# African Carbon Credit Showcase – 2023

Showcasing African carbon credit projects

AFRICA CARBON MARKETS Initiative

Version of 2023-08-23

# Disclaimer

ACMI is a charitable initiative that aims to promote the public good by facilitating the visibility, transparency and accessibility of carbon credit projects that align with ACMI's integrity and quality standards.

ACMI builds on, supplements and reinforces ongoing efforts aimed at scaling carbon markets in Africa and does not compete with any existing initiative.

ACMI does not serve as an intermediary matching parties for the purpose of concluding sales or commercial transactions. The showcase solely acts as a visibility tool for carbon credit project developers who have voluntarily signed up to produce credits in accordance with the integrity and quality principles set forth by ACMI. ACMI does not mediate, control, or participate in engagements between buyers and sellers that may occur after reviewing the showcase. Any subsequent interactions between the parties are entirely outside the scope and mandate of ACMI as the showcase issuer.

ACMI does not derive any commercial benefit from any entity committing to the integrity and quality principles or operating within the ACMI ecosystem. Its sponsors, partners and steering committee members agree to disclose any potential direct benefits and recuse themselves from any efforts that could directly benefit themselves or their organizations.

ACMI is not responsible for the accuracy, completeness, or reliability of the information provided by project developers when submitting their projects to the showcase. Each project developer is solely responsible for the content and accuracy of the information they provide.

# Together, we can accelerate Africa's environmental transition through high-quality carbon markets

Africa's exposure to physical risks from global temperature rise demands urgent action. Among the obstacles faced on the continent, the task of financing and managing the necessary economic transformation to curb greenhouse gas emissions and safeguard nature is becoming increasingly important.

Carbon markets present a great opportunity to reduce emissions and provide a beacon of hope for the continent's green energy transition; all the while accelerating economic development in Africa. There is much gain to be gotten from carbon markets in Africa, and seizing this grand opportunity will take deliberate action.

Global demand for carbon credits has surged in recent years, enabling and promoting environment-friendly actions. African carbon credit supply and demand are also on the rise, albeit from a modest base. Yet, Africa currently generates only a fraction of its potential credits.

The Africa Carbon Markets Initiative (ACMI) is a trailblazing program, launched at the COP27 summit in Egypt, to support Africa in reaching its full potential. Supported by organizations committed to protecting the environment, affordable clean energy for all, and sustainable development, ACMI aims to amplify African carbon credit production dramatically.

Specifically, this African Carbon Credit Showcase stands as a testament to Africa's rising potential in carbon credits creation. Its aim is to promote a greater awareness of the diverse array of African-based high-integrity carbon credits, covering many nations of our vast continent.

With your support, feedback, and engagement, this showcase aims at becoming a catalyst for progress. Let us embark on this transformative journey and create a future where Africa leads the way in carbon markets, as a powerful means towards global commitments to net-zero targets.

**Paul Muthaura**
Interim CEO
African Carbon Market Initiative (ACMI)

**Damilola Ogunbiyi**
CEO, Sustainable Energy for All
Special Representative, the UN Secretary-General for Sustainable Energy for All
Co-Chair, UN-Energy

**Joseph Nganga**
Vice President Africa,
Global Energy Alliance for People and Planet

**William Asiko**
Vice President
Africa Regional Office, The Rockefeller Foundation

# Executive summary


## Introduction

Understanding the context of Carbon Markets in Africa, the role of the African Carbon Market initiative (ACMI) in this landscape, as well as the aim and the nature of the African Carbon Credit Showcase


## Presentation of projects

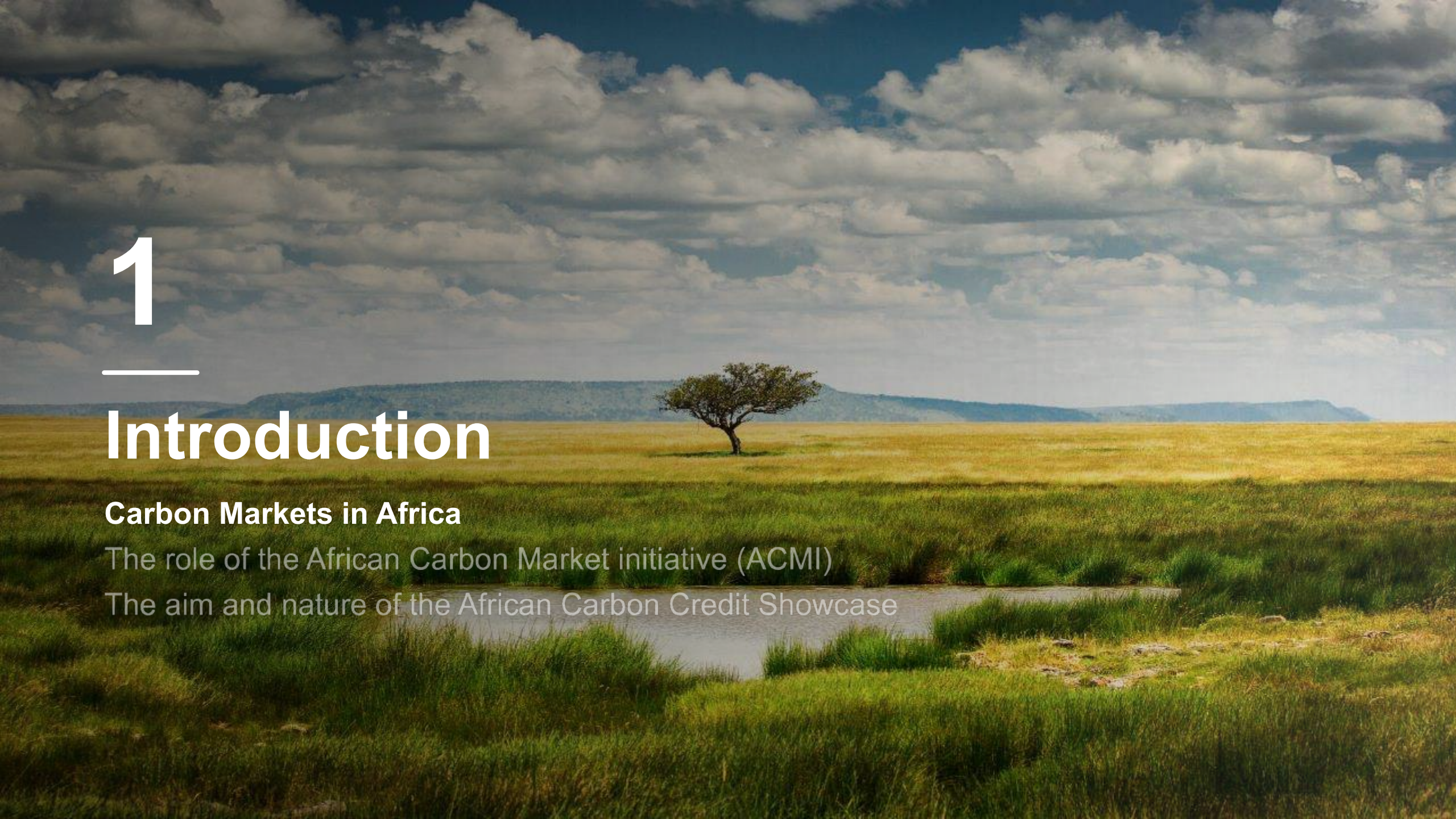
Presentation of the projects generating carbon credits based in Africa, and organized in 3 sections:

- Project validated against an ICROA-endorsed independent standard
- Projects not yet validated against an ICROA-endorsed independent standard
- Projects designed against new or emerging methodologies


## Appendix

Additional information related to the showcase, such as:

- ACMI integrity principles
- Glossary
- FAQs



# 1

# Introduction

**Carbon Markets in Africa**

The role of the African Carbon Market initiative (ACMI)

The aim and nature of the African Carbon Credit Showcase

# What are carbon credits?

A carbon credit represents an **equivalent of one metric ton of carbon dioxide** that has either **been prevented from being emitted** into the atmosphere **or removed** from the atmosphere through a project that generates these credits

The purchase of carbon credits by governments, companies, and individuals, is a **powerful means to facilitate net zero goals through the reduction and/or removal of carbon**

**High-quality carbon credits** are **certified** to a reputable standard by an independent third-party **to verify that their impact is real, additional, permanent, measurable / verifiable**, does not cause harm, and does not lead to emissions elsewhere

# Why are they important to protect the African environment?

## Accelerate the transition to a low-carbon economy

- **Carbon pricing** (e.g., emissions trading schemes, carbon taxes) creates an incentive for companies to reduce emissions
- **Carbon avoidance projects** (e.g., avoided deforestation, renewable energy) can be funded through the sale of carbon credits for compensating / offsetting emissions

## Provide support for emissions reduction or carbon removal projects

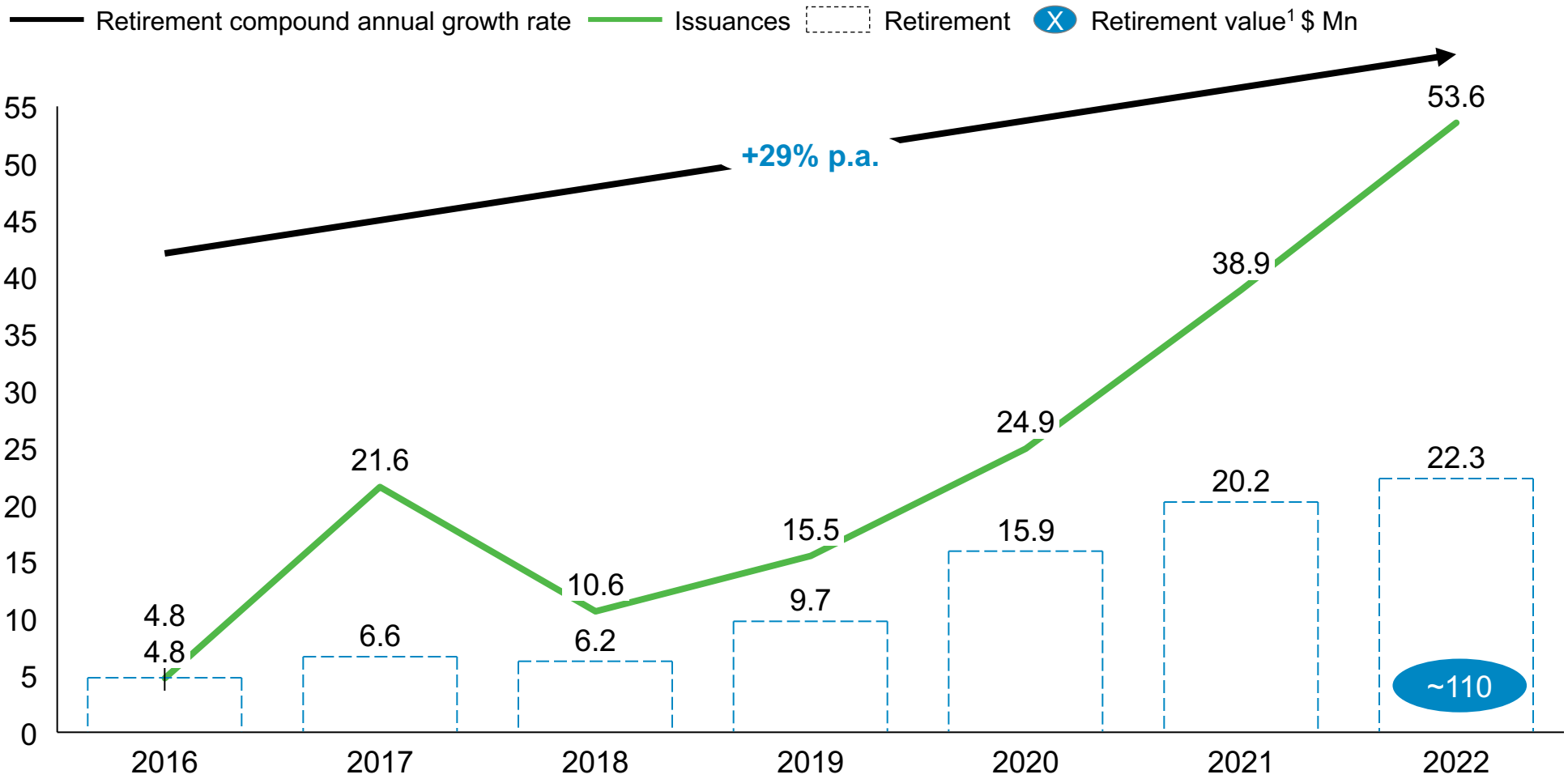
- **Carbon removal projects** – whether nature-based or technology-based– can be funded through the sale of carbon credits for use by corporates towards net-zero targets

## In addition, carbon credit projects also support:

- **Climate adaptation** (e.g., mangrove restoration enhancing coastal resilience)
- **Tackling other environmental crises** (e.g., nature-based carbon projects contributing to halt and reverse biodiversity loss)
- **Broader sustainable development** (e.g., health impact of clean cookstove projects)

# Carbon markets in Africa are growing steadily…

## Estimate of African carbon credits issued and retired (MtCO2e)




1. Retirement value is calculated as the African retired volume in that year multiplied by the average price of Africa-sourced credits in that year (regardless of vintage)

Source: Retirement and issuance volumes from McKinsey Vivid Economics Carbon Credit Database (Data from VCS, GS, CAR, ACR, and Plan Vivo market registries at the end of August 2022); average global price of African carbon credits from Ecosystem Marketplace (2016 is $4.1, 2017 is $5.3, 2018 is $4.3, 2019 is $3.9, 2020 is $4.2 and 2021 is $5.5 (to August), 2022 ~$5 (average of CORSIA eligible price globally, World Bank, State and Trends in Carbon Pricing, 2023)

# Achieving net-zero emissions by 2050 is within reach – carbon markets are part of Africa's climate solution

African carbon markets harbor the ability to achieve sustainable economic and social development

Carbon markets provide a sustainable means for a green energy transition in Africa

Africa offers a huge untapped potential and a remarkable expected future trajectory for high-quality carbon credits

African carbon markets host benefits that are linked to numerous Sustainable Development Goals (SDGs)

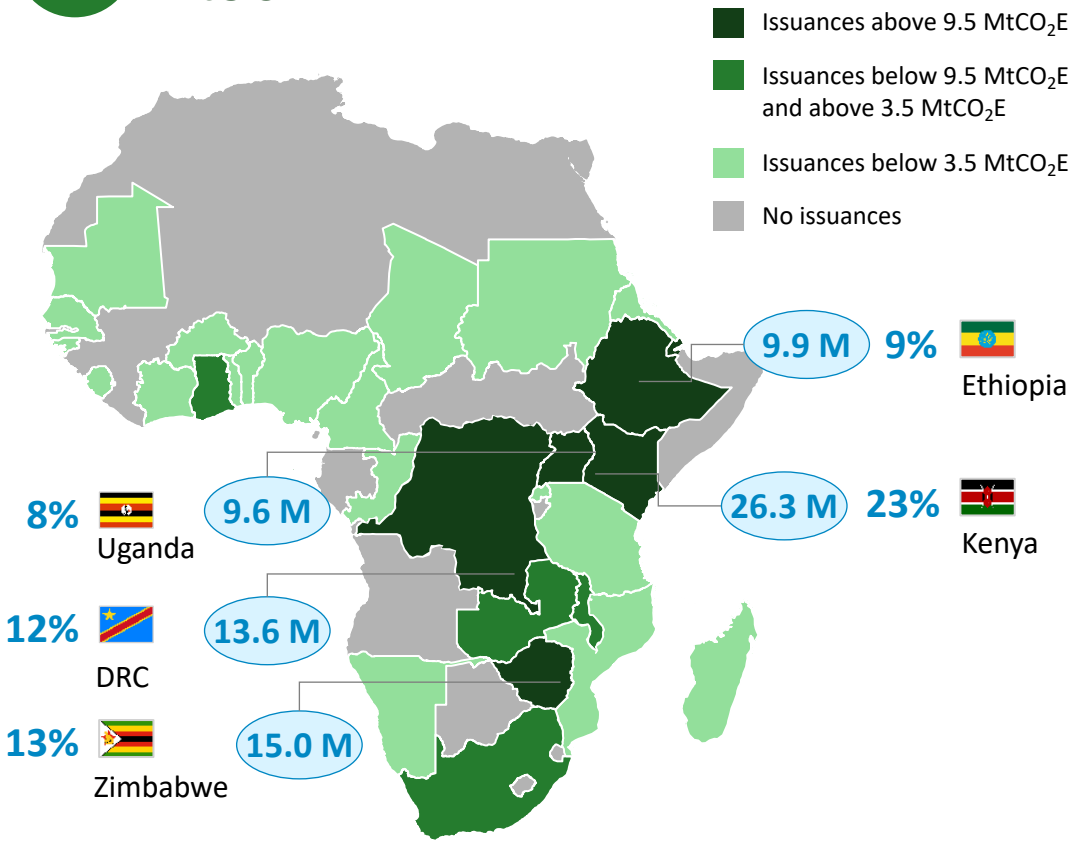
ACMI is working collaboratively with its global, regional, and national partners to ensure the generation of high integrity African carbon credits

The showcase aims to promote a greater awareness of the potential of African carbon credits to help the global community achieve net-zero by 2050

# Africa has huge untapped potential for carbon markets

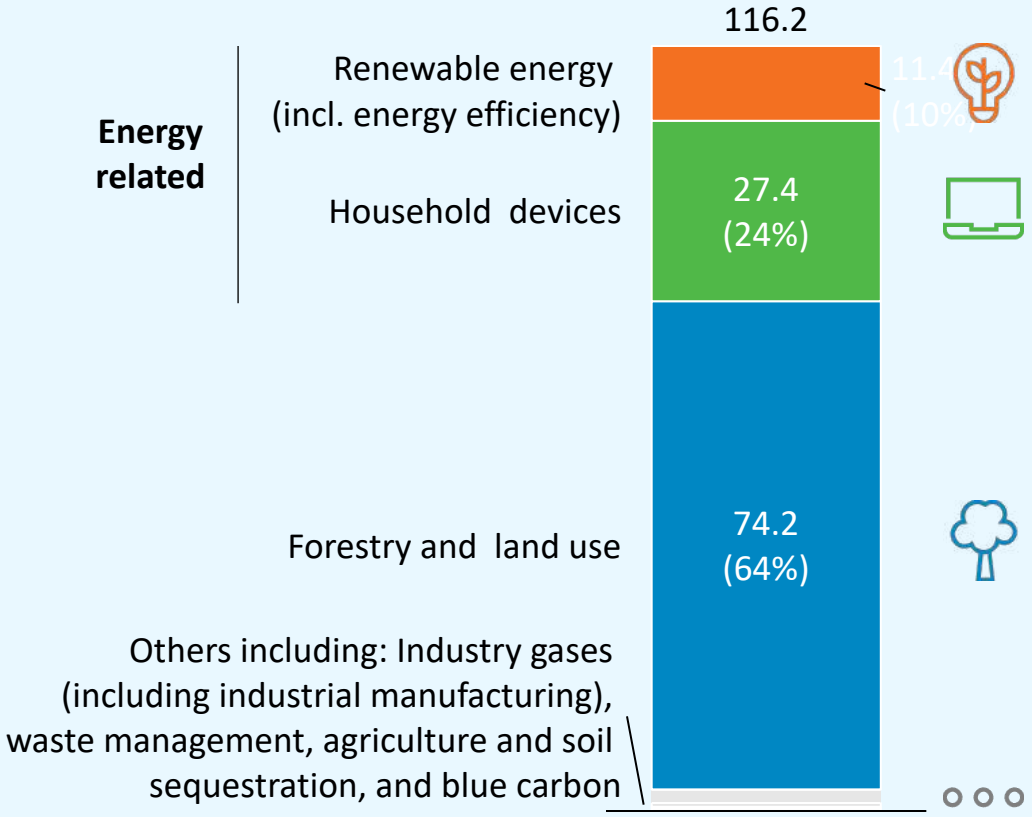
5 countries account for ~65% of carbon credit issuances with over 70% of projects in forestry/land use

