

## Status of water quality subject to sand mining in Kelantan River, Kelantan.

### Abstract

This paper was aim to describe the effects of sand mining on Kelantan River with respect to physical and chemical parameters analyses. Three replicate of water samples were collected from five stations along Kelantan River (November 2010 till February 2011). The physical parameters included water temperature, water conductivity, dissolved oxygen (DO), pH, total dissolved solids (TDS), total suspended solids (TSS) and turbidity; while the chemical parameters included nitrogen nutrients such as ammonia, nitrate and nitrite. Kelantan River's case study revealed that TSS, turbidity and nitrate contents were exceed the Malaysian Interim National Water Quality Standard (INWQS) range and were significance different between Station 1 (KK) and Station 3 (TM). Station 1 (KK) was in the widest variation of TDS, TSS, turbidity and nitrogen nutrients due to sand mining and upstream logging activities. Extreme high contents of TSS and turbidity had caused the poor and stressful condition for the aquatic life in Kelantan River.

**Keyword:** Physical Parameters; Chemical parameters; Water quality; Sand mining; Kelantan River.