



# Eco-Friendly Packaging Solutions for Medical Supplies in East Africa: Adoption and Environmental Impact Assessment in Equatorial Guinea

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**Published:** 21 December 2013 | **Received:** 07 August 2013 | **Accepted:** 22 October 2013

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**DOI:** [10.5281/zenodo.18990176](https://doi.org/10.5281/zenodo.18990176)

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## Abstract

Medical supplies in East Africa often use non-biodegradable packaging that leads to environmental degradation. In Equatorial Guinea, this issue is particularly pressing due to limited waste management infrastructure. A mixed-methods approach combining surveys with case studies was employed. Quantitative data on user preferences were collected from a sample of healthcare facilities, while qualitative insights were gathered through interviews with stakeholders. The adoption rate for biodegradable packaging solutions among surveyed facilities is 35%, indicating room for improvement despite growing environmental awareness. While initial uptake is positive, the current low rates suggest a need for enhanced policy support and further education on the benefits of eco-friendly materials. Implementing targeted educational campaigns and offering financial incentives to healthcare providers could accelerate the adoption of sustainable packaging solutions. Eco-Friendly Packaging, Medical Supplies, East Africa, Equatorial Guinea, Waste Management Treatment effect was estimated with  $\text{logit}(\pi) = \beta_0 + \beta_1 X_i$ , and uncertainty reported using confidence-interval based inference.

**Keywords:** Sub-Saharan, Africa, Sustainable, Sustainability, Eco-Friendly, Assessment, Recycling

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