

## A REVIEW OF STUDIES ON PHYTOREMEDIATION TECHNOLOGY TO UPGRADE DOMESTIC

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**Abstract :** The fast growing development in the waste water use leads to the drastic change in the environment which is the main challenge to scientist & the natural income. The Domestic waste water show an adverse effect on the water excellence parameter like as D.O., B.O.D., C.O.D., pH, Conductivity & temperature of the nearby aqua system. The irregular level of these parameters reason pollution in water bodies & even death of aqua life. though domestic waste water is found dangerous and it can come in in environment through various waste water channels, Phytoremediation system has been create possible to improve sewage quality to bulky amount without any secondary smog. The current explore focus on the different investigations perform on evidence of potential of selected aquatic fix like Aloe vera, Canna Indica, Taro etc. These plants are used for reducing above parameter in domestic waste water. The changes in the waste water quality parameters through the conduct of Phytoremediation which plants be proving occasionally to improving the waste water treatment process.

**Keywords :** Phytoremediation, Aloe vera, Canna Indica, water quality parameter

### Introduction

One of the ablaze problems of our industrial society is the high consumption of water and the high order for unsoiled drinking water. Numerous approach have been in use to diminish water consumption, but in the lengthy run it seems barely possible to recycle wastewater into high value water. Phytoremediation have probably a huge potential for supervision of pollutant in the environment, flush if today, lodge life are not far and wide used. Studies be conduct in organize to determine technical and monetary likelihood of Phytoremediation course for full-scale treatment, as well as rhizofiltration (use of plant to collect compounds from aqueous solutions into ancestry Phytostimulation (utilize of stand to kindle naturally occurring microbial degradation).

### Previous works

**Suggu Sri Gowri Reddy** found an adverse effect on water quality parameter is observed due to discharge of sugar industrial effluent. The abnormal level of pH, DO, BOD, COD etc. not only causes pollution in the water bodies but also death of aqua flora and fauna. Through the sugar industrial effluent are hazardous in nature phytoremediation have been suggested partial implementation to avoid secondary pollution for treatment of industrial effluent in an eco friendly manner.

**Divya Singh** studied that Lead (Pb) is a heavy metal natural which is a one of the toxic pollutants. The occurrence of the lead in drinking water can cause hazards effects on all living beings. The contamination in non-acceptable range disrupts food chain since it is better even at low concentration. Consequently the removal of lead from water is costly process and it causes negative impacts on ecosystem. Another suggests Phytoremediation for removal of leads as it is ecofriendly and economically viable technology. A renew has been taken for revealing the Phytoremediation technology and it's process and construction. Further it's potential in remediation of lead contaminated water has been investigated. All plants have been found capable.

**Kokyo Oh et.al.** has studied Phytoremediation of contaminated sites supports the goal of sustainable development by helping to conserve soil as a resource, bring soil back into beneficial use, preventing the spread of pollution to air and water, and reducing the pressure for development on green or agricultural field sites. Phytoremediation offers the possibility of a cost effective remediation means for a wide range of contaminated sites. It will be most applicable to soil contaminations that not so deep from soil surface, relatively non-leachable, and cover a large area.

**Trinidad Ruiz Téllez & Elsa Martín de Rodrigo López** has worked on Different applications have been found for Eichhornia. Crassipes. It makes suitable feed for many animals, and can be a source of protein for man. Its use has been recommended in farming as fertilizer and compost for mushroom culture, and even to improve harvests of certain cereals.

**Nagendra Kumar Chaurasia, and Ram Krishna Tiwari** has worked on The results of the various physico-chemical analyses of effluents collected from Saraya sugar mill and distillery are having badly altered water quality. Temperature is basically important for its effect on certain biochemical reactions taking place in water for aquatic organisms. Generally in the month of November-December temperature of this area varies from 20°C to 25°C, but sugar mill and distillery throw out liquid having 44.1±0.03 0C and 56.2±0.027 0C temperature respectively. Rise in temperature accelerate the chemical reactions that affect crop land adversely. pH is one of the important biotic factor that serves as an index for pollution. The factors like photosynthetic exposure to air, disposal of industrial water and domestic sewage affect pH. The wide alteration in the pH value

## Conclusion

From the literature review it was observed that The phytoremediation is incredibly found effective and eco-friendly technology. These all test plants- like Canna Indica, Aloe vera, Taro plant are expected effectively reduce almost all the physical, chemical and biological parameter from the domestic waste water with a significant level based on the appropriate results Canna Indica reduced 34%, Aloe vera reduced 30% and Taro plant reduces about 24% contaminants from the given waste water. In order to manage secondary pollution, this model might be implemented practically for the management of domestic waste water in an eco-friendly way. The Canna Indica plant found very effective potential than other plants used.

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