2015

From Trash to Cash: Helping Paraguayan waste pickers turn glass from the streets to money in their pockets

Tess Hudak  
*Worcester Polytechnic Institute*

Muhammad Hussain  
*Worcester Polytechnic Institute*

Angela MacLeod  
*Worcester Polytechnic Institute*

Daniel Ottey  
*Worcester Polytechnic Institute*

Rasheeda Samih  
*Worcester Polytechnic Institute*

Follow this and additional works at: [https://digitalcommons.wpi.edu/gps-posters](https://digitalcommons.wpi.edu/gps-posters)

> Part of the [Architecture Commons](https://digitalcommons.wpi.edu/architecture-commons), [Arts and Humanities Commons](https://digitalcommons.wpi.edu/arts-and-humanities-commons), [Business Commons](https://digitalcommons.wpi.edu/business-commons), [Education Commons](https://digitalcommons.wpi.edu/education-commons), [Engineering Commons](https://digitalcommons.wpi.edu/engineering-commons), [Life Sciences Commons](https://digitalcommons.wpi.edu/life-sciences-commons), [Medicine and Health Sciences Commons](https://digitalcommons.wpi.edu/medicine-and-health-sciences-commons), and the [Social and Behavioral Sciences Commons](https://digitalcommons.wpi.edu/social-and-behavioral-sciences-commons)

**Recommended Citation**

Hudak, Tess; Hussain, Muhammad; MacLeod, Angela; Ottey, Daniel; and Samih, Rasheeda, "From Trash to Cash: Helping Paraguayan waste pickers turn glass from the streets to money in their pockets" (2015). *Great Problems Seminar Posters (All Posters, All Years)*. 535.  
[https://digitalcommons.wpi.edu/gps-posters/535](https://digitalcommons.wpi.edu/gps-posters/535)

This poster represents the work of WPI first-year students submitted to the faculty as evidence of completion of a course requirement for the Great Problems Seminar (GPS). WPI routinely publishes these posters on its website without editorial or peer review. For more information about the GPS program at WPI, please see [https://www.wpi.edu/academics/undergraduate/great-problems-seminar](https://www.wpi.edu/academics/undergraduate/great-problems-seminar).
Empowering waste pickers through monetizing glass bottles

Team Members: Tess Hudak (ME), Muhammad Hussain (ME), Angela MacLeod (ME), Daniel Ottey (ME) & Rasheeda Samih (ME)

Objective
Bridge the gap between the waste pickers and a place where they can redeem recycled glass for profit in an attempt to raise their standard of living.

Abstract
Waste pickers in Asunción, Paraguay collect both cardboards and plastics for compensation, but they leave glass untouched since the city lacks a system that allows people to return glass to be recycled in exchange for money.

To address this, we have written a letter of intent outlining a possible system for collection, which could serve as an early step to get funding for the program. This would provide important long term benefits for the waste pickers including an increased family income, the opportunity to work collaboratively towards a common goal, and a way to take account of the often undocumented waste pickers and their families.

Background
In Asunción, Paraguay, impoverished waste pickers spend hours each day gathering recyclables from people's trash and redeeming what they find for a small profit. This is their only source of income and keeps them living below the poverty line.

Paraguayan Waste Pickers

Social Results
• Give waste pickers another source of income, bringing them closer to the poverty line
• Opportunity for collaboration and networking
• Helps develop accountability of often undocumented people and families

30 Bottles = 2,500 PYG
90 Bottles = 7,500 PYG
180 Bottles = 15,000 PYG

3 bottles = 1 kg = 250 PYG ~ 0.04 USD

Environmental Results
• Decreases glass material going into landfills and increases glass material going out of landfills
• Creates cradle-to-cradle life cycle
• Reduces energy spending for the production of new glass
• Helps encourage recycling culture

Conclusion
These types of living conditions are not at all exclusive to Paraguay. Programs such as this could serve as a model to other developing countries looking to solve their own issues with recycling glass.

Acknowledgements
We would like to thank our advisors Martin Burt, Svetlana Nikitina, and Norbert Hugger for their assistance with this project.

References