

**Title of Article:** Efficiency Assessment of a Constructed Wetland Using Eichhornia Crassipes for Wastewater Treatment.

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**Abstract:** The practice of treating municipal wastewater at low cost prior to its disposal is continually gaining attention in developing countries. Among the current processes used for wastewater treatment, constructed wetlands have attracted interest as the unit process of choice for its treatment due to their low cost and efficient operation in tropical regions. The aim of this study is to assess the efficiency of a constructed wetland that uses water hyacinth for wastewater treatment and to investigate the impact of the hydraulic structures on the treatment system. This study also involves determining the efficiency of water hyacinth in polishing biochemical oxygen demand (BOD), chemical oxygen demand (COD), total suspended solids (TSS), phosphate, magnesium, zinc, nitrate, chloride, sulphate, potassium, pH and fecal coliform. Two samples each were collected and tested from the six WHRB reactors available at Covenant University. The wetland achieved a performance of 70% of BOD-, 68% of COD-, 41% of Total Solids (TS)-, 100% of zinc, 30% of nitrate, 38% of chloride, 94% of sulphate, and 2% of potassium-removal, respectively. The result also shows a 6%, 29% and a significant increase, in pH, phosphate and magnesium, respectively. The study shows that constructed wetlands are capable of treating wastewater and also emphasizes the sustainability of the technology.