

Trash For Change:

Unsanitary Conditions and Failed Infrastructure in Khayelitsha

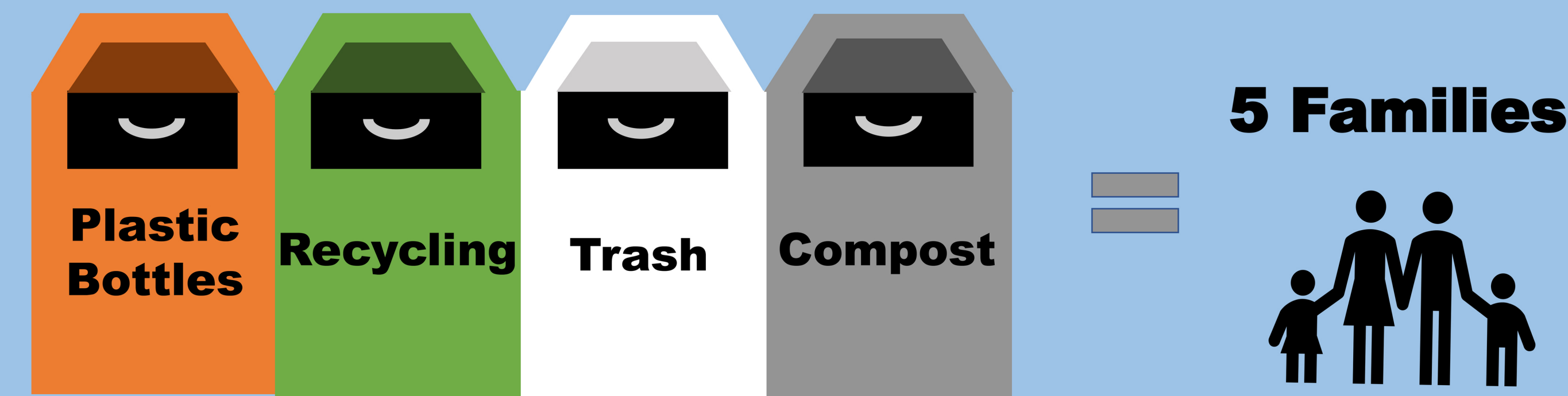
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Scope of the Problem

Lack of adequate waste management is a problem that plagues several developing cities and stifles their development. Our group chose to focus our efforts towards the QQ section of the Khayelitsha township located in Cape Town, South Africa. Khayelitsha struggles with some of the most trash-littered terrain in the world. The overflow of waste greatly impacts quality of life and occupies valuable space that could potentially be used for new infrastructure.

Our Solution

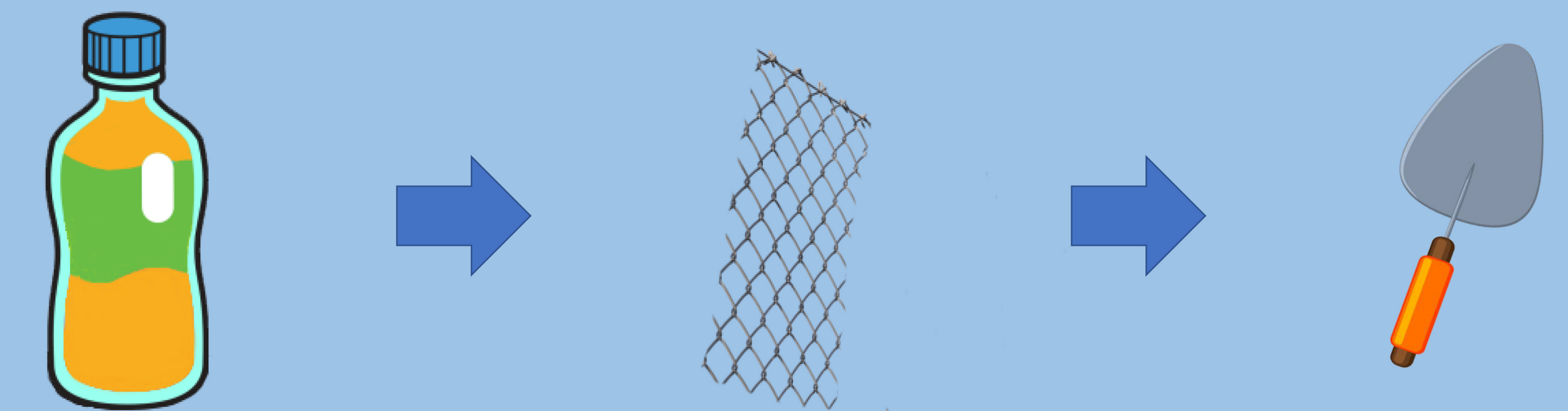


130 depositories will be placed throughout section QQ for waste collection. This will ideally provide a better functioning waste management system for the 650 families of QQ currently struggling with trash disposal. Residents and volunteers will collect, separate, and transport trash materials, that they will then use to create the eco-bricks. Eco-bricks are plastic bottles stuffed with non-biodegradable waste.

