

NON-TECHNICAL SUMMARY

CARBON PROJECT ACTIVITIES IN THE REPUBLIC OF NIGERIA, “Modern Clean Cooking for households in Nigeria”

Introduction

In most African households, cooking is done on either 3-stone fires or very inefficient traditional cookstoves, consuming a lot of fuel, in particular non-renewable firewood, and charcoal.¹ The reliance on inefficient stoves and open fires bankrupt families, destroy forests, and increase indoor air pollution, leading to the death of 600,000 people, mostly women and children, every year. Cooking on polluting biomass fuels contributes to environmental degradation, including deforestation, land degradation, increased greenhouse gas (GHG) emissions, loss of soil fertility, and reduced soil water retention. In addition, burning firewood and charcoal indoors releases harmful pollutants, which can lead to serious health conditions such as pneumonia, stroke, ischemic heart disease, chronic obstructive pulmonary disease, and lung cancer.

Purpose and technology of the Carbon Project Activity

The purpose of this Project Activity is to distribute efficient LPG stove (ICS primarily to urban and peri-urban households) in Nigeria. Fuel-switch projects to replace traditional Equipment (charcoal and firewood) with stoves that burn cleaner liquid fuel, such as liquified Petroleum gas (LPG). LPG has high energy density and is used on devices that have high combustion efficiency, heat-transfer efficiency, and heat control characteristics.

Several greenhouse gases (GHG), including carbon dioxide, are produced as a result of the incomplete combustion of biomass as used in cookstoves. More GHG emissions result from the use of biomass which is non-renewable. LPG stoves are cleaner and more efficient compared to the baseline traditional cook stoves, thereby removing both the amount of woody biomass (firewood and charcoal) used by unit appliances implemented and reducing the emission of GHGs.

By using the LPG stoves, the consumers assign and transfer all rights on the carbon credits to ECOA Climate Capital (ECC), the Coordinating and Managing Entity of this project activity. LPG stoves are distributed through direct sale/distribution and a variety of retail outlets across the country to end-users.

Target Group and Location

The primary target group of the activity is urban, peri-urban using non-renewable biomass with a conventional system with no improved combustion air supply or flue gas ventilation system, i.e. without a grate or a chimney, prior to receipt of an efficient cooking stove. The project will cover urban, peri-urban and/or rural areas across Nigeria.

Technology

The Carbon Project Activity may deploy different LPG stoves models designed and developed by BURN. The LPG stove is efficient, and the designs take into account the local cooking culture in the project area to ensure that improvements in technology and improved standards of living do not come at the expense of cultural traditions. The project may opt to distribute other stove models over time

¹ <http://www.who.int/mediacentre/factsheets/fs292/en/>



Implementation plan

The project is planned to commence in February 2026 with the distribution of 2 Burner LPG stoves. It is estimated that at least 20,000 improved cookstoves (ICS) will be distributed by the end of the first crediting period.

Carbon credits

Greenhouse gas (GHG) emission reductions achieved through saving of non-renewable biomass will result in carbon credits following certification rules and procedures.

The revenues from the sale of carbon credits help amongst others to

- a. Distribute more LPG stoves at a subsidized price to reach more households.
- b. Scale up and expand the programme, thus reaching a wider range of end-users and generating more jobs;
- c. Further invest in R&D to produce high quality stoves at lower cost;
- d. Provide a reliable after-sales service;
- e. Sensitize and raise awareness amongst end-users about the benefits and how to use the improved cookstoves

Contribution to Sustainable Development

Besides reducing GHG emission in line with the United Nations Sustainable Development Goal (SDG) number 13 ‘Climate Action’², this project will also seek to increase other long-term sustainability benefits for the local families as well as the local environment. Project activities under the PoA are expected to contribute to different Sustainable Development Goals (SDGs) in the following way:

