

Environmental Research, Technology Demonstration and Conference Project

ECF Project:	ECF 2022-100
Project Title:	Environment and Conservation Fund - Bringing larger massive form coral colonies back in Tolo Channel using micro- colony-fusion approach
Principal Investigator:	Dr Chui Pui Yi, School of Life Sciences, The Chinese University of Hong Kong
Total Approved Grant:	\$805,000
Duration:	1/6/2023 to 31/5/2025
Project Status/Remarks:	On-going
Project Scope:	<p>Tolo Harbour and Channel in Hong Kong used to support high coverage of corals until the 1980s when these corals were severely affected by extensive pollution impacts from coastal urbanisation. Coral restoration using coral transplants has been initiated by the project team. Preliminary results revealed high survivorship (>90%) of coral fragments after 3 years, with a significant increase in size in branch form coral <i>Acropora</i> (~20-fold per year) and massive form genera, e.g. <i>Platygyra</i> and <i>Porites</i> (~1-fold per year). Although coral transplantation can be a potential tool to accelerate coral recovery in these heavily degraded sites, the slow growth of massive genera becomes a bottleneck for the success of restoration in the current timeframe. This project aims to bring larger size coral colonies back to degraded sites in Hong Kong in a shorter time period, which otherwise would have taken decades to form, by the use of microfragmentation and fusion approach together with an effective land-based coral nursery to boost the growth of coral microfragments.</p>
Summary of the Findings/ Outcomes:	To be available upon completion of the project