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ASSESSMENT OF WATER QUALITY AND POLLUTION STATUS OF OLUVIL FISHERY HARBOR, SRI LANKA

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The economic benefits of fishery harbors are typically accompanied by significant environmental and public health problems. Assessment of harbor water quality is a useful tool in identifying pollution sources and developing appropriate mitigation measures. Present study was undertaken with the view of analyzing marine water quality of Oluvil fishery harbor to evaluate pollution level and suggest possible pollution control measures. Research was carried out monthly for a period of 03 months from March to May, 2018. Ten sampling locations were selected inner and outside of the harbor and surface water sampling was done. Results revealed that average P^H (7.95 ± 0.12), dissolved oxygen (6.81 ± 0.16mg/l), total dissolved solids (28.07 ± 0.72ppt), electrical conductivity (57.21 ± 1.34mS/cm), salinity (33.55 ± 0.59PSU), temperature (31.05 ± 0.52^0C), oil & grease content (6.53 ± 2.94mg/l), phosphate content (0.54 ± 0.50mg/l) and faecal coliform (8 ± 4) were within the acceptable limits for fishery harbor water except nitrate content (2.16 ± 1.95mg/l) which exceeds the recommended level for marine water globally. The major sources of water pollution in Oluvil harbor are fishery boats, drainage canal and fish processing sites based on results. Although pollution level of the harbor is low; more frequent (weekly/monthly) and long term monitoring is very essential to evaluate the seasonal variation pattern, pollution status and to develop proper remedial actions. Further, awareness enhancement, waste water treatment and improvement of sanitary facilities such as oil collection tanks, waste collection bins and latrine facilities are essential for maintain the harbor environment properly.

Keywords: *Fishery Harbor Pollution, Water Quality, Waste Water*