Topic: Coral death and nuclear waste water dumping in Japan intervene in protest proposal

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1. Marine pollution causes coral death

Corals are found primarily in marine environments, especially in tropical and subtropical regions. They form extensive coral reef systems that make up only a small portion of the Earth's oceans. The area occupied by corals varies, but it is estimated that coral reefs cover less than 1% of the total area of the ocean. (Homepage - Chasing Coral, n.d.; Visual Feature | Status of Coral Reefs of the World, n.d.)
Despite their limited coverage, coral reefs play a vital role in marine ecosystems and support significant levels of biodiversity. It can be said that corals in the ocean are as important to the earth as plants on land. They provide habitat for a variety of marine organisms, including fish, invertebrates and algae. Coral reefs also provide important ecosystem services to many coastal communities, such as shoreline protection, carbon storage and tourism revenue.(Bell1# & Galzin31, 1984)Notably, corals are highly sensitive to environmental changes, including rising sea temperatures, ocean acidification, pollution and overfishing. These factors pose a significant threat to coral reef ecosystems worldwide, leading to coral bleaching, mass mortality and overall degradation of reef systems.(Visual Feature | Status of Coral Reefs of the World, n.d.)

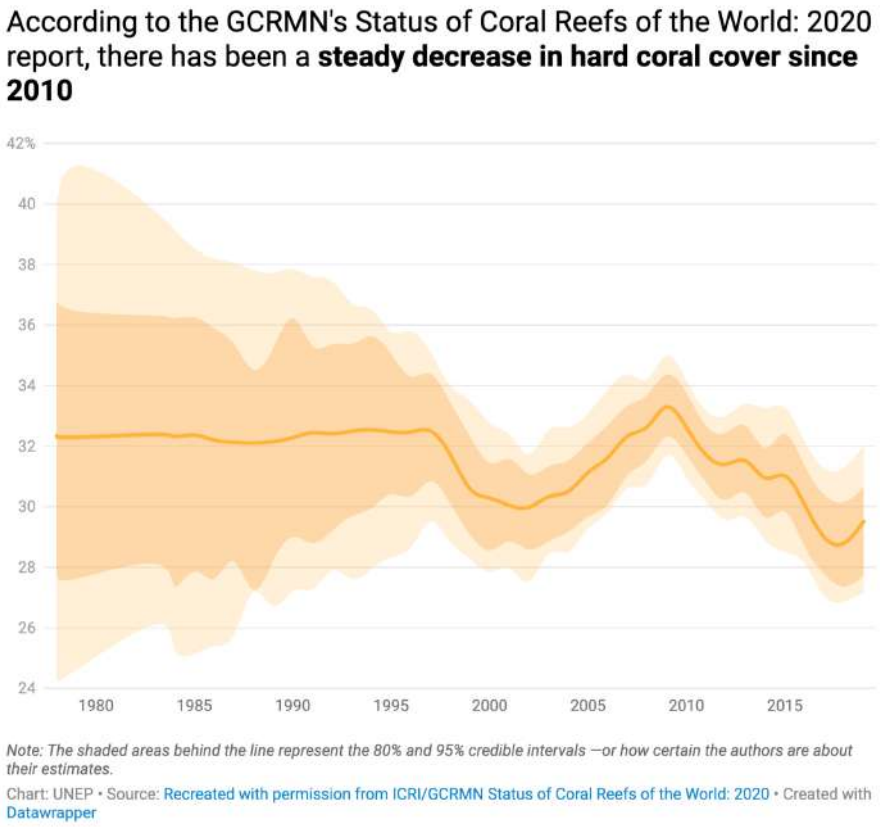

Figure1: Data analysis chart of coral cover area decreasing year by year

Poor water quality is a leading threat to coral reefs around the world. According to reports, more than three-quarters of the world's corals may be diseased by the next century as ocean temperatures rise due to climate change, severely affecting marine ecosystems. (Annual Report - Coral Reef Alliance, n.d.; Hoegh-Guldberg, 1999; Sheppard, 2003)

2. In response to the event: Japan discharges nuclear wastewater

According to reports, from June 12, Japan's Tokyo Electric Power Company began trial operation of the Fukushima nuclear contaminated water drainage facilities, to last for two weeks. Japanese media analysis believes that the Japanese government will complete all the sea drainage preparations at the end of June and start the sea drainage after the release of the final assessment report by the relevant International Atomic Energy Agency working group. (GT Exclusive: Detailed Evidence Exposes Japan's Lies, Loopholes in Nuclear-Contaminated Wastewater Dumping Plan - Global Times, n.d.)

