

An Abstract  
On

## **Marine Guard: River pollution awareness & Reporting System**

By

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# **Marine Guard: River pollution awareness & Reporting System**

## **ABSTRACT**

River pollution has become a growing environmental concern due to increasing plastic waste, sewage discharge, chemical dumping, and industrial effluents. Traditional monitoring methods are slow, manual, and lack real-time visibility, making it difficult for authorities to quickly identify pollution hotspots. As a result, there is a need for a system that enables timely reporting, accurate data collection, and efficient communication between the public and environmental authorities.

**Marine Guard – River Pollution Awareness & Reporting System** is a web-based platform designed to bridge this gap by allowing citizens to instantly report pollution incidents. Users can upload images, enter descriptions, and submit GPS coordinates captured automatically through the browser's Geolocation API. These reports are securely stored in a centralized database and presented through an interactive dashboard that uses color-coded cards, tables, and charts. This visual representation helps in understanding pollution types, frequency, affected locations, and emerging trends.

An integrated admin module enables authorities to verify, classify, and update the status of each report, ensuring accuracy and preventing false information. Verified reports can be forwarded to higher authorities for further action. By combining citizen participation with digital reporting and visualization tools, Marine Guard improves environmental awareness, enhances response efficiency, and supports sustainable river management under **SDG 14: Life Below Water**.

**PROJECT GUIDE**

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