

## Water Quality Assessment Based on Operational Indicator in West Coastal Water of Malaysia

**Authors :** Seyedeh Belin Tavakoly Sany, H. Rosli, R. Majid, S. Aishah

**Abstract :** In this study, water monitoring was performed from Nov. 2012 to Oct. 2013 to assess water quality and evaluate the spatial and temporal distribution of physicochemical and biological variables in water. Water samples were collected from 10 coastal water stations of West Port. In the case of water-quality assessment, multi-metric indices and operational indicators have been proposed to classify the trophic status at different stations. The trophic level of West Port coastal water ranges from eutrophic to hypertrophic. Chl-a concentration was used to estimate the biological response of phytoplankton biomass and indicated eutrophic conditions in West Port and mesotrophic conditions at the control site. During the study period, no eutrophication events or secondary symptoms occurred, which may be related to hydrodynamic turbulence and water exchange, which prevent the development of eutrophic conditions in the West Port.

**Keywords :** water quality, multi-metric indices, operational indicator, Malaysia, West Port

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