## 2016-21 credit issuances by country, MtCO2E




*No evidence of transportation or engineering carbon dioxide removal projects*

## 2016-21 credit issuances by sector, MtCO2e




Source: Vivid Economics carbon credit database including data from Verra, Gold Standard, and Plan Vivo registries

# Supporting Africa's growth in Health, Poverty Reduction, Gender Equality, Clean Air, Sustainable Farming, and Green Employment

## Nature

**Forestry and land use:** Africa hosts a quarter of global biodiversity that could benefit from **increased protection and community awareness**

## Farmers

**Agriculture & Soil sequestration:** Africa's farmers could be propelled to improve agricultural productivity, leading to **greater food security and rural development**

## City dwellers

**Renewable energy:** Africa could benefit from **reduced energy poverty** as well as **improved air quality** from decommissioning fossil fuel solutions

## Households

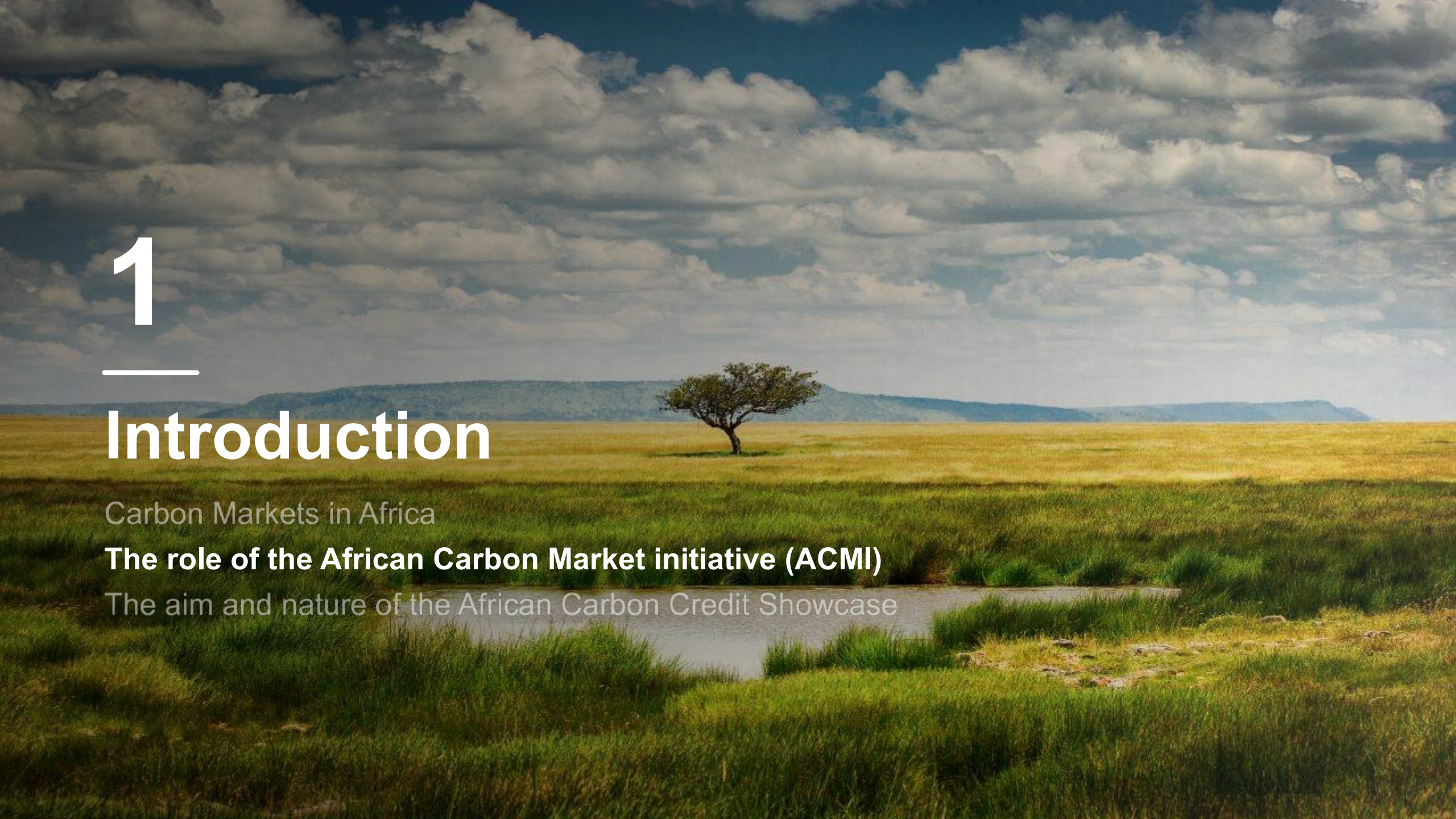
**Household Devices:** Africa could see **significant health benefits** from switching to clean cookstove solutions

## Pastoralists

**Livestock:** Africa's pastoralists could better **manage carbon sinks** as part of improved livestock management techniques

## Workers

**Green Employment:** Africa could benefit from **green job opportunities** to improve the livelihoods of low-income communities



# 1

# Introduction

Carbon Markets in Africa

**The role of the African Carbon Market initiative (ACMI)**

The aim and nature of the African Carbon Credit Showcase

# Presentation of the Africa Carbon Markets Initiative (ACMI)

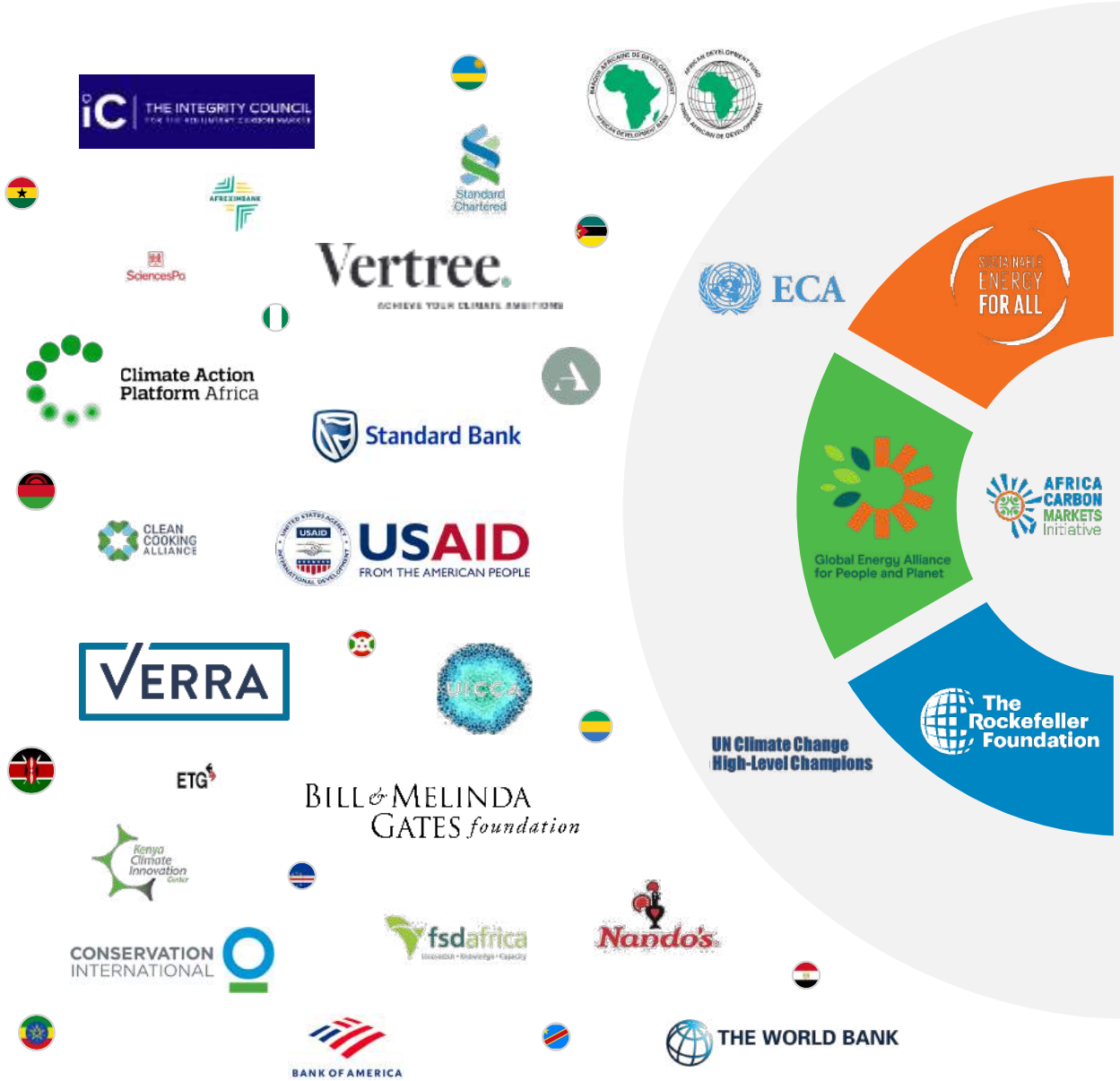
**ACMI is a collaborative effort** supported by Sustainable Energy for All, the Global Energy Alliance for People and Planet, and the Rockefeller Foundation and rolled out in partnership with UNECA and UN High-Level Champions

**Launched at COP27,** ACMI aims to derive communal impact and economic improvement from the expansion of Africa's participation in carbon markets. This in turn **boosts carbon reduction and clean energy production**

ACMI has published a ***Roadmap Report*** in November 2022, proposing 13 Action programmes to support the development of Carbon markets on the continent

**ACMI is led by a fifteen-member steering committee** of African leaders, CEOs, and carbon credit experts

# ACMI is a fruit of collaborative effort of several organizations…



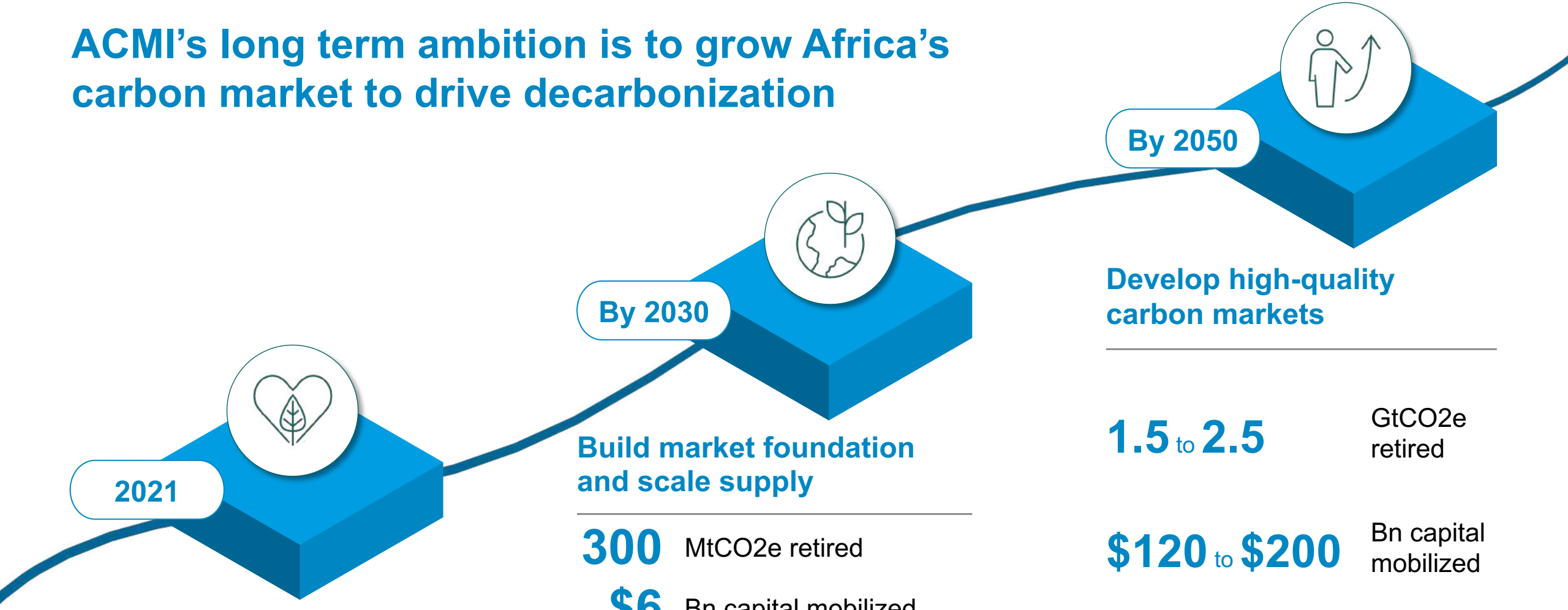

# …with ambition to dramatically scale up carbon markets in Africa

## ACMI's objectives

**Create, amplify and sustain** the generation of high-integrity carbon credits in Africa

Drive decarbonization activities and economic development of vulnerable communities by supporting energy access, scaling the clean energy transition, protecting forests, improving agriculture, and creating new income sources

# ACMI's long term ambition is to grow Africa's carbon market to drive decarbonization




**22** MtCO2e retired

## Build market foundation and scale supply

**300** MtCO2e retired

**$6** Bn capital mobilized

**30** Mn jobs created &supported

## Develop high-quality carbon markets

**1.5** to **2.5** GtCO2e retired

**$120** to **$200** Bn capital mobilized

**110** to **190** Mn jobs created & supported

Ensure **equitable and transparent** distribution of carbon credit revenue, with a significant portion of the revenue is going to **communities**

Source: CAP-A nature-based climate change mitigation model, TSVCM, Bloomberg, Reuters, McKinsey Vivid Economics, Mckinsey MGI Economic Research, International Labour Organization (ILO), Global Trade Analysis Project (GTAP)

# ACMI has achieved great results over the past year (1/2)

**20+**
countries

In the pipeline for developing carbon market activation plan, helping governments formulate market policy

KEN NGA RWA MOZ
MWI BDI GAB DRC
GHA CPV EGY ETH

**90+**
projects

Displayed in the first edition of the African Carbon Credit showcase, outlining a sample of Africa's carbon credits generation potential


**650**
million USD

Secured as part of the ACMI's Advance Market Signal, showing global demand for African carbon credits

Vertree · Nando's · ETG · UICCA · Standard Chartered

**1**
standard

interested in working with ACMI on an accelerated timeline to develop a new diesel decommissioning methodology

Gold Standard
Climate Security & Sustainable Development

# ACMI has achieved great results over the past year (2/2)

**200** million USD

of investment committed to scale carbon project development in Africa, signaling investor confidence

**5+** organi-zations

looking to collaborate with ACMI in implementing an IP&LC training programme

**4** accele-rators

identified to partner with ACMI in the accelerator programme, catalyzing project development

**100+** million USD

worth of carbon credits aimed to be transacted as part of a high-integrity auction at COP 28

