

Aquaculture



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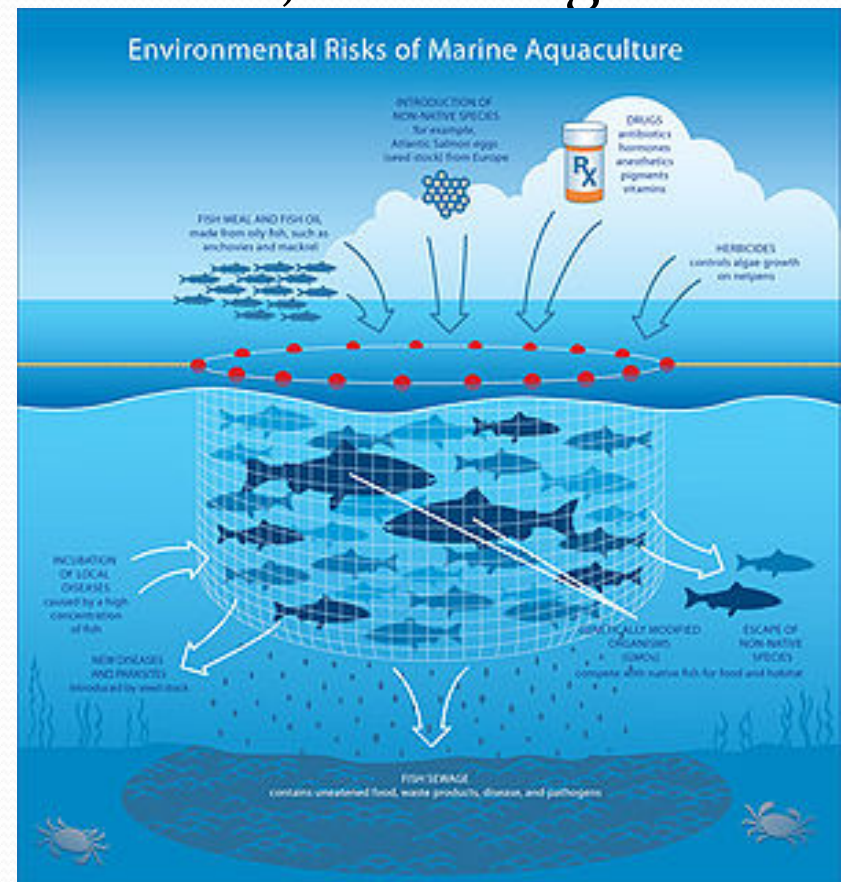


Outline

- Green Peace Case Studies and Campbell River case Description
- Green Peace Study and Campbell River Processes
- Stakeholder Involvement in Green Peace cases and Campbell River
- Outcomes for both cases
- Recommendations for Central West

Green Peace Case Studies

- Green Peace has compiled several case studies on several species.
- They represent regions around the world, including but not limited to Bangladesh, Honduras, Ecuador, Chile, and Canada.
- Highlights the challenges faced by many aquaculture areas and regions.



Campbell River Case Study

- Nutreco composed a case study to outline the Corporate Social Responsibility policies and programs, and how they are implemented in Marine Harvest Canada.
- Within Nutreco Aquaculture is the salmon farming company, Marine Harvest .
- Marine Harvest operates a total of 16 fish farms in B.C., with the largest operation in Campbell River .
- The world's largest producer of farmed salmon and one of the largest global fish feed producers.



Processes in Green Peace Cases

- Large nets filled with a large stockpile of fish.
- Nets allow transfer of waste from the netted area to outside.
- Farmed fish are not part of a traditional ecosystem and the majority are feed with fishmeal.
- There is a small trend with using plant based protein in the feeds.



Processes in Campbell River

- Stakeholders concerned about the impact of waste on the ocean floor.
- Provincial Government issuing salmon farming licences within First Nation territories.
- Interaction of escaped farmed salmon with wild salmon in traditional territories.
- Diseases that are targeting wild salmon species, believed to be transmitted by farmed salmon.