- Households save time and money that would otherwise be spent collecting wood or purchasing less efficient fuels such as charcoal. The carbon credits generated by the project help subsidize the stoves, making them more affordable for end-users. These savings reduce household fuel expenses, contributing to SDG 1 (‘No Poverty’). Additionally, the time saved and improved health conditions enable women to pursue education, employment, and other opportunities, supporting SDG 5 (‘Gender Equality’).
- LPG stoves significantly reduce smoke and harmful fine particulate matter, improving the health of women and girls who spend the most time preparing meals. By eliminating harmful carbon monoxide and particulate emissions during household cooking, indoor air quality is greatly improved, reducing respiratory illnesses, headaches, and eye irritation. This contributes to SDG 3 (‘Good Health and Well-being’) and SDG 5 (‘Gender Equality’).
- Increased access to clean and reliable cooking technologies - The project aligns with global sustainable development goals by providing access to affordable, reliable, and modern energy (in line with SDG 7 ‘Affordable and Clean Energy’) and raising awareness of the related safety, economic, and environmental benefits (in line with SDG 4 ‘Quality Education’).
- ECOA manufactures its cookstoves in a state-of-art facility located in Kenya, thus generating hundreds of jobs on the African continent. Other jobs are created for sales, marketing, distribution and monitoring staff in Nigeria. Continuous training results in permanent knowledge transfer to local people. ECOA may open in future additional factories or assembly lines across the continent depending on the demand (in line with SDGs 1 ‘No Poverty’ and 8 ‘Decent Work and Economic Growth’). Households can save time and money that would otherwise be spent on collecting wood or purchasing less efficient fuels. The carbon credits generated by the project provide a source of funding to make the stoves more affordable or even free for the end-users.
- By switching to more efficient, safe and cleaner cooking appliances, the project reduces greenhouse gas (GHG) emissions compared to burning non-renewable biomass. It also helps reduce the demand for firewood, which can prevent deforestation. This will contribute to the overall stability of forest ecosystems which support biodiversity, watersheds and soil conditions (in line with SDG 15 ‘Life on Land’).

Economic, social and environmental impacts of the project as per Safeguarding Principles & Requirements

Safeguarding Principle	Assessment
Human Rights	The project aligns with internationally recognised human rights standards and is not complicit in violence or human rights abuses of any kind, as defined by the Universal Declaration of Human Rights. It upholds principles of non-discrimination and ensures inclusive and equitable participation for all.
Gender Equality and Women's Rights	The project promotes gender equity and inclusion. It recognizes and integrates gender roles and the respective capacities of women and men in the design and decision-making processes of the project. Both women (including women's associations) and men will be actively invited to stakeholder consultations, ensuring balanced and representative participation at local, in-person consultation meetings.
Community Health, Safety and Working Conditions	The project is designed to safeguard community and worker wellbeing, with measures in place to protect health and ensure positive outcomes for both workers and the wider community.
Cultural Heritage, Indigenous Peoples, Displacement and Resettlement	The project activity respects cultural heritage and indigenous communities and is designed to operate without causing displacement or resettlement of people.
Corruption	The project upholds the highest standards of integrity and transparency and does not involve, contribute to, or reinforce corruption in any form.
Economic Impacts	The project upholds all labour rights and is designed to deliver positive economic outcomes. It is expected to contribute to sustainable economic growth and shared prosperity.
Climate and Energy	The project will deliver verified reductions in greenhouse gas emissions, monitored and validated in accordance with applicable carbon standard requirements.
Water	The project is designed to preserve natural water patterns and flows and will operate without causing erosion or instability in water bodies.
Environment, ecology and land use	The project safeguards the environment and ecology and does not require land or soil for crop or product production. The introduction of improved, more efficient cookstoves significantly reduces the release of particulate matter and carbon monoxide.

TAKAITACCEN BAYANI MARAR FASAHAR GAGGAWA
AIKIN PROJEKTIN HAYAKI (CARBON) A JIHAR NIGERIA,
“Modern Clean Cooking for households in Nigeria”

Gabatarwa

A yawancin kasashen nahiyar Afirka, girki ana yi ne da wuta ta duwatsu uku ko kuma da murhunanku gargajiya marasa inganci, waɗanda ke cin tarin itace, musamman itacen da ba ya sake sabuntawa da gawayi. Yawan amfani da biomass yana shafar muhalli ta hanyar haifar da sare-saren daji da lalacewar kasa, hayakin Greenhouse Gas (GHGs), raguwar karfin kasar noma da rage ikon kasa rike danshi. Bugu da kari, gurbacewar iska a cikin gida sakamakon hayakin da ke fita daga gawayi da itace na haifar da cututtuka irin su ciwon huhu (pneumonia), bugun jini (stroke), cututtukan zuciya, COPD, da cutar daji ta huhu.

Manufa da Fasahar Ayyukan Aikin Carbon

Manufar wannan aikin ita ce yada ingantattun murhun girki na LPG (ICS musamman ga gidajen birane da kauyukan karkara masu kusa) a Najeriya. Aikin canjin mai yana nufin maye gurbin murhunanku gargajiya (gawayi da itace) da murhunanku zamani da ke amfani da man LPG, wanda yake da karfin makamashi mai yawa kuma yana aiki da na'urori masu ingantaccen konewa, ingantaccen watsin zafi da sauƙin sarrafa zafi.

