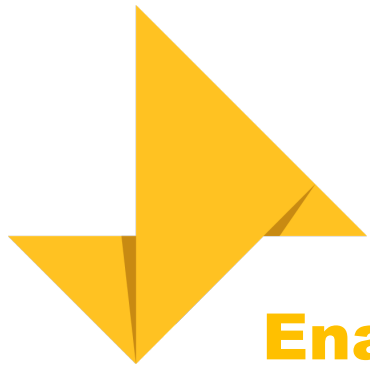


Green Energy Center

Pellet Feeding Gasifier Stove



**Enactus City University of Seattle
&
Hands for Peacemaking - Guatemala**

Agenda

- Background of CityU & Enactus
- Background of GEC/Gabon & stove
- Hands for Peacemaking
- Guatemala field testing
- Modified pellet feeding stove
- Next steps in field testing
- Questions



CityUniversity of Seattle



City University of Seattle (CityU)

- A private, nonprofit institution
- Established in 1973
- Located in the heart of downtown Seattle
- Offers online and on-site programs nationally and globally
- Partner with National University System

Enactus

- Started since 1975
- A global non-profit entrepreneurial organization
- Collaborated by students, academic, and business leaders
- Presents in 36 countries worldwide
- Enactus City University of Seattle started 2004
- 4th place at Enactus National Exposition 2018



Green Energy Center project

- Started by our team member's proposal from Gabon
- Mission: Improve health of villagers and reduce carbon emissions
- With Art Donnelly created a clean cook stove with 2 important benefits: TEG power & biochar
- Characteristics of the stoves:
 - CO₂ free
 - Uses readily available waste
 - Uses 40% less fuel
 - Sturdy
- U.S. production cost issue



Hands for Peacemaking



- ETHOS Conference 2019: Enactus CityU meets Hands for Peacemaking
- Hands for Peacemaking mission is to promote village led opportunities for self-reliance in rural Guatemala including clean cookstoves.
- Conducted field test in 2019



Cooking in Guatemala

57%

total energy consumption
from fuel wood

2.1 mil.

households use
firewood

64%

of the population depends
on wood

3rd

Highest usage of wood
and carbon emissions in
in the Central American

Severe health
issues

especially at children and
women



Aler Stove versus Green Energy Center stove



- Aler stove: 5200 stoves manufactured by HFP. Successful field implementation but still uses wood and emits smoke
- GEC can use wood pellets made from agricultural waste. Can reduce wood usage that causes erosion.
- GEC field test found usage issues of dry wood and fuel loading



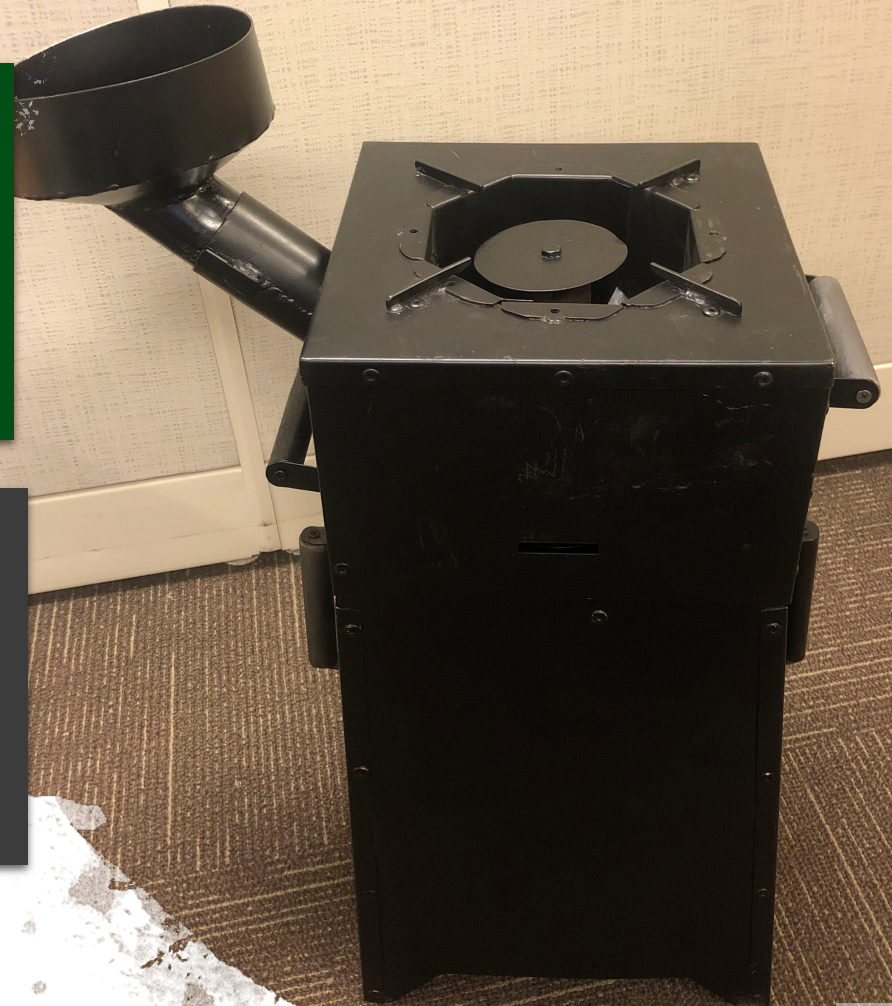
Solution

Investing in pelletizer

New Pellet feeding stove

Field test in Spring

3rd Less
HFP manufactures at third
less than U.S.



New GEC project model



- Fuel: Pellets made from corn waste typically burned
- Smaller pelletizer provides enough pellets for 30 homes in the village
- Needs 13.5 pounds of pellets per meal
- Can cook continuously for 6 hours

Thank you

Questions?

