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## **Predicting coastal integrity vulnerability at selected shorelines of Sarawak and Sabah, Borneo Malaysia.**

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Achieving Climate Change Adaptation (CCA) measures is the Fourth Goal of the Malaysian National Plan of Action (NPOA) on the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security (CTI-CCF). Semi-quantitative scientific benchmarks in the Coastal Integrity Vulnerability Assessment Tool (CIVAT) enable the comparison between single or multiple study sites, whereby the vulnerability and adaptability of selected shorelines to change may be determined and ranked. Besides the socio-economic factors such as the economic and livelihood dependency of the local communities to the coastal and marine resources, environmental factors such as the health and ecological status of the coastal habitats are included. These pilot studies include the use of shoreline tracing methods, beach profiling, use of existing research literature and socio-economic questionnaires. Preliminary results in Sematan, Sarawak show medium vulnerability, whilst in the Semporna Priority Conservation Area (PCA), Sabah it ranges from medium to high vulnerability. Although there are a limited number of such pilot studies in Sarawak and Sabah, it is important to continue support of such research to address current and future development pressures, and support decision-making process in-line with the Malaysian National CCA measures.

**Keywords:** Coastal Integrity Vulnerability Assessment Tool, Shoreline Tracing, Beach Profiling, Climate Change Adaptation, Coral Triangle Initiative

**Session:** Risk/vulnerability assessment on coastal sea-level related hazards focusing on sea level rise, storm surges and coastal erosion

**Converners:** Assoc.Prof. Dr. Bui Hong Long & Prof Dr Ahmad Khairi Abd Wahab