Hayaki iri daban-daban (GHG), ciki har da carbon dioxide, na fitowa daga rashin cikakken konewar biomass a murhunanku girki na gargajiya. Karin hayakin GHG na fitowa daga biomass din da ba ya sabuntawa. Murhunanku LPG sun fi tsafata kuma sun fi inganci idan aka kwatanta da murhunanku gargajiya, domin suna rage yawan itacen da ake amfani da shi (itace da gawayi) da kuma rage hayakin GHG.

Ta amfani da murhun LPG, masu amfani suna mika dukkan hakkin carbon credits ga kamfanin ECOA Climate Capital, wanda shi ne wakilin aikin tare da aiwatar da shi.

Ana rarraba murhunanku LPG ta hanyar kai tsaye ko kuma ta shagunan sayarwa iri-iri a fadin kasar zuwa ga masu amfani na karshe.

Kungiyar Manufofi da Wuri

Kungiyar da ake niyya a wannan aiki su ne mutanen birane da kewayen birane (peri-urban) da ke amfani da man itace ko biomass mara sabuntawa tare da tsafaffin murhunanku girki waɗanda ba su da ingantaccen tsarin shigar da iska ko fitar da hayaki wato ba su da grate ko bututun hayaki kafin su karɓi ingantaccen murhun girki. Aikin na iya rufe birane, kewayen birane (peri-urban), da kuma yankunan karkara a fadin Najeriya.

Fasaha

Wannan VPA na iya yada nau'ukan murhun girki na LPG daban-daban da ECOA ta kera kuma ta haɓaka. Murhun LPG yana da inganci, kuma an tsara shi ne bisa la'akari da al'adar girki ta yankin da aikin zai gudana, domin tabbatar da cewa cigaban fasaha da kara ingancin rayuwa ba su tauye al'adun gargajiya ba. Aikin na iya zaɓar yada wasu sabbin nau'ukan murhuna a nan gaba.



Tsarin Aiwan Aiki

Aikin ana shirin farawa a watan Fabrairu 2026 tare da rarraba murhunan LPG. Ana hasashen cewa akalla murhuna 20,000 (ICS) za a rarraba kafin karshen zangon farkon samun carbon credit.

Carbon Credits

Raguwar hayakin Greenhouse Gas (GHG) da za a samu ta hanyar rage amfani da biomass mara sabuntawa za ta samar da carbon credits bisa ka'idoji da tsarin takardar shaidar da aka tanada. Kudin da ake samu daga sayar da carbon credits zai taimaka, cikin sauran abubuwa, wajen:

- Rarraba murhunan LPG a farashi mai sauki, wanda za a tallafa domin ya kasance mai araha ga masu amfani;
- Fadada shirin da kara yawan jama'ar da zai kai wa, wanda hakan zai samar da karin ayyukan yi;
- Ci gaba da saka hannun jari a bincike da ci gaba (R&D) don samar da murhuna masu inganci a kananan farashi;
- Samar da ingantaccen sabis bayan sayarwa;
- Wayar da kai da ilmantar da masu amfani game da amfanin murhunan zamani da yadda ake amfani da su yadda ya kamata.

Gudunmawa ga Ci Gaban Dorewa

Baya ga rage fitar da hayaki mai dumama yanayi (GHG) da ya dace da Manufar Cigaban Dorewa ta Majalisar Dinkin Duniya (SDG) ta 13 – *Aikin Kare Yanayi*, wannan aikin kuma yana neman kara wasu fa'idodin dorewa na dogon lokaci ga iyalai da kuma muhalli na yankin. Ayyukan da za a gudanar karkashin PoA za su taimaka wajen cimma wasu manufofin SDGs kamar haka:

