



Covenant Feasible Implementations Report

This document contains the ideas that were received from the competition Covenant 2021 which was a subproject under the project RMMUN of Rotaract Club of the University of Moratuwa. The direct ideas have been extracted from the competition and have been processed by the executive committee of the project RMMUN.



We hope these proposals will be resourceful for the projects Pearl Pacify and Zooxanthale; and Manusath Handa and Andurata Athwalak. The content has been divided into two categories; 1) Development and Protection of Marine Environment; 2) Supporting the Visually Impaired Community.





Collaborator

- Avishka Perera
- Buddhisha Dissanayake
- Chathurya Wijetunge
- Dasis Wickramasinghe
- Didula Samaraweera
- Himasha Ekanayake
- Madara Palihakkara
- Pesala Welangalle
- Sandali Manimendra
- Sathya Jeewanthi
- Sajini Nirashini
- Shashini Imalsha
- Tharumini Sepalage

Development and Protection of Marine Environment

Direct Proposals

- Plastic pellets are getting washed to the beach. There is a discussion saying these pellets can absorb chemicals from the water.
- Rehabilitating marine life.
- Using "safe-chemicals" etc.. to clean the coasts with minimum ENV damage
 - Dispersants (Corexit)
- Bio mediation: Using bacteria to degrade the chemicals
 - Maronibacto Alcanivorax
- Efficiently recycle plastics.
- Use organic material (sugar cane pulps, straw, sawdust) that can absorb chemicals and place them in lagoons.
- Encourage researchers to synthesis an organic material to absorb the chemicals (UoP is currently researching this)
- Assemble a separate special-purpose marine taskforce
- Motivate the people in marine centers to reproduce coastal marine life and release them.
- Collaborations with leading nations for technological aid in curbing the environmental damage. Can organize a webinar for the undergraduates of the relevant universities by contacting them with an expert.
- The livelihoods of the people in the coastal area have been affected. Hence, the area is a good place for a new start-up that can make use of the labor of these people or can introduce and empower the people in the area to a new source of income (just like in grama prabodaya).
- Lack of knowledge and technology of the people to respond to situations has made this severe.

- Need to set up an expert panel "A fast response team" with people with relevant various fields.
- Empower and educate the people in the coastal area and fishermen about how to act in a situation like this.

Processed Proposals

- The proposals were divided into four categories.
 - 1. Cleaning the Coastal Area.
 - 2. Empowering and Educating the Community.
 - 3. Fast response team.
 - 4. Rehabilitating Marine Life.

Cleaning the Coastal Area

- Using "safe-chemicals" etc.. to clean the coasts with minimum ENV damage
 - Use <u>dispersants^[1]</u> to readily mix oil with water in situations like this.
 - A regularly used dispersant Corexit
- <u>Bioremediation^[2]</u>: treat contaminated seawater by altering environmental conditions to stimulate the growth of microorganisms and degrade the target pollutants.
 - We can find ways where we can naturally enhance bioremediation for low cost or with material that is abundant in the environment and encourage the coastal communities to continue the process.
- Efficiently recycle plastics:
 - Initiate a procedure where community members will collect the nurdles, clean them, and handover to a close recycling pant.
- Naturally absorbing chemicals
 - Use organic material (sugar cane pulps, straw, sawdust) that can absorb chemicals and place them in lagoons.

Empowering and Educating the Community

- Encourage researchers to synthesis an organic material to absorb the chemicals (UoP is currently researching this)
- Organize a webinar/series for the undergraduates of the relevant universities by contacting them with an expert.
- The livelihoods of the people in the coastal area have been affected. Hence, the area is a good place for a new start-up that can make use of the labor of these people or can introduce and empower the people in the area to a new source of income (similar to Grama Prabodaya).
- Lack of knowledge and technology of the people to respond to situations has made this severe.
- Empower and educate the people in the coastal area and fishermen about how to act in a situation like this.

Fast response team

- We can set up an expert panel; "A fast response team" with people with relevant various fields.
- Florida Atlantic University^[3] is currently having a response team
- Project
 - Feasibility study
 - Contact FAU and find their motivations
 - Contact with local costal parties and find out the current marine-related incident rate and their severity
 - Find out the long term facts that motivate the team (income/academics)
 - Implementation
 - If there is a stable source of income, we can assemble a team from local people or expert professionals (Creating Job opportunities)
 - If not, by the fact that the "relevant undergraduates will get practical exposure" we can join the undergraduates for this task (<u>https://ocu.ac.lk/</u>)
 - Guide and motivate the students of Sri Lankan Ocean University to put up a "Response Team" with the motivation same as Rotaractors

Rehabilitating Marine Life

- Motivate the people in marine centers to reproduce coastal marine life and release them.
- Can start a large-scale marine rehabilitation center or help develop an existing marine rehabilitation center to a large-scale center.
 - Initiation:
 - Contact marine rehabilitators and get insights
 - Contact the <u>Marine Mammal Center</u>^[4] and get insights
 - Collaborate with <u>Go Eco</u>^[5] which is a leading eco-tourism company with a varied selection of affordable volunteer projects abroad.

Supporting the Visually Impaired Community

- Organize a workshop for the Braille keyboard system and training.
- Propose new recommendations to the government regarding the rules and regulations that affect the visually impaired community.

References

1. Dispersant:

https://www.biologicaldiversity.org/programs/public_lands/energy/dirty_energy_developm ent/oil_and_gas/gulf_oil_spill/dispersants.html

- 2. Bioremediation: https://www.scienceworld.ca/resource/bioremediation-oil-spills/
- 3. Florida Atlantic University: <u>https://www.fau.edu/hboi/research/marine-ecosystem-conservation/stranding/stranding-t</u> <u>eam/</u>
- 4. Marine Mammal Center: <u>https://www.marinemammalcenter.org/visit/getting-here</u>
- 5. Go Eco: https://www.goeco.org/