

Environmental Research, Technology Demonstration and Conference Project

ECF Project:	ECF 2021-77
Project Title:	Restoration of degraded Hong Kong coral habitats using multiple active coral restoration approaches
Principal Investigator:	Dr Chui Pui Yi, School of Life Sciences, Faculty of Science, The Chinese University of Hong Kong
Total Approved Grant:	\$1,276,500
Duration:	1/5/2022 to 30/6/2024
Project Status/Remarks:	On-going
Project Scope:	<p>Coral reefs around the world are in dramatic decline in the face of climate change and anthropogenic disturbances. Currently, most efforts in reef restoration have focused on using asexual propagation of coral, i.e. fragmentation of source colonies for transplantation. This approach relies heavily on the availability of existing corals from natural environment and is limited by genetic diversity of the source colonies. Taking advantage of the high fecundity of most corals, sexual propagation approach has negligible damage to source colonies and offers the promise of greater genetic diversity of the transplanted coral colonies that is likely to improve the adaptive potential of these corals to future disturbance. This proposed 2-year effort will serve as a pilot project that will utilize multiple active coral restoration approaches for coral restoration in Tolo Harbour and Channel in NE Hong Kong, including sexual and asexual coral propagation, ex situ coral nursery, and larval enhancement technique, in degraded coral areas to mitigate population declines of corals, enhance biodiversity, and promote reef resilience to cope with future climate change. This will be the first time that multiple active coral restoration strategies will be employed in Hong Kong to serve as a foundation for larger scale restoration efforts in the future.</p>
Summary of the Findings/Outcomes:	To be available upon completion of the project