

# Assessment of Indigenous Bacterial Communities for Bioremediation of Pulp and Paper Mill Wastewater

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**Abstract:** *The pulp and paper industry contributes significantly to environmental pollution due to the generation of chemically complex wastewater rich in recalcitrant organic compounds. Conventional physicochemical treatments have mainly been proven inadequate in completely remediating these effluents. This study investigates the biodegradation capacity of indigenous bacterial communities remoted from wastewater generated by KR Pulp and Papers Ltd., Uttar Pradesh, India. Through physicochemical profiling, microbial isolation, enzymatic assays, and pollutant evaluation, the research highlights the function of bacterial consortia in degrading continual pollutants like lignin and chlorinated organics. The findings emphasize the feasibility of bacterial treatment as a sustainable and scalable alternative to traditional methods, with implications for environmental protection and business sustainability*

**Keywords:** pulp and paper industry

