

The Rise of Coral Bleaching and the Importance of Awareness

In Hawai'i, there are two main reasons why humans depend on coral reefs: food and safety. These organisms are a large component to the marine ecosystem, not only in Hawai'i but all over the world too. However, what one may not realize is how important coral, the base of our marine life, is and how coral bleaching will affect our society in the long run. Coral bleaching, in the simplest terms, is the circumstance in which vibrant-colored corals are turned nearly white. Bleaching is mainly caused by rising temperatures due to climate change as well as acidic chemicals found in various sun lotions. Despite this, it is crucial to know that bleached corals are not dead, but they are sick. This is a significant problem to be aware of because, without the production of food and energy for ocean animals, the structure and balance of our food chain would change. This means many organisms would have to fight to depend on other sources of food, therefore leading to a slow, but drastic change in the ocean population. Additionally, without marine life, food sources from the ocean would decrease and humans would also have to depend more heavily on other products, such as meat, which could possibly be much more expensive in time. Furthermore, large, healthy coral reefs take part in protecting coastal areas from various natural disasters -- for instance, tropical storms. With weak, bleached corals, natural disasters are more likely to sweep through the reefs and have a greater effect on our island. Essentially, if our awareness of coral bleaching doesn't rise soon, society's way of life may be impacted quite drastically.

Fifty years from now, the effects of coral bleaching will be considerably more evident. Our oceans will appear less bright, as the vibrant corals will no longer be full of color but rather a dull white. Additionally, the quality of marine life will have decreased significantly. There

would be an unusual change in the marine population as the number of animals will have greatly reduced due to insufficient sources of food. Also, coastal areas may be eroded and destroyed more visibly thanks to a frailer protection system against natural disasters. However, because bleached corals are only sick and not dead, it is possible to restore them, thus providing our communities with the opportunity to save our reefs.

Today, there are various scientists around the world, especially in Hawai'i, who are researching ways to stop coral bleaching from advancing or spreading. Though it is likely not possible to prevent climate change or rising temperatures, there may be a viable solution to the acidification of coral caused by different sun lotions. I propose that there should be a lotion made solely to prevent or cure a sunburn along with replenishing coral. Consumers would use the product before swimming, just like normal sun lotion, but instead of having harsh chemicals affect the nature of the coral, there would be some form of organic solution created to help reverse the effects of coral bleaching, therefore bringing back the coral's rightfully vibrant colors. Through research, I have found many products that are known to be reef safe, yet there has not been a lotion that takes it a step further by healing the coral. Therefore, I believe this proposal would potentially work because of special, individual nutrients within the organic lotion that support the nourishment of coral polyps, leading to the replenishment of the coral. In addition to this, a solution toward helping cure coral bleaching is taking place right now. There are many skilled divers out in the water who are working to restore coral reefs by removing the bleached pieces with new, healthier pieces of coral. With help, not only from the people of Hawai'i, but the people of the world, it can be possible to restore our ocean's coral reefs to the beautiful way they used to be.

The current coral bleaching problem in Hawai'i connects to Clarence T. C. Ching's philanthropy in quite a unique way. With a decline in the ocean population, this poses an unfortunate situation with one of Hawai'i's main sources of food. As a result of bleaching, a decrease in fish and other produce from the ocean forces people's hunger to rely on a different source of food. Additionally, with bleached corals being more fragile than healthy corals, this can lead to weaker protection against natural disasters such as tropical storms, therefore endangering the safety of Hawai'i's people. In regard to the needs of people, Ching's vision for Hawai'i is to give others the best life possible by helping to serve their needs. Thus, by advancing research on how to save coral from the negative effects of bleaching, we are working towards fulfilling Mr. Ching's vision and desire for the people of Hawai'i.

All in all, coral bleaching in Hawai'i is a problem that we may or may not be able to solve. Though the effects of bleaching could bring drastic changes to our lifestyles, there is still time and there are people out there who continue to do something about this situation. Whether by replacing old coral with new pieces or creating a lotion made to help replenish coral, we are helping to bring Mr. Ching's hopeful vision for Hawai'i's people to life. By doing so, we positively affect the future of our oceans by helping to protect and restore nature to how it used to be. In turn, this leads to a cleaner and healthier ocean that keeps our ecosystems balanced and brings joy into our lives. Therefore, let's work together to prevent coral bleaching and keep our oceans clean, not just for ourselves but for our future generations, while we still have time.