

Zamorano University

Improved Stoves Certification Center at in Honduras

In several Central American countries, the installation of improved stoves (also referred to as “eco-stoves”) is a way to reduce indoor air pollution, deforestation, and increase productivity time within a family. These improved stoves can reduce the use of firewood, cooking time, and have an outside chimney. However, regardless of the efficiency of these stoves, there is not clear policy of how to duplicate these stoves or what stove specifications to use. There is an urgent need for improved stoves to be certified in order to secure their proliferation.

This project targets the installation of a certification center for improved stoves at Zamorano University. This center will evaluate the heating efficiency, fuel and pollution production of five of the most commonly used improved stoves in the Yeguaré Valley in Honduras. Zamorano University will create a certification standard on stove construction materials, to be used for projects and direct sales in Guatemala, El Salvador, Honduras and Nicaragua.

There are two phases to this project. Phase 1 will result in the evaluation of efficiency and pollution production on the Zamorano campus. Phase 2 will result in a similar evaluation but within households in Yeguaré Valley. The combination of results from both phases will allow Zamorano to create certification standards. They will include construction materials requirements within the certification standards. Zamorano will work with AHDESA (a Honduran NGO) to monitor and test the effectiveness of their stoves, working toward the certification requirements and standards.

The two phases of this project will involve training the Zamorano students and other groups, such as NGO trainees, members of the community, technicians from the municipality environmental unit. These people will be trained in the fabrication of the stoves, pros and cons of each model, requirements of the materials used to build the stoves, issues to consider for community adaptation and aspects to evaluate per region prior to choosing the appropriate model.

Zamorano will develop two labels, and submit them to the Science and Technology Honduran Council, the entity in charge of making voluntary standards official for its use in the country. These labels are:

1. A stove certification seal of approval, one that will describe and list the technical specification of a model by type of fuel
2. A label for the project, stating the stove is adequate for the proposed beneficiaries in the given region.

The project will allow governments to have a certification standard for improved stove programs. In addition, NGOs will be able to recommend the correct type of stove for project and geographic conditions. There will be a responsibility for the stove manufacturer and a guarantee for the users. Furthermore, the households where the improved stoves are installed will be monitored for long-term effectiveness and practicality.

