



*India 2020: Environmental Challenges, Policies and Green Technology*

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**A RESTORATION OF DEGRADED WETLANDS**

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**Abstract**

Wetlands are one of the most productive ecosystems since they support a variety of local and faunal biodiversity. Several types of wetlands such as marshes, swamps, water-lagoons, bays and mangroves are home to some of the richest, diverse and fragile natural resources. Due to various threats, most of freshwater marshes and lakes have been lost in the past decades. The major concern includes urbanization, anthropogenic activities, deforestation, pollution, salinization, aquaculture and increased competition from the invasive species and low lying and coastal cities due to sea level rise. Wetlands provide a wide range of ecological services like recharging of ground water, recycling nutrients, habitat for wildlife, recreational values, carbon stores, and mitigation of floods. Because of their diverse importance in maintaining the equilibrium of ecosystems, management and restoration techniques should be deployed to revive the degraded wetlands.

**Key words:** Exotic species, Climate change, Wetlands, Restoration strategies, Threats

**1. Introduction:**

Wetlands are the transitional areas between terrestrial and aquatic ecosystems, occupying 4% of the world area (Pitman, 2001). According to Ramsar Convention, they are of different forms such as marshes, bays and swamps, estuaries, lakes, rivers and natural water bodies and man-made ecosystems includes ponds, irrigated fields, sacred groves and canals (Ramsar Secretariat, 2013). In India, wetlands are distributed in different geographical regions and are well connected directly or indirectly with the large river system. India's wetlands are generally differentiated into eight categories, depending on their regional presence (SAC, 2011; Figure 1). These are: 1. The reservoirs of Deccan Plateau in the south, together with the lagoons and other wetlands of the southwest coast; 2. Vast saline expanses of Rajasthan, Gujarat and the Gulf of Kutch; 3. Freshwater lakes and reservoirs from Gujarat eastwards through Rajasthan and Madhya Pradesh; 4. Delta wetlands and lagoons of India's east coast (Chilika Lake); 5. Freshwater marshes of the Gangetic Plain and the flood plains of the Brahmaputra; 6. Marshes and swamps in the hills of northeast India and the

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