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Okinawa Underwater

Panel: Environmental Issues

The impacts of human caused climatic changes are the strongest in the Asia-Pacific. Rising urbanization rates, higher rates of sea level rise, increasing temperatures, hotter summers, extreme rain falls during winter, and the potential for increasing frequencies of powerful typhoons threaten many archipelagic settlements in the region. Okinawa Prefecture, despite its small size, is densely populated and highly urbanized, creating a number of vulnerabilities.

This paper will examine the possible effects of climate change on Okinawa Prefecture, specifically looking at rising sea levels, changes in precipitation, and increasing occurrences of category five typhoons. Responses to these changes are categorized into adaptation strategies and mitigation strategies. This paper will focus on adaptation strategies, first by identifying vulnerable populations and infrastructure in the prefecture and then creating suggestions for adaptation. Adaptation options will look primarily at both structural approaches such as the construction of sea walls, planting of trees, among others and non-structural approaches such as mainstreaming disaster management policies, community empowerment, and multi-sectoral cooperation, among others.