Climate Asset® Management

IC THE INTEGRITY COUNCIL FOR THE VOLUNTARY CARBON MARKET

Landesa Rural Development Institute

West Africa Alliance On Carbon Markets And Climate Finance

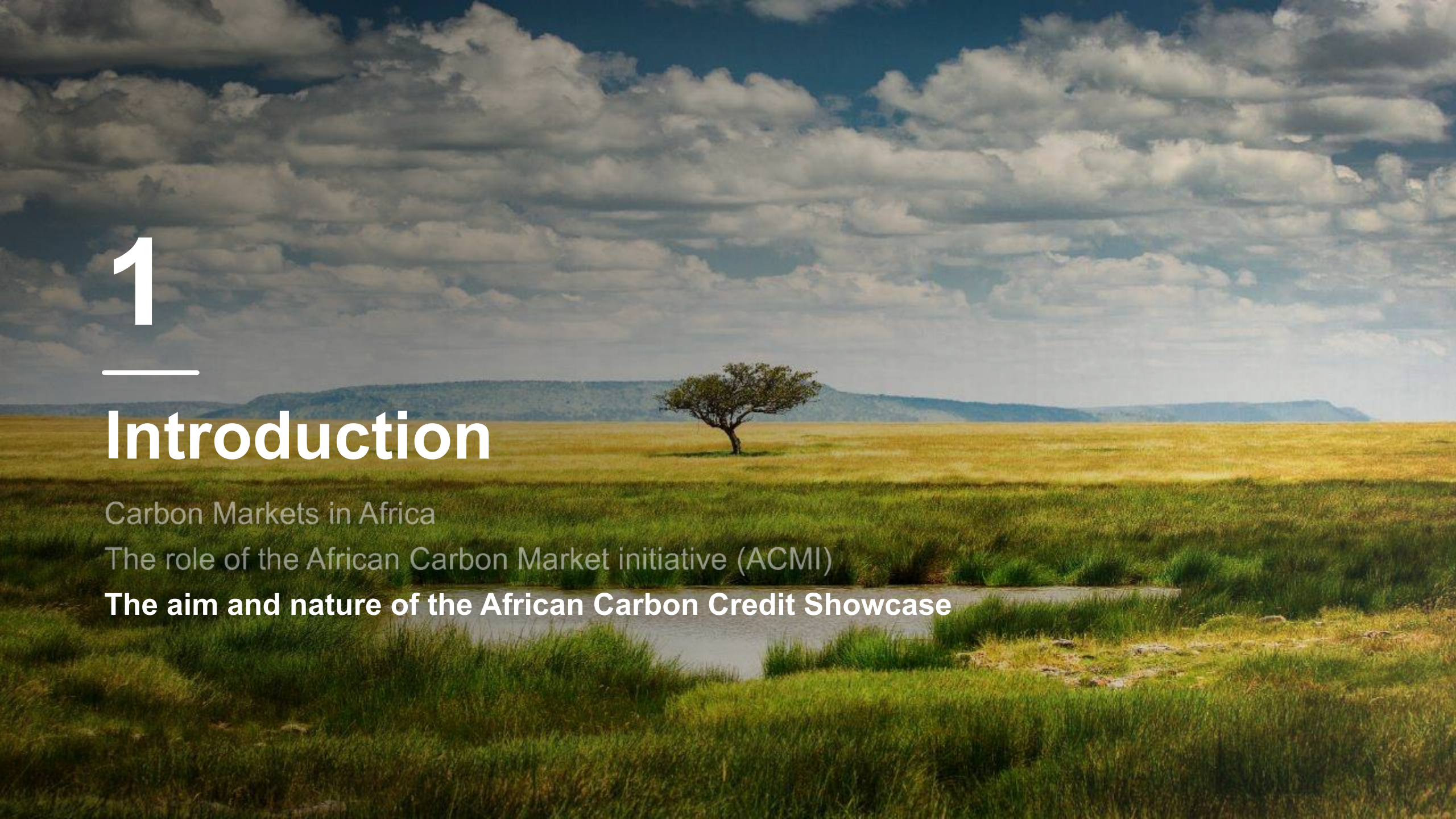
NATURAL STATE

CATALYST FUND

Green Biz

CLEAN COOKING ALLIANCE

AFRICA FOREST CARBON CATALYST The Nature Conservancy



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Carbon Markets in Africa

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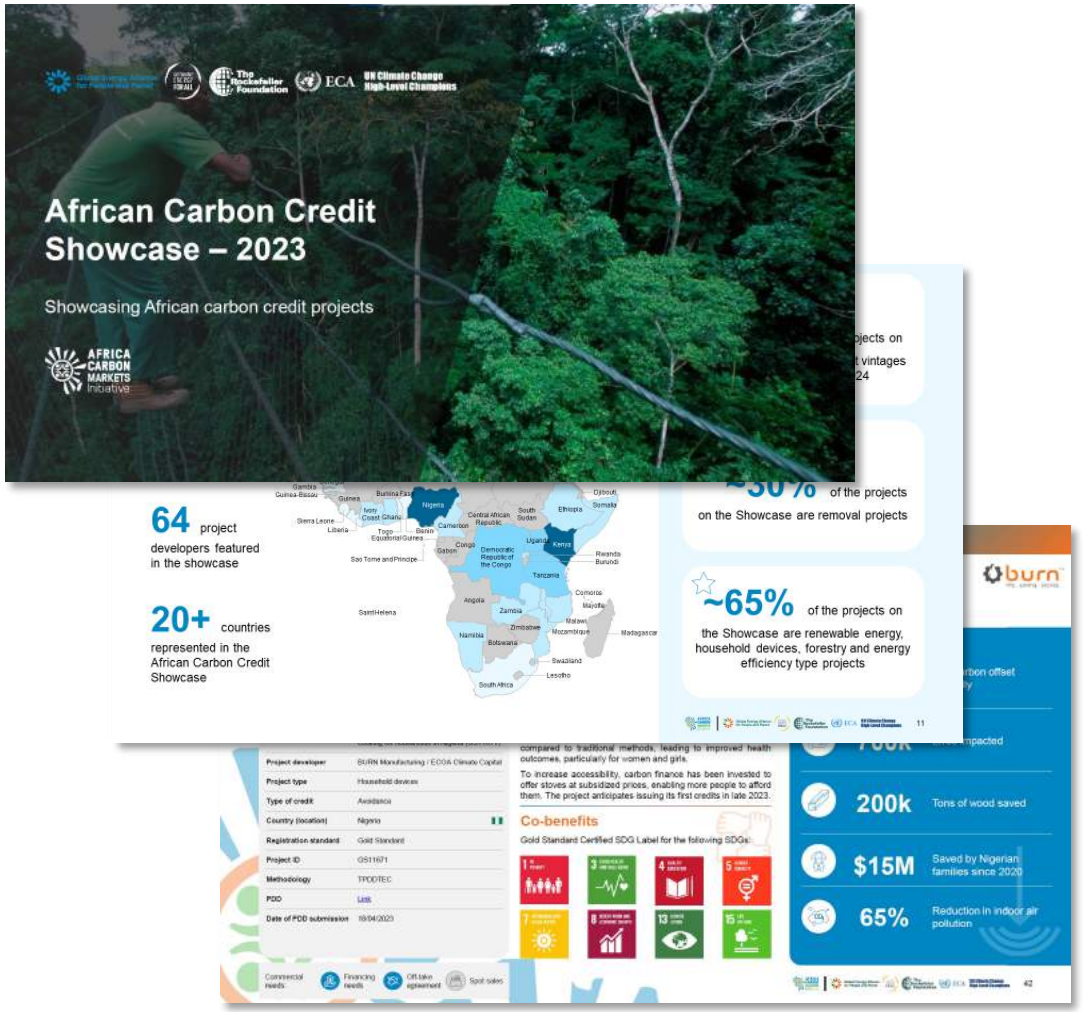
**The aim and nature of the African Carbon Credit Showcase**

# The African Carbon Credit Showcase is an innovative effort that highlights the breadth and depth of African high-integrity supply




**Centralize an extensive and differentiated range of carbon credit projects** to showcase the breadth of African supply and encourage diversification

**Encourage development of new supply** by including and thus providing visibility for early-stage projects[1], future vintages, new or emerging methodologies

**Encourage deeper and more standardized information disclosure**, especially on benefits and share of revenues to local communities and asset-owners

**Drive transparency towards quality and integrity indicators** (i.e., ICVCM's CCP's)

# The Carbon Credit Showcase aims at addressing some issues that prevent carbon markets scaling in Africa

x Challenge addressed by the showcase

| Supply (Generation) and standards | Intermediation and financing | Demand |
|---|---|---|
| **a Limited number of project developers operating in Africa and low capacity of existing developers** | l High reliance on relationships, brokers and traders to bring supply to market | **r Concerns on the integrity of certain credit types** |
| b High capital intensity for project development | m High intermediation costs which reduces revenue share for suppliers | s Shifting and confusing demand trends that could impact common African carbon credit types |
| c Low economic viability for many projects (insufficient carbon credit revenues or high opportunity costs) | **n No standardized processes for rating/assessing important carbon credit benefits** | t Pricing may not accurately reflect the value of Africa carbon credits and their benefits |
| d Complex / unfavourable regulatory landscape | o High reliance on continuous cash flow for small project developers | **u Limited local demand (except for South Africa) across the credit ecosystem** |
| e Fragmented ownership of / access to credit generating assets | p Limited mechanisms to de-risk and enable investment in project development and supply | |
| f High degree of local relationships and/or community buy-in required to ensure project success | q High cost of capital for financing | |
| **g Distrust of project-based REDD+ opportunities vs. jurisdictional projects** | | |
| h Lower ease of doing business in some areas due to factors such as lack of infrastructure | | |
| i Methodologies not always relevant for Africa | | |
| j High cost and long lead times for certification, validation and verification | | |
| k Insufficient local verification/validation capacity including VVBs and local expertise | | |

| Value of the showcase | Challenge addressed |
|---|---|
| Centralize an extensive and differentiated range of carbon credit projects | l u |
| Support development of new supply | a l x |
| Encourage deeper and more standardized information disclosure | n r x |
| Drive transparency towards quality and integrity indicators | n r |

Source: Interviews and surveys with experts

# How to use the African Carbon Credit Showcase?

## If you wish to learn more about a project listed in the showcase

Contact the project developer using the contact information provided on the project's presentation

## If you have any questions and feedback on the showcase

Reach out to ACMI at info@africacarbonmarkets.org

# This African Carbon Credit Showcase is based on 3 main eligibility criteria

1

## Location

**Project based in Africa**

2

## Integrity

**Suppliers' self-certification of intent to respect ACMI's integrity principles**

3

## Project standard and stage

Section 1:

Project validated against **an ICROA-endorsed independent standard** (potential future publications will require ICVCM CCPs compliant)[1,3]

Section 2:

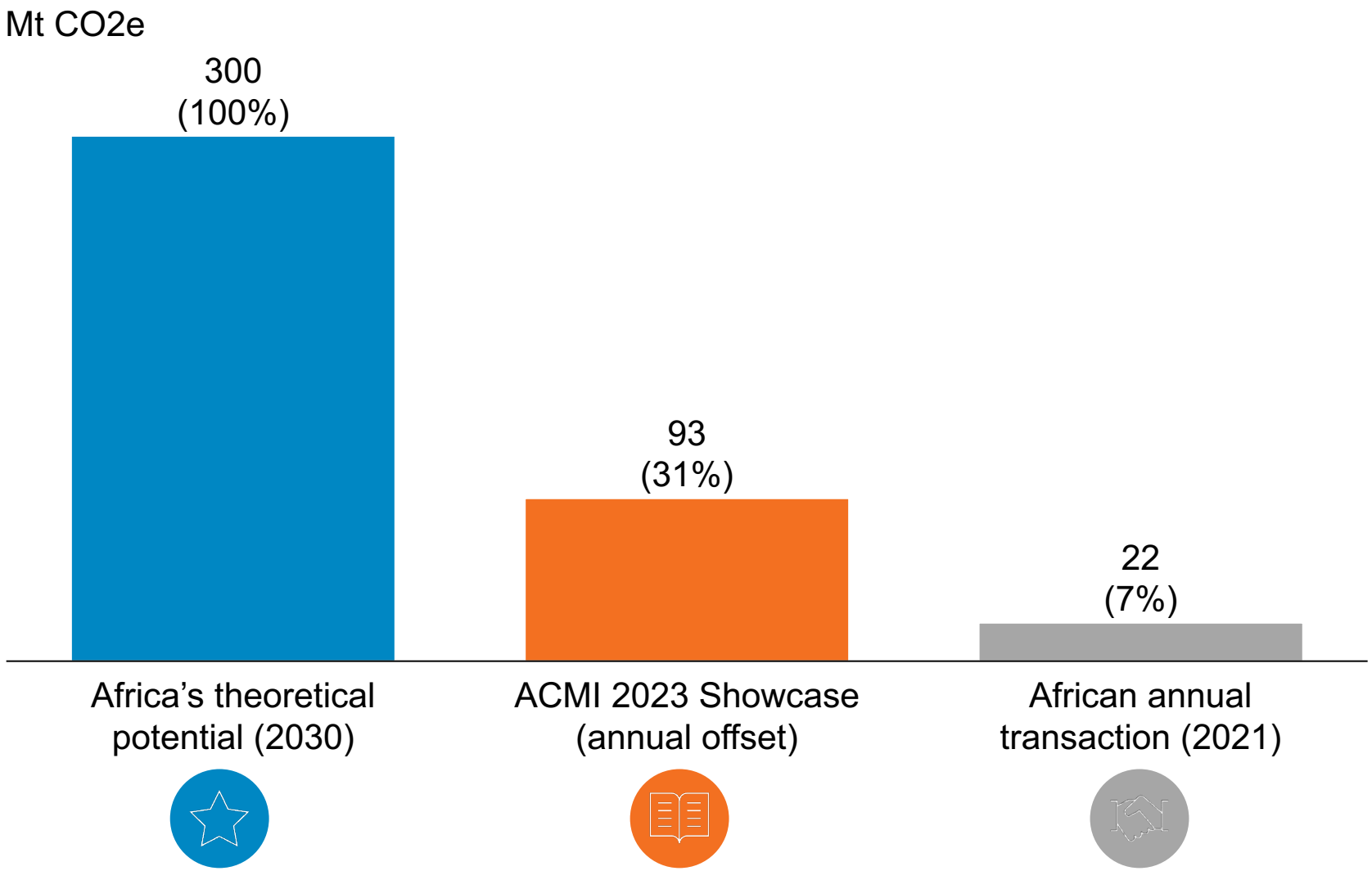
**Section 2: Projects not yet validated** against an ICROA-endorsed independent standard

Section 3:

**Projects designed against new or emerging methodologies**[2]

1. Independent standard endorsed by the International Carbon Reduction and Offset Alliance (ICROA); For potential future publications: standard compliant with the Integrity Council for Voluntary Carbon Market's Core Carbon Principles (ICVCM CCPs)
2. Projects must be developed under an ICVCM CCPs aligned crediting program by date of contract delivery
3. ACMI is not doing any validation by itself and relies on the information provided by the project developers

# The Carbon Credit Showcase is a small sample of the Africa's theoretical potential




Source: TSVCM outlook

**~93 Mn tCO2e**

Of annual offset covered by the African Carbon Credit Showcase

While the African Carbon Credit Showcase represents about **4x** of the yearly transaction amount done on the continent (2021), it only accounts for **~30%** of the theoretical potential of Africa

# 20+ countries are currently being represented in the African Carbon Credit Showcase

**101** project

featured in the African Carbon Credit Showcase

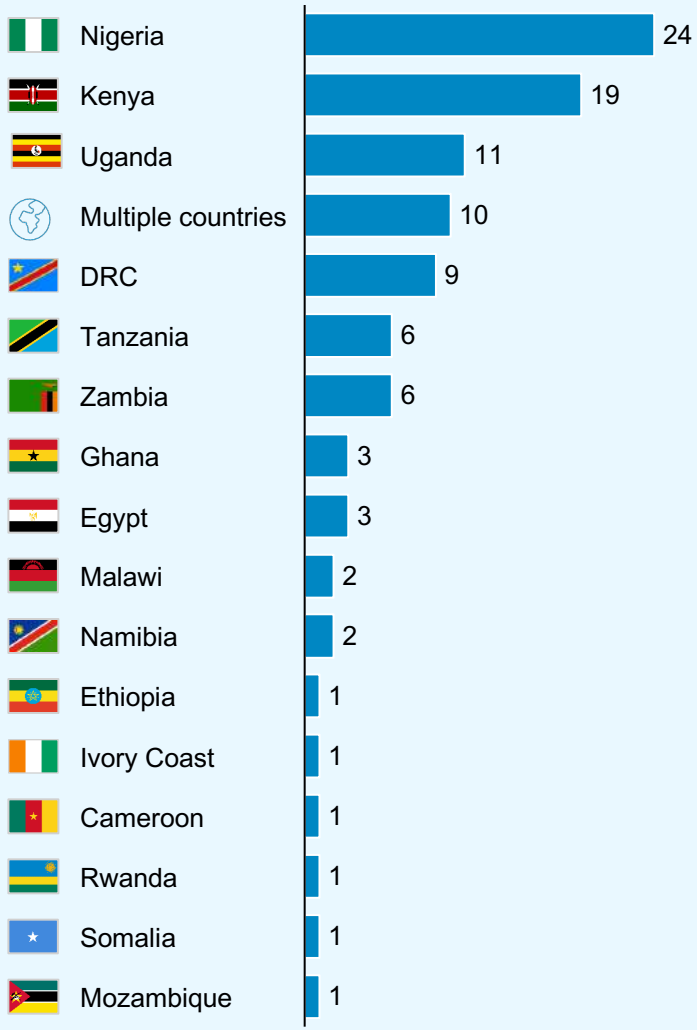
**66** project

developers featured in the showcase

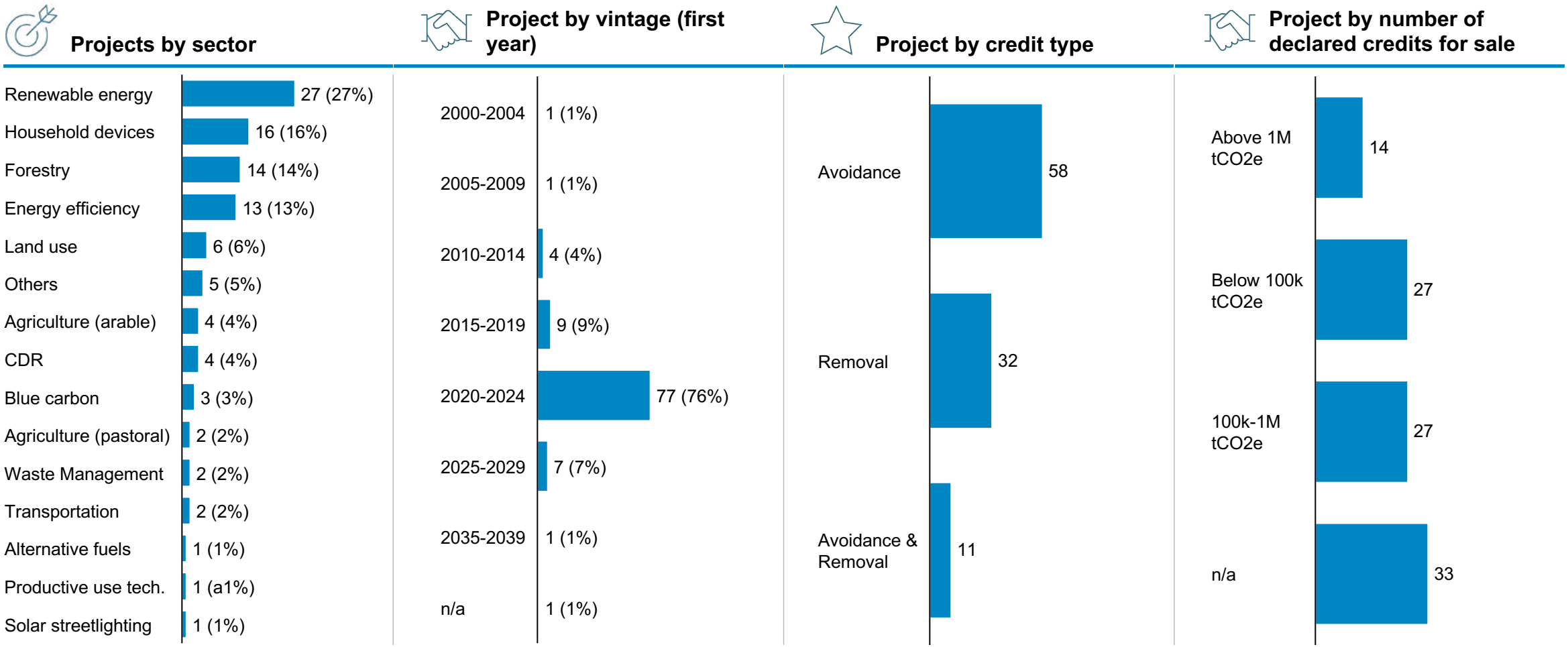
**20+** countries

represented in the African Carbon Credit Showcase


## Top countries by number of projects



# The African Carbon Credit Showcase offers insights on the breadth and richness of the African supply (1/2)



# The projects compiled in African Carbon Credit Showcase include significant benefits

**EXAMPLES**

## Direct jobs created

**300 youth**

will be trained to be solar panel installers by the switch solar project in Nigeria

**1051 jobs**

Will be created and protected cumulatively by Empower new energy in its 5 projects across Nigeria, Cameroon and Egypt

## Improved lives

**175K**

People will benefit from clean cooking from the African Clean Energy clean cooking project in Uganda

**50K**

people will have access to clean water from 250 connections made to houses by the Maji Safi Maisha bora project in Kenya

## Land conserved, protected or restored

**1M ha**

of degraded land restored by 2030 by 1MTN Uganda Bamboo Planting Project

**4M trees**

to be planted and 50k ha of community trees to be protected by Wezesha green micro-fund initiative in the DRC

Note: Information based solely on data provided by project developers

# 2

# Presentation of projects – 2023 edition

**Section 1: Project validated against an ICROA-endorsed independent standard**

Section 2: Projects not yet validated against an ICROA-endorsed independent standard

Section 3: Projects designed against new or emerging methodologies

# KOKO Kenya – KOKO Networks

Project overview

| | |
|---|---|
| **Project name** | KOKO Kenya |
| **Project developer** | KOKO Networks |
| **Project type** | Others |
| **Type of credit (avoidance/removal)** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Gold Standard |
| **Project ID** | 10884 |
| **Methodology** | AMS-I.E, Version 9.0 |
| **Validation body** | LGAI |
| **Date of PDD submission** | 27/01/2022 |
| **Independent rating** | - |
| **Independent rating agency** | - |

## Project description

Starting in Kenya, KOKO Fuel exists to tackle Africa's deforestation crisis by providing the world's most impoverished households with a healthier, more convenient and more affordable alternative to charcoal for cooking fuel – thereby replacing demand for charcoal.

By using existing infrastructure to transport and store liquids and through partnerships, KOKO Fuel delivers an ultra-clean cooking fuel that, for the first time, can compete with charcoal on price, convenience and usability.

With more than 950k customers across eight urban networks in Kenya, KOKO Fuel is one of the most recognized brands in Kenya today. It is enjoyed by families in more than 30% Nairobi homes. The company is acquiring around 10k more customers each week due, in large part, to its 2,200- strong network of agents – convenience store owners – who host KOKO Fuel Points (much like ATMs), from which consumers can use to top-up their smart canisters with clean fuel.

## Benefits

We monitor for, and report on, the following SDGs: SDG 3 (Good Health and Well being); SDG 5 (Gender Equality); SDG 7 (Affordable and Clean Energy); SDG 13 (Climate Action)


## Key impact metrics

**15M** tCO2e — Est. carbon offset annually

**950k** — Customers across Kenya

**2.2k** — Agents under Koko's network that help Koko acquire new customers

Commercial needs: Financing needs | Off-take agreement | Spot sales

# KOKO Kenya – KOKO Networks

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 1M | 2023 | 2022 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2050 |
| **Year of vintage for first carbon credits,** realized or expected | 2021 |
| **Year of last vintage carbon credit,** realized or expected | 2050 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 1.2M |
| **Financing need** | - |

| | |
|---|---|
| **Project developer** | KOKO Networks |
| **Project proponent** | KOKO Networks |
| **Website** | www.kokonetworks.com |
| **Contact** | e.agnew@kokonetworks.com |

KOKO creates technologies, builds partnerships and uses existing networks to solve big, real-world problems unnaturally fast. Its impact is verified, transparent and real. The company's first venture – KOKO Fuel – sets out to deliver clean energy transition at scale to protect Africa's tropical forests.

