

Eco Track



**Revolutionizing Waste
Management with Smart
Technology**



Problem

- ❑ Urban solid waste is rising fast, but poor tracking and limited municipal resources leave much uncollected, harming health and the environment.
- ❑ Our solution aims to address both the inefficiencies in waste tracking and the gaps in resource provision such as vehicles, operators, and logistics to streamline and strengthen urban waste management systems.



Solution

- Real-Time Waste Tracking--Uses GPS and IoT-enabled devices to monitor waste levels in bins and containers.
- Optimized Route Planning--Integrates smart algorithms to reduce fuel use, time, and labor by identifying the most efficient collection routes.
- Resource Management Dashboard--Tracks vehicle availability, maintenance needs, and operator assignments.
- Data-Driven Decision Making--Provides analytics on waste generation patterns by area, time, and type.
- Community Integration--Mobile app or SMS alerts to notify residents of collection schedules or delays.
- Enhances collaboration between municipal departments and private waste operators through shared data and scheduling tools.
- Environmental and Public Health Benefits--Minimizes exposure to waste-related health risks and improves neighborhood cleanliness.



Product

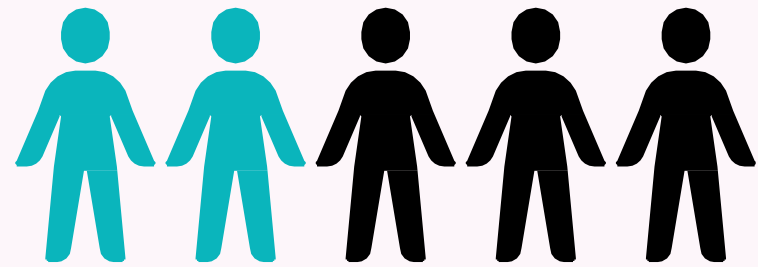
➤ GPS-enabled smart bins

➤ Community data dashboards

➤ Recycler connection

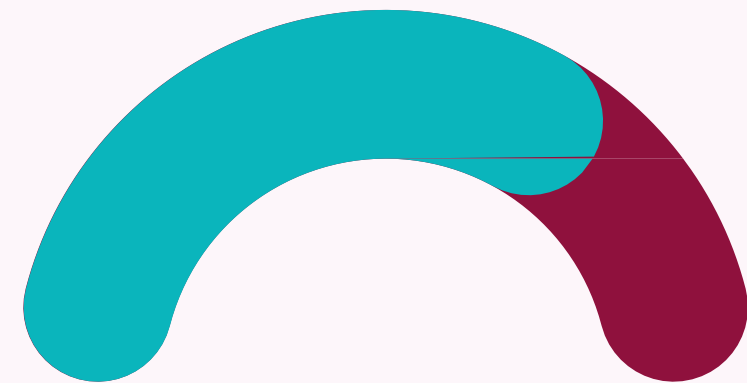


Target Market



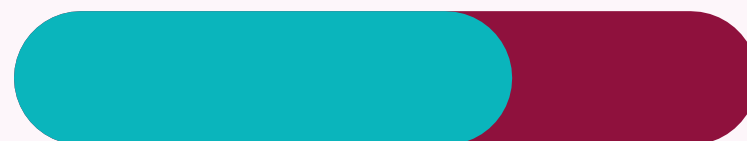
3 out 5

- 3/5 households lack regular collection.



50%

- Less than 50% of generated waste is collected, and a substantial amount is disposed of through burning, burying, or haphazardly into the environment.