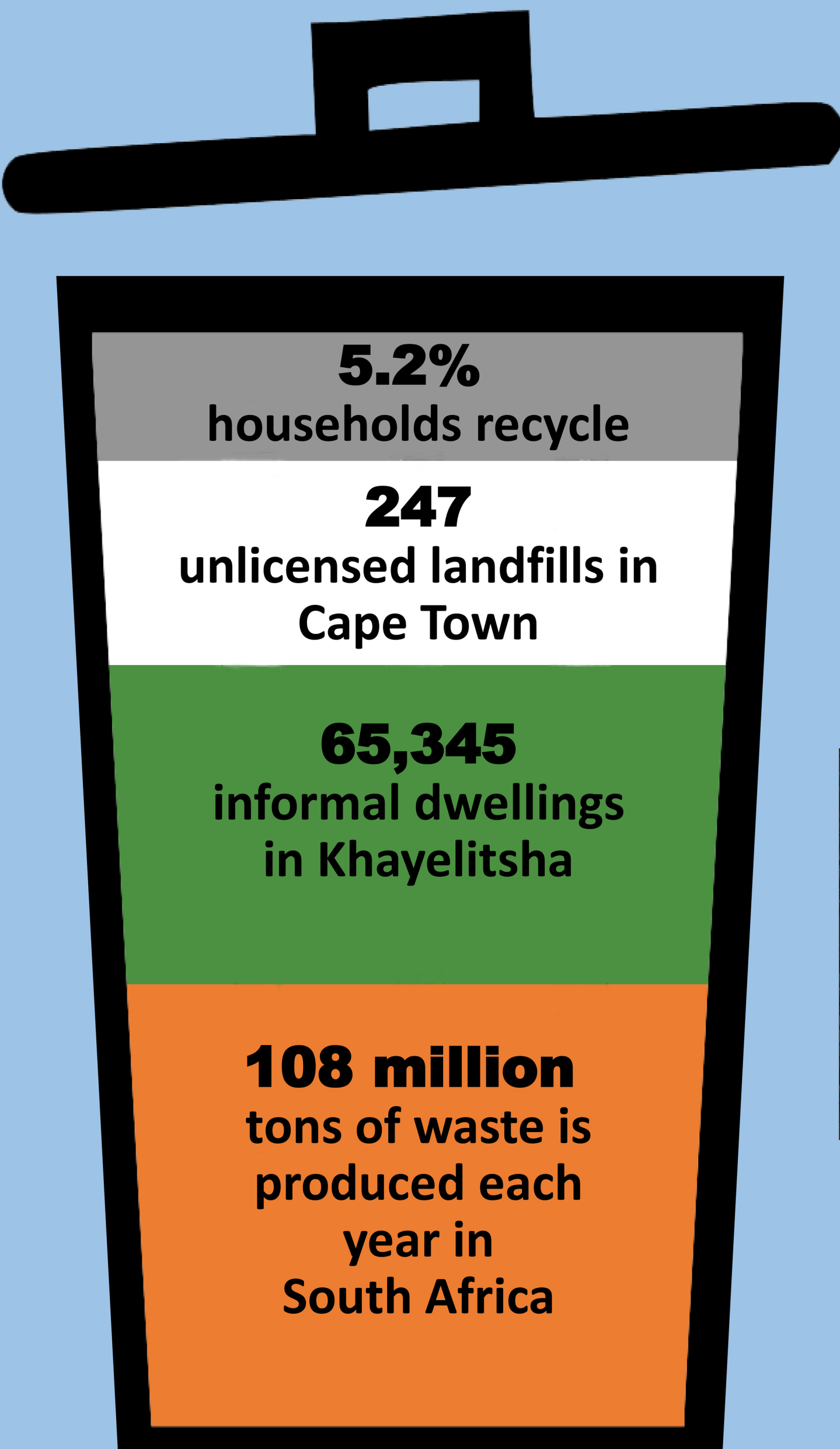
Implementation

Assembly Process:

- Layer/Attach Eco-bricks
- Support Eco-brick foundation with mesh wiring
- Solidify with Adobe cement (cob mortar)



- #### Desired Results:
- Improve the sanitation within Khayelitsha
 - Provide permanent housing
 - Improve government-resident relationship
 - Create opportunities for volunteering to foster community development



Budget Breakdown:

Cost Concentration	Percent
Transportation Costs	38%
Construction of Homes	32.5%
Construction Labor	12%
Waste/Recycling Depositories	7.5%
Public Awareness/Outreach	5%
Security Funds	5%

This budget is based off of a 14 million dollar loan provided by World Bank

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Acknowledgements

We would like to thank Professor Bethel Eddy and Professor Katherine Foo for providing their time and support in the development of our project. Special thank you to Professor Scott Jiusto for his knowledge about Cape Town and guidance on the execution of our project.

Endorsements

- HugtForward
- Eco-brick Exchange
- Mayoral Committee of Water and Waste in Cape Town

