**Briefing Paper**

**The issue of repopulating and restoring coral reefs**

The issue of repopulating and restoring coral reefs is of utmost importance, as coral reefs are vital ecosystems that support marine biodiversity, provide livelihoods for millions of people, and protect coastlines from erosion. However, the earth’s coral reefs are under severe threat due to factors such as climate change, ocean acidification, overfishing, and pollution. This committee aims to find potential solutions that can be adopted by the international community.

Background Information

Coral reefs are diverse underwater ecosystems formed by the accumulation of calcium carbonate secreted by corals, which are tiny, animal-like organisms. They are often referred to as the "rainforests of the sea" due to their rich biodiversity, supporting approximately 25% of all marine species despite covering only 0.1% of the ocean floor. Coral reefs also play a vital role in coastal protection, as they absorb wave energy and prevent coastal erosion, thereby safeguarding communities and infrastructure.

The decline in coral reefs has been caused for numerous reasons. One such reason has been bleaching events. Rising sea temperatures (primarily driven by climate change) have led to mass coral beaching events. When stressed, corals expel the symbiotic algae that give them colour and nutrients which then causes them to turn white and ultimately die. Increased levels of carbon dioxide in the atmosphere have also led to ocean acidification. This makes it increasingly difficult for corals to build their calcium carbonate skeletons. Not only this, overfishing of key species such as the herbivorous parrotfish has disrupted the balance of coral ecosystems by allowing algae to overgrow and kill the corals. Finally, pollution caused by the runoff from agriculture, coastal development, and industrial activities introduces pollutants and excess nutrients into reef waters which then leads to coral disease and degradation.

Potential Solutions To Consider

Consider the below in the context of your designated country's views:

* Climate change mitigation
* Coral restoration
* Pollution control
* Coral assisted evolution

Points To Consider

* Does your country believe in the climate crisis and if so what measures are they already taking?
* How will this problem be addressed on a national as well as an international level?
* If your country is landlocked what might you still propose to aid the coral reefs?

Useful Links

<https://coral.org/en/blog/coral-restoration-likely-wont-be-enough-to-save-coral-reefs-thats-why-we-focus-on-reducing-marine-threats/>

<https://coralreef.noaa.gov/>

<https://icriforum.org/>

<https://www.arcgis.com/apps/dashboards/84ba9c03786e462d960e3172bc1b2204>