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Evaluating waste management challenges, practices and habits for circular economy and green growth in Nigeria

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Abstract

The importance of waste management in developing countries like Nigeria cannot be over-emphasised because of its attendant health, safety, environment, land use and socio-economic challenges. Nigeria is the most populous African country with an ever-increasing population of over 200 million, a limited land area of 923,768 km² at about 150 people per km², and urban-to-rural population of 48.3 % - 52.7 % across six geopolitical zones. These increasing population, urbanisation and scarce resources call for a study to evaluate the waste management challenges, practices and habits for circular economy development and green growth in Nigeria. Consumption and development theories formed the theoretical framework of this study. Descriptive statistics and secondary sources of information were collected through books, journal articles and web pages of specific organisations. In addition, personal-expert knowledge of these field and study area was also used in the evaluation of waste management challenges, practices and habits for circular economy development and green growth in the country. It was found that, wastes are often burned or disposed of on landfills, open dumps and water bodies without prior treatment. Thus, waste management is a bottleneck in Nigeria because of weak or lack of enforcement of environmental regulatory policies and legislation. This may be connected with challenges like inadequate environmental awareness, poor land-use, missing recycling, producers' irresponsibility, corruption, inadequate- funding, technology and development. Established waste habits of Nigerians in hierarchy were organic/food waste (57.0 %), plastics (27.0 %), glass (5 %) and others (4 %), mostly dumped on landfills. Since organic/food waste is the highest, moving the country from linear to circular economy would improve agri-food systems, foster green growth and clean environment. Circular economy conserves resources, enhances food security, and generates new products for agri-food transformation. This study led to the establishment of the Waste And Bio Recycling Associates League (WABRAL) in Nigeria for the promotion of global circular economy best practices in Nigeria and Africa.

Keywords: Agri-food systems, circular economy, land use, waste