

## STUDIES ON THE EFFECT OF SALINITY DUE TO SEAWATER INGRESSION ON ENZYME ACTIVITIES OF SOILS OF SAGAR ISLAND, INDIA

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*Tidal inundation of the agricultural lands by saline water in the delta regions of the Ganges is a common phenomenon. Effect of salinity, due to seawater ingression, on physico-chemical and enzyme activities of soils from three different locations of Sagar Island, West Bengal, India was studied. Seawater ingression remarkably increased the electrical conductivity of soil saturation extracts (ECe), but the organic carbon and total nitrogen status remained unaltered. Available phosphorous content of ingressed soils decreased while the available potassium level increased significantly. Seawater ingression significantly reduced  $\beta$ -glucosidase, urease, acid and alkaline phosphatase and aryl sulphatase activities of soils, which might be related to the rise in soil salinity. The soils from different locations, irrespective of seawater ingression or not, showed variable enzyme activities, possibly due to variation in their organic C and ECe.*

*The diminution of soil enzyme activities as a result of seawater ingression is a serious concern from soil fertility and crop production perspectives.*

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