# Efficient waste management for emission reduction and sustainable development in African cities.

Ms. Omobolanle Olowu Business Development, Wecyclers, Lagos, Nigeria

## URBANIZATION AND THE ENVIRONMENT

Urbanization is one of the key defining features of humanity as a whole. The progressive shift of people from rural areas and activities into towns and cities is a complex process inextricably tied to economic development and technological change.

Most of the growth in the world's population is taking place in urban areas in lowand middle-income nations and this is likely to continue for years to come.

## URBANIZATION AND THE ENVIRONMENT

An increase in population, will lead to growing volumes of solid, liquid and energy intensive waste ultimately having an impact on emission in the environment.

The dominant underlying cause of global warming is the consumption of goods and services whose draw on resources for their fabrication, distribution (or provision), sale and use (and, for goods, disposal) causes the emission of GHGs.

### SOLID WASTE MANAGEMENT

It is important to control solid waste generation, storage, collection, transfer and transport, processing and disposal activities based on engineering principles at minimum environmental impacts and cost. This is the core of solid waste management.

An Integrated waste management system involves the selection and use of appropriate management programs, technologies, and techniques to achieve particular waste management goals and objectives. An important component of such system is material recovery and recycling

Material Recovery and Recycling: Municipal Solid Waste consists of various materials that are suitable for reuse and recycling such as paper, cardboard, plastics glass, rubber etc.

## Case Study: Wecyclers incentive based recycling using low cost cargo bikes in low income communities



### **OUR MODEL**

Wecyclers provides households and organizations in developing countries with a chance to capture value from their waste

## Wecyclers offers crowd-sourced incentive based recycling to house holds and organizations

#### How it works



Register Subscribers



We register subscribers for our recyclable collections service.

### (2)

Collect Recyclables



We collect recyclable waste from our subscribers weekly.



Process and Sell Material



In our hubs, we sort the collected recyclables and then sell them to recyclers at a premium.



Reward Subscribers



Subscribers are rewarded with redeemable points that they can exchange for household goods, food items or cash.

#### Our Accomplishments



Reach of 11,000 households for recyclable material collection



52,250 Beneficiaries affected



2,238+Tons of recyclable waste collected



\$50,000 worth of Cash prizes and gifts to our subscribers and 80 jobs created



## The Wecyclers Award Winning Solution



Wecycles





AWARD





Collect waste from household & organizations (subscribers)









Subscribers get redeemable points which can be exchanged for value



#### Waste is:

- Baled
- Shredded
- Recycled into trash bags, egg crates, etc



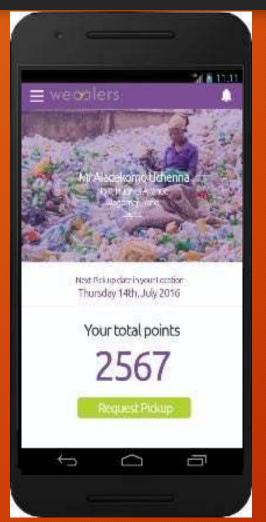






## On-demand waste collection: Wecyclers App User Interface









## Why we believe in the Wecyclers model

## The economic value of recycling in developing countries



### Savings...

By utilizing recycled products in their processes, businesses stand to save on raw material and energy costs



#### **Tech and Innovation**

Use of localized technology will make process more efficient and enable for scale



#### Jobs, Jobs, Jobs

Recycling can create jobs for the growing youth population and migrants



#### **Geographical Location**

Nigeria is strategically located and can serve as a recycling hub for Sub-Saharan Africa



#### Floods...

Will be reduced once a large scale recycling program is underway



#### Health

Communities will have better healthcare outcomes due to cleaner environments

## We have strong collaborative relationships with Local and International partners.



## Experience and Challenges

- 1. The need for enlightenment and advocacy on proper waste management practices and also the absence of policies that promotes and enlightens people on the benefits of recycling.
- 1. Operational challenges: Finding and supervising personnel proved to be one of the most difficult early challenges
- 1. Practical knowledge of managing cash flows
- 1. As a social enterprise, finding funding is an ongoing challenge. We have been able to integrate the most innovative, sustainability-focused parts of the current model with investments and other elements that would be more familiar to lenders and investors.

## Conclusion

- The Wecyclers model of incentivized recycling helps address the challenge and growing concern of solid waste in Lagos, Nigeria.
- Through campaigns, programmes and initiatives, Wecyclers is changing and driving advocacy on solid waste management, changing the perception of residents of Lagos
- There remains a lot to be done and with the right support and partnership Wecyclers is set to reach more informal settlements—thereby managing a problem that had long plagued city administrators.