



# Unveiling the Crisis: Environmental Waste Management and Pollution Control in Ogun State, Nigeria West Africa.

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## **ABSTRACT**

### **Background:**

Ogun State, Nigeria, a rapidly growing industrial and commercial hub, faces significant challenges in waste management and pollution control due to urbanization and industrial expansion.

According to the Lagos pollution management report, 2022, “Air, land, and water pollution caused 9 million premature deaths in 2016, or 16% of all deaths worldwide. About 92% of all pollution-related mortality is seen in low-income and middle-income countries, with the poor, marginalized, and young hardest hit by the health effects of the contamination. The economic burden is immense: in 2019, air pollution alone cost the global economy US\$8.1 trillion—6.1 percent of global GDP” (World bank group, September 9, 2022). Ogun state is also at serious risk due to the industrialization of Agbara Estate and other parts of Ado-Odo local government area.

The government of Ogun state need to come to the aid of the people of Ogun State especially the Ado-Odo LGA which is the hub of Industrial and manufacturing sector of Nigeria.

### **Objective:**

To Access current state, identify key obstacles hindering effective waste management and pollution control in Ogun State Nigeria.

To explore innovative strategies and technologies for improving waste management practices. To offer policy recommendations for sustainable environmental management.

**Methods:** A mixed-methods approach was utilized, combining qualitative and quantitative data. Data collection included surveys and interviews with stakeholders like government officials, environmental experts, and community members. Field observations of waste management facilities and pollution control measures were

conducted, alongside a literature review of existing studies, reports, and policy documents.

## Results:

**Current Practices:** Ogun State has implemented community clean-up programs on waste disposal. However, issues such as open dumping and burning of waste persist, contributing to environmental pollution.

**Challenges:** Key challenges include insufficient infrastructure for waste collection and disposal, low public awareness and participation, financial constraints, and a lack of advanced recycling and waste processing technologies.

**Innovative Strategies:** Promising solutions identified include the development of waste-to-energy plants, the use of biodegradable materials, community-based recycling programs, and the application of digital technologies for waste tracking and management.

Applying Pollution prevention strategy which is adopted by the United State Environmental Protection Agency, EPA which is any practice that reduces, eliminates, or prevents pollution at its source before it is created. As shown by the EPA Waste Management Hierarchy, P2, which is also called "source reduction," this strategy is most reliable than recycling, treatment or disposal. Reduction of waste from source is fundamentally safer than disposal and it is simply building your process to reduce waste generated from source as can be seen below. (U.S EPA, February, 20,2024)



**Policy Recommendations:** Recommendations include enhancing regulatory frameworks, increasing investment in waste management infrastructure, fostering public-private partnerships, and integrating environmental education into school curricula.

## Conclusion:

Effective waste management and pollution control are crucial for Ogun State's sustainable development. Progress has been made, but challenges remain. A multifaceted approach involving technological innovation, policy reform, and community engagement is necessary. By adopting these strategies, Ogun State can enhance its environmental sustainability and become a model for other African regions.

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## **BIOGRAPHY**

The Author has an MBA in Sustainability, a Master of Environmental Management and Bachelors of Technology in Physics/Electronics Technology. Some of his certifications are: HAZOP Black Belt Certification, Switzerland, NEBOSH IGC, NEBOSH PSM, IOSH, ISO 14001, ISO45001 Lead auditor, etc.

An Environmental Management specialist and Process Safety Specialist with a strong background in ensuring regulatory compliance and optimizing environmental performance.

He is open and contextual evaluation model based on responsive constructivists creates new pathways for improving environmental waste management and pollution control innovations. He has come to conclusion after over a decade work experience as

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