

Impact Of Water Pollution in Different Water Bodies-Rivers Of Bangladesh & People's Awareness About the Impact

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Abstract

Water pollution has increased a lot in Bangladesh over the last decade. Due to the alarming rising rate of water pollution, the quality, color, smell, clarity etc. of different water bodies of Bangladesh are deteriorating. There are several causes of water pollution in Bangladesh of which major causes are waste disposal, rapid industrialization, disposal of plastics and chemicals etc. This study investigates the impact of water pollution on various water bodies and rivers in Bangladesh, focusing on the physical, chemical, and biological alterations, such as changes in water quality, clarity, cleanliness, color, smell, temperature, and the availability of aquatic life. It also examines the level of awareness among local communities regarding these impacts. Data were collected through a mixed-methods approach, including quantitative surveys distributed via online platforms and qualitative interviews with interested participants. The information was gathered through a questionnaire with a five-option Likert scale and 9 items. At least, the reliability standards were met. The researchers received 46 completed questionnaires. The results indicate significant pollution levels across major rivers, with marked decreases in water quality and aquatic biodiversity.

Despite ongoing pollution, the study found a low to moderate level of public awareness and community-driven initiatives to address these issues. The findings highlight the need for stronger regulatory frameworks, increased community engagement, and sustained efforts to raise public awareness for effective water pollution management in Bangladesh.

I. Introduction:

Water pollution in Bangladesh has become an alarming environmental issue over the last few decades. The unplanned industrialization, rapid urbanization and insufficient waste management system for disposal of waste products have caused contamination of water of different water bodies and rivers of Bangladesh. The regular disposal of pollutants like various chemicals, pesticides, plastic debris etc. in large amounts in different water bodies and rivers of Bangladesh not only caused serious water pollution but also threatened ecological balance and biodiversity of aquatic ecosystems. This research focuses on how the water pollution impacted different water bodies and rivers of Bangladesh. By examining the water quality, cleanliness, clarity, color, smell, temperature, availability of fish, amount of plastic, disposal of wastes etc. of different water bodies, the study aims to depict the degradation of water of different water bodies due to water pollution. Moreover, the research will also represent people's awareness about water pollution and preventive initiatives taken by local communities as well as social movements organized in different areas of Bangladesh.

II. Literature Review

Water pollution is continuously increasing in Bangladesh due to several different factors. Studies show that industrial, agricultural, as well as domestic discharge of wastes into water bodies and rivers are causing serious water pollution. In the Industrial sector especially textile and tannery industries release large volumes of heavy metals and toxic chemicals into rivers which are significantly degrading water quality [1]. Agricultural waste disposal of excessive fertilizer and pesticides causes nutrient pollution in water bodies [2]. Besides, disposal of domestic, industrial wastes including plastics also lead to the massive increment of water pollution [3].