

Environmental Research, Technology Demonstration and Conference Project

ECF Project:	ECF 2022-02
Project Title:	Environment and Conservation Fund - Prepare for more severe storm surges and waves fueled amid climate change - Foresight from a novel coupled modeling system over the Greater Bay Area
Principal Investigator:	Professor Fung Jimmy Chi Hung, Division of Environment and Sustainability, The Hong Kong University of Science and Technology
Total Approved Grant:	\$479,200
Duration:	1/8/2023 to 31/7/2025
Project Status/Remarks:	On-going
Project Scope:	The project aims to project the typhoon-caused storm surges and waves in future climate change scenarios using the novel high-resolution, air-wave-ocean coupled modelling system over the Greater Bay Area (GBA). It also aim at identifying the coastlines and offshore areas in the GBA that are most vulnerable to storm surges and waves in future climate scenarios, especially focusing on the potential damage to mangrove habitats and other ecological communities; and to guide adapted and resilient planning of artificial islands (e.g. Lantau Tomorrow Vision) and typhoon shelters, aquaculture and fisheries, and offshore wind farms under the threat of climate change-fueled storm surges and waves.
Summary of the Findings/ Outcomes:	To be available upon completion of the project