



Clean cooking for refugees' host communities in Kigoma

Brief project description

More than 96% of the approximately 60 million people in Tanzania rely on biomass –mostly firewood and charcoal- as their primary fuel for cooking. Most rural households use the three stone fire place to cook their meals, whereas low quality charcoal cookstoves are used in urban and peri-urban households. Due to the increasing demand on fuelwood, Tanzania lost 2.70Mha of tree cover between 2001 to 2020, equivalent to a 10% decrease in tree cover and 910Mt of CO₂e emissions since 2000. Environmental challenges add to severe human consequences, with an estimated 10 million Tanzanians (about 17% of the population) reported to be suffering from Chronic Obstructive Pulmonary Diseases (COPD). This causes debilitating conditions such as emphysema and chronic bronchitis, leading to a staggering annual toll of approximately 33,000 lives lost to COPD-related diseases. Recognizing the gravity of these challenges, Tanzania is taking active steps to combat this crisis through the formulation of a robust Clean Cooking Strategy, which includes an ambitious goal to transition over 80% of the population to clean cooking practices by 2033.

Kigoma region emerges as a microcosm of these challenges. Characterized by its own unique environmental and social dynamics and hosting over 200,000 refugees from neighboring countries, the region faces pressing issues in access to clean cooking solutions. Deforestation is starkly evident, with the region having lost over 133,000 hectares of crucial forest cover between 2000 and 2021, equivalent to a substantial 6.6% of its total forested area. This extensive loss compounds the issues of land degradation and environmental depletion, which in turn affects the lives and livelihoods of local communities. The situation is especially dire, with a majority of households in humanitarian settings relying heavily on firewood and inefficient traditional stoves. Scarcity of firewood sometimes leads to conflict between the local communities and refugees as they compete for the scarce resources. The unique situation in Kigoma particularly emphasizes the urgent need for clean cooking solutions to address the pressing environmental, health and social challenges.

World Food Programme has partnered with the National Carbon Monitoring Centre (NCCM) and the Kasulu and Kibondo District Councils to implement a clean cooking project for target households in Kasulu and Kibondo districts to address the access to clean cooking challenge in the refugee hosting areas by introducing improved firewood cookstoves with thermal efficiency higher than open fires to limit firewood demand and associated emissions. A total of 5,000 improved cookstoves will be distributed to an equal number of households in 10 villages within Kisulu and Kibondo districts.

Their enhanced performance allows each stove to save approximately 70% of the wood consumption and about 2,5 tons of CO₂ equivalent emissions annually. The improved cookstoves will be supplied by the company OffgridSun, which has developed a prototype of cookstove that is double fuel (use both wood and charcoal) and has a certified thermal efficiency of about 41% for wood consumption. The cookstove is called Jiko Rafiki and is produced in Tanzania with local material and local human power.







The project is going to be certified by Gold Standard to generate carbon credits that are going to be sold on the voluntary carbon market. The owner of the carbon credits is the National Carbon Monitoring Centre OffgridSun will assist NCCM in the carbon project development throughout the design phase, certification process of the project at Gold Standard, community sensitization on clean cooking and distribution of the

improved cookstoves. The resulting revenue can be instrumental in scaling up the diffusion of improved cookstoves and their impacts in the future.

Project Timeline:

Step	Time
Conducting Stakeholder Engagement Meetings	13th – 25th June 2024
Data collection for baseline survey and kitchen performance test	17th June – 3rd July 2024
Project certification	August – November 2024
Cookstoves distribution	December 2024 - February 2024
Coostoves data management implementation	March-May 2024

Summary of Economic, Social and Environmental impacts of the Project (contribution to SDGs)

	<p>Reduction of CO2 emissions: The project will distribute/install improved cookstoves with higher thermal efficiency, therefore; using less firewood. This will reduce GHGs emissions from cooking practices.</p>
	<p>Reduced deforestation: Traditional cooking methods (three-stone fire) consumes high volumes of firewood that have been collected from nearby forestry areas in general. The project will have positive impact on forest degradation and deforestation by reducing the need for fuelwood collection and production in the region.</p>
	<p>Improved health conditions: Traditional cooking method produces a lot of smoke which may result in chronic respiratory diseases and hearth problems. Improved burning conditions with the project stoves will reduce indoor air pollution and lessen burns during cooking.</p>
	<p>Empowerment of women: Women have to walk long distances to fetch firewood in rural Tanzania. With less time spent on fuel wood collection, women will have more time available for education or opportunities for employment that can raise their household status. The project’s approach also involves the engagement of groups of women living in the targeted rural areas as facilitators and local agents to reach the targeted end-users.</p>
	<p>Creating jobs: Production of stoves parts, distribution/installation, maintenance and marketing activities will create job opportunities for local people. The employees will acquire new skills and knowledge through trainings provided as well.</p>
	<p>The household who purchases firewood will spend less money due to the reduced use. More income will be available for basic needs such as food, clothing, shelter as well as education.</p>