- Gidaje za su iya ajiye kudi da lokaci wanda a da ake kashewa wajen tattara itace ko sayen man girki maras inganci kamar gawayi. Carbon credits da aikin ke samarwa za su ba da kudade don rage farashin murhuna ga masu amfani. Rage kudin da ake biya wajen sayen man girki yana da alaƙa da SDG 1 – *Kawar da Talauci*. Lokacin da mata ke tsira daga tattara itace da kuma ingantawar lafiyarsu zai ba su damar samun lokaci don ilimi, aiki, ko wasu ayyuka (SDG 5 – *Daidaiton Jinsi*).
- Murhun LPG suna rage hayaki da kwayoyin datti masu cutarwa, wanda hakan zai inganta lafiyar mata da yara waɗanda su ke kusa da murhu akai-akai. Rashin hayakin carbon monoxide da kwayoyin hayaki a cikin gida zai rage gurbacewar iska a cikin gida, kuma zai rage yaduwar cututtukan numfashi, ciwon kai, da kaikayin ido, musamman ga mata da yara (SDG 3 – *Lafiya da Jin Dadi* da SDG 5 – *Daidaiton Jinsi*).
- Aikin yana kara yawan amfani da fasahar girki ta zamani mai tsafta da aminci. Wannan ya yi daidai da SDG 7 – *Tsaftataccen Makamashi Mai Araha*, kuma yana kara wayar da kai game da amfanin tsaro, tattalin arziki, da muhalli da ya shafi amfani da irin wannan fasaha (SDG 4 – *Ingilicce Mai Inganci*).
- ECOA na kera murhun girkinta a masana'antar da ke Kenya, wanda ya samar da daruruwan ayyukan yi a nahiyar Afirka. Ayyuka kuma suna karuwa a sashin tallace-tallace, rarrabawa, da sa ido a Najeriya. Horaswa na yau da kullum yana tabbatar da canjin ilimi ga mutanen yankin. ECOA na iya buɗe karin masana'antun ko layukan taro a nan gaba bisa bukata (SDG 1 – *Kawar da Talauci* da SDG 8 – *Aiki Mai Inganci da Ci Gaban Tattalin Arziki*). Haka kuma gidaje za su ci gaba da ajiye lokaci da kudi daga rage amfani da itace ko man girki mara inganci.
- Ta hanyar canzawa zuwa man girki mafi tsabta da inganci, aikin yana rage hayakin GHG idan aka kwatanta da kona biomass mara sabuntawa. Hakan kuma yana rage bukatar itacen girki, wanda ke kare dazuzzuka daga sare-sare. Wannan zai inganta dawwamar muhallin dazuzzuka, wanda ke tallafawa nau'o'in halittu, kiyaye koguna, da ingancin kasa (SDG 15 – *Rayuwa a Kasa*).

Tasirin Tattalin Arziki, Zamantakewa da Muhalli na Aikin bisa Ka'idojin Kare Mutane & Bukatu

Ka'idar Kariya	Kimantawa
'Yancin Dan Adam	Aikin yana mutunta dukkan 'yancin dan adam da aka sanar a matakin duniya, kuma baya da hannu a kowace irin tashin hankali ko take hakkin dan adam kamar yadda aka tanada a <i>Universal Declaration of Human Rights</i> . Aikin ba zai nuna wariyar launin fata, jinsi, addini ko kowane nau'i ba dangane da halartar jama'a ko shigarsu cikin shirin.
Daidaici Tsakanin Jinsi da 'Yancin Mata	Aikin ba ya goyon bayan kowace irin wariyar jinsi. Za a tabbatar an yi la'akari da rawar mata da maza da kuma damar su wajen shiga cikin yanke shawara da tsara ayyukan aikin. Za a tabbatar cewa mata/Kungiyoyin mata da maza an gayyace su duka wajen taron masu ruwa da tsaki domin tabbatar da wakilcin jinsi biyu a taron shawarwari na cikin al'umma.
Lafiyar Al'umma, Tsaro da Yanayin Aiki	Aikin ba zai jefa al'umma cikin karin haɗarin lafiya ba, kuma ba zai haifar da wata illa ga lafiyar ma'aikata ko al'umma gaba ɗaya ba.
Gadon Al'adu, Mutanen Asali, Korar Jama'a ko Sauya Musulunci	Aikin ba zai haifar da wani tasiri mara kyau ga gadon al'adu ko mutanen asali ba, kuma ba zai kori jama'a ko tilasta musu sauya matsuguni ba.
Rashin Cin Hanci da Rashawa	Aikin ba ya haɗawa, tallafawa ko taimakawa ta kowace hanya ayyukan cin hanci da rashawa, kai tsaye ko kaikaice.
Tasirin Tattalin Arziki	Aikin zai mutunta dukkan haɓkƙoƙin ma'aikata. Ba a sa ran wani mummunan tasirin tattalin arziki zai taso daga aiwatar da aikin. Akasin haka, ana sa ran aikin zai tallafa wa ci gaban tattalin arziki mai dorewa.
Yanayi da Makamashi	Aikin zai rage fitar da hayakin GHG, kuma za a rika sa ido da tantance hakan gwargwadon ka'idojin ka'idar carbon.
Ruwa	Aikin ba zai canza al'adar tafiyar ruwa ko hanyoyin cikin ruwa na dabi'a ba, kuma ba zai haifar da karin rugujewar kasa ko lalacewar narunguwan ruwa ba.
Muhalli, Halittu da Amfani da Kasa	Aikin ba zai haifar da wata illa ga muhalli ko halittu ba, kuma ba ya amfani da kasa wajen noma ko samar da wasu kayayyaki. Sabbin murhunanku girki masu inganci za su rage fitar da kwayoyin hayaki da carbon monoxide sosai.