KOKO uses carbon finance to solve the household affordability gap, sharing huge carbon value with Kenyan consumers (via their KOKO Wallets), in the form of low-cost clean fuel.

# Zambia Agroforestry Grouped Project – ETG Climate Solutions

Project overview

| | |
|---|---|
| **Project name** | Zambia Agroforestry Grouped Project |
| **Project developer** | ETG Climate Solutions |
| **Project type** | Sectoral Scope: AFOLU<br>Activity Type: Afforestation, Reforestation and Restoration (ARR). |
| **Type of credit (Avoidance/removal)** | Removal (reduces GHG emissions) |
| **Country (location)** | Zambia |
| **Registration standard** | VCS |
| **Project ID** | 3999 |
| **Methodology** | AR-ACM0003 |
| **Validation body** | Aenor Internacional |
| **PDD** | |
| **Date of PDD submission** | Expected submission November 2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

## Project description

The project “Zambia Cashews Agroforestry Project” is comprised of the cashew plantation execution started as of January 2020 to 2021 for 5.5million of cashew nuts seedlings in the total of 72,000 hectares in ten districts (Mongu, Limulunga, Lukuku, Metete, Kalabo, Sikongo, Nalolo, Senanga, Sioma and Shangombo) in Western Province in Zambia allowing the farmers additional revenue from cashew sales

## Benefits

Foundation EFF (Empowering Farmers Foundation) is partnered with to run a 3000-household baseline study in order to design and implement a full and targeted community benefit program.

## Key impact metrics

| | |
|---|---|
| **6.5M tCO2e** | Total estimated emission reductions |
| **215k tCO2e** | Annual average estimated emission reductions |
| **5.5M** | Seedlings distributed and planted |
| **Q1-2024** | Year of first issuance of carbon credits, expected |
| **2051** | Year of last issuance of carbon credits |

# Zambia Agroforestry Grouped Project – ETG Climate Solutions

## Project details

| | |
|---|---|
| **Year of first issuance of carbon credits**, realized or expected | Expected Q1-2024 |
| **Year of last issuance of carbon credits**, realized or expected | 2051 |
| **Year of vintage for first carbon credits**, realized or expected | 2021 + 2022 + 2023 |
| **Year of last vintage carbon credit**, realized or expected | 2050 |
| **Total number of carbon credits issued to date**, if any (tCO2) | - |

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| **Batch 1** | - | 4,858 | 2024 | 2021 + 2022 + 2023 |
| **Batch 2** | - | 19,670 | 2025 | 2024 |
| **Batch 3** | - | 52,857 | 2026 | 2025 |
| **Batch 4** | - | 104,986 | 2027 | 2026 |
| **Batch 5** | - | 170,679 | 2028 | 2027 |
| **Batch 6** | - | 241,075 | 2029 | 2028 |
| **Batch 7** | - | 307,200 | 2030 | 2029 |
| **Batch 8** | - | 362,209 | 2031 | 2030 |

| | |
|---|---|
| **Project developer** | ETG Climate Solutions |
| **Project proponent** | Ilya Tyuvildin |
| **Website** | https://www.etgworld.com/ |
| **Contact** | Ilya.tyuvildin@etgworld.com |

ETG vision is to maximize emerging farmer incomes, by enabling forestry or agroforestry activities at scale and providing the farmers with the market access for agricultural, wood, or energy products resulting from the plantations, all the while providing the world's most competitive CDR tool to the global Net Zero demand

# Mai Ndombe – Wildlife Works

## Project overview

| | |
|---|---|
| **Project name** | Mai Ndombe |
| **Project developer** | Wildlife Works |
| **Project type** | Forestry |
| **Type of credit** | Avoidance |
| **Country (location)** | Democratic Republic of the Congo |
| **Registration standard** | Verra |
| **Project ID** | 934 |
| **Methodology** | VM0009 |
| **Validation body** | Norske Veritas Climate Change Services AS (DNV) |
| **PDD** | |
| **Date of - submission** | Nov/2012 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The Mai Ndombe REDD+ Project protects 300k hectares of critical bonobo and forest elephant habitat within the world's second-largest intact rainforest and some of the most important wetlands on the planet, the Congo Basin.

This project reduces the principal drivers of forest and biodiversity loss and drives direct investments to the surrounding local communities, which are among the most economically marginalized in the world. Such investments include building and renovating schools, improving access to healthcare services (such as through access to immunizations), strengthening food security (such as through agricultural diversification and fishponds), and co- creating sustainable economic opportunities.

## Benefits

- CCB certified
- 6 fishponds constructed and new cassava strains introduced for improved food security
- Over 300 local jobs created
- 10 solar powered, sustainable clean water wells
- 11 schools built or renovated
- 11 schools built or renovated

## Key impact metrics

**3.8M** tCO2e — Est. carbon offset annually

**300k** Ha — Forest land protected

**7** — Animal species protected

**50k** — Community partners

# **Mai Ndombe –** Wildlife Works

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2016 |
| **Year of last issuance of carbon credits,** realized or expected | 2046 |
| **Year of vintage for first carbon credits,** realized or expected | 2011 |
| **Year of last vintage carbon credit,** realized or expected | 2041 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 31M |
| **Financing need** | - |

| | |
|---|---|
| **Project developer** | Wildlife Works |
| **Project proponent** | Wildlife Works, doing business in the DRC as ERA Congo, a wholly owned subsidiary of Wildlife Works. |
| **Website** | https://www.wildlifeworks.com/ |
| **Contact** | olivia.adhiambo@wildlifeworks.com |

Founded in 1997, Wildlife Works is the world's leading REDD+ project development and management company. Wildlife Works is also the largest project developer in Africa by historic issuances and has helped in the creation of over 10% of avoided deforestation verified carbon standard (VCS) registered REDD+ projects. The company has sold the most REDD+ credits in the market to date. Wildlife Works' mission is to develop market-based solutions for wildlife conservation that drive direct finance to Indigenous Peoples and Local Communities (IPLCs).

# Invicta ILAJE Power CCUS – Invicta Hydrogen Systems Limited

Project overview


| | |
|---|---|
| **Project name** | Invicta ILAJE Power CCUS |
| **Project developer** | Invicta Hydrogen Systems Limited |
| **Project type** | Engineered Carbon Dioxide Removal (CDR) |
| **Type of credit** | Avoidance |
| **Country (location)** | Nigeria |
| **Registration standard** | Verra - UNFCCC CDM |
| **Project ID** | ACM0025 |
| | |
| **Validation body** | 5-Oct-23 |
| **-** | - |
| **Date of PDD submission** | - |

## Project description

Invicta ILAJE Power CCUS Project is an abated new-build 1540MW CCGT Power Plant that will capture 3 million tonnes of Carbon Dioxide annually using with carbon capture technology.

The plant will employ H-Class combined cycle gas turbine technology with efficiency rating 62% which is among the global best for this technology class.

Furthermore, exhaust will be connected to an amine stripper where Carbon-dioxide component will be extracted, liquefied and stored for industrial reuse.

Thereby 3 million tonnes of Carbon Dioxide Emissions will be prevented from entering the atmosphere annually. The project will be located in ILAJE local government area of Ondo State, Nigeria. It is a distinct technological innovation for the region being the first carbon-capture abated CCGT power plant in the entire African continent.

## Benefits

This rural coastal community will gain new economic life with introduction of modern power, water, health and education facilities.

## Key impact metrics

**3M** tCO2e — Est. carbon offset annually

**1540** MW — Powerplant rating (CCGT baseload)

**90%** — CO2 capture rate

Commercial needs: Financing needs | Off-take agreement | Spot sales

# Invicta ILAJE Power CCUS – Invicta Hydrogen Systems Limited

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2025 |
| **Year of last issuance of carbon credits,** realized or expected | 2067 |
| **Year of vintage for first carbon credits,** realized or expected | 2027 |
| **Year of last vintage carbon credit,** realized or expected | 2067 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Invicta Hydrogen Systems Limited |
| **Project proponent** | Invicta Hydrogen Systems Limited |
| **Website** | - |
| **Contact** | president@invictahydrogen.uk |

Invicta Hydrogen Systems Limited were created in 2017. We aim to help reduce global warming by deploying low-carbon hydrogen and energy infrastructure. We provide business research support to developers' energy infrastructure projects in UK. This includes identifying optimal project sites, feedstock and grid connection points, Financiers, EPC Contractors and OEM suppliers.

Our current proposed project will be created in ILAJE, Ondo State, Nigeria. Our background knowledge of the sector places us at a distinct advantage to deliver an exceptional project on time and within budget.

# Clean cooking for families in Somalia – BURN

Project overview


| | |
|---|---|
| **Project name** | GS 10789 VPA 1: Efficient and Clean Cooking for households in Somalia (GS 10790) |
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Somalia |
| **Registration standard** | Gold Standard |
| **Project ID** | GS10790 |
| **Methodology** | TPDDTEC |
| **Date of PDD submission** | 13/10/2021 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This project supports families in transitioning to BURN's Jikokoa, an improved cookstove which achieves best-in-class **63%** thermal efficiency. The Jikokoa reduces fuel consumption by **55%** in Somalia, addressing deforestation and unsustainable & expensive local charcoal production.

This project has saved Somali families **$80 million** so far and decreased indoor air pollution by **65%**, leading to improved health outcomes for women and girls.

BURN has been operating in Somalia **since 2016**, and remains the only carbon project in the region. By addressing poverty and deforestation, clean cooking plays a vital role in the sustainable development of a region that has historically struggled to attract investment. This VPA has benefited over **900k people**.

This project has issued over **1 million credits** and expects to issue next in September 2023.

## Benefits

Gold Standard Certified SDG Label for the following SDGs:


This project is also in the process of including SDG 4 (education), SDG 5 (gender) and SDG 15 (life on land)

## Key impact metrics

**~905k tCO2e** — Est. carbon offset annually

**940k** — Lives impacted

**1M** — Tons of wood saved

**$80M** — Saved by Somalian families

**65%** — Reduction in indoor air pollution

# Clean cooking for families in Somalia – BURN

## Project details

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2022 |
| **Year of last issuance of carbon credits,** realized or expected | 2026 |
| **Year of vintage for first carbon credits,** realized or expected | 2019-2020 |
| **Year of last vintage carbon credit,** realized or expected | 2025 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 1,061,159 |

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Any | 200k | 2023 | 2021-22 |
| 2 | Any | 200k | 2024 | 2022-23 |
| 3 | Any | 200k | 2025 | 2023-24 |
| 4 | Any | 200k | 2026 | 2024-25 |
| 5 | Any | 200k | 2027 | 2025-26 |

| | |
|---|---|
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project proponent** | ECOA Climate Capital |
| **Website** | https://www.burnstoves.com/ |
| **Contact** | molly.brown@burnmfg.com |

BURN is one of Africa's largest cookstove companies and carbon offset project developers. BURN believes that low-income families deserve access to the world's best stoves.

An independent Randomised Control Trial found that BURN's Jikokoa saves families $119 per year, improves health outcomes, and saves one hour of cooking time per day (Berkouwer, 2022).

Headquartered in Kenya since 2013, BURN has sold 3.6M stoves, saved 8M tons of wood, and impacted over 20M lives. BURN now delivers carbon projects in nine African countries and employs 2,500 people.

# Clean cooking for families in Nigeria – BURN

Project overview

| | |
|---|---|
| **Project name** | GS 10789 VPA 61: Efficient and clean cooking for households in Nigeria (GS11671) |
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Nigeria |
| **Registration standard** | Gold Standard |
| **Project ID** | GS11671 |
| **Methodology** | TPDDTEC |
| **Date of PDD submission** | 18/04/2023 |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

With the largest population in Africa, Nigeria is a key market for clean cookstoves. **68%** of the population rely on the daily use of biomass for cooking - 140M people.

BURN has been operational in Nigeria since 2020, with over **140k stoves** distributed to date. This project deploys highly efficient improved cookstoves, which reduce fuel consumption by **40%** in Nigeria – slowing deforestation and saving families money.

Moreover, our stoves reduce indoor air pollution by **65%** compared to traditional methods, leading to improved health outcomes, particularly for women and girls.

To increase accessibility, carbon finance has been invested to offer stoves at subsidized prices, enabling more people to afford them. The project anticipates issuing its first credits in late 2023.

## Benefits

Gold Standard Certified SDG Label for the following SDGs:


## Key impact metrics

**1.67M tCO2e** — Est. carbon offset annually

**700k** — Lives impacted

**200k** — Tons of wood saved

**$15M** — Saved by Nigerian families since 2020

**65%** — Reduction in indoor air pollution

# Clean cooking for families in Nigeria – BURN

## Project details

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023-4 |
| **Year of last issuance of carbon credits,** realized or expected | 2029 |
| **Year of vintage for first carbon credits,** realized or expected | 2021-2023 |
| **Year of last vintage carbon credit,** realized or expected | 2028 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Any | 100k | 2023-4 | 2021-23 |
| 2 | Any | 100k | 2024 | 2023-24 |
| 3 | Any | 100k | 2025 | 2024-25 |
| 4 | Any | 100k | 2026 | 2025-26 |
| 5 | Any | 100k | 2027 | 2026-27 |

| | |
|---|---|
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project proponent** | ECOA Climate Capital |
| **Website** | https://www.burnstoves.com/ |
| **Contact** | molly.brown@burnmfg.com |

BURN is one of Africa's largest cookstove companies and carbon offset project developers. BURN believes that low-income families deserve access to the world's best stoves.

An independent Randomised Control Trial found that BURN's Jikokoa saves families $119 per year, improves health outcomes, and saves one hour of cooking time per day (Berkouwer, 2022).

Headquartered in Kenya since 2013, BURN has sold 3.6M stoves, saved 8M tons of wood, and impacted over 20M lives. BURN now delivers carbon projects in nine African countries and employs 2,500 people.

# Improved woodstoves for families rural in Nigeria – BURN

| | |
|---|---|
| **Project name** | GS10789 VPA66: Efficient and Clean Cooking for households in Nigeria (GS11741) |
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Nigeria |
| **Registration standard** | Gold Standard |
| **Project ID** | GS11741 |
| **Methodology** | TPDDTEC |
| **Date of PDD submission** | 3/03/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Nigeria has a rural population of **100M** people – more than 50% of whom are living in poverty. Most households cook with firewood on traditional three stone fires. These are smoky and inefficient, creating indoor air pollution and damaging respiratory health. It is typically women and children who spend time collecting firewood and cooking.

BURN's improved woodstoves reduce fuel consumption by **70%** – slowing forest degradation and saving valuable time.

This project began in 2023, distributing wood stoves to rural Nigeria. Carbon finance has been invested to distribute stoves at very subsidized prices, increasing the number of people who are able to purchase. This project is expected to issue its first credits in 2024.

## Benefits

Gold Standard Certified SDG Label for the following SDGs:


## Key impact metrics

**1.27M tCO2e** — Est. carbon offset annually

**100k** — Lives impacted

**2k** — Tons of wood saved

**$100k** — Saved by Nigerian families since 2023

**70%** — Fuel savings by the ECOA wood stove

*Information provided by project developer*

# Clean cooking for families in the DRC – BURN

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Any | 50k | 2024 | 2023-24 |
| 2 | Any | 50k | 2025 | 2024-25 |
| 3 | Any | 50k | 2026 | 2025-26 |
| 4 | Any | 50k | 2027 | 2026-27 |
| 5 | Any | 50k | 2028 | 2027-28 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2029 |
| **Year of vintage for first carbon credits,** realized or expected | 2023-2024 |
| **Year of last vintage carbon credit,** realized or expected | 2028 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project proponent** | ECOA Climate Capital |
| **Website** | https://www.burnstoves.com/ |
| **Contact** | molly.brown@burnmfg.com |

BURN is one of Africa's largest cookstove companies and carbon offset project developers. BURN believes that low-income families deserve access to the world's best stoves.

An independent Randomised Control Trial found that BURN's Jikokoa saves families $119 per year, improves health outcomes, and saves one hour of cooking time per day (Berkouwer, 2022).

Headquartered in Kenya since 2013, BURN has sold 3.6M stoves, saved 8M tons of wood, and impacted over 20M lives. BURN now delivers carbon projects in nine African countries and employs 2,500 people.

# The Kasigau Corridor REDD Project – Phase I Rukinga Sanctuary and The Kasigau Corridor REDD Project – Phase II The Community Ranches – Wildlife Works

## Project overview

| | |
|---|---|
| **Project name** | The Kasigau Corridor REDD Project – Phase I Rukinga Sanctuary and The Kasigau Corridor REDD Project – Phase II The Community Ranches |
| **Project developer** | Wildlife Works |
| **Project type** | Forestry |
| **Type of credit** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Verra (VCS) |
| **Project ID** | 562 and 612 |
| **Methodology** | VM0009 - Avoided Ecosystem Conversion |
| **Validation body** | Det Norske Veritas Climate Change Services AS (DNV) |
| **Date of PDD submission** | January 2011 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The world's first VCS REDD+ project, the Kasigau Corridor Redd+ Project – Phase I: Rukinga Sanctuary, has been protecting local wildlife and forests since 2005. In 2011 the project was expanded through Phase II: Community Ranches project.

The Kasigau Corridor project area is now home to over 100k people and protects 200k hectares of forest. The area also hosts a diverse population of wildlife including critical populations of IUCN Red List species.

The positive impact on the local community has been significant, with community governance and sustainable job creation at the heart of the project's strategy. With both phases of the project combined, over 400 jobs have been created, ranging from eco-factory workers to rangers. As of 2022, 40 school projects have been completed and more than 30k scholarships awarded. 68 clean water projects have been completed.

## Benefits

- CCB and SD Vista certified
- 36 schools renovated, 10 new schools built, and over 30k scholarships awarded.
- Over 400 locally hired employees, 1/3 of whom are women
- 1,700 women involved in the Hadithi craft venture generating $250k in revenue in 2021
- Over 50 clean water and water conservation projects completed
- Diagnostic health laboratory renovated, and after-school health education programs established for >1200 students

## Key impact metrics

**1.7M** tCO2e — Est. carbon offset annually

**200k** Ha — Forest land conserved in the project

**400** — Jobs created by the project

**11** — Endangered species protected

**100k** — Community partners

# The Kasigau Corridor REDD Project – Phase I Rukinga Sanctuary and The Kasigau Corridor REDD Project – Phase II The Community Ranches – Wildlife Works

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2011 |
| **Year of last issuance of carbon credits,** realized or expected | 2041 |
| **Year of vintage for first carbon credits,** realized or expected | 2005 |
| **Year of last vintage carbon credit,** realized or expected | 2034 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 20.294M |
| **Financing need** | - |

| | |
|---|---|
| **Project developer** | Wildlife Works |
| **Project proponent** | Wildlife Works |
| **Website** | https://www.wildlifeworks.com/ |
| **Contact** | olivia.adhiambo@wildlifeworks.com |

Founded in 1997, Wildlife Works is the world's leading REDD+ project development and management company. Wildlife Works is also the largest project developer in Africa by historic issuances and has helped in the creation of over 10% of avoided deforestation verified carbon standard (VCS) registered REDD+ projects. The company has sold the most REDD+ credits in the market to date.

