

Committee: United Nations Environmental Program

Topic: Developing Solutions for Islands and Coastal Areas in View of Rising Sea Levels

Report of the Chairs

I. Theme of the Conference

Model United Nations San Antonio (MUNSA) is a conference dedicated to fostering authentic and passionate debate amongst delegates in order to generate solutions to current global issues. The theme of *MUNSA XXIV: Envision* encapsulates our mission to urge delegates to foresee a future in which these problems have been dissolved. With collaboration in mind, delegates from every committee are encouraged to visualize innovative resolutions and a prosperous world to come. Together, we will propel ourselves into an age in which brilliant ideas converge to transform our world and address its most paramount issues.

II. Rationale

Over 40% of the world's population is concentrated on a coast; including 8 out of 10 of the world's largest cities⁷. Due to thermal expansion and melting glaciers, sea levels are continually rising. While local and global sea level growth vary, the encroachment of the seas onto land negatively impacts local ecosystems and farmlands and threatens coastline infrastructure. The Solomon Islands have directly experienced rising sea levels, with 5 of their islands completely submerged underwater¹. A 300-900% increase in flooding from 50 years ago has threatened low lying and island nations like Vietnam, Bangladesh, Ireland, the Netherlands, and Japan^{3,7}. UNEP aims to assist countries in implementing environmentally sound policies and practices, and delegates must cooperate to visualize a solution to this global issue.

III. Background of the Topic

The leading causes of sea level rise are thermal expansion (when rising temperatures due to the seasonal position of the earth and human efforts increase the water volume) and runoff from melting glaciers⁴. Tidal gauges have provided accurate data regarding sea level since the 1700s, and recently satellite lasers have been used to calculate thermal expansion. Since 1900,

global sea level averages around 5 to 8 inches higher; coinciding with global warming trends⁵. It is important to recognize that global and local sea level growth varies.

International NGOs and government programs like the Global Change Research Program and NOAA (National Oceanic and Atmospheric Administration) have focused on education about the dangers of rising sea levels and have increased data collection⁵. Studies done on high flood/surge barriers have shown them to be temporarily effective when natural drainage systems, such as wetlands, were blocked⁶.

IV. Contemporary Evidence of the Topic

Today, the rate of global sea-level rise is 3.7mm a year⁴. Increased concrete coverage in cities has expedited flooding, and countries such as Thailand are especially vulnerable to these effects. In low lying areas like Bangkok, which is sinking at 2cm a year, the Gulf of Thailand's sea level growth (4mm a year) has caused saline water to contaminate freshwater ecosystems and increased damaging flash flooding². Parts of Costa Rica's Caribbean coast have lost around 66 ft to rising sea levels, and tree planting has been used to mitigate the issue. Many Asian countries such as Bangladesh, Japan, and India face similar problems. Beyond the effects of flooding, sea-level rise is a major indicator of climate change and the overall health of the planet.

V. References and Research Resources

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3. Musili, B. K. (2017, July 19). Who Will Be Most Affected by Rising Sea Levels?
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5. US Department of Commerce, & National Oceanic and Atmospheric Administration.
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6. Vox. (2018, August 6). How "levee wars" are making floods worse. Retrieved from
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VI. Note to the Delegates

Thank you for deciding to participate in MUNSA XXIV: Envision. The experiences at MUNSA will allow you to explore the complexity of the world, accumulate knowledge, and realize what you can do to take action and find solutions! We encourage you to take advantage of your time during and before the conference to actively engage in debate and to build research skills. If you have any questions, comments and/or concerns, please contact us. We look forward to meeting you come January 2019 and wish for a successful two days!

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