

# THE IMPACT OF ALUM DISCHARGES ON A NATURAL TROPICAL WETLAND IN UGANDA

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**Abstract** Alum sludge discharge effects on a natural wetland on the shores of Lake Victoria at Gaba in Uganda has been investigated. The water quality in the swamp, the sediment chemistry and plant growth and productivity were monitored. The subsequent application of alum sludge discharges shows no immediate, noticeable, adverse overall effects on the water quality and sediment chemistry. A distinct effect on plant productivity was noted in *Cyperus papyrus* L. the dominant macrophyte in the Gaba swamp resulting in a low productivity rate of 5.1 g/m<sup>2</sup> d and the apparent phasing out of this macrophyte in the swamp. *Phragmites mauritianus* (Kunth) exhibited better tolerance to alum sludge. Clear indications are cited of the ecosystem degrading and cumulative effects being marked over a longer time frame. 2001 Elsevier Science Ltd. All rights reserved.

*Key words* - alum sludge, tropical wetland, water quality, sediment, *cyperus papyrus*, *cladium mariscus*, *phragmites mauritianus*.

**For details please refer to the Journal.**