Wildlife Works' mission is to develop market-based solutions for wildlife conservation that drive direct finance to Indigenous Peoples and Local Communities (IPLCs).

# Chyulu Hills REDD+ Project (CHRP) – Conservation International

Project overview

| | |
|---|---|
| **Project name** | Chyulu Hills REDD+ Project (CHRP) |
| **Project developer** | Conservation International |
| **Project type** | Forestry |
| **Type of credit** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Verra VCS |
| **Project ID** | 1408 |
| **Methodology** | VM0009 |
| **Validation body** | SCS Global Services |
| **Date of PDD submission** | 9/29/2016 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The Chyulu Hills REDD+ Project (CHRP) area is unique in Kenya, containing intact cloud forest, as well as and rangelands/grasslands. The hills rise nearly 4000 ft above the surrounding dry plains and savannah, just high enough to capture the clouds and provide conditions for the growth of a lush tropical montane cloud forest along its ridge tops. The landscape (nearly 4000 sq. km) forms a critical "bridge", linking together two of Kenya's most important wildlife areas, the greater Tsavo Ecosystem and Amboseli Ecosystem. The project supports 80,000 indigenous people, preserves a critical watershed that serves the population of Mombasa (second largest city in Kenya), and protects critically endangered wildlife, all in addition to reducing deforestation and carbon emissions. CHRP is an island of forest under extreme threat from agricultural conversion and the needs of a growing population.

## Benefits

The Chyulu Hills REDD+ Project is a community-based project, and the benefits are flowing directly to participating communities ensuring buy in and support of the conservation area, thus lowering forest loss risks. Approximately 90% of revenue derived from the sale of carbon credits is returned to the CHCT to support forest and biodiversity protection, and social and economic benefits for the local communities.

In terms of biodiversity, the Project has CCB Gold status and is home to endangered and endemic biodiversity, including Kenya's largest population of the increasingly threatened African Elephant and the critically endangered Black Rhino. The Chyulu Hills are also classified by BirdLife International as an Important Bird and Biodiversity Areas (IBA) with over 450 bird species. The area is home to a diverse assemblage of amphibians, reptilian and insect species.

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## Key impact metrics

**937k tCO2e** — Est. carbon offset annually

**2,188 students** — Awarded school bursaries

**450+ jobs** — Local Employment Generated

**348 Rangers trained** — in fire fighting

**11,000 Tree seedlings** — planted in Chyulu Hills National Park

# Chyulu Hills REDD+ Project (CHRP) – Conservation International

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| Batch 1 | Spot | 100,000 | 2022 | 2018 |
| Batch 2 | Spot | 200,000 | 2022 | 2019 |
| Batch 3 | Spot | 200,000 | 2022 | 2020 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2016 |
| **Year of last issuance of carbon credits,** realized or expected | 2044 |
| **Year of vintage for first carbon credits,** realized or expected | 2013 |
| **Year of last vintage carbon credit,** realized or expected | 2043 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 5,172,697 |

| | |
|---|---|
| **Project developer** | Conservation International |
| **Project proponent** | Chyulu Hills Conservation Trust (CHCT) |
| **Website** | https://www.conservation.org/ |
| **Contact** | bdavies@conservation.org |

The Chyulu Hills REDD+ Project has a unique structure that is entirely owned and operated by local communities—including the indigenous Maasai peoples. The project is a collaborative partnership of local organizations that between them have title to the land that makes up the project area, and three NGOs that work closely with the land-owning entities to help manage conservation and community support programs. The entities holding land tenure are the two government agencies and four indigenous community-owned Maasai Group Ranches. The nine organizations have together formed the Chyulu Hills Conservation Trust, which is the core governance entity for the Project. Conservation International plays a key role in the design and development of the project and currently serves as an Advisory Board member, providing technical, financial and credit transaction support.

# D.LIGHT'S IMPROVED COOKING PROJECT IN UGANDA – Climate Secure

## Project overview

| | |
|---|---|
| **Project name** | D.Light's improved cooking project in Uganda |
| **Project developer** | Climate Secure |
| **Project type** | Energy efficiency |
| **Type of credit** | Avoidance (averts GHG emissions) |
| **Country (location)** | Uganda |
| **Registration standard** | Verra |
| **Project ID** | 4226 |
| **Methodology** | VMR0006 |
| **Validation body** | Carbon Check |
| **Date of PDD submission** | 03/03/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The "D. Light's Improved Cooking Project in Uganda" is a large-scale initiative aimed at replacing traditional, inefficient cookstoves with energy-efficient improved cookstoves (ICS) in Ugandan households and communities. Traditional cooking methods using unsustainable biomass fuels lead to greenhouse gas emissions and indoor air pollution. The project distributes woody biomass ICS to households, enhancing fuel combustion and heat transfer, reducing fuel consumption, indoor air pollution, and greenhouse gas emissions. Carbon finance is sought to overcome cost barriers for adopting clean cookstoves. The project plans to distribute and install 120,000 ICS in the first year, resulting in an estimated annual reduction of 621,725 tCO2e and a total of 4,352,080 tCO2e over 7 years. Without the project, environmental and health issues caused by traditional stoves would persist.

## Benefits

Average household money savings due to decrease in expenditure on basic service s such as purchased fuel after shifting to project technology.

% Users reporting reduction in smoke/PM after shifting to ICS in project.

Number of people receiving formal and non formal education and training.

The average time saving associated with cooking and fuel collection time due to adoption of project technology /measures.

Proportion of population with primary reliance on clean fuels and technology

Number of male / female employment created by project

## Key impact metrics

**622k**
**tCO2e**

Sequestered annually emissions offset

# D.LIGHT'S IMPROVED COOKING PROJECT IN UGANDA – Climate Secure

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | … | 100,000 | 2024 | 2022 – 2023 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2028 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2027 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

| | |
|---|---|
| **Project developer** | Climate Secure |
| **Project proponent** | Dlight |
| **Website** | https://www.climate-secure.com/index.html |
| **Contact** | karl.skare@dlight.com |

Climate Secure, an independent environmental consultancy established in 2013, specializes in tailored carbon advisory services for private companies, NGOs, and multilateral organizations across several countries. With over 8 years of experience in carbon markets, they have successfully guided clients through challenges in carbon-constrained economies to foster low-carbon initiatives. They've facilitated 100+ global emissions reduction projects and excel in large rural community development undertakings. In project experience, they've shown expertise in mega-sized improved cookstove initiatives.

# D.LIGHT'S IMPROVED COOKING PROJECT IN KENYA – Climate Secure

## Project overview

| | |
|---|---|
| **Project name** | D.Light's improved cooking project in Kenya |
| **Project developer** | Climate Secure |
| **Project type** | Energy efficiency |
| **Type of credit** | Avoidance (averts GHG emissions) |
| **Country (location)** | Kenya |
| **Registration standard** | Verra |
| **Project ID** | 4223 |
| **Methodology** | VMR0006 |
| **Validation body** | Carbon Check |
| **Date of PDD submission** | 03/03/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The "D. LIGHT'S IMPROVED COOKING PROJECT IN KENYA" is a large-scale initiative aimed at replacing traditional domestic cookstoves with energy-efficient improved cookstoves (ICS) in Kenya. Traditional cooking methods using unsustainable biomass fuels lead to greenhouse gas emissions and indoor air pollution. The project's ICS design enhances fuel combustion and heat transfer, reducing fuel consumption and indoor air pollution, including smoke and particulate matter emissions. This results in a decrease in greenhouse gas emissions from non-renewable biomass use. Without this project, beneficiaries would continue using inefficient stoves, perpetuating environmental and health issues. The project seeks carbon finance to overcome cost barriers for users, promoting the adoption of clean cookstoves and contributing to environmental and health improvements.

## Benefits

SD VIsta

## Key impact metrics

**800k**

**tCO2e**

Sequestered annually emissions offset

# D.LIGHT'S IMPROVED COOKING PROJECT IN KENYA – Climate Secure

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | … | 100,000 | 2024 | 2022-2023 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2028 |
| **Year of vintage for first carbon credits,** realized or expected | 2022 |
| **Year of last vintage carbon credit,** realized or expected | 2027 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

| | |
|---|---|
| **Project developer** | Climate Secure |
| **Project proponent** | Dlight |
| **Website** | https://www.climate-secure.com/index.html |
| **Contact** | karl.skare@dlight.com |

Climate Secure, an independent environmental consultancy established in 2013, specializes in tailored carbon advisory services for private companies, NGOs, and multilateral organizations across several countries. With over 8 years of experience in carbon markets, they have successfully guided clients through challenges in carbon-constrained economies to foster low-carbon initiatives. They've facilitated 100+ global emissions reduction projects and excel in large rural community development undertakings. In project experience, they've shown expertise in mega-sized improved cookstove initiatives

# MozBlue – Blue Forest

Project overview

| | |
|---|---|
| **Project name** | MozBlue |
| **Project developer** | Blue Forest |
| **Project type** | Blue Carbon |
| **Type of credit** | Removal |
| **Country (location)** | Mozambique |
| **Registration standard** | Verra (VCS) and CCB |
| **Project ID** | Verra (VCS) 3142 |
| **Methodology** | VM0033 |
| **Validation body** | AENOR |
| **Date of PDD submission** | 01/11/2023 |
| **Independent rating** | Ongoing |
| **Independent rating agency** | Sylvera |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The project area spans 140k Ha of degraded or at-risk mangroves. There are over 100k people that live off of the fisheries sector which is closely tied to the mangroves. We hope to work with them to restore the degraded forests and to put in place income generating activities that will benefit 5k households.

In the process, we will sequester an estimated 15 million tons of CO2 over the project's 30-year life.

## Benefits

Beyond restoring Mozambique's regionally vital mangrove forests in Zambezi and Sofala provinces, the project will deliver significant co benefits. Specifically:

- The project will create over 665 local jobs in sustainable sectors
- Bring life to several local new business
- Enriched biodiversity, thus directly improving the opportunities available to local communities
- Be easily replicated across Mozambique

## Key impact metrics

**450k tCO2e** — Est. carbon offset annually

**200+** — Jobs created for local communities

**60%** — Of carbon revenue generated stays within local communities

**5k households** — Benefiting from increased income

# **MozBlue –** Blue Forest

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | … | 60k | 2025 | 2024 |
| 2 | … | 20k | 2026 | 2025 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2025 |
| **Year of last issuance of carbon credits,** realized or expected | 2045 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2054 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |



BLUE FOREST

| | |
|---|---|
| **Project developer** | Blue Forest |
| **Project proponent** | Blue Forest |
| **Website** | www.blueforest.co |
| **Contact** | vahid@blueforest.co |

Blue Forest is an impact-focused project developer specializing in mangroves. We work closely with local communities to design, implement and maintain forest restoration projects in Africa and Asia.

In Africa we are developing projects in Tanzania, Mozambique and Cote d'Ivoire.

In each of our projects, we ensure that at least 60% of the revenues generated go back to the local communities.

Our mission is to restore 1 million hectares of mangroves and to sequester 2 million tons of CO2 by 2030.

# Clean cooking for families in Kenya – BURN

Project overview

| | |
|---|---|
| **Project name** | GS 10789 VPA 2: Efficient and Clean Cooking for households in Kenya (GS 10791) |
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Gold Standard |
| **Project ID** | GS10791 |
| **Methodology** | TPDDTEC |
| **Date of PDD submission** | 04/06/2023 |

## Project description

In Kenya, **9 million people** rely on biomass for cooking, leading to health problems, high fuel costs, and deforestation.

This project supports families in transitioning to BURN's Jikokoa, an improved cookstove which achieves best-in-class **63%** thermal efficiency. This equates to in-country fuel savings of **52%** in Kenya, effectively combating deforestation and saving families **$2 per week**. It also decreases indoor air pollution by **65%**, leading to improved health outcomes, particularly for women and girls.

According to an independent Randomised Control Trial by Berkouwer and Dean (2022), each Jikokoa generates an impressive **$1k** return for society over three years. This project is anticipated to issue its first credits in the summer of 2023.

## Benefits

Gold Standard Certified SDG Label for the following SDGs:


This project is also in the process of including SDG 4 (education), SDG 5 (gender) and SDG 15 (life on land)

## Key impact metrics

**456k tCO2e** — Est. carbon offset annually

**600k** — Lives impacted

**400k** — Tons of wood saved

**$24M** — Saved by Kenyan families since 2021

**65%** — Reduction in indoor air pollution

Commercial needs: Financing needs | Off-take agreement | Spot sales

[1] *Depending on market, baseline stove, and stove age*

# Clean cooking for families in Kenya – BURN

## Project details

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2027 |
| **Year of vintage for first carbon credits,** realized or expected | 2021-2022 |
| **Year of last vintage carbon credit,** realized or expected | 2027 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Any | 100k | 2023 | 2021-22 |
| 2 | Any | 200k | 2024 | 2022-23 |
| 3 | Any | 200k | 2025 | 2023-24 |
| 4 | Any | 200k | 2026 | 2024-25 |
| 5 | Any | 200k | 2027 | 2025-26 |

| | |
|---|---|
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project proponent** | ECOA Climate Capital |
| **Website** | https://www.burnstoves.com/ |
| **Contact** | molly.brown@burnmfg.com |

BURN is one of Africa's largest cookstove companies and carbon offset project developers. BURN believes that low-income families deserve access to the world's best stoves.

An independent Randomised Control Trial found that BURN's Jikokoa saves families $119 per year, improves health outcomes, and saves one hour of cooking time per day (Berkouwer, 2022).

Headquartered in Kenya since 2013, BURN has sold 3.6M stoves, saved 8M tons of wood, and impacted over 20M lives. BURN now delivers carbon projects in nine African countries and employs 2,500 people.

# Clean cooking for families in the DRC – BURN

Project overview

| | |
|---|---|
| **Project name** | GS 10789 VPA 7: Efficient and clean cooking for households in the Democratic Republic of Congo (DRC) (GS 11435) |
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Democratic Republic of the Congo |
| **Registration standard** | Gold Standard |
| **Project ID** | GS11435 |
| **Methodology** | TPDDTEC |
| **Date of PDD submission** | 25/05/2023 |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

With more than **95%** of people in the Democratic Republic of the Congo relying on biomass for cooking, and inefficient local charcoal production, clean cookstoves are crucial to slowing deforestation in the Congo basin.

This project focuses on deploying highly efficient improved cookstoves that reduce fuel consumption by **64%**, thereby slowing deforestation and saving families money.

These stoves also reduce indoor air pollution by **65%**, leading to improved health outcomes, particularly for women and girls.

This is BURN's second project in the DRC. Carbon finance has been invested to distribute stoves at subsidized prices, enabling access for low-income families. The project is projected to issue its first credits in 2024.

## Benefits

Gold Standard Certified SDG Label for the following SDGs:


## Key impact metrics

**705k tCO2e** — Est. carbon offset annually

**570k** — Lives impacted

**50k** — Tons of wood saved

**$2M** — Saved by families in the DRC since 2023

**65%** — Reduction in indoor air pollution

# Clean cooking for families in the DRC – BURN

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Any | 100k | 2024 | 2022-23 |
| 2 | Any | 100k | 2025 | 2023-24 |
| 3 | Any | 100k | 2026 | 2024-25 |
| 4 | Any | 100k | 2027 | 2025-26 |
| 5 | Any | 100k | 2028 | 2026-27 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2028 |
| **Year of vintage for first carbon credits,** realized or expected | 2022-2023 |
| **Year of last vintage carbon credit,** realized or expected | 2028 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project proponent** | ECOA Climate Capital |
| **Website** | https://www.burnstoves.com/ |
| **Contact** | molly.brown@burnmfg.com |

BURN is one of Africa's largest cookstove companies and carbon offset project developers. BURN believes that low-income families deserve access to the world's best stoves.

An independent Randomised Control Trial found that BURN's Jikokoa saves families $119 per year, improves health outcomes, and saves one hour of cooking time per day (Berkouwer, 2022).

Headquartered in Kenya since 2013, BURN has sold 3.6M stoves, saved 8M tons of wood, and impacted over 20M lives. BURN now delivers carbon projects in nine African countries and employs 2,500 people.

# TASC Clean Cooking POA VPA 3 – The African Stove Company (TASC)

Project overview

| | |
|---|---|
| **Project name** | TASC Clean Cooking POA – VPA 3 (Zambia) |
| **Project developer** | The African Stove Company (TASC) |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Zambia |
| **Registration standard** | Gold Standard |
| **Project ID** | GS 11596 |
| **Validation body** | Validation: Earthood, Verification: Carbon-Check |
| **Methodology** | GS TPDDTEC v3.1 |
| **Date of PDD submission** | 04/05/2022 |

## Project description

Over 700 million Africans cook on three-stone, open fires. Open fire cooking is a primary driver of deforestation across Africa. Household air pollution (HAP) from cooking causes over 4 million premature deaths each year, more than tuberculosis and HIV combined. Improved cookstoves (ICS) can reduce indoor air pollution by up to 50% and fuel use by up to 70%. TASC has distributed over 99,976 proudly African stoves in rural areas of Zambia and our project has issued over 191,115 credits to-date. Beneficiaries are first sensitized and trained to use the most efficient wood-fuel rocket stoves in the world. We have a Letter of No Objection from the Government of Zambia and we have made a formal application for Corresponding Adjustments to be applied to emissions reductions issued by the project. TASC has a continual presence in the communities where we work, conducting formal and informal monitoring throughout the year.

## Benefits

The project has positive impacts on the following SDGs: 1, 3, 5, 7, 8, 12, and 13 which are: no poverty, good health and well-being, gender equality, affordable and clean energy, decent work and economic growth, responsible consumption and production, and climate action, respectively.

## Key impact metrics

**438k** tCO2e — Est. carbon offset annually

**100k** — Number of cookstoves distributed by the project in rural Zambia

**70%** — Fuel reduction as a result of improved cookstove use

**50%** — Reduction in household air pollution

Commercial needs: Financing needs | Off-take agreement | Spot sales

# TASC Clean Cooking POA VPA 3 – The African Stove Company (TASC)

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Forward | 100k | 2024 | 2023 |
| 2 | Forward | 100k | 2024 | 2023 |
| 3 | Forward | 100k | 2025 | 2024 |
| 4 | Forward | 100k | 2025 | 2024 |
| 5 | Forward | 100k | 2026 | 2025 |
| 6 | Forward | 100k | 2026 | 2025 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2026 |
| **Year of vintage for first carbon credits,** realized or expected | 2021 |
| **Year of last vintage carbon credit,** realized or expected | 2026 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 191,115 |

| | |
|---|---|
| **Project developer** | The African Stove Company (TASC) |
| **Project proponent** | TASC (SA) |
| **Website** | https://tasc.je/ |
| **Contact** | josh@tasc.je |

We are headquartered in Cape Town, South Africa and our goal is to finance and develop high-impact climate mitigation projects. We develop projects with sustainable development impacts beyond GHG mitigation, such as improved health and livelihoods for our beneficiaries. In the last 12 months we have issued over 800 000 VERs from our improved cookstove (ICS) projects in South Africa and Zambia. We forecast our financed and operational projects to issue over 20 million VERs in the next ten years.

# Ntakata Mountains – Carbon Tanzania

carbontanzania

## Project overview

| | |
|---|---|
| **Project name** | Ntakata Mountains |
| **Project developer** | Carbon Tanzania |
| **Project type** | Land use |
| **Type of credit (avoidance/removal)** | Avoidance |
| **Country (location)** | Tanzania |
| **Registration standard** | Verra VCS |
| **Project ID** | 1897 |
| **Methodology** | VM007 |
| **Validation body** | Epic sustainability (first verification) Aster Global (2nd and 3rd verification) |
| **Date of PDD submission** | 6/5/2020 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The Ntakata Mountains project protects 216;994 ha of Miombo woodland in the Greater Mahale Ecosystem; western Tanzania by developing Village Land Forest Reserves (VLFRs) with local communities. The Bende; Tongwe and the Ha people are farmers of this richly forested landscape and have always cared for the forests that cover the mountains around their communities - they treat the Mkuyu and Strangler Fig trees as sacred. They grow crops and raise some livestock in well-watered valleys; depending on healthy forests for water catchment; healthy soils and other products and services. The farming communities of the Bende and Tongwe protect their forest; and its valuable stored carbon. Carbon credits are generated by these conservation activities and the sales of these credits provide revenues to these forest communities. By preventing 1.25 million trees from being cut down the project avoids 550;000 tonnes of CO2 emissions annually.

