

Ghana, Efficient Cook Stoves– Summary

Most families in Ghanaian towns and cities cook with charcoal using a metal grate or 'coal-pot' that burns very inefficiently and uses a lot of fuel wood. This has serious consequences in Ghana where the rate of deforestation is one of the highest in Africa. The Ghana Stoves project introduces the Gyapa, an insulated and efficient cook stove, to families in Ghana. The Gyapa stove cooks food more quickly, requires less fuel and is less smoky. Carbon finance allows the stoves to be marketed at an affordable price, whilst building on manufacturing skills, marketing channels and the fuel supply chain.

Standard:	Gold Standard for Verified Emission Reductions. The methodology was authored by ClimateCare
Project Status:	From 2008 – 2013, 550,000 Gyapa stoves were manufactured and sold
Carbon Status:	2 nd verification completed September 2012
Vintages Available:	2008 - 2011 issued 2012 - 2013 issuance expected January 2014
Communications Materials:	We have a number of excellent photographs available from this project



A woman cooks on a Gyapa Stove while taking care of her baby

Key Project Benefits

Cuts fuel costs

2.4million people have saved more than \$41million

Improves health

Can improve users' health by reducing exposure to hazardous air pollutants

Slows deforestation

Reduces wood demand, reducing pressure on forests & reducing deforestation

Supports local economy

Provides additional income to many businesses within the Gyapa supply chain

Scale and impact

Over 550,000 stoves have been sold, generating over 1million tonnes of CO₂ reductions

Ghana, Efficient Cook Stoves – Project Detail

Technology Energy efficiency – improved cookstoves

Location Ghana: towns of Accra, Kumasi, Sekondi-Takoradi, Cape Coast, Winneba and Tema with extension out to the provincial towns.

Background More than 80% of Ghanaian households use wood or charcoal as their main cooking fuel. Whilst wood is used in rural areas, charcoal is common in urban areas because it is light, easy to transport and quick to light. Charcoal is used by approximately 1.3 million households or 31% of all families in Ghana. In the capital city of Accra, about 70% of households use charcoal for cooking.

Deforestation rates in Ghana are amongst the highest in Africa, with current levels of wood-fuel consumption far exceeding forest growth. The charcoal production process contributes heavily to this deforestation and is responsible for high emissions of greenhouse gases such as carbon dioxide and methane. This is because charcoal is produced in simple earth-mound kilns with carbonisation ratios of about 8 tonnes of wood to 1 tonne of charcoal, meaning that large volumes of wood are consumed to make it.

This project supports the distribution of efficient charcoal stoves to households in Ghana, reducing charcoal consumption and therefore alleviating the problems associated with its use.

Description



A woman cooking on the new efficient "Gyapa"

Most families cook with charcoal in a metal grate or 'coal-pot' that burns very inefficiently. This project replaces coal pots with an efficient insulated stove, known as the Gyapa. Users of the Gyapa are pleased with the effects: they observe that the stove keeps going for longer periods, cooks food more quickly, is less smoky and uses less fuel. Careful fuel consumption tests undertaken as part of the baseline study showed that the Gyapa reduces charcoal consumption by 32%.

The liners are made by a small group of accredited ceramicists who have received specialist training. The metal claddings are made by a further group of accredited manufacturers. Relief International, our project partner in Ghana, provides training and quality control services, and distributes the stoves through a wide network of retailers.

The baseline for the project is the quantity of charcoal used by the coal pot stoves, translated into greenhouse gas emissions in kitchens, together with reduced greenhouse gas emissions arising from charcoal production in forest areas.

Additionality & Carbon Finance

Under pre-project conditions there was no mass market for improved stoves owing to the low income of the majority of the population and their customary use of low-cost stoves. Revenues from carbon finance are helping to build the technical and business capacity for stove manufacturing and promotion, as well as enabling the improved stoves to be retailed at an affordable price.

To enable the Gyapa business to move forward, ClimateCare agreed to financial advances at a number of project milestones, to be amortised over the first two years of delivery of verified emission reductions. ClimateCare is paying for project validation and verification costs throughout the seven-year term of the project, and also continues to buy emission reductions on delivery.

Emissions Savings

Up to December 2013, a total of 550,000 stoves were sold with emissions savings over 1million tonnes.

Standard & Methodology

The project has been designed as a Gold Standard VER project. The carbon paperwork is in line with ClimateCare's approved cookstove methodology entitled "Improved Cook-Stoves and Kitchen Regimes".

Ghana, Efficient Cook Stoves – Project Detail

Benefits

Social:

- Reducing fuel costs for families.
- The new Gyapa stoves are less smoky, reducing emissions of hazardous air pollutants which are less damaging to the health of the cooks, typically mothers and children.

Economic:

- Creating employment and building capacity throughout the supply chain i.e. in manufacturing, distribution, retailing, quality control and project management.
- Improving Ghana's technological self-reliance - the stoves are locally manufactured and specialist skills are being developed.

Environmental:

- Significant savings in greenhouse gas emissions through a reduction in charcoal consumption.
 - Reducing pressure on remaining forest reserves in Ghana, slowing widespread deforestation and aiding biodiversity.
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Project Status Operational

Carbon Status

We have verified close to 1 million Gold Standard VERs up to the 2013 vintage. We anticipate a further 250,000 VERs from 2014.



Making Gyapa Stoves creates employment for local people throughout the supply chain.

For more information on this or other projects, or to find out more about ClimateCare, please contact us via:

Business@climatecare.org

www.climatecare.org

+44 (0)1865 591 000