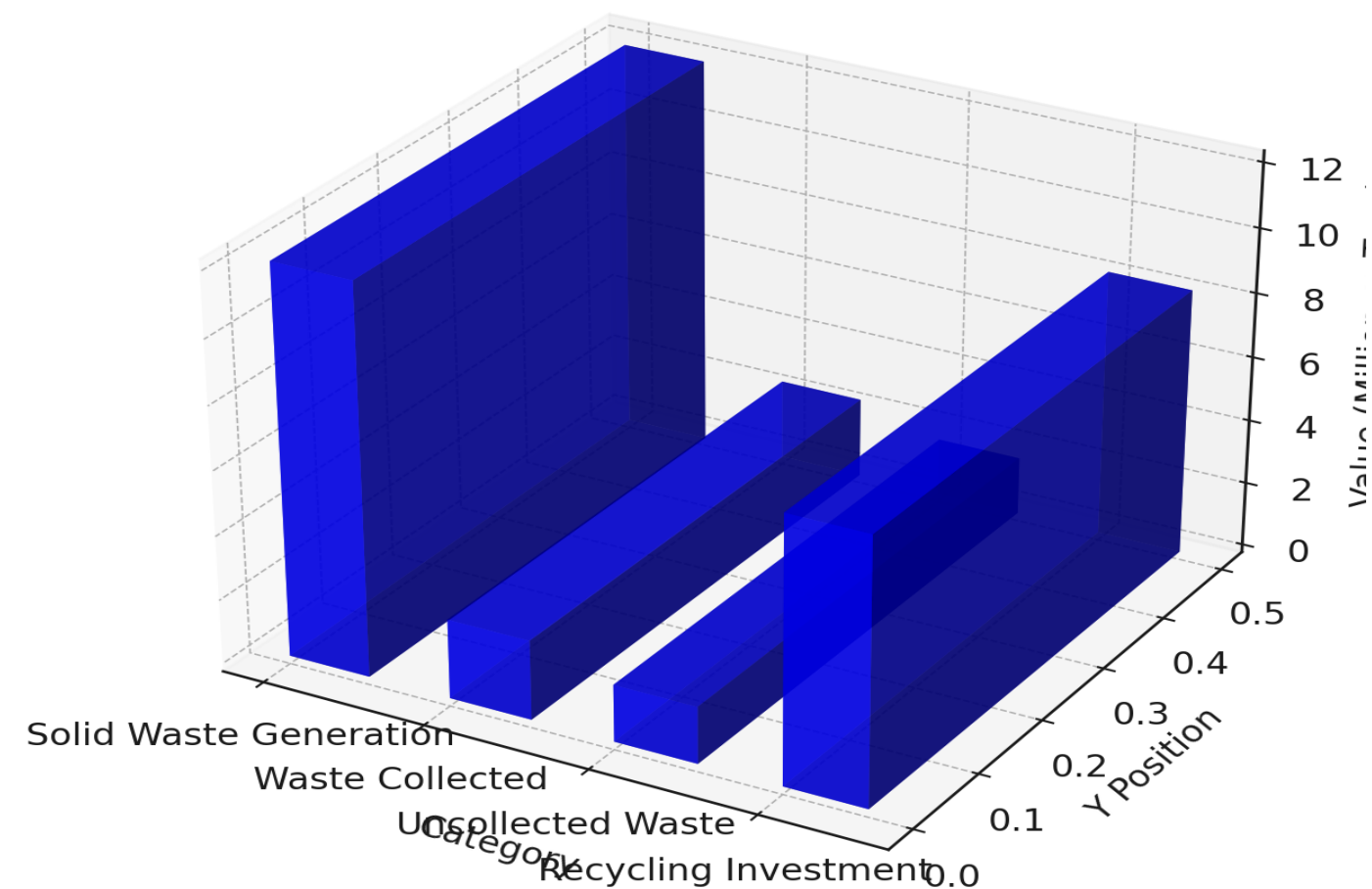
12.1-17.4 million

- Tanzania generates a large amount of solid waste, estimated at 12.1-17.4 million tonnes per year.

