Efficient and Clean Cooking for Households in Somalia

Making positive social, environmental and economic change.

carbonneutral®

The deployment of highly efficient improved cookstoves reducing woody biomass consumption for households in urban and peri-urban areas of Somalia.

The Project

The project activity (VPA) deploys highly efficient improved charcoal cookstoves (ICS), known as 'Jikokoas', to urban and peri-urban households in the Federal Republic of Somalia, significantly reducing the amount of woody biomass needed for everyday cooking.

The VPA is implemented by the largest manufacturer of efficient improved cookstoves in Sub-Saharan Africa. The project developer produces all its stoves in the first and only modern cookstove manufacturing facility in Kenya, working alongside local partners on the ground to support distribution and community engagement.

Before this project, Somali households relied on traditional cookstoves that burn through large amounts of charcoal and firewood. This heavy fuel consumption drives deforestation and land degradation, releases greenhouse gases (GHG), strips soil of its fertility and reduces the land's ability to retain water.

Cooking with these traditional stoves also fills homes with harmful smoke. Prolonged exposure to indoor air pollution causes serious health conditions including pneumonia, stroke, ischaemic heart disease, chronic obstructive pulmonary disease and lung cancer.

Gold Standard®
Climate Security & Sustainable Development

SUSTAINABLE DEVELOPMENT GOALS

PROJECT KEY FACTS

Type: Energy Efficiency - Domestic

Location: Somalia, Africa

Emissions Reduction: 309,201 tCO2-e

Standard: Gold Standard for the Global Goals

Crediting Period: Oct 02, 2019 - Oct 01, 2024

COOKSTOVE FACTS

The efficient cooking stove relies on two main design principles to achieve a high thermal efficiency, namely improved airflow, and thermal insulation. Improved airflow design allows better fuel-air mixing and regulation of the fuel-air mixture, increasing the rate at which oxygen is delivered to fuel in the combustion chamber. The increased flow rate of oxygen allows the combustion to occur at a higher temperature.

The thermal insulation of the efficient cooking stove ensures thermal energy is directed to the cooking surface and is does not become waste heat.

The VPA deploys efficient charcoal cooking stoves known as Jikokoa Classic (G3.5) and Jikokoa Xtra (G4).

Project impact and benefits

The project delivers the following benefits for climate, people and nature:

Climate action
Over 2 million tCO_2e avoided since 2019, with fuel consumption reduced by up to 50% per household, directly slowing deforestation across Somalia's fragile forests.

Economic resilience
Families save significantly on fuel costs each week; across the project to date, household savings total approximately USD 171 million, with an independently verified annual IRR of 296% in comparable markets.

Health and wellbeing
Indoor air pollution reduced by up to 80%, cutting exposure to smoke linked to 3 million premature deaths globally each year.

Local economic development
Over 700 jobs created in Somalia through the developer's vertically integrated manufacturing model.