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Removal of Cadmium through Phytoremediation and Bioremediation Involving Microbes/Bacteria: A Review

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***Abstract*—Heavy metals are a hazardous type of contaminants that badly contaminates water and soil. Phytoremediation develops as an eco-friendly method to remove cadmium by using different aquatic macrophytes. The aim of this study is based on phytoremediation and bioremediation for metal removal mechanisms particularly for Cadmium (Cd) and illustrates some of hyper-accumulative and macrophyte aquatic plants for Cadmium remediation. This deals with different studies like microbial inoculation that plays an important role in the extraction of Cd by different floating aquatic plants. Additionally, this review explains the bioremediation techniques that explains the beneficial role of different bacteria that remediate Cadmium. This study presents the innovative technique to hyperaccumulate Cadmium through various floating plants that encourage advanced research.**

***Keywords* —Phytoremediation, Bioremediation, Cadmium, Soil, Water, Bacteria, Aquatic Plants**