

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.

Additional Benefits:

- Saves money for families by reducing fuel needs
- Improves users' health by reducing exposure to hazardous air pollutants
- Reduces wood demand, reducing pressure on forests & slowing deforestation
- Provides additional income to many businesses within the Gyapa supply chain

Standard:

Designed to Gold Standard VER using ClimateCare's own approved Gold Standard methodology

Project Status:

Over 110,000 stoves have been distributed to date

Carbon Status:

Under validation to the Gold Standard



A local lady using the new efficient charcoal stove for her street food business

Ghana, Efficient Cook Stoves – Project Detail

Technology Efficient Cook Stoves

Location Ghana; towns of Accra and Kumasi, with extension out to the provincial towns.

Background More than 80% of Ghanaian households use wood or charcoal as their predominant cooking fuel. Whilst wood is used in rural areas, charcoal is common in urban areas because it is light and 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. However, 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. An opportunity has arisen to encourage the deployment of efficient charcoal stoves to households in Ghana, reducing charcoal consumption and therefore alleviating the problems associated with its use.

Description



A Ghanaian 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 these with an efficient insulated stove, known as the Gyapa. Users of the Gyapa are pleased with the effects: they observe the stove to keep going for longer periods, cook food more quickly, are less smoky and use less fuel. Careful fuel consumption tests undertaken as part of the baseline study showed that the Gyapa reduces charcoal consumption by 25%.

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. Enterprise Works, 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 common-place inefficient charcoal stoves, translated into greenhouse gas emissions in kitchens, together with the greenhouse gas emissions arising from charcoal production in forest areas.

Emissions Savings

The project has to date already saved more than 72,000 tonnes of CO₂ equivalent. Over seven years the total saving is expected to be more than 800,000 tonnes.

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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".

Benefits

Social:

- Reducing fuel costs for families and freeing up money for other uses, thereby improving livelihoods of the poor.
- The new Gyapa stoves are less smoky, reducing emissions of hazardous air pollutants and improving 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 and furthered in-country.

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.

Project Status

Over 110,000 stoves have been distributed to date.

Carbon Status

Initial baseline studies have been completed and a Project Design Document has been submitted to the Gold Standard and a DOE for validation. The validation process is currently underway.



Photograph of the new efficient Gyapa Stove

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

jpmcc.mail@jpmorganclimatecare.com

www.jpmorganclimatecare.com

+44 (0)1865 207000

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