

## **GVI Project Partnership Proposal**







# **GVI Carbon Efficient Stoves**

#### Overview

In many parts of the world, deforestation is occurring at alarming rates with increasing populations. The wood is used either directly by local communities (commonplace in Latin America), or is reduced to charcoal (more common in Africa). GVI's volunteers and corporate clients work alongside local communities and organizations to help them install carbon efficient stoves, which use less firewood and therefore, resources whilst supplying a range of additional health, financial and educational benefits.

## **Background**

GVI has set up and now manages a series of carbon efficient stoves projects, in 3 locations in Guatemala (including the work of the WFM TMVP), Honduras, Nicaragua, Peru, Ecuador and Kenya.

The stoves can be built in 2 days, and result in multiple benefits to the local community and global environment:

- Reduced carbon emission
- Reduced de-forestation
- Increased reforestation
- · Improved air quality for local families
- Decreased lung disease
- Decreased time and energies of local families spent on wood collection
- Increased time and energies for local families to be spent on education, employment and micro-enterprises



GVI is willing and able to establish additional projects in other locations and is actively searching for partner organizations and for funding with which we can establish such projects. Using GVI's established network of contacts, GVI is additionally able to supply limited funding through time via the establishment of international volunteer projects such as the WFM TMVP.

### **Material Requirements:**

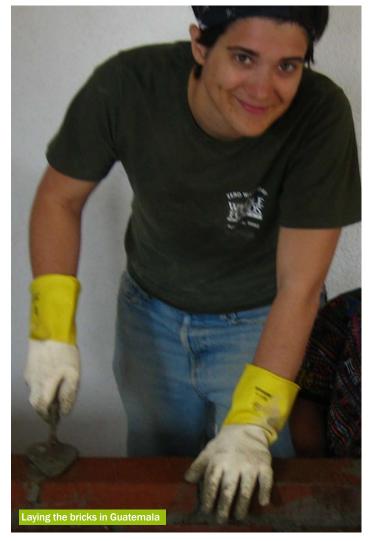
- First three levels: 26 / 27 concrete breeze blocks
- Second three levels: 85 bricks
- Inside stove: 17 terracotta heat resistant tiles
- Top surface of stove: 17 cement heat resistant tiles
- Cement: Type: all purpose use. Approx. 1½ bags required per stove
- Sand: Type: black stony sand as opposed to the finer white sand. Approx. 2 large bags required.
- Earth: Type: the finer the better but can be sieved to remove large stones.
- Water
- Stove: metal stove top with 3 circular openings of various widths + rings to fit into each opening Hook: implement to remove rings.
- Chimney tubing and hat: (2 / 3 tubes required dependent upon height of ceiling)

#### **Tool Requirements**

- Sieve
- Spade
- Cement trowel x 2 / 3
- Tape measure
- Bucket
- Metal headed hammer
- Rubber headed hammer
- Spirit level
- Set square
- Metal cutting scissors / tin snips
- Hachett or Machete
- Hacksaw + 2/3 spare blades
- Builders wire / plumbline
- Tile separators
- Large plastic tub
- Smaller plastic tubs x 2 / 3
- Large bowl for soaking bricks in

NOTE: Many of these items can often be provided by the family.





#### Costs

Costs vary globally but average between 100 and 200 USD per stove, plus staff time and costs, tools and transportation.

#### **Duration**

The stoves take 2 to 3 days to build depending upon skill, experience and location. The stoves have an estimated life of 15 to 25 years if built well. The benefits of each stove can be applied for that duration, and the decrease on reforestation for longer.

## Summary

GVI ensures all if its activities are sustainable and therefore requires input and support from local community and family members for all community assistance projects. The requirements to receive a stove are (1); the family must have children currently attending classes in the school and (2); their current stove is not suitable for cooking. The stove is constructed on site by a local mason with help from the family of the house, alongside the volunteers and staff. This ensures the stoves are achieved by the family themselves, and are not a donation, thus keeping the relationship between the community and GVI horizontal, ensuring their sense of self worth. In some cases, where volunteers help to work upon the stoves, the funding of the volunteers includes the supply of the finance to employ a local mason to build the stoves.

For more information, or if you would like to discuss a partnership with GVI to either set up your own carbon efficient stove project, or set up and manage such a project for you, please contact the GVI CA Director steve@gvica.com

Please note, all locations have different needs and the stove program is not suitable for all locations. Areas with high incidents of malaria or other mosquito borne diseases might not be not suitable locations.



