

Natural and cultural components

Natural: Bottom trawling is a large issue along the coastlines of many countries including New Zealand. Bottom trawling is a major natural issue as the weighted nets can drag along the seabed destroying coral, sea life and fish's natural habitat. In New Zealand, over 200 tonnes of coral were destroyed in a 13-year period. This process is also very destructive as it is unselective of what it captures. This can cause non targeted species to be caught, and the risk of too many targeted species caught. For example, bottom trawling has had a large effect on the decline of the Orange Roughy population. There are some bottom trawling techniques which can cause less environmental damage and sandy seabeds are less impacted. Many commercial fishing companies that continue to bottom trawl believe that they are not at fault of the damage as they were trained about different techniques and believe

they are not causing damage to the seabed's as they are bottom trawling safely without endangering the environments.

Cultural:

Figure 2: before and after images of sea floor due to bottom trawling.



Bottom trawling can have an incredibly positive cultural effect as it brings in over 25% of all caught fish throughout the world and about 69% of New Zealand's commercial catch. This means it provides fish for many countries and provides jobs for hundreds of thousands of people all around the world. Fishers can catch enough fish by bottom trawling less than five per cent of our oceans each year. Fishing grounds are comparable to a farmer's fields – they are used specifically for food production and limit the

effects of this production to a particular area. Bottom trawling can also have a large effect on the local communities by reducing the fish available for local fishermen and reducing total fish populations when the seabed environment is damaged.

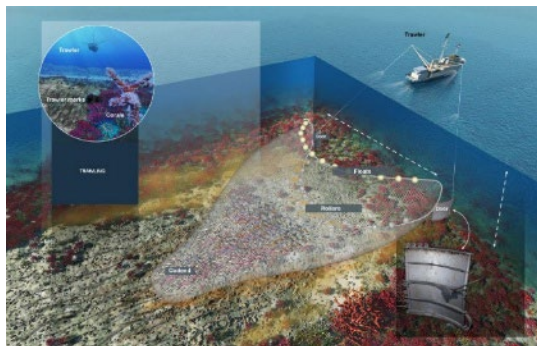


Figure 3: effects of bottom trawling

Task 2

Group 1- Greenpeace

“Bottom trawling is destructive fishing method that indiscriminately destroys marine life and precious ecosystems.” Greenpeace is a large, independent, global environmental organization. Their values focus on protecting the environment, which means they have a negative view of bottom trawling.

Greenpeace promotes 4 core values, personal responsibility and nonviolence, independence, promoting solutions, and no permanent friends of foes. Personal responsibility and nonviolence are about acting based on conscience, this means we take responsibility for our actions. They are committed to peacefulness, and everyone on a Greenpeace action is trained in nonviolence. Greenpeace is an independent operation which does not accept money from the government, corporations, or political parties, and only sources money from independent funding from donations etc (independence). Greenpeace believes that they must put their money where their mouth is, so they are developing and promoting concrete solutions towards a green and peaceful future (promoting solutions).

Greenpeace holds a staunch and unwavering stance against bottom trawling, categorizing it as an “ecologically detrimental fishing technique”. The organization is deeply concerned about the widespread consequences of this method, emphasizing its role in causing severe habitat destruction

and contributing to the overexploitation of vital fish populations. Greenpeace says that the indiscriminate dragging of heavy gear across the seafloor results in the disruption of delicate ecosystems, impacting not only targeted species but also non-targeted marine life. They highlight the urgency of adopting sustainable and responsible fishing practices to preserve the delicate balance of oceanic biodiversity. The urgency shown in their responses, such as demanding immediate and strict regulations on bottom trawling and campaigns to extend the areas of marine reserves, indicates the seriousness with which they perceive this issue. They realise that if action is too slow, the environmental impact will be irreversible. Their overall environmental goal is to safeguard marine ecosystems and promote the long-term health of our oceans.

Their values and perceptions of this issue have led Greenpeace to oppose bottom trawling. They have collaborated with other environmentalist groups such as the Deep Sea Conservation Coalition (DSCC), and Forest and Bird, to place a ban on bottom trawling on seamounts. The campaign includes a series of murals titled “Defend the Deep” displayed in public spaces, petitioning government departments, speaking at public forums etc. They are strong believers that bottom trawling on the seabed must be banned. If it is allowed, there will be people or companies that do it with no concern for the environment.