## Benefits

BIODIVERSITY: The project protects habitat for chimps, and other endangered and critically endangered species.
COMMUNITIES: The project supports subsistence farmers and strengthens land and resource owner rights.
LIVELIHOODS: Over US$3.7 million has been earned by local communities to date. This revenue employs and trains 55 people in natural resource protection, improves community wide access to healthcare and education and supports community development initiatives.

## Key impact metrics

**550k** tCO2e — Est. carbon offset annually

**216k** ha — Miombo woodlands protected by project in Tanzania

**1.25M** trees — Are protected by the project from being felled

**38k** people — People directly benefit from the project

# Ntakata Mountains – Carbon Tanzania

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| - | - | - | - | - |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2020 |
| **Year of last issuance of carbon credits,** realized or expected | 2047 |
| **Year of vintage for first carbon credits,** realized or expected | 2017 |
| **Year of last vintage carbon credit,** realized or expected | 2048 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 2,800,812 |
| **Financing need** | - |

carbontanzania

| | |
|---|---|
| **Project developer** | Carbon Tanzania |
| **Project proponent** | Carbon Tanzania |
| **Website** | https://www.carbontanzania.com |
| **Contact** | comms@carbontanzania.com |

Carbon Tanzania generates value for Tanzania's economy and its people by producing nature-based carbon credits that enable local people to earn revenues from the protection of their landscapes. These verified emissions reductions allow global businesses with credible decarbonisation to invest in a locally produced nature-based solution that serves the climate; communities and wildlife. With over 10 years of experience; Carbon Tanzania is the developer of two award-winning projects including the Yaeda-Eyasi Landscape Project and the Ntakata Mountains Project plus the Makame savannah project.

# Uganda Bamboo Planting Project – 1MTN Uganda

## Project overview

| | |
|---|---|
| **Project name** | 1MTN Uganda Bamboo Planting Project |
| **Project developer** | 1MTN Uganda |
| **Project type** | Agriculture, Forestry and Other Land Use |
| **Type of credit** | Removal |
| **Country (location)** | Uganda |
| **Registration standard** | Verra (VCS) |
| **Project ID** | 4123 |
| **Methodology** | ARR (Aforestation, Reforestation, and Revegetation Projects), VM0047 |
| **Validation body** | Tuv Nord |
| **Date of PDD submission** | 02/06/2023 |

## Project description

This project restores 10,000 hectares of degraded lands where the native ecosystem was cleared over a decade ago. It focuses on planting and maintaining selected bamboo species across various regions of Uganda. The estimated greenhouse gas (GHG) emissions removal totals 3.8 million metric tons of CO2 equivalent. In addition to its environmental impact, the project creates long-term employment opportunities and prioritises biodiversity enrichment through a holistic approach to conservation and sustainable land management.

## Benefits

Bamboo, with its remarkable properties, offers a sustainable solution for carbon sequestration, additionality, and permanence. As the fastest-growing woody plant on land, it can be harvested within 3-5 years, surpassing average trees in oxygen production by 35% and CO2 absorption by 40%. Utilising its biomass enhances permanency and fuels local bio-economies. Bamboo cultivation creates green job opportunities and strengthens local communities.

Collaboration with local communities promotes knowledge-sharing, cooperation, and partnerships with research institutions. A minimum of 10% of carbon credit sales is allocated to improve community livelihoods, estimated at 15 million USD.

Bamboo is essential in soil and water conservation, mitigating erosion, enhancing water quality, and contributing to temperature regulation. It also plays a crucial role in preventing landslides and controlling erosion, enhancing climate resilience and sustainable land management.

With a holistic approach that includes intercropping and biodiversity management strategies like the mosaic approach, bee farming, fungi farming, sustainable food gardens, and the preservation of flourishing trees and bushes, the project fosters a thriving and resilient ecosystem. The sustainable food garden provides sustenance for workers and local communities.

## Key impact metrics

**125k tCO2e** — Est. annual carbon offset

**10k hectares** — of degraded land to be restored by 2026

**30,000 jobs** — created annually on average over the project period

**32M tonnes** — sustainable biomass & timber - added to local socio-economy during the project duration

Commercial needs: Financing needs | Off-take agreement | Spot sales

# Uganda Bamboo Planting Project – 1MTN Uganda

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Multi-year forward/spots; green debt | 3.8M | 2024 - 2053 | 2023 - 2052 |

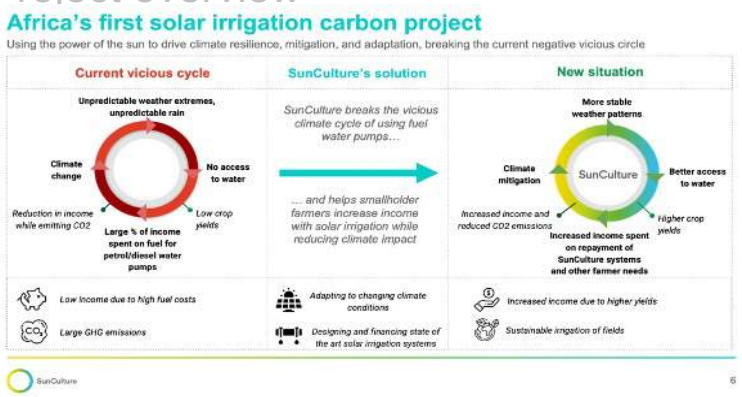
| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2053 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2053 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | 1MTN Uganda |
| **Project proponent** | 1MTN Uganda |
| **Website** | www.1MTN.com |
| **Contact** | anete@1mtn.com |

1MTN Uganda, a carbon removal project developer, focuses on land restoration, biodiversity enrichment, and community impact. As part of the 1MT Group, our mission is to restore one million hectares of degraded land in Africa by 2030 through native or naturalised polyculture bamboo planting. Our projects effectively address climate change, biodiversity loss, and equitable development, contributing directly to 8 Sustainable Development Goals (SDGs). Guided by the People-Planet-Profit principle, we ensure the sustainability and mutual benefit of all stakeholders. The projects have a profound socio-economic impact by creating jobs, fostering collaboration with local communities, and infusing capital into the local economy through empowering the end-to-end bamboo supply chain and bioeconomy.

# Solar water pump project in Kenya – SunCulture Kenya Ltd

## Project overview



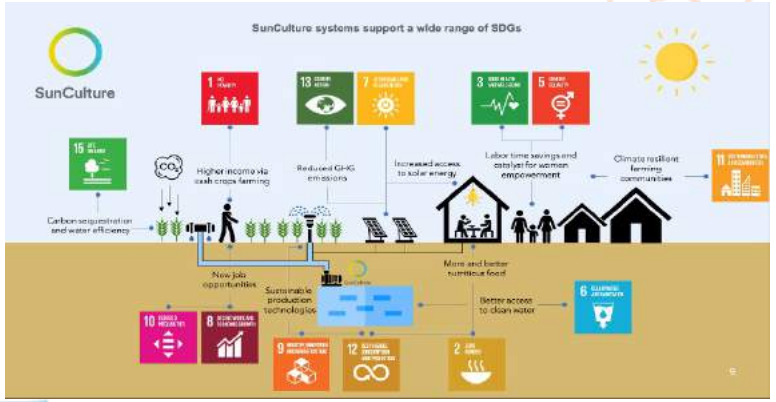

| | |
|---|---|
| **Project name** | Solar water pump project in Kenya |
| **Project developer** | SunCulture Kenya Ltd |
| **Project type** | Productive use technology |
| **Type of credit** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Verra (VCS) |
| **Project ID** | 2989 |
| **Methodology** | CDM Methodology from Sectoral Scope 1 – AMS I.B - |
| **Validation body** | Earthhood |
| **Date of PDD submission** | 03.03.2022 |
| **Independent rating** | - |
| **Independent rating agency** | - |

## Project description

SunCulture is a proprietary climate-tech platform that switches Kenyan farmers from carbon emitting diesel and petrol fuel pumps and climate-vulnerable rainfed irrigation to solar powered irrigation thereby reducing emissions of carbon dioxide to the atmosphere.

SunCulture has reached over 40k farmers with cumulative 1.19 million metric tons of emissions reductions to be realized by 2027. On the project social impact, a survey completed by 60 Decibels informs that 87% of the target customers of SunCulture have reported increased household income resulting from improved productivity of up to 83% and improved livelihoods quantified at 87%.

## Benefits




## Key impact metrics

**239k** tCO2e — Est. carbon offset annually

**40k+** — Farmers reached

**87%** — Improved livelihoods for customers

Commercial needs: Financing needs | Off-take agreement | Spot sales

# Solar water pump project in Kenya – SunCulture Kenya Ltd

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 50,209 | 2023 | 2020 - 2023 |
| 2 | - | 129,149 | 2024 | 2023 - 2024 |
| 3 | - | 268,032 | 2025 | 2024 - 2025 |
| 4 | - | 445,189 | 2026 | 2025 - 2026 |
| 5 | - | 661,555 | 2027 | 2026 - 2027 |
| 6 | - | 394,305 | 2028 | 2027 - 2028 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2028 |
| **Year of vintage for first carbon credits,** realized or expected | 2020 |
| **Year of last vintage carbon credit,** realized or expected | 2027 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

SunCulture

| | |
|---|---|
| **Project developer** | SunCulture Kenya Ltd |
| **Project proponent** | SunCulture Kenya |
| **Website** | sunculture.com |
| **Contact** | daniel.okoth@sunculture.com |

SunCulture develops and commercializes efficient, clean and reliable irrigation solutions for smallholder farmers in Africa.

The company's micro-irrigation products make it not only simpler but also cheaper for farmers to grow higher-value crops and increase yield while reducing water usage by 80%.

The grouped project involves distribution of solar water pumping systems for irrigation purposes, which include battery free as well as battery operated systems with rooftop (and portable) solar panels.

The project technologies employ the revolutionary ClimateSmart Solar Energy System designed by SunCulture which is an IoT (internet of things) enabled energy management system with a Lithium-ion battery, solar panels, and MPPT charging capabilities

# Komaza Smallholder Farmer Forestry Kenya – Komaza

KOMAZA

## Project overview

| | |
|---|---|
| **Project name** | Komaza Smallholder Farmer Forestry Kenya |
| **Project developer** | Komaza |
| **Project type** | Forestry |
| **Type of credit** | Removal |
| **Country (location)** | Kenya |
| **Registration standard** | Verra (VCS) |
| **Project ID** | 2623 |
| **Methodology** | AR-AMS0007 |
| **Validation body** | SCS Global |
| | - |
| **Date of PDD submission** | 29/09/2021 |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Komaza is a sustainable forestry company that partners with smallholder farmers and turns their underutilized land into thriving micro tree farms. Under the Komaza partnership, the land remains under the ownership of the farmers, but the trees are owned by Komaza, and the benefits are shared between the parties. The farms are managed by a Field Extension Network and through a proprietary tech platform that offers real-time management of the tree assets. By combining grounded field operations with digital intelligence, and unlocking the potential of smallholder farmers, Komaza has become the largest commercial tree planter in Kenya… without owning a single plantation!

## Benefits

Benefits include the implementation of climate-resilient activities for smallholder farmers, the provision of a new income opportunity for local communities, and the prevention of land degradation in areas affected by climate change and land-use changes. Komaza also promotes the inclusion of female farmers, providing women with an avenue for capital accumulation outside of traditional mechanisms of land control.

The Komaza project is aiming for a Triple Gold Level CCB certification for Climate Change Adaptation, Community, and Biodiversity.

## Key impact metrics

**213k** tCO2e — Est. carbon to be offset annually over project lifetime

**45k** Ha — To be established under the project as micro tree farms

**100k** — Farmers to be involved in the project

# Komaza Smallholder Farmer Forestry Kenya – Komaza

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 80k | 2023 | 2017-2020 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2050 |
| **Year of vintage for first carbon credits,** realized or expected | 2017 |
| **Year of last vintage carbon credit,** realized or expected | 2047 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

KOMAZA

| | |
|---|---|
| **Project developer** | Komaza |
| **Project proponent** | Komaza Group Inc. |
| **Website** | https://komaza.com/ |
| **Contact** | heloise.zimmermann@komaza.org |

Komaza is a social enterprise founded in 2006 in Coastal Kenya. It was started with the mission of getting subsistence farmers out of poverty by building a profitable forestry business that connects thousands of small-scale tree farmers to high-value wood markets. Komaza's afforestation project includes all of Komaza's planting since 2017 and future planting in Kenya, establishing over 45k hectares of micro tree farms with 100k smallholder farmers.

# TASC Clean Cooking POA VPA 1 – The African Stove Company (TASC)

Project overview

| | |
|---|---|
| **Project name** | TASC Clean Cooking POA – VPA 1 (GS 11145) |
| **Project developer** | The African Stove Company (TASC) |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Zambia |
| **Registration standard** | Gold Standard |
| **Project ID** | GS 11145 |
| **Methodology** | GS TPDDTEC v3.1. |
| **Validation body** | Earthood, Carbon Check |
| **Date of PDD submission** | 07/10/2020 |

## Project description

Over 700 million Africans cook on three-stone, open fires. Open fire cooking is a primary driver of deforestation across Africa. Household air pollution (HAP) from cooking causes over 4 million premature deaths each year, more than tuberculosis and HIV combined. Improved cookstoves (ICS) can reduce indoor air pollution by up to 50% and fuel use by up to 70%. TASC has distributed over 44 000 proudly African stoves in rural areas of Zambia and our project has issued over 500k credits to-date. Beneficiaries are first sensitised and trained to use the most efficient wood-fuel rocket stoves in the world. We have a Letter of No Objection from the Government of Zambia and we have made a formal application for Corresponding Adjustments to be applied to emissions reductions issued by the project. TASC has a continual presence in the communities where we work, conducting formal and informal monitoring throughout the year.

## Benefits

The project has positive impacts on the following SDGs: 1, 3, 5, 7, 8, 12, and 13 which are: no poverty, good health and well-being, gender equality, affordable and clean energy, decent work and economic growth, responsible consumption and production, and climate action, respectively.


## Key impact metrics

**295k** tCO2e — Est. carbon offset annually

**44k** — Number of cookstoves distributed by the project in rural Zambia

**70%** — Fuel reduction as a result of improved cookstove use

**50%** — Reduction in household air pollution

Commercial needs: Financing needs | Off-take agreement | Spot sales

# TASC Clean Cooking POA VPA 1 – The African Stove Company (TASC)

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Forward | 100k | 2024 | 2023 |
| 2 | Forward | 100k | 2024 | 2023 |
| 3 | Forward | 100k | 2025 | 2024 |
| 4 | Forward | 100k | 2025 | 2024 |
| 5 | Forward | 100k | 2026 | 2025 |
| 6 | Forward | 100k | 2026 | 2025 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2022 |
| **Year of last issuance of carbon credits,** realized or expected | 2025 |
| **Year of vintage for first carbon credits,** realized or expected | 2020 |
| **Year of last vintage carbon credit,** realized or expected | 2025 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 584,519 |

| | |
|---|---|
| **Project developer** | The African Stove Company (TASC) |
| **Project proponent** | The African Stove Company (TASC) |
| **Website** | https://tasc.je/ |
| **Contact** | josh@tasc.je |

We are headquartered in Cape Town, South Africa and our goal is to finance and develop high-impact climate mitigation projects. We develop projects with sustainable development impacts beyond GHG mitigation, such as improved health and livelihoods for our beneficiaries. In the last 12 months we have issued over 800 000 VERs from our improved cookstove (ICS) projects in South Africa and Zambia. We forecast our financed and operational projects to issue over 20 million VERs in the next ten years.

# Yaeda-Eyasi Landscape Project – Carbon Tanzania

Project overview

| | |
|---|---|
| **Project name** | Yaeda-Eyasi Landscape Project |
| **Project developer** | Carbon Tanzania |
| **Project type** | Land use |
| **Type of credit** | Avoidance |
| **Country (location)** | Tanzania |
| **Registration standard** | Plan Vivo |
| **Project ID** | Markit - ID: 103000000004180 |
| **Methodology** | Winrock aboveground biomass (AGB) methodology 17 |
| **Validation body** | Aster Global |
| **Date of PDD submission** | Nov 2022 |
| **Independent rating** | None |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The Yaeda-Eyasi Landscape Project links sustainable management of wildlife-rich forests to economic and livelihood improvements. It protects 110k ha of dryland forest in northern Tanzania, the ancestral homeland of the Hadza hunter-gatherers for 40k years. Their lifestyle represents the most ancient form of human existence on earth, and they depend on the health of the environment to sustain it. The neighbouring Datooga pastoralist communities also depend on a healthy natural ecosystem in order for them to practice their traditional semi-nomadic pastoralist lifestyle. In 2021, nine Datooga communities joined forces with the Hadza to protect an area of dryland forest that connects the Yaeda Valley to the Ngorongoro Conservation Area. Through preventing 137k trees from being cut down the project avoids 172k tonnes of CO2 annually.

## Benefits

Over US$500k is earned by local communities annually. This revenue employs and trains 132 people in natural resource protection, improves community wide access to healthcare, pays for school and boarding fees at primary, secondary and tertiary levels, strengthens existing governance structures and supports community development initiatives.

## Key impact metrics

| | |
|---|---|
| **172k tCO2e** | Est. carbon offset annually |
| **110k ha** | Forest area protected |
| **114k** | Est benefiting population from the conservation |
| **$500K** | Earned by local communities annually |
| **137k** | Trees kept standing annually |

# Yaeda-Eyasi Landscape Project – Carbon Tanzania

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| - | - | - | - | - |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2013 |
| **Year of last issuance of carbon credits,** realized or expected | 2041 |
| **Year of vintage for first carbon credits,** realized or expected | 2012 |
| **Year of last vintage carbon credit,** realized or expected | 2040 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 511,817 |

carbontanzania

| | |
|---|---|
| **Project developer** | Carbon Tanzania |
| **Project proponent** | Carbon Tanzania |
| **Website** | https://www.carbontanzania.com |
| **Contact** | info@carbontanzania.com |

Carbon Tanzania generates value for Tanzania's economy and its people by producing nature-based carbon credits that enable local people to earn revenues from the protection of their landscapes. These verified emissions reductions allow global businesses with credible decarbonization strategies to invest in a locally produced nature-based solution that serves the climate, communities and wildlife. With over 10 years of experience, Carbon Tanzania is the developer of two award-winning projects including the Yaeda-Eyasi Landscape Project and the Ntakata Mountains Project plus the Makame savannah project.

# Makame Savannah Project – Carbon Tanzania

Project overview

| | |
|---|---|
| **Project name** | Makame Savannah Project |
| **Project developer** | Carbon Tanzania |
| **Project type** | land use |
| **Type of credit (avoidance/removal)** | Avoidance (averts GHG emissions) |
| **Country (location)** | Tanzania |
| **Registration standard** | VCS |
| **Project ID** | 1900 |
| **Methodology** | VM0007 |
| **Validation body** | Epic Sustainability (1st verification) and Aster Global (2nd and 3rd verification) |
| **Date of PDD submission** | 5/06/2016 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The Masai people have been herding cattle throughout the Rift Valley for 2000 years. In the Makame Savannah project area, they continue to live this traditional lifestyle in the wildlife-rich forests.They depend on their cattle herds for survival in an unpredictable environment.

