



Onil Stove Fact Sheet

The Problem: More than 3 billion people in developing countries burn traditional biomass fuels indoors as a source of household energy. This method of cooking is the cause for burns and respiratory problems due to inhaling smoke daily from these fires. Cooking on open fires creates several major hazards:

- 1) Acute Respiratory Infection (ARI) results in an estimated 1.6 million premature deaths each year largely among women and children. **Acute respiratory illnesses, such as pneumonia, are the largest single cause of death in children under five in Guatemala.** More than 50% of premature deaths due to pneumonia among children under 5 are caused by the particulate matter (soot) inhaled from household air pollution. 4.3 million people a year die prematurely from illness attributable to the household air pollution
- 2) Carbon Monoxide Poisoning: Dangerous amounts of CO can accumulate when the fuel is not burned properly as in an open fire, or when rooms are poorly ventilated. Carbon Monoxide poisons by entering the lungs and displacing oxygen from the bloodstream. Carbon monoxide poisoning is the number one cause of unintentional poisoning deaths in the world.
- 3) Burn Injuries
- 4) Wood Gathering Injuries and Time Consumption: Fuel gathering consumes considerable time for women and children, limiting other productive activities (e.g. income generation) and taking children away from school.
- 5) Deforestation: More and more time and energy are spent by the family, primarily the women and children, in gathering enough firewood for cooking.

The Solution: The ONIL Stove was developed by Don O'Neal, a Project Manager for HELPS International, and it carries his name (ONIL). The aim was for a durable stove which met local cooking needs, while reducing wood use by 70%, minimizing the risk of burns, and removing smoke and combustion gases from inside houses.

Benefits:

- 1) Health benefits: prevention of respiratory diseases such as Acute Respiratory Infection and Carbon Monoxide Poisoning
- 2) Safety benefits: safety from burn injuries and spilling boiling water
- 3) Wood Savings of 70%: The ONIL stove reduces wood consumption by 70% resulting in a long-term benefit to the environment and a better quality of life for families

Thank you for donating a fuel-efficient Onil stove!