Water quality assessment of Matang Mangrove Forest

ABSTRACT

The study on river water quality was carried out in Matang Mangrove and its vicinity during the scientific expedition from 20 ï 25th October 2002. Thirty sampling locations were chosen based on accessibility and usage and eleven water quality parameters were analyzed; DO, EC, temperature, pH, BOD, Ammoniacal-Nitrogen (NH3-N), turbidity, TSS, salinity, natrium and TDS.

From the study, the rivers were classified into classes based on DOE-WQI and the classifications of the rivers were then mapped accordingly to its classes. The results showed that all sampling locations were influenced by the sea water with a range of salinity from 0.0 to 19 ppt except for the inland most area (ST 26, ST 28, ST 29 and ST 30). Based on water quality index interpretation (BOD, DO, TSS, NH3-N), the range of classes fall within Class I to III while the value of pH fall under Class II.

From the field observation and scientific analysis, activities within the Matang Mangrove and its vicinity such as aquaculture, cockle harvesting, navigation and river settlement are the main factors that contribute towards degradation of river water quality status.

Keyword: Water quality; Index; Status; Degradation; Parameters; Class