The Makame Savannah project, situated in a Wildlife Management Area (WMA), protects 364,322 ha dryland forests and conserves critical habitat for protected wildlife by engaging with five Masai villages to set up community land use plans that use seasonal grazing areas to keep their cattle, themselves, and the ecosystem healthy.

Through preventing 268k trees from being cut down the project avoids 130k tonnes of CO2 annually.

## Benefits

LIVELIHOODS: Over US$500k is earned by local communities annually. This revenue employs and trains 32 people in natural resource protection, improves community wide access to healthcare, pays for school and boarding fees at primary, secondary and tertiary levels, strengthens existing governance structures and supports community development initiatives.

## Key impact metrics

**130k** tCO2e — Est. carbon offset annually

**364k** ha — Forest area protected

**26k** — Est benefiting population from the conservation

**$500K** — Earned by local communities annually

**268k** — Trees kept standing annually

# Makame Savannah Project – Carbon Tanzania

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| - | - | - | - | - |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2020 |
| **Year of last issuance of carbon credits,** realized or expected | 2047 |
| **Year of vintage for first carbon credits,** realized or expected | 2016 |
| **Year of last vintage carbon credit,** realized or expected | 2046 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 517,064 |

carbontanzania

| | |
|---|---|
| **Project developer** | Carbon Tanzania |
| **Project proponent** | Carbon Tanzania |
| **Website** | https://www.carbontanzania.com |
| **Contact** | info@carbontanzania.com |

Carbon Tanzania generates value for Tanzania's economy and its people by producing nature-based carbon credits that enable local people to earn revenues from the protection of their landscapes. These verified emissions reductions allow global businesses with credible decarbonisation strategies to invest in a locally produced nature-based solution that serves the climate, communities and wildlife. With over 10 years of experience, Carbon Tanzania is the developer of two award-winning projects including the Yaeda-Eyasi Landscape Project and the Ntakata Mountains Project plus the Makame Savannah project.

# Electrify Africa – ARC Ride Limited

Project overview

| | |
|---|---|
| **Project name** | Electrify Africa |
| **Project developer** | ARC Ride Limited |
| **Project type** | Transportation |
| **Type of credit** | Avoidance |
| **Country (location)** | Kenya, Uganda, Tanzania |
| **Registration standard** | Verra (VCS) |
| **Project ID** | 4524 |
| **Methodology** | VM0038 |
| **Date of PDD submission** | 01/09/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Electrify Africa is a Carbon Credit avoidance project, Under VM0038. ARC Ride will aggregate the energy consumed by the Battery swap Charging Cabinet with vehicle miles traveled and calculate the amount of CO2 offset. The electric vehicle miles will be compared to a baseline ICE yearly emissions figure. The project is based in Nairobi, Kenya, where ARC Ride has 40 battery swap stations (growing weekly) situated with commercial partners across the city. The project is grouped and will mirror ARC Ride's business expansion plans to Mombasa, Kampala, and Dar Es Salaam in the short-medium term.

## Benefits

Customers (i.e., commercial motorcycle taxi operators) are among the poorest and most economically vulnerable in society. Riders can save up to 40% on fuel driving the same distances when switching to ARC Ride's electric vehicles. Each “boda boda” rider supports 8 family members, meaning the direct financial benefits extend far beyond the riders themselves. Revenue from Carbon Credits can further reduce the price of a battery swap.

ARC Ride has developed its ecosystem to work on an open CAN BUS communication protocol. This has allowed integration with other EV manufacturers. Further integration is encouraged, with the ultimate goal of being the “Battery as a Service” provider for a multitude of OEMs, all operating on the same battery and swapping at the same stations.

## Key impact metrics

**30k tCO2e** — Est. carbon offset annually

**40+** — Battery swap stations owned by ARC ride in Nairobi

# Electrify Africa – ARC Ride Limited

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2033 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2033 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 29,985 |

| | |
|---|---|
| **Project developer** | ARC Ride Limited |
| **Project proponent** | ARC Ride Limited |
| **Website** | https://arcrideglobal.com/#/home |
| **Contact** | felix.saro-wiwa@arcrideglobal.com |

ARC Ride is an electric mobility company based in Kenya, selling electric vehicles to customers through financiers (B2B model) as well as Battery as a Service (BaaS).

ARC Ride charges additional lightweight 13kg 48V Li-Ion batteries at its battery swap stations, located around Nairobi.

The batteries and battery swap stations are owned by ARC Ride, allowing the vehicle retail price parity with new ICE vehicles.

ARC Ride's batteries, swap cabinets, and vehicles all have IOT devices allowing for advanced telemetry.

This greatly reduces the risk of theft, and double counting of carbon credits.

# Deployment of Electric Buses in Kenya – BasiGo Limited

Project overview


| | |
|---|---|
| **Project name** | Deployment of Electric Buses in Kenya |
| **Project developer** | BasiGo Limited |
| **Project type** | Transportation |
| **Type of credit** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Gold Standard |
| **Project ID** | GS12146 |
| **Methodology** | AMS-III.S |
| **Date of PDD submission** | 22/12/2022 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Buses are the heart of Africa's mobility ecosystem. Over 1 Million privately-owned buses travel Africa's roads, handling ~40% of all passenger trips. However, unfiltered tailpipe emissions from diesel buses are one of the largest sources of both toxic air pollution and CO2 emissions in African cities.

BasiGo's mission is to bring modern, safe, electric public transit to Africa by enabling bus operators to realize a higher ROI from an electric bus compared to diesel. We do this in 5 ways:

1. E-bus design for Africa
2. Local assembly
3. Simple charging and serving
4. Improving ROI with Tech
5. Pay as you drive financing

## Benefits

Reduced lease and sale price due to expected income from sale of carbon offsets provided to bus purchasers and lessors

## Key impact metrics

**80k tCO2e** — Est. emission offset over total project lifetime

**19 buses** — Units have been delivered to Nairobi bus operators so far

**1k buses** — Est. units to be delivered across East Africa in the next 3 years

# Deployment of Electric Buses in Kenya – BasiGo Limited

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2027 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2027 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | BasiGo Limited |
| **Project proponent** | BasiGo Limited |
| **Website** | www.basi-go.com |
| **Contact** | jg@basi-go.com |

BasiGo is an e-mobility start-up headquartered in Nairobi, Kenya revolutionizing the public transportation sector by providing a cost-effective, electric alternative to diesel buses.

BasiGo works with top tier EV OEMs to import eBuses that are tailored to meet the requirements of the markets they operate in. The buses are then available to finance or lease through an innovative Pay-As-You-Drive mileage-based subscription. PAYD enables bus operators to invest in a benefit from the lower TCO of an eBus without having to pay for the additional upfront cost of the EV and charging infrastructure

# Echo Tech Carbon Biochar Carbon Removal – Echo Tech Carbon Corporation

## Project overview


| | |
|---|---|
| **Project name** | Echo Tech Carbon Biochar Carbon Removal |
| **Project developer** | Echo Tech Carbon Corporation |
| **Project type** | Engineered Carbon Dioxide Removal (CDR) |
| **Type of credit** | Biochar Carbon Removals |
| **Country (location)** | Uganda |
| **Registration standard** | Puro Earth |
| **Methodology** | Puro Earth Biochar Methodology |
| **Date of PDD submission** | 30/09/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Echo Tech Carbon is implementing an advanced biochar carbon removal project in Northern Uganda, leveraging state-of-the-art pyrolysis technology.

Our initiative focuses on using biomass, which would otherwise be burned during the dry season, creating harmful emissions.

Through our pyrolysis process, this biomass is transformed into stable biochar, effectively sequestering carbon for over 1000 years.

## Benefits

This innovative project not only tackles climate change but also contributes to local sustainability, as biochar enhances soil fertility.

## Key impact metrics

**60k** tCO2e — Est. carbon offset annually

**6k** acres — Forest land saved from burning

**13** SDGs — Complied to by the project

*Information provided by project developer*

# Echo Tech Carbon Biochar Carbon Removal –
## Echo Tech Carbon Corporation

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | … | 60k | 2025 | 2025 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2025 |
| **Year of last issuance of carbon credits,** realized or expected | 2050 |
| **Year of vintage for first carbon credits,** realized or expected | 2025 |
| **Year of last vintage carbon credit,** realized or expected | 2050 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Echo Tech Carbon Corporation |
| **Project proponent** | Echo Tech Carbon Corporation |
| **Website** | https://www.echotechcarbon.com/ |
| **Contact** | schmidt@echotechcarbon.com |

Echo Tech Carbon Corp is powered by a seasoned team of visionaries. Co-founders Ryan Petrov and Kurtis Nurmi have a wealth of experience in carbon capture markets, sustainable agriculture, and infrastructure development.

Board members Tom Miles and Dr. Stephen Joseph offer expertise in renewable energy and biochar. Cathy Nurmi's executive experience strengthens our strategic operations, Roland Siemons' biochar knowledge enhances our tech capabilities, and Nikki Hsian Lee's global market linkages cement our international presence.

Together, we drive carbon removal forward.

# Institutional Improved Cook Stoves for Schools and Institutions – Simoshi Limited

## Project overview


| | |
|---|---|
| **Project name** | Institutional Improved Cook Stoves for Schools and Institutions |
| **Project developer** | Simoshi Limited |
| **Project type** | Energy efficiency |
| **Type of credit** | Avoidance |
| **Country (location)** | Uganda |
| **Registration standard** | CDM 10345; GS4364 |
| **Project ID** | GS4364 |
| **Methodology** | AMS.II.G version 12.0 |
| **Validation body** | Carbon Check India and 4K Science Private Limited |
| **Date of PDD submission** | 02/02/2017 |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Simoshi's energy efficient project linked to carbon finance can bring a cleaner, healthier and environmentally friendly technology to low-income individuals and the poor, especially women and children.

The continuous use of the institutional improved cook stoves (IICS) enable both the participating schools and Simoshi to recycle a percentage of the stream of carbon credit returns, to introduce new investments in those same schools within the education, hygiene, food nutrition and infrastructure sectors.

Simoshi delivers carbon credits that provide all the sought after additional environmental and social benefits. The on-going financial benefits from the annual commercialization of the carbon credits are reinvested in the participating schools. Programs include (i) free annual IICS maintenance for 10 years and (ii) kitchen hygiene and infrastructure support.

This Project Activity is 100% additional. The sale of the carbon credits is the only income generated by Simoshi. Systematic verification is conducted for the usage rate and continued use of pre-project devices - no sampling is carried out and no categorization in batches is necessary in regards to these two parameters. Simoshi implements a census approach, all schools included are physically monitored for the IICS usage and kitchen environment assessment at least 8 times during the year."

## Benefits

Simoshi limited contributed to sustainable development through the following SDGs: 1 - End poverty in all its forms everywhere, 3 - Ensure healthy lives and promote well-being for all at all ages, 4 - Quality education, 5 - Achieve gender equality and empower all women and girls, 7 - Ensure access to affordable, reliable, sustainable and modern energy, 8 - Promote inclusive and sustainable economic growth, employment and decent work for all, 13 - Take urgent action to combat climate change and its impacts, 15 - Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss, 17 - Revitalize the global partnership for sustainable development

## Key impact metrics

**~25** tCO2e — Est. carbon offset annually

**50%** reduction — in firewood spend in schools/institutions that use IICS clean cooking

**400** — New schools/institutions expected to improve their kitchen facilities

**163** tons — Firewood saved in a boarding school year

**12** jobs — Permanently created

# Institutional Improved Cook Stoves for Schools and Institutions – Simoshi Limited

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 12k | 2024 | 2023 |
| 2 | - | 15k | 2025 | 2024 |
| 3 | - | 18k | 2026 | 2025 |
| 4 | - | 21k | 2027 | 2026 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2019 |
| **Year of last issuance of carbon credits,** realized or expected | 2023 |
| **Year of vintage for first carbon credits,** realized or expected | 2016 |
| **Year of last vintage carbon credit,** realized or expected | 2022 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 24,272 |

SIMOSHI

| | |
|---|---|
| **Project developer** | Simoshi Limited |
| **Project proponent** | Simoshi Limited |
| **Website** | www.simoshi.org |
| **Contact** | virginia@simoshi.org |

Simoshi is a social enterprise dedicated to improving the livelihoods of children and their families by bringing a cleaner, healthier and environmentally friendly technology via the installation of institutional improved cook stoves (IICS) to low-income individuals, especially women and children, by changing the traditional cooking practices used in schools in Uganda.

To date Simoshi has installed 352 IICS of different capacities in 100 schools. In November 2019 Simoshi issued its first 8,457 GS CERs, followed by 3,950 GS CERs in 2020, 1,647 VERs in March 2021 and 10,218 VERs in April 2022.

# African Clean Energy For Cooking In Uganda – African Clean Energy

Project overview

| | |
|---|---|
| **Project name** | African Clean Energy For Cooking In Uganda |
| **Project developer** | African Clean Energy |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Uganda |
| **Registration standard** | Gold Standard |
| **Project ID** | GS11993 and GS11994 |
| **Methodology** | Methodology for Metered & Measured Energy Cooking Devices |
| **Validation body** | SustainCERT |
| **Date of PDD submission** | 17/05/2023 |
| **Independent rating** | Ongoing conversations with BeZero and Sylvera |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

In Uganda, ACE replaces traditional cookstoves with advanced cooking systems. The ACE One is a clean stove based on biomass gasification that can be used with multiple fuels. End users are offered sustainable fuels such as biomass briquettes or pellets, but also agricultural waste, small sticks or traditional fuels will work. Besides reducing greenhouse gas emissions and preventing deforestation caused by charcoal production, the PoA will allow for comfortable and speedy cooking and improve the health of women and children by reducing indoor air pollution.

## Benefits

The ACE One systems provide their usage data through a proprietary Android mobile integration, giving ACE 'virtual grid'-like actionable insight in the precise quantified impact each system has.

Because of this, we can uniquely quantify the benefits with a great degree of precision. This includes the reduction of wood use (and subsequent protection of biodiversity), protection of health (based on studies by the World Bank and Berkeley Air), time and money saved (mostly for women).

The project is designed with a number of SDGs in mind:


## Key impact metrics

**55k** tCO2e — Est. carbon offset annually

**175k** people — Benefiting from clean cooking

**200** jobs — Created in Uganda to support the project

# African Clean Energy For Cooking In Uganda – African Clean Energy

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| UG001 | … | 16k | 2024 | 2023 |
| UG002 | … | 57k | 2025 | 2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2030 |
| **Year of vintage for first carbon credits,** realized or expected | 2022 |
| **Year of last vintage carbon credit,** realized or expected | 2029 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 340k |

| | |
|---|---|
| **Project developer** | African Clean Energy |
| **Project proponent** | African Clean Energy BV |
| **Website** | https://africancleanenergy.com/ |
| **Contact** | projects@africancleanenergy.com |

African Clean Energy (ACE) is the second highest ranked B Corp in the world.

ACE, both a manufacturer of renewable energy products and an Energy as a Service (EaaS) climate fintech pioneer, provides its clean energy solutions with ACE One hybrid energy system in emerging markets.

The system provides biomass cooking energy and solar electricity that can be used for lighting and phone charging which is essential energy for low-income households in developing countries.

ACE has served over 80k households and applies the Methodology for Metered & Measured Energy Cooking Devices.

# REPLACING KEROSENE LIGHTS AND PARAFFIN CANDLES BY SOLAR LIGHTS IN NAMIBIA – Namene

## Project overview

| | |
|---|---|
| **Project name** | NAMENE SOLAR LIGHT COMPANY: SOLAR LIGHTING PROJECT ZAMBIA 1 |
| **Project developer** | Namene |
| **Project type** | Household devices |
| **Type of credit** | Avoidance (averts GHG emissions) |
| **Country (location)** | Zambia |
| **Registration standard** | Gold Standard |
| **Project ID** | GS7002 |
| **Methodology** | AMS.III-A.R. v6 |
| **Validation body** | ERM |
| **Date of PDD submission** | 15/09/2020 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Our solar-powered lights eliminate carbon emissions and toxic fumes by replacing kerosene lamps and candles. The avoided emissions are certified as carbon credits, which we then sell to subsidise our solar lights and make them affordable for those who need them most, starting with low-income, off-grid families.

## Benefits

SDG 1, SDG 7 and SDG 13 as per the Gold Standard for the Global Goals

The project development followed the Social and Environmental Safeguard Requirements by the Gold Standard for the Global goals and conducted extensive stakeholder consultations. The project has been successfully certified and registered under the Gold Standard


## Key impact metrics

**40k**
**tCO2e**
Sequestered annually emissions offset

**600k**
**Solar lights**
Distributed in rural households

# NAMENE SOLAR LIGHT COMPANY: SOLAR LIGHTING PROJECT ZAMBIA 1 – Namene

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 20,000 | 2023 | 2022/2023 |
| 2 | - | 8,000 | 2023 | 2021/2022 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2022 |
| **Year of last issuance of carbon credits,** realized or expected | 2025 |
| **Year of vintage for first carbon credits,** realized or expected | 2020 |
| **Year of last vintage carbon credit,** realized or expected | 2025 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 10,000 |

| | |
|---|---|
| **Project developer** | Namene |
| **Project proponent** | Namene Climate Investment Vehicle Ltd |
| **Website** | https://namenesolar.com/ |
| **Contact** | climate@namenesolar.com |

We are a clean technology company, providing ultra-affordable everyday products such as portable solar lights to low-income families in remote or off-grid communities. By providing safe and sustainable products that replace carbon-emitting alternatives, we enhance the lives and livelihoods of millions of people in a growing number of countries in the Global South. Under our inaugural 2 Million Lights programme we have deployed over 800,000 solar lights in Zambia, Zimbabwe and Namibia and we are continuously expanding into other countries in Africa.

# Clean Cooking to Combat Climate Change in Tanzania – OffgridSun

Project overview

| | |
|---|---|
| **Project name** | Clean Cooking to Combat Climate Change in Tanzania |
| **Project developer** | OffgridSun |
| **Project type** | Energy efficiency |
| **Type of credit (avoidance/removal)** | Removal |
| **Country (location)** | Tanzania |
| **Registration standard** | Gold Standard |
| **Project ID** | GS11659 |
| **Methodology** | AMS-II.G (V12.0) "Energy efficiency measures in thermal applications of non-renewable biomass" |
| **Validation body** | Re-Carbon |
| | link |
| **Date of PDD submission** | 2/18/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

More than 90% of rural households in Tanzania rely on traditional cooking methods and use firewood as main fuel for cooking; with negative effects on the environment on one side because of deforestation and human health on the other side because of the negative effects of polluted air on the local population. Deforestation and climate change is a pressing concern for Tanzania: from 2001 to 2020 the country lost 2.70Mha of tree cover; equivalent to a 10% decrease in tree cover since 2000; and produced 910Mt of CO2e emissions related to cooking practices (https://www.globalforestwatch.org/). The mortality rate attributed to indoor air pollution (IAP) is 139 every 100;000 deaths every year (World Bank; 2016). Since cooking is predominantly a women's business; women and girls are the ones affected the most by this condition. In average; women spend between 3 to 7 hours per day in collecting firewood and cooking related activities and are exposed 3 to 5 times more than men to polluted air from firewood combustion.vClean Cooking to combat climate change in Tanzania is a project that aims at contributing to the reduction of CO2 emissions derived by the use of fossil fuel for cooking and deforestation through the promotion of alternative clean cooking among rural households. The traditional stoves mostly used by rural households will be replaced with locally-made; portable; modern firewood cookstoves with high thermal efficiency (approx. 35%) that help to reduce up to 70% the wood consumption. This project will be implemented in Central Tanzania in Morogoro region; within Ifakara Province; Kilombero District and Malinyi District targeting 6 villages for a total number of about 5.000 households which will included in project activities and 5.000 cookstoves distributed.