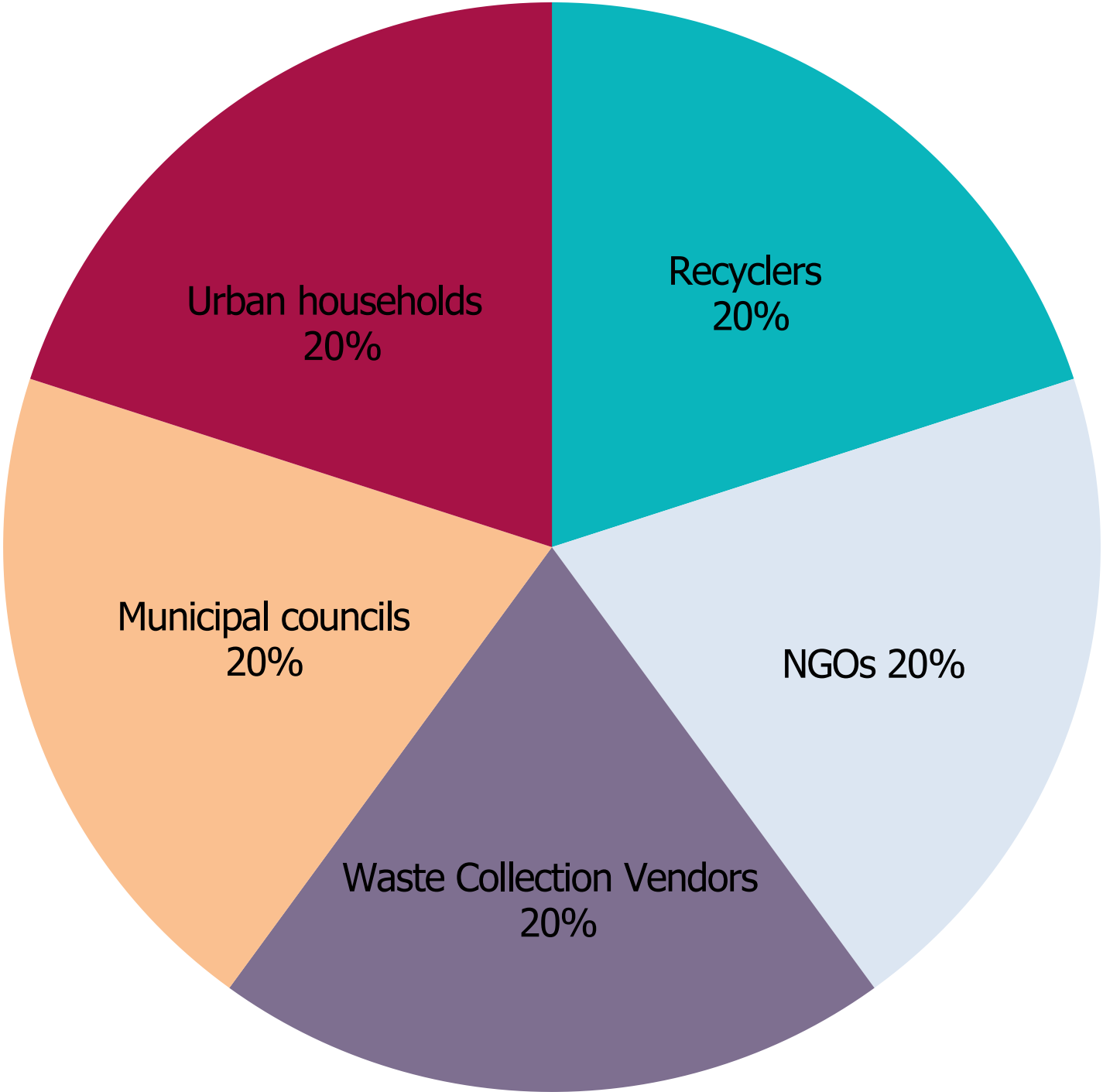
Market Size

- ❑ Tanzanian waste management market presents a substantial opportunity, with an estimated potential investment of USD 8.3 million in recycling alone. Tanzania generates a significant volume of waste, example Dar es Salaam City alone producing around 4,252 tons of solid waste daily, though only about 2,473 tons are collected.
- ❑ This highlights a significant gap in waste management infrastructure and a large market opportunity for companies specializing in waste collection, sorting, recycling, and disposal.

Tanzania Waste Management Market Size



The primary audience and beneficiaries of the Echo-Track Solution.





