

Green Energy Center

ALTERNATIVE FUELS



ENACTUS City University of Seattle

&

ENACTUS Landivar University - Guatemala



Agenda

- CityU & Enactus
- GEC/Gabon & stove
- Enactus CityU and Landivar University
- Cooking habits in Guatemala
- Ecole
- Questions





CityUniversity
of Seattle



- Non-profit & private
- Offers online and on-site programs nationally and globally
- National University affiliate
- A global non-profit social enterprise
- Students, academic, and business
- 36 countries in 1730 universities
- 4th place at Enactus National Exposition 2018

Green Energy Center Stove

- **Mission:** Improve health of developing nations and reduce carbon emission globally.
- **Benefits:**
 - Low carbon emissions
 - Uses readily available waste
 - Uses 40% less fuel
 - Produces biochar and power
 - Safe to touch
- Stove trial in **Gabon, Guatemala and Puerto Rico**
- **Production cost issue**





ENACTUS CityU & ENACTUS Lanvidar University - Guatemala

- Guatemala store visit with introduction at ETHOS
- Landivar I University Guatemala at the Enactus World Cup in 10/2018
- Redesigning GEC stove and research alternative fuels



enactus™

Universidad Rafael Landívar



▶ Cooking habit in Guatemala

57% total
energy
consumption from
fuel wood

2.1 mil.
Household use
firewood

64% of
population
depends on wood

3rd highest
country in the
Central American
using wood

**Severe
health issues**
especially at
children and
women

Renewable fuels - Ecole

Eco Friendly

- Corns
- Coconut Shell
- Peppermint leaves
- Yucca glue



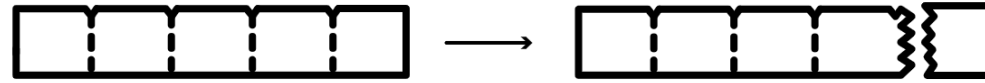
Renewable fuels - Ecole

Easy to use:

- Broken into small sections for convenient purposes
- Heats up more quickly than normal wood
- Last from 20-90 minutes



Easy to produce



Fuel production



Crushed the corn leaf, coconut shell and the peppermint leaf.

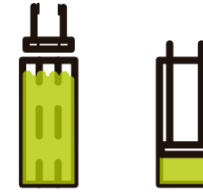


Prepare one unit of each material and pour it into a bowl with 6 units of water.

Mix.



Let it dry for around 7 days



Pour the mixture in to the mold and compress the material.



Add the yucca glue to the outside of the product and let it dry for 7 days.



Leave the product inside the mold for 3 hours and then take out.

THANK YOU FOR
YOUR ATTENTION!

ANY QUESTIONS ?

