# Phytoremediation of Sewage Water by using *Dracaena sanderiana* and *Epipremnum aureum*

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## Abstract

Industries like paper, pulp, food processing generate waste water containing different type of contaminants which are hazardous to environment. Phytoremediation is removal of contaminants in water by using various aquatic plants. In present work the plant like *Dracaena sanderiana* and *Epipremnum aureum* were used for phytoremediation process. The physico-chemical parameters of sewage water sample were analyzed before and after phytoremediation. The sewage with different concentration viz. 10%, 30%, 50%, 70%, 100% were tested for the treatment. The pH of water sample before phytoremediation process ranges from 8-9. After phytoremediation process with *Dracaena sanderiana* it was decreases i.e. 7-8. Similarly Chloride content and DO of water sample were also decreased after treatment. Efffect was also observed with respect to other tested parameters. Turbidity and highly offensive odour of waste water decreased with *Dracaena sanderiana* and *Epipremnum aureum*. The phytoremediation is useful and eco-friendly technology. Future prospective of this study involve study of effect of phytoremediation process on anatomical and physiological properties of plants under study.

**Keywords-** Phytoremediation, sewage water, *Dracaena sanderiana*, *Epipremnum aureum*

## INTRODUCTION

Domestic and industrial waste is the most common cause for the water pollution. Domestic waste contains solid food particles, oil, and grease stick inside of the pipe, which clogs the pipes. Organic matter, washing soap, detergents, high organic suspended solids, oil and grease, which cause harm to the environment and human health. Pollutants, can affect the ground water. When water is contaminated with organic matter it provides food for the mosquito larvae which cause large increase in their population and they cause serious diseases in human and animals (Nayaabanjum Ansarijulaya et al.2018). Drinking contaminated water can cause serious health problems like diarrhea, cholera, typhoid, dysentery and other illnesses such as guinea worm disease. It is important to control domestic wastewater for the betterment of the society and our future.

Phytoremediation technology in the form of constructed wetlands or natural water mash is a nature's gift for control of water pollution and for sustaining livelihood wetlands, both natural and constructed are able to purify wastewater due to their ability to degrade, absorb or filter the pollutants and to take-up nutrients from the wastewater. Therefore, the use of constructed wetlands for wastewater treatment is becoming more and more popular (B.L. Chavan, V.P. Dhulap, 2012).

 