Group 2: Sealord

Sealord is a large company which supplies the largest number of frozen fish and seafood for New Zealand and Australia. While 50% of Sealord’s harvest comes from bottom trawling, they believe it can be a sustainable source of fish as it only occurs on less than 3% of our seabed. When compared to other food producers, they believe their footprint to be significantly smaller.

Sealord fishing company is 50% iwi owed. With the Māori fisheries treaty settlement, protection of the environment, and sustainable fishing, these values sit with the economic perspective which values profit.

Sealord has made an agreement with the iwi to provide growth and value for the business and its shareholders. This is the focus of the Māori fisheries treaty settlement. Sealord believes that the values of the Māori fisheries treaty settlement and iwi values of kaitiakitanga will help them encourage the use of safer modern fishing technology and reduce the impact from bottom trawling. Their values are simple; they wish to provide food for their customers and keep it sustainable. Sealord believes that bottom trawling can be done sustainably as long as regulations are followed and fishing technology continues to be developed. A major worldwide study calculated the effects of bottom trawling on the health of the seabed which shows New Zealand was in the top third of zones least affected by bottom trawling with 90% of the areas bottom trawled being unaffected compared to un-trawled areas. These statistics show that 10% of the area will be affected but this is a small cost. Fishing will always have some effect on the environment but with Sealord’s bottom trawling methods they maintain an efficient industry which would be very hard without bottom trawling. “Sealord is totally committed to a balance that errs on the side of marine life” which clearly shows that they value sustainability which is achieved by protecting the marine environment.

Sealord understands the risk of bottom trawling but perceive this issue as one that can be managed. They strongly believe there has been a large amount of misinformation spread over bottom trawling.

With the protests about banning bottom trawling, Sealord has had to fight to prove it is not as destructive as many people believe. In a submission from the industry group, which represents New Zealand's deepwater fishers, it says it strongly disagrees with the recommendation of a bottom trawling ban. "Not only because of a low risk to corals and seabed habitats as a result of careful and balanced management but doing so would be disproportional to the balance that is both intended and required by the Fisheries Act 1996". It is stated that seafood production is a large part of New Zealand's social and economic wellbeing and a balance between retaining natural ecosystems and designating areas for food production is essential. The companies GCE has repeatedly told the committee that the public must have the correct scientific information before any ban is made. Sealord's response to the request for a ban was to use scientific evidence to prove the ban is not necessary.

Task 3

There are several courses of action, some fully support total environmental protection, others protect commercial fishing companies. Based on the evidence below I think managing the fisheries to ensure sustainability is the best solution to the bottom trawling issue. This would mean the companies could still make money, but the environment would be increasingly protected. This is better than banning bottom trawling which some people argue is manageable and sustainable.

The chosen solution would be to continue to manage bottom trawling, which could mean temporary bans in some areas if needed, but it still maintains a fishing industry. Bottom trawling has been shown to prove that the risks are much lower than the reward which comes with it. If bottom trawling is managed better, it will allow for the fisheries to continue providing seafood for New Zealand, without the environmental damage. This solution may not make everyone happy, but due to the talks about it becoming banned many companies will make sure that bottom trawling is done safely to protect as much of the environment as possible. As bottom trawling techniques continue to be developed, it will reduce the impact on the environment while also allowing these companies to continue bringing in seafood. Managing bottom trawling better will benefit our society and our economy. Bottom trawling is an especially important part of New Zealand's economy. Seafood brings in over 1.5 billion dollars in exports and provides over 16000 people with employment. Removing this large amount of profit from our economy could be devastating and may cause a much larger problem in our society.

To place a ban on bottom trawling would mean all bottom trawling in New Zealand be halted or limited in area to allow for the environment to heal. This would be without the risk of being destroyed or fish to be unnecessarily killed or injured. Greenpeace, like many environmental groups, supports a total ban, but the economic impact of this decision needs to be measured. I think a total ban is an extreme action when closer monitoring of seabed environments and continued development of fishing technology would result in a better solution. Many countries around the world have banned bottom trawling completely e.g., Palau. Palau suffered from a large decrease in fish population which they believed was to do with bottom trawling, but this outcome can be avoided with regulation and development. While I support environmental views, I think it is possible to create a sustainable fishing environment with regulations which could involve occasionally banning bottom trawling in some places. This is why I believe placing bans on bottom trawling to some extent could be considered as part of the overall solution.