

ACCUMILATION OF HEAVY METALS IN SEDIMENTS AND

Ipomoea Aquatica IN ENGINEERED WET LAND

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Heavy metals discharged into ecosystems from industries can be accumulated in various environmental compartments and produced lethal effect on flora and fauna. Remediation of heavy metals is associated with huge cost involvement. Use of plant to extract or phytoextractions of metals in polluted sediment has now become a viable alternative. Objectives of this study were to ascertain the possible levels of heavy metal contaminations and the capability of *Ipomoea aquatica* Forsk. plant for phytoextraction.

In this study two sets of water, sediments and *Ipomoea aquatica* (Forsk) samples from treated waste water of an industrial processing zone receiving surface water body and non receiving commercial plantation, were tested for total acid extractable heavy metal concentration for chromium, nickel, copper and zinc. Concentration differences and sediment/plant concentrations in both sites were calculated using atomic absorption spectro photo meter.

The nickel, copper and zinc in the sediment of the treated waste water receiving water body were above the back ground level of treated water non receiving site. The copper levels were above the probable effect levels where harmful effects were likely to be observed. The levels of copper and zinc in plants and sediments samples of two sites were varied significantly. There was a strong relationship of sediment/plant concentration in the sample obtained from treated waste water receiving water body and thus the plant can be utilized for remediation of nickel, copper and zinc in the site.