



# Waste-to-Energy Solutions in Ghanaian Cities: Innovations for Sustainable Waste Management in Seychelles Context

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## Abstract

Waste-to-energy solutions are increasingly seen as a sustainable approach to managing urban waste in Ghanaian cities, reflecting broader trends towards circular economy practices. The study employs a mixed-methods approach, combining qualitative interviews with quantitative data analysis on existing waste-to-energy projects across Ghanaian cities. Case studies from Seychelles will also be reviewed to contextualize findings. Waste-to-energy technologies have shown significant potential in reducing landfill usage and generating clean energy, indicating that these solutions can substantially reduce environmental pollution while creating new job opportunities. The integration of waste-to-energy systems into urban waste management strategies offers a promising pathway towards sustainable development, particularly for cities facing growing waste challenges. Governments should prioritise the adoption and scaling-up of proven waste-to-energy technologies in Ghanaian cities to achieve environmental sustainability. Public-private partnerships are recommended to facilitate implementation.

**Keywords:** *Ghana, Circular Economy, Waste Management, Sustainability, Innovations, Renewable Energy, Biomass Conversion*

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