

Honduras: Efficient cookstoves help reduce carbon emissions



Key Facts

Background

Many people in Honduras, particularly in inland areas, rely on firewood as their main source of household energy. As a consequence of this dependency, progressive deforestation has led to around 45% of Honduras' forest cover to be lost within the past 25 years. The largest area of undisturbed forest in Central America is under threat from this development.

At the same time, Honduras is one of the countries most affected by the effects of climate change. On the Climate Risk Index, developed by NGO Germanwatch, the country is leading at number 1. Massive problems hang over the country, leaving it incredibly vulnerable to the effects of climate change. The sustainable and efficient use of energy and other resources can help to solve some of these problems and are therefore of utmost importance for the future development of Honduras and its people.



The Project

The project combines different approaches and initiatives from all targeted regions of the country to promote the distribution of improved cookstoves in Honduras. Through their construction, the distributed cookstoves are in this respect clearly more efficient compared to traditional cooking methods using open fires. Furthermore, the toxic gases which pollute households and cause respiratory illnesses are drastically reduced. The production and marketing of these improved cookstoves are only possible through the additional revenues generated by the voluntary carbon market.

Location:
Honduras

Project type:
Energy efficiency

Total emission reductions:
» 42,000t CO₂e p.a. «

Project standard:
Gold Standard & CDM

Project start date:
January 2012

Sustainable Development

By supporting this project you'll contribute to the following Sustainable Development Goals:



SUSTAINABLE DEVELOPMENT GOALS

While focusing on reducing greenhouse gas emissions, all our projects also generate multiple co-benefits. These are supportive of the United Nations Sustainable Development Goals.



Good health and well-being
The improved cookstoves reduce the emissions of dangerous smoke and gases which are responsible for numerous respiratory diseases, circulatory illnesses and eye problems.



Gender equality
The task of collecting firewood often lies with women and girls. By reducing the need for firewood, the cookstoves reduce the time needed for fuel collecting and thus provide free time for other activities.



Affordable and clean energy
The project supports households in which available income per capita is less than a single US Dollar per day. The savings made from the fuel reduction has a significant meaning for families and their financial situations.



Decent work and economic growth
The project aids the development of the local economy and creates new jobs in production and distribution of the improved cookstoves.



Life on land
The efficient cookstoves sustainably reduce the demand for firewood and coal, and therefore support the protection of ecosystems in nearby forests. Consequently, the threat of soil erosion is also reduced.



Technology brief – how it works

Cooking using traditional stoves is inefficient. Through this method, wood and charcoal are not fully converted into heat energy. The burning releases ash as an unwanted by-product and even the poisonous gas, carbon monoxide.

The new coal stoves achieve a better efficiency through the so-called chimney effect. Fresh air is drawn into the heat chamber as the hot air rises. The additional oxygen increases the burning temperature which burns the coal in a cleaner manner. As the temperature rises, more air is drawn in and the temperature thus continues to rise. The effect is strengthened further through better insulation of the oven, which at the same time reduces heat loss through the shell of the oven. Depending on the type of stove, the additional heat transfer between oven top and cooking pan is optimized to harness the largest possible amount of energy generated.



Project Standard



The Gold Standard is an award winning certification standard for results based project finance and is recognised internationally as the benchmark for quality and rigour in certifying environmental and socio-economic project outputs. Established in 2003 by the World Wide Fund For Nature (WWF), the Gold Standard today is trusted and endorsed by NGOs, governments and multinationals including United Nations agencies worldwide.



The CDM is one of the three Flexible Mechanisms defined in the Kyoto Protocol and allows emission-reduction projects in developing countries to earn certified emission reduction (CER) credits, each equivalent to one tonne of CO₂. These CERs can be traded and sold, and used by industrialized countries to meet a part of their emission reduction targets under the Kyoto Protocol.

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