**WASTE WATER TREATMENT BY PHYTOREMEDIATION TECHNIQUE**

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**ABSTRACT**

Phytoremediation is the technique based on the use of plants to remediate sites contaminated with organic and inorganic pollutants.Colocasia esculenta (known as ‘Arbi’ in Hindi and‘Chamkhora’ or ‘Allu’ in Marathi) is a tropical plant grown primarily for its edible corm and the root vegetables. It is a wide spread emergent aquatic plant, generally grows near bogs, streams, river pools and many shallow aquatic bodies.This plant is useful for waste water treatment by its plants-roots-rhizome system. In the present study, Colocasia esculenta is used for the treatment of sewage to test its pollutant absorption capacity*.* This project accessing and developing sewage treatment process througha horizontal subsurface flow constructed wetland of plants for the treatment of sewage from Nag river sewage to recycle and reuse. The sample of sewage was tested from laboratory and the results obtained were higher than permissible limits. After considerable period of experiment using ‘colocasia esculenta’ plant effluent was again tested and under the process of treatment this plant gives the satisfactory results. As per survey and inventory knowledge and observations we conclude that the ‘colocasia esculenta’ plant is more capable of treatment of domestic sewage as compare to industrial sewage.

**Keywords**: Phytoremediation, sewage, colocasia esculenta plant, treatment bed, contaminants, horizontal subsurface flow