



INTRODUCTION

The issue of waste management is of great concern globally, and particularly in low-income regions where infrastructure and resources are limited. Mombasa County in Kenya, is one area where the management of waste has become a pressing issue due to the negative impact it has on the local environment. The region's increased population has led to a rise in waste generation, which combined with inadequate waste management infrastructure, has resulted in the accumulation of waste in undesignated areas, such as streets and waterways. The improper disposal of waste, particularly plastics, has been associated with severe health risks and environmental hazards, including the release of greenhouse gases, degradation of soil quality, and pollution of water sources. This research project aims to explore the current status of waste management in Mombasa County, Kenya, and its impact on the local environment. The research project will also explore various methods of waste management, including recycling, reduction, and reuse. Through analysis of existing policies and regulations, waste management practices, and socio-economic factors contributing to poor waste management, this study seeks to provide a comprehensive understanding of the challenges facing waste management in the region. The findings of this research project will contribute to the development of effective strategies and interventions to address the issue of waste management in Mombasa County, Kenya and other parts of the world.

RESEARCH QUESTIONS

1. What is the current status of waste management in Mombasa County, Kenya?
2. How does improper disposal of waste impact the local environment in Mombasa County?
3. What are the existing waste management policies and regulations in Mombasa County?

METHODS

Materials and Equipment

- Cameras
- Thermometers
- Google Earth Pro
- Internet-enabled laptop/tablet
- Gloves

PROCEDURE

i) Field Study

We carried out field trips around Mombasa to examine the current status of waste management and find out the waste management practices used by the larger population.



Survey of the waste management practices in Mombasa

ii) Survey of waste management policies

We also visited the county offices in Mombasa to explore the waste management policies and regulations put in place by the county government to reduce improper waste management practices.



Study of waste management policies in Mombasa County office

iii) Observation of waste management Practices

We made observation of the status of waste management practices in Mombasa. The picture show ongoing burning of waste at Mwakirunge Dumpsite



Mwakirunge dumpsite

RESULTS

Findings from our study

The findings of the study showed that;

- The current status of waste management in Mombasa County is poor, with a lack of proper infrastructure and resources for waste collection, disposal, and treatment.
- Due to lack of proper implementation of the policies, people end up throwing litter everywhere, raw sewage is allowed to flow in the ocean, and some of the drainage sewages are clogged and at the waste collection point burning of waste is taking place which increases the release of aerosols in the air.
- The research reveals that there are existing waste management policies and regulations in Mombasa County, such as the Waste Management Act (2008), Sustainable Waste Management Act of 2022 and the National Environment Management Authority (NEMA) regulations. However, the implementation and enforcement of these policies have been inadequate, leading to persistent waste management challenges.



Survey of the waste management practices in Mombasa



DISCUSSION

The research project explored the impact of poor waste management on the environment, examined the current status of waste management in Mombasa County, Kenya, and analyzed the impact of improper waste disposal on the local environment. The research study found that the status of waste management in Mombasa County is currently inadequate with limited infrastructure and resources available. The study further highlights that improper waste disposal has severe consequences on the local environment in Mombasa County, including land and water pollution, air quality degradation, and the spread of diseases. The research project also analyzed the existing waste management policies and regulations in Mombasa County, revealing that enforcement of these policies is currently inadequate. According to the study, waste management practices in Mombasa County have a significant impact on the environment leading to greenhouse gas emissions from landfills and plastic waste accumulation in the oceans. The report suggests a need for urgent action by stakeholders to mitigate these impacts.

CONCLUSION

Our research project has shed light on the impact of poor waste management on climate in Mombasa County, Kenya. The current status of waste management in the county reveals a lack of adequate infrastructure and limited resources. Improper disposal of waste has severe consequences on the local environment, including water and soil pollution, air quality degradation, and the spread of diseases. We found that there are existing waste management policies and regulations in place, but their enforcement is inadequate.

RECOMMENDATIONS

The study recommended the following measure to help mitigate improper waste management;

- Invest in more waste management infrastructure.
- Increase awareness about the environmental and health impacts of poor waste management.
- Enforce existing waste management policies and regulations to ensure compliance by all parties.
- Adopt sustainable waste management practices such as composting, waste reduction, and waste-to-energy generation.