

## **Sediment quality index in mangrove forest**

### **ABSTRACT**

The objectives of this review are to determine the types of indices to use, to assess the current sediment quality index (SQI) of a mangrove forest and to select the appropriate index to describe the mangrove sediment quality index. Amongst the many indices considered in this review are the enrichment factors (EFs), the geo-accumulation index (I<sub>geo</sub>), the pollution load index (PLI), the marine sediment pollution index (MSPI) and sediment quality index (SQI). The different indices give diverse perspectives of the status of mangrove sediment quality. This review also highlights the appropriate parameters that need to be used in assessing sediment quality, such as the physical, chemical and biological properties. As the comparison review, the sediment quality can be utilized for Mangrove quality index (MQI) development like to assess the heavy metal, complete laboratory parameters and a classification following the Interim Sediment Quality Guidelines ISQG, PCA and HACA. For the heavy metal content of sediment, the suggested parameters are Pb, Zn, Cu, Co and Mn. Lastly, for the indices, the enrichment factor (EFs), geo-accumulation index (I<sub>geo</sub>), pollution load index (PLI) and marine sediment pollution index (MPSI) are used in develop SQI on mangrove forest.

**Keyword:** Indices; Mangrove forest; Parameters; Sediment quality index