



## Mitigation and Adaptation Strategies for Climate Change in Subtropical Islands, Okinawa

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### Abstract:

**Introduction:** Climate change causes various impacts recently which are rather serious in small islands in low latitude zones. Okinawa is a chain of islands located in lat. 24-27 deg. N with the population of 1.4 million. Clean energy strategies as mitigation for climate change designed and modified for island environment and the international collaboration with Hawaii are mentioned. Adaptation to the impacts of climate change that is quite important in small islands because of their vulnerable environment is also explained as a governmental movement.

### Conclusion:

Various types of clean energy have been examined, tested and practicalized. It is more difficult to increase solar and wind energy in Okinawa than main land of Japan because of small size of electric power grid and tropical storms. Ocean energy technologies, OTEC and RED, that are expected as stable energy supply methods in islands are under demonstration experiments now. The international collaboration with Hawaii is not working practically but administratively. Adaptation to the impacts of climate change is also quite important in



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islands because of their vulnerable environment. Conservation of coral reefs is a characteristic action in subtropical islands. It is not only adaptation but also mitigation for climate change.

### Biography:

Jun-ichiro Giorgos Tsutsumi was born in Nagano, Japan, 1954. He graduated from Kyushu Institute of Design and completed master's program and doctoral program of the graduate school, Kyushu University. He was conferred a doctoral degree on engineering in 1987. Then, he was adopted as a post doctor research fellow of Japanese Society for the Promotion of Sciences for two years. He has been working in University of the Ryukyus as an associate professor since 1993 and as a full professor since 2002. He worked as a visiting researcher at University of Freiburg, Germany and North Carolina State University in 1996 and as a research fellow at East West Centre, Hawaii in 2001. "Giorgos" is an alias in Germany. He is specialising in building and urban environmental engineering, climate change, urban planning, renewable energy and waste management.

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