Competitors

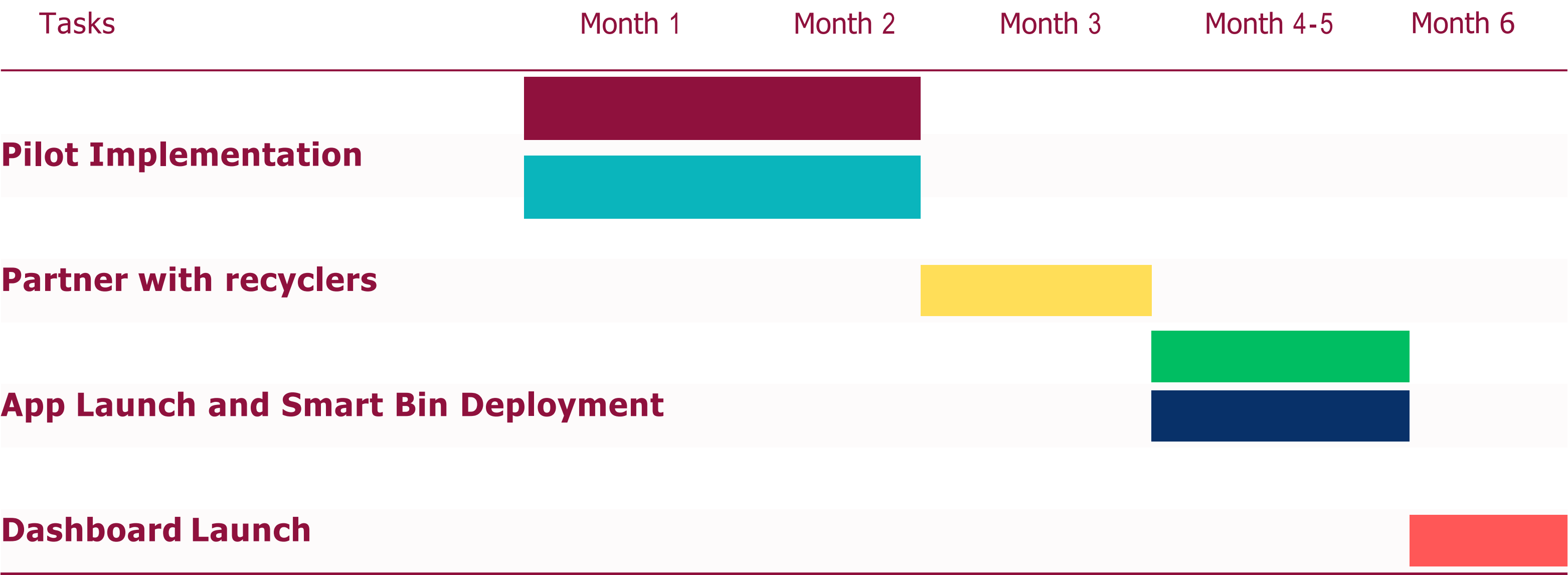
- Green WastePro Ltd-- private company that specializes in waste management.
- The Recycler -- private company that offers waste management and recycling solutions in Tanzania.
- TMHS -- specializes in hazardous waste management.



Competitive Advantage

- Real-time data
- Predictive scheduling
- User rewards
- First-mover in many regions

Project Traction



Business Model



- Municipal subscriptions
- Recycler commission
- Analytics services



Go To Market

- Local influencer outreach
- Demos to municipalities
- Government collaborations



Social Impact

- SDG 11: Sustainable Cities
- SDG 12: Responsible Use
- SDG 13: Climate Action

Our Ask

❑ **\$75,000** for tech development and pilot deployment

❑ **Technology Development – \$40,000**

This portion covers the design, development, and testing of the Echo-Track system

Item	Description	Estimated Cost
Software Development	Design and build the waste tracking platform (dashboard, backend system, and API)	\$18,000
Mobile App Development	Android/iOS app for operators and residents (tracking, alerts, reporting)	\$10,000
IoT Device Integration	Integrate smart sensors for waste bins and collection vehicles	\$7,000
System Testing & QA	Ensure platform functionality, security, and reliability	\$3,000
Cloud Hosting & Data Storage	Server setup and data infrastructure (first-year cost)	\$2,000

❑ **Pilot Deployment – \$35,000**

This covers real-world testing of the solution in a selected urban area.

Item	Description	Estimated Cost
Sensor Hardware & Installation	GPS trackers and waste bin sensors for 50+ units	\$12,000
Vehicle Integration & Upgrades	Equip 5-10 waste collection trucks with tracking systems	\$6,000
Personnel & Training	Train municipal staff and waste operators on system use	\$5,000
Marketing & Community Awareness	Materials, campaigns, and workshops to onboard households	\$4,000
Monitoring & Evaluation	Field assessment, data collection, and reporting	\$4,000
Contingency (10%)	Unexpected operational or technical costs	\$4,000

Team Members



LUTFIA MOSI

Ops Lead & Developer



OBADIA SAMA

Community Liaison & Data Scientist

Thank you!

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