

Global Alliance for Clean Cookstoves



www.cleancookstoves.org

Project Background

Location: Africa, Kenya + other countries

Date project established: 2010

The Global Alliance for Clean Cookstoves is a public-private partnership with the long terms goals of universal adoption of clean cookstoves and the creation of a thriving global market. The benefits from the universal adoption of clean cookstoves includes the reduction of degraded forests and lands as well as the reduction of black carbon emitted into the atmosphere.

The Paradigm Project is a social enterprise working to create sustainable social, economic and environmental value within developing world communities. The Project intends to implement 5 million stoves in developing countries worldwide by 2020. To date they have delivered 36,340 stoves, most of which is in Kenya.

Mitigation and/or Adaptation

The Alliance is only one year old so the immediate benefits to the mitigation of climate change are not recordable. Some of the partners of the Alliance have been working for a number of years already and the immediate benefit is the reduction of black carbon and indoor air pollution. The number of households that have already adopted clean cookstoves are already benefitting from breathing cleaner air.

The mitigation benefit of the Paradigm Project in Kenya is reducing emissions. They state that their "Rocket Stoves" are 40-60% more efficient than an open fire. Emissions are therefore reduced by 1 to 2 metric tons per Rocket Stove each year. In addition, the change to the Rocket Stove will save 33.6 trees over 5 years.

Measurement

The Alliance has a target of 200,000,000 metric tons of CO₂ equivalents will be avoided upon success of its work.

Other metrics include

Target of 100,000,000 for the number of households to have adopted clean and efficient cooking solutions

0.05MT is the target amount of black carbon avoided by the 100 million households goal

It is expected that there will be a 40% reduction in fuel use, GHG and time collecting fuel for affected homes

It is expected that there will be a 50% or more reduction in emissions (PM_{2.5}, CO, BC) from stoves in affected homes by the adoption of clean cooking solutions.

The Paradigm Project's measurement of mitigation is also the reduction of greenhouse gases. They project that in 2020 1,500,000 metric tons of emissions will be reduced in Kenya if 400,000 stoves are distributed.

Social Benefits

The Alliance's primary goal is to work collectively with its partners to stimulate a thriving global market for clean cookstoves and fuels. This will help it achieve—and ideally surpass—its 100 by '20 target. For the Alliance, a thriving global market is one that consists of a range of organizations—from cottage industries to large-scale companies—that are both sustainably supplying clean, efficient, affordable, and user-desired cooking solutions (stoves and fuels) at greater scale, and that are constantly innovating to improve design and performance, while lowering cost. Success will also mean demonstrating the health, climate, and economic benefits of the solutions through a robust research, monitoring and evaluation agenda.

The targeted market work will include creating local stove testing and design centers, developing local financing tools to facilitate the marketing and scale of stoves and fuels, capacity development, reducing or eliminating local market barriers such as import tariffs, implementing major public awareness campaigns on the benefits of using improved stoves, and rigorous monitoring and evaluation.

500 million people will be affected from the 2020 goal of reaching 100 million households, with an assumed ratio of 5 people per home. These people include the poorest half of humanity which will benefit from reduced ambient air pollution, reduced stress on local resources such as forests, reduced regional climate change, and a thriving global market of advanced cooking solutions that will eventually bring solutions to the entire global population

The use of efficient cookstoves can dramatically reduce fuel consumption and exposure to harmful cookstove smoke. Other steps—installing a chimney, opening windows, keeping children away from cooking fires, and drying wood before using it—can also help reduce direct exposure to smoke, but they do little to mitigate the other air quality, forestry, livelihood, or climate impacts of traditional cookstoves. The development of a thriving global clean cookstove industry that is constantly innovating to improve design and performance, while lowering the cost of stoves, is therefore seen as the most sustainable way to tackle this issue.

Measurement:

We work with the WHO to determine lives saved and with countries to see economic impacts

Paradigm Project:

- People impacted: 144,095
Trees Saved: 66,647 (this is based on kgs of wood saved per stove converted to a derived average weight of an EA tree)
tCO_{2e} Avoided: 18,566
Productive Hours Saved: 2,413,556 (for those who collect wood)
Income Saved: \$57,581 US (for those who purchase wood)

Potential for Scaling-up of project

The Global Alliance for Clean Cookstoves through the work of its partners can be broadly adopted throughout Africa, Asia, and Latin America. Each project can be tailored specifically to the country involved, based on economic, political, technological, climate and cultural factors.

The Paradigm Project is currently focused in Kenya but are working on scaling up projects in other parts of East Africa.

The project to date has been wildly successful. We doubled expected sales in our first 12 months and are expecting to triple original projections for the next 12 months. We approached the market from a traditional consumer products perspective offering consumers a choice of great products at multiple price points and involving them in the decisions for which product to carry. We worked with

local manufacturers to develop and produce a stove in Nairobi and with Envirofit International to import a higher-end stove suitable to the market. We have over 200 exclusive distribution partners locally ranging from very small partners who can purchase only a handful of products at a time to those who can carry 500 to 1000. We work with World Vision, Food for the Hungry, Compassion International and the World Food Programme to serve some of the poorest of the poor and use carbon finance to reduce the retail price of stoves down to achievable levels.

Potential for Replication of project

Replication of any project is dependent upon national circumstances and funding. In addition, projects applicable to one region may not work the same in another due to local fuel sources, the political environment and the economic environment.