Stakeholder Involvement in Green Peace Cases

- Government
- Local Fishermen
- Environmental non-government organizations





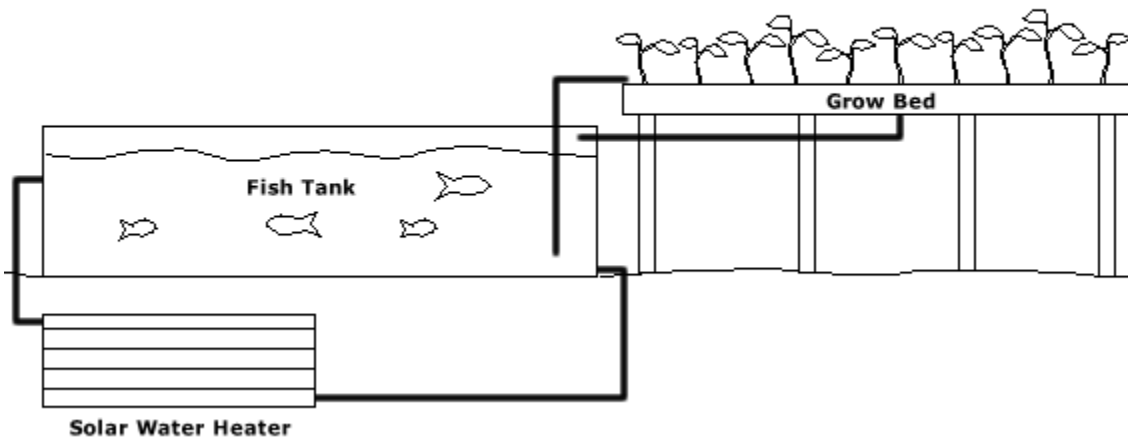
Stakeholder Involvement in Campbell River

- Heilstuk First Nation of Bella Bella and Kitasoo
- MSC (Marine Stewardship Council)
- Government
- Environmental non-government organizations

Outcomes in Green Peace Cases

- High stocking of fish are leading to lose of biodiversity.
- Effluent can be collected and used for fertilizers.
- Integration of multi-trophic aquaculture systems.

Aquaponics System





Outcomes in Campbell River

- Main company Nutreco followed strict guidelines to ensure their fish farming was safe.
- Focused on showing the public that their food was safe, nutritious, and comes from a sustainable source, this ensures an increase in sales for the company.
- Nutreco decided to commit to the well being of local communities where the company operates instead of trying to make as much profit as possible.
- They provide a conference meeting every year for key stakeholders to gain feedback on how their company is viewed in the public.
- The conferences are committed to ensuring innovation through sharing knowledge.



Key Lessons

- Global demand for fish is increasing while the supply is decreasing. Therefore contained areas of fish breeding are necessary to keep up with the demand.
- Aquaculture directly affects the world fresh water and oceans, doing this negatively can ruin a company.
- It is important to have properly running companies that participate in Corporate Social Responsibility activities.
- Farmed fish cannot be introduced to wild fish since they contain antibiotics and pesticides. This could negatively impact the growth of wild fish and affect the fish they produce.
- Develop strong relationships with First Nations since the majority of fish farming is located on their territory.
- This ensures the fish farming is done correctly and will not affect the wildlife in the ocean



Recommendations for Central West

- Have very secure fish farming facilities to insure farmed fish do not breed with wild fish.
- Participate in the Corporate Social Responsibility activities which includes talking to government officials, fishermen, scientists, environmental non-government organizations and First Nation communities.
- Keep the public informed of what processes take place during fish farming to insure lack of knowledge does not negatively affect the sales of fish.
- Gather information of what the public may think about aquaculture to ensure people don't view it negatively which would affect sales considerably.



References

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Questions?