Figure2: Members of a South Korean citizens' group protest Japan's plan to dump nuclear-contaminated wastewater

Nuclear contaminated wastewater discharged into the ocean may cause coral death. Nuclear contaminated wastewater contains radioactive substances, such as radioactive isotopes, which are strongly radioactive and toxic. Once these radioactive substances enter the marine ecosystem, they can have serious effects on coral reefs.

Coral reefs are a very sensitive ecosystem (Glynn, 1983) and they depend on the right environmental conditions to survive and reproduce. Radioactive materials can damage the cellular structure of corals and inhibit their ability to grow and reproduce. This can lead to bleaching (loss of pigmentation) and death of corals.
In addition, radioactive materials can also affect other marine organisms on which coral reefs depend. Coral reefs are complex ecosystems that are interdependent with other marine organisms. If the coral dies, other organisms may also be affected, leading to the destruction of the entire marine ecosystem. (Richards et al., 2008)

3. Intent of the project

The intention of the project is to raise the voice of marine ecology protection through online activism, mainly to raise awareness and protest against the release of nuclear waste water in Japan, with the aim of creating an intervention effect.
Through online activism, the project aims to use the Internet and social media platforms to expand the reach and impact of voices. This approach can help rally more people who are concerned about marine ecological protection to jointly voice their discontent and concern about the Japanese nuclear wastewater discharge.

In terms of protest, the project will organize actions such as online signature petitions, online activities and social media campaigns to express protest attitudes against Japan's nuclear wastewater discharge. By gathering the voices of many, the project seeks to send a clear message to the government, relevant agencies and the international community to demand action to stop the nuclear wastewater discharge or find a safer solution.
Through online activism, the project's goal is to give a voice to marine ecological conservation, to draw public attention and participation, and to prompt the relevant authorities to reconsider and take action. Through this effort, it is hoped that intervention in the case of nuclear wastewater discharges in Japan can be achieved to protect the health and sustainability of marine ecosystems.

4. Proposed project proposal

4.1. Art project creation concept
Based on the influence of the book ‘Staying with the Trouble’(Staying with the Trouble: Making Kin in the Chthulucene - Donna J. Haraway - Google Books, n.d.), the authors plan to explore the ecological impact of nuclear wastewater discharge, global greenhouse effect and human activities on the evolution of postmodernist coral mutants through hypothetical creation designs.
The project proposal is to expose the realities of nuclear waste water emissions, the global greenhouse effect, and human activities through the design of fictional mutant corals in the form of artistic creations.

Figure3: Variant coral model design and AR testing

In the hypothetical creation, the authors plan to construct a fictional future marine ecosystem, setting up a world where nuclear wastewater emissions and the global greenhouse effect are having

a dramatic impact on marine ecosystems and coral reefs. In this world, postmodernist coral mutants become an important concept, representing the adaptability and survivability of the ecosystem. By presenting these mutants fictional designs, the authors hope to exaggerate their survival strategies and mutational characteristics in extreme environments.

Figure4: Mutant coral combined with nuclear radiation marker mapping test

Through the hypothetical creations in the proposed project proposal, the aim is to raise public awareness about nuclear waste water emissions, the global greenhouse effect and the impact of human activities on marine ecosystems through the power of art. This interactive form of digital art

creation can provoke thinking about environmental issues and prompt action and change through the power of emotional resonance and visual impact.
In addition, by using digital technology and interactive media, I hope to convey protest messages and emotions with intuitive and visually striking digital artworks. This form of art can appeal to a broader audience, resonate, and generate widespread discussion and sharing on social media.

