

## **Remote sensing towards water quality study in Malacca river case study: a review perspective**

### **ABSTRACT**

Water is among the natural resources that needed by living organisms such as human. Rapid development through human activities leading to the water pollution existed in river, for example Malacca River. Therefore, a literature review has been conducted to identify the effectiveness of using remote sensing towards water quality in Malacca River. Various research studies conducted by scientists and researchers stated that data from the satellite like Landsat, IKONOS, SPOT, IRS, CZCS, and SeaWiFS may be applied in assessing water quality parameters including suspended matter, turbidity, phytoplankton, and dissolved organic matter. The measurement for water quality parameters can be carried out through in-situ measurement, as experimental examination may be done through on-site studies and inside laboratories. Water quality assessment is extremely needed to strengthen the result produced through analysis of remote sensing data to determine the impacts and factors that contributed to the river pollution. As a result, remote sensing data from Landsat, IKONOS, Quickbird and SPOT may be applied to determine water quality parameters such as suspended matter, phytoplankton, turbidity, dissolved organic matter, and other parameters in the Malacca River. As conclusion, remote sensing has become a tool in monitoring and solving water quality issues, serving as a basis for management activities and planning activities in terms of river water quality.

**Keyword:** Rapid development; Effectiveness; Assessment; Monitoring; Management; Planning