4.2. The concept of online activist communication format for this project
The authors plan to design this digital art project as an online activist digital art interactive website for wide dissemination on the Internet through website links. The specific plan is：

- To carry out the design of the digital art interactive website: to combine the design of virtual mutated coral after contamination by nuclear radiation, and to visually elicit emotional responses from viewers entering the website in the form of virtual interaction in AR;
- Designing a protest module in the website about Japan's nuclear waste water invasion and dumping: the author plans to design a page module of online signature petition in the website, and hopes to send the data to the mailbox of the International Health Commission, relevant Japanese government agencies, large international media and other organizations when this protest reaches a certain level of influence, so as to pressure Japan's policy of dumping nuclear waste water into the Pacific Ocean with pressure from various aspects such as social opinion and pressure from international organizations Intervention.
- Include the module of offline collective activities schedule plan in the website: The author hopes to contact the protest action organizations related to marine ecological protection and organize offline collective protest activities in a planned way, and post the time, place and plan on this module of the website to attract more people to join and support these activities and increase the attention to marine ecological protection.

Through the above concept of online activism communication format, the project aims to promote awareness and participation in the issue of nuclear wastewater discharge through a combination of digital art, online protests and offline collective activities. Through the dissemination and interaction of the website, it is hoped to stimulate public emotional resonance and action to promote intervention and resolution of the issue of nuclear wastewater discharge in Japan.

5. Proposed Gantt chart for project implementation

- Website build and design: 2 weeks
- Protest module design: 1 week
- Offline group activity planning: 2 weeks
- Testing and bug fixing: 1 week
- Official launch and dissemination : 1 week
- Ongoing dissemination and updates: Long-term

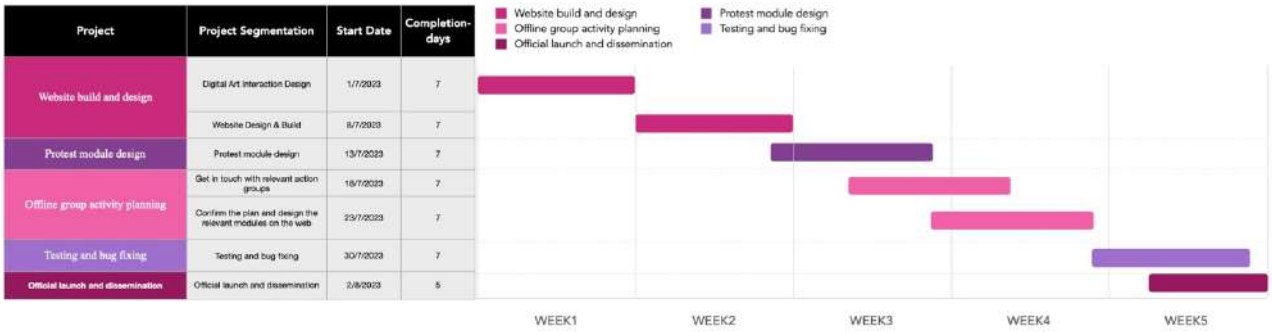

Figure5: Gannt chart

Ongoing dissemination and updates are an important part of the project and will continue during and after implementation. By regularly updating the website content, participating in offline group activities and continuously promoting the project, public awareness and involvement in the issue of nuclear wastewater discharge in Japan can be maintained.
Since the authors want to publish and disseminate the protest website as quickly as possible in the shortest possible time, and since Japan has started testing the discharge of nuclear wastewater and the issue is urgent, the authors plan to recruit a team to work together through this project proposal. The team members planned to be included are as follows:

1. Project manager: 1 person (the author)
- Responsible for overall project planning, coordination and supervision
- Ensure that the project is delivered on time and meets the expected goals

2. Web designer/developer: 2 people (1 person needed in addition to the author)
- Responsible for designing and developing online activist digital art interactive website
- Including front-end design, user interface (UI) and user experience (UX) design, and coding and functional implementation of the website

3. Content creator/copy editor: 1 person (the author)
- Responsible for the creation and editing of website content
- Including storyline, project introduction, protest module text and other content writing

4. Technical support / maintenance personnel: 1 person (the author)
- Responsible for the technical support and maintenance of the website
- Including post-site maintenance, bug fixing and updating, etc.

5. Protest organizer/social media operator: 1-2 people (1 person is needed in addition to the author)
- Responsible for planning, organizing and promoting offline collective protest activities
- Manage social media platforms to promote the dissemination and interaction of the project

6. Data Analyst/Report Writer: 1-2 people (1 person needed in addition to the author)
- Responsible for collecting and analyzing online signature petition data
- Write reports and data analysis results to support and evaluate the protests

Therefore, in addition to the author, the author program still needs to take on 1-2 people to join the project team to work together.

6. Reference

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