## Benefits

The improved cookstoves will be sold at a highly subsidized prize in order to allow easy access to this clean cooking technology even to the poorest families in the rural area

part of the net profit will be allocated to the installation of solar systems on public buildings to improve social services for the communities (e.g. schools, health centres, solar pumping systems to provide safe water to the communities)

## Key impact metrics

**12k** tCO2e — Est. carbon offset annually

**5k** cookstoves — Will be distributed by the project across 6 villages and 5k households

**25k** people — Will benefit from the project

**9.5k** tonnes — Non-renewable wood fuel saved annually

# Clean Cooking to Combat Climate Change in Tanzania – OffgridSun

## Project details

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2029 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2028 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 12.000 | 2024 | 2023 |
| 2 | - | 12.000 | 2025 | 2024 |
| 3 | - | 12.000 | 2026 | 2025 |
| 4 | - | 12.000 | 2027 | 2026 |
| 5 | - | 12.000 | 2028 | 2027 |

OffgridSun
Be part of the solution

| | |
|---|---|
| **Project developer** | OffgridSun |
| **Project proponent** | OffgridSun |
| **Website** | https://offgridsun.com/en/ |
| **Contact** | v.quaranta@offgridsun.com |

Offgridsun; an Italian company founded in 2016; strives to comply with the Paris Agreement and UNs 2030 Agenda. The company aims to provide reliable; clean; and affordable solar energy worldwide; particularly in off-grid locations. Offgridsun collaborates with local partners; developing and deploying innovative solar solutions that boost livelihoods; resilience; and mitigates climate change. Registered as a project developer at Gold Standard since 2022; it has projects in Kenya; Tanzania; and Zambia on safe water access and clean cooking

# Distributed Emission Reductions by Bboxx Energy Solutions – Bboxx Ltd

Project overview

| | |
|---|---|
| **Project name** | Distributed Emission Reductions by Bboxx Energy Solutions |
| **Project developer** | Bboxx Ltd |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance |
| **Country (location)** | Rwanda, DRC, Nigeria, Kenya, Togo, Burkina Faso |
| **Registration standard** | AMS-III.BL |
| **Project ID** | GS11598, GS11600, GS11893 |
| **Methodology** | small scale category |
| **Validation body** | Earthood |
| **Date of PDD submission** | 25/04/2023 |

## Project description

Bboxx solar home system has a wide range of battery capacities from 10w to 240w to fit any needs of a family. Customers can choose to add appliances such as lamps, radio, torches, fans among others, on an affordable Pay As You Go system. Bboxx provides solar water pump system as well. Bboxx clean cook stove is fueled by LPG, not only to reduce GHS emission but to dramatically improve inhouse air quality.

## Benefits

Through the project, several SDG-based achievements are able to be met:

1. Reduction of GHGs emissions annually – SDG 13 (Climate action
2. Creation of direct and indirect jobs and income opportunities – SDG 8 (Decent work and economic growth)
3. Access to affordable and reliable energy services to the communities - SDG 7 (Affordable and clean energy)

## Key impact metrics

**20k** tCO2e

Est. carbon offset annually

Commercial needs: Financing needs | Off-take agreement | Spot sales

# Distributed Emission Reductions by Bboxx Energy Solutions – Bboxx Ltd

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 9k | 2023 | 2021 - 2022 |
| 2 | - | 16k | 2024 | 2023 |
| 3 | - | 29k | 2025 | 2024 |
| 4 | - | 48k | 2026 | 2025 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2026 |
| **Year of vintage for first carbon credits,** realized or expected | 2021 |
| **Year of last vintage carbon credit,** realized or expected | 2025 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 100k |

Bboxx

| | |
|---|---|
| **Project developer** | Bboxx Ltd |
| **Project proponent** | Bboxx Ltd |
| **Website** | https://www.bboxx.com/ |
| **Contact** | n.suzuki@bboxx.co.uk |

Bboxx, founded in 2010, deploys solar home system and clean cook stove in ten countries in Africa. To promote its activities even further, Bboxx has started development of carbon credit under Program of Activities framework, and is now at the final stage of project registration at Gold Standard.

# Sanergy Composting Group Project – Sanergy

Project overview

| | |
|---|---|
| **Project name** | Sanergy Composting Group Project |
| **Project developer** | Sanergy |
| **Project type** | Waste Management |
| **Type of credit** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Verra (VCS) |
| **Project ID** | 4015 |
| **Methodology** | ACM0022 |
| **Validation body** | Carbon Check (India) Private Ltd. |
| **Date of PDD submission** | 12/01/2023 |

## Project description

The Sanergy Composting Group Project is located in Kenya and produces organic fertilizer, insect-based animal feeds and compressed fuel briquettes from various organic and biomass waste sources. These sources include sanitation waste collected from non-sewered sanitation units in informal settlements, organic food waste from markets, hotels, restaurants, and grocery stores, and agriculture waste from agribusiness and farms

The composting and briquetting activities prevent the emissions that would normally be released in landfills and pit latrines/sludge pits. In addition to carbon dioxide, these activities prevent the release of methane, which is 80x more potent than CO2 and is the most important lever to mitigate near-term climate change.

Sanergy's work has been globally recognized by Earthshot Prize, Food Planet Prize, World Economic Forum BiodiverCities Innovator, and the Keeling Curve Prize.

## Benefits

The project has positive impacts on the following SDGs: 2, 6, 7 8, 12, 13, 14


## Key impact metrics

**34k tCO2e** — Est. carbon offset annually

**60k tonnes** — Annual organic waste volume converted into compost

**33k tonnes** — Annual avoided green gas emissions

**11k tonnes** — Annual volume of organic fertilizer produced

Commercial needs: Financing needs; Off-take agreement; Spot sales

# Sanergy Composting Group Project – Sanergy

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2037 |
| **Year of vintage for first carbon credits,** realized or expected | 2022 |
| **Year of last vintage carbon credit,** realized or expected | 2029 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Sanergy |
| **Project proponent** | Circular Impact, Inc. |
| **Website** | www.sanergy.com |
| **Contact** | info@circularimpact.io |

Sanergy is an alliance of organizations that harness a circular economy approach to empower cities in building carbon-negative systems that offer safe sanitation. Sanergy also works to build regenerative food systems through the production of feeds, fertilizers, and fuels from upcycled sanitation and other residual organic waste.

# D.LIGHT'S IMPROVED COOKING PROJECT IN NIGERIA – Climate Secure

## Project overview

| | |
|---|---|
| **Project name** | D.Light's improved cooking project in Nigeria |
| **Project developer** | Climate Secure |
| **Project type** | Energy efficiency |
| **Type of credit** | Avoidance (averts GHG emissions) |
| **Country (location)** | Nigeria |
| **Registration standard** | Verra |
| **Project ID** | 4225 |
| **Methodology** | VMR0006 |
| **Validation body** | Carbon Check |
| **Date of PDD submission** | 03/03/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The "D. LIGHT'S IMPROVED COOKING PROJECT IN NIGERIA" is a large-scale project that aims dissemination of energy-efficient improved cookstoves (ICS) to replace existing traditional Cookstoves in domestic households and communities in Nigeria. Traditional cooking methods prevalent across host country, contribute to greenhouse gas (GHG) emissions due to inefficient combustion of unsustainably sourced, non-renewable biomass (NRB) fuel. Furthermore, the use of solid biomass fuels (e.g., wood) in inefficient traditional stoves and/or open fires releases large amounts of particulate matter (PM), creating hazardous levels of indoor air pollution (IAP). The ICSs disseminated under the project are designed to improve fuel combustion and heat transfer. The ICS results in the reduction of fuel consumption and improvement in levels of Indoor air pollution for project users (reducing smoke, black soot, and particulate matter (PM) emissions). The reduction in consumption of cooking fuel also reduces equivalent greenhouse gas (GHG) emissions attributed to the use of non-renewable biomass. In the absence of this project, the project activity beneficiaries would cook primarily using traditional inefficient stoves for meeting their thermal energy needs, perpetuating environmental and health degradation. The project activity intends to access carbon finance to mitigate one of the main barriers (price) for end users towards adopting clean cookstoves. The average annual GHG emission reduction from the project activity is estimated to be 199,895 tCO2e and a total of 1,399,267 tCO2e over the first crediting period of 7 years.

## Benefits

SD VIsta

## Key impact metrics

**200k**
**tCO2e**

Sequestered annually emissions offset

# D.LIGHT'S IMPROVED COOKING PROJECT IN NIGERIA – Climate Secure

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | … | 100,000 | 2024 | 2022- 2023 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2028 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2027 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

| | |
|---|---|
| **Project developer** | Climate Secure |
| **Project proponent** | Dlight |
| **Website** | https://www.climate-secure.com/index.html |
| **Contact** | karl.skare@dlight.com |

Climate Secure, an independent environmental consultancy established in 2013, specializes in tailored carbon advisory services for private companies, NGOs, and multilateral organizations across several countries. With over 8 years of experience in carbon markets, they have successfully guided clients through challenges in carbon-constrained economies to foster low-carbon initiatives. They've facilitated 100+ global emissions reduction projects and excel in large rural community development undertakings. In project experience, they've shown expertise in mega-sized improved cookstove initiatives

# REPLACING KEROSENE LIGHTS AND PARAFFIN CANDLES BY SOLAR LIGHTS IN NAMIBIA – Namene

## Project overview

| | |
|---|---|
| **Project name** | Replacing kerosene lights and paraffin candles by solar lights in Namibia |
| **Project developer** | Namene |
| **Project type** | Household devices |
| **Type of credit** | Avoidance (averts GHG emissions) |
| **Country (location)** | Namibia |
| **Registration standard** | Gold Standard |
| **Project ID** | GS7784 |
| **Methodology** | AMS.III-A.R. v6 |
| **Validation body** | Carbon Check |
| **Date of PDD submission** | 31/12/2021 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Our solar-powered lights eliminate carbon emissions and toxic fumes by replacing kerosene lamps and candles. The avoided emissions are certified as carbon credits, which we then sell to subsidise our solar lights and make them affordable for those who need them most, starting with low-income, off-grid families

## Benefits

SDG 1, SDG 7 and SDG 13 as per the Gold Standard for the Global Goals

The project development followed the Social and Environmental Safeguard Requirements by the Gold Standard for the Global goals and conducted extensive stakeholder consultations. The project has been successfully certified and registered under the Gold Standard


## Key impact metrics

**30k**
**tCO2e**
Sequestered annually emissions offset

**330k**
**Solar lights**
Distributed in rural households

# REPLACING KEROSENE LIGHTS AND PARAFFIN CANDLES BY SOLAR LIGHTS IN NAMIBIA – Namene

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | … | 8,000 | 2024 | 2022/2023 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2027 |
| **Year of vintage for first carbon credits,** realized or expected | 2021 |
| **Year of last vintage carbon credit,** realized or expected | 2026 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

| | |
|---|---|
| **Project developer** | Namene |
| **Project proponent** | Namene Climate Investment Vehicle Ltd |
| **Website** | https://namenesolar.com/ |
| **Contact** | climate@namenesolar.com |

We are a clean technology company, providing ultra-affordable everyday products such as portable solar lights to low-income families in remote or off-grid communities. By providing safe and sustainable products that replace carbon-emitting alternatives, we enhance the lives and livelihoods of millions of people in a growing number of countries in the Global South. Under our inaugural 2 Million Lights programme we have deployed over 800,000 solar lights in Zambia, Zimbabwe and Namibia and we are continuously expanding into other countries in Africa.

# “Tunza Mazingira, Tumia Jiko Banifu!” – “Protect the environment, use improved cookstoves!” – OffgridSun

Project overview

| | |
|---|---|
| **Project name** | “Tunza Mazingira, Tumia Jiko Banifu!” – “Protect the environment, use improved cookstoves!” – OffgridSun |
| **Project developer** | OffgridSun |
| **Project type** | Energy efficiency |
| **Type of credit (avoidance/removal)** | Removal (reduces GHG emissions) |
| **Country (location)** | Tanzania |
| **Registration standard** | Gold Standard |
| **Project ID** | GS1238 |
| **Methodology** | Reduced Emissions from Cooking and Heating: TPDDTEC V 4.0 |
| **Validation body** | Project not yet validated by VVB |
| **Date of PDD submission** | 27/03/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

## Project description

OffgridSun has developed the Green Tanzania Cookstove Programme to promote clean cooking in rural Tanzania. The Green Tanzania Cookstove Programme aims at contributing to the reduction of CO2 emissions derived by the use of fossil fuel for cooking and deforestation through the promotion of alternative clean cooking among rural households. The traditional stoves mostly used by rural households will be replaced with locally-made, portable, modern firewood cookstoves with high thermal efficiency (approx. 35%) that help to reduce up to 70% the wood consumption. The first activity within the Programme is the project “Protect the Environment, Use Clean Cookstoves” (VPA1) that is going to be implemented in Tanga Region whereby OffgridSun will distribute 10.000 improved cookstoves and small tree plants to the population in Handeni District.

## Benefits

The project strategy for benefit sharing with local communities is based on a two components model. The first component is based on a high price discount of the technology for the clients. The improved cookstoves will be sold at a higly subsidized prize in order to allow easy access to this clean cooking technology even to the poorest families in the rural area. The cookstoves will be sold at price equivalent to the 15% of the market price for similar technologies, approximately 4-5 USD. The second component of the benefit sharing strategy is based on the establishment of a revenue-sharing mechanism with local communities whereby part of the net profit will be allocated to the installation of solar systems on public buildings to improve social services for the communities (e.g. schools, health centres, solar pumping systems to provide safe water to the communities).

## Key impact metrics

| | |
|---|---|
| **35k tCO2e** | Est. carbon offset annually |
| **10k** | Cookstoves to be distributed in the Tanga region |
| **50k** | People benefit from the project |
| **18k** | Wood fuel volumes saved annualy by the modern firewood cookstoves |
| **60** | Ful-time jobs created in the cookstoves value chain in 5 years |

Commercial needs: Financing needs | Off-take agreement | Spot sales

# “Tunza Mazingira, Tumia Jiko Banifu!” – “Protect the environment, use improved cookstoves!” – OffgridSun

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 35k | 2025 | 2024 |
| 1 | - | 70k | 2027 | 2025/2026 |
| 1 | - | 70k | 2029 | 2027/2028 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2025 |
| **Year of last issuance of carbon credits,** realized or expected | 2030 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2029 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |
| **Financing need** | - |

| | |
|---|---|
| **Project developer** | OffgridSun |
| **Project proponent** | OffgridSun |
| **Website** | https://offgridsun.com/en/ |
| **Contact** | v.quaranta@offgridsun.com |

Offgridsun, an Italian company founded in 2016, strives to comply with the Paris Agreement and UN's 2030 Agenda. The company aims to provide reliable, clean,

and affordable solar energy worldwide, particularly in off-grid locations. Offgridsun collaborates with local partners, developing and deploying innovative solar

solutions that boost livelihoods, resilience, and mitigates climate change. Registered as a project developer at Gold Standard since 2022, it has projects in Kenya,

Tanzania, and Zambia on safe water access and clean cooking.

# Maji safi Maisha bora – OffgridSun

## Project overview

| | |
|---|---|
| **Project name** | Maji safi Maisha bora |
| **Project developer** | OffgridSun |
| **Project type** | Energy efficiency |
| **Type of credit** | Removal |
| **Country (location)** | Kenya |
| **Registration standard** | Gold Standard |
| **Project ID** | GS11544 |
| **Validation body** | Re-Carbon |
| **Methodology** | Gold Standard Methodology for Emissions Reduction from Safe Drinking Water Supply |
| **Date of PDD submission** | 07/04/2022 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Access to safe drinking water for most rural communities in Kenya is still a challenge because of scarcity of water infrastructures able to provide reliable water. These communities therefore have to either drink unsafe water as it is or have to boil it to make it safer using high quantity of firewood and charcoal, contributing to deforestation and GHG emission produced by the combustion. The aim of the project is to improve the life conditions of the local population, around 50k people, by providing safe drinking/domestic within reasonable proximity and using purification technologies that are safe for the environment thus reducing the carbon emissions. The project will rehabilitate an old water pipeline (the “Usigu Community Water Supply System”) which is currently not functioning by connecting it to a solar system, replacing the not functioning parts and extending the pipeline to unserved areas. The system will bring safe water to the population by installing smart water kiosks in the surrounding area close to people's homes. The project infrastructure works have already begun in early 2023. In August 2023 the first part of the system is going to be operative supplying water to about 25k people.

## Benefits

The project strategy for benefit sharing with local communities is based on a two components model. The first component is based on a high price discount of the safe water provided to the local communities. Safe water will be sold at a highly subsidized prize in order to allow easy access even to the poorest families in the rural area. The second component of the benefit sharing strategy is based on the establishment of a revenue-sharing mechanism with local communities whereby part of the net profit will be allocated to the installation of solar systems on public buildings to improve social services for the communities (e.g. schools, health centres, extension of the project pipeline to additional areas not served and installation of additional smart water kiosks).

## Key impact metrics

**14k** tCO2e — Est. carbon offset annually

**25k** — Number of people to be receiving water as of August 2023

**64k** m3 — Safe drinking water provided by the system in one year

**7k** tonnes — Annual volumes of firewood saved because of the project

# Maji safi Maisha bora – OffgridSun

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 70k | 2029 | 2024/2029 |
| 1 | - | 70k | 2033 | 2029/2033 |
| 1 | - | 70k | 2038 | 2033/2038 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2038 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2038 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 214k |

OffgridSun
leading-edge technology for energy access

| | |
|---|---|
| **Project developer** | OffgridSun |
| **Project proponent** | Bboxx Ltd |
| **Website** | www.offgridsun.com |
| **Contact** | v.quaranta@offgridsun.com |

Offgridsun, an Italian company founded in 2016, strives to comply with the Paris Agreement and UN's 2030 Agenda. The company aims to provide reliable, clean, and affordable solar energy worldwide, particularly in off-grid locations. Offgridsun collaborates with local partners, developing and deploying innovative solar solutions that boost livelihoods, resilience, and mitigates climate change. Registered as a project developer at Gold Standard since 2022, it has projects in Kenya, Tanzania, and Zambia.

# Chipangali Safe Water Access – OffgridSun

## Project overview

| | |
|---|---|
| **Project name** | Chipangali Safe Water Access |
| **Project developer** | OffgridSun |
| **Project type** | Energy efficiency |
| **Type of credit** | Removal |
| **Country (location)** | Zambia |
| **Registration standard** | Gold Standard |
| **Project ID** | GS11730 |
| **Methodology** | GS Methodology for Emissions Reduction from Safe Drinking Water Supply (v 1.0) |
| **Validation body** | Gold Standard |
| **Date of PDD submission** | 3/08/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

Zambia remains one of the countries in Africa with the least access to water, sanitation and hygiene services. According to the data collected by the Zambia Demographic and Health Survey (DSH 2018), only 58 % of rural households has access to basic drinking water services while the rest of the population relies on unimproved water sources such as ponds, shallow wells, surface water such lakes and rivers. Access to safe drinking water for most rural communities in Zambia is still a challenge and despite efforts to improve this situation done by the Government, many rural communities lack proper access to water.

The causes of the limited access to safe water for rural households are related either to low availability of boreholes which are not sufficient to cover the needs of the fast-growing population, therefore providing a limited quantity of water per each household, or to the low efficiency of the existing boreholes, which often do not function properly because of lack of maintenance or replacement of broken spares. Therefore, the communities either drink the unsafe water exposing themselves to water borne diseases or have to boiling the water to purify it often using firewood and charcoal, in turn polluting the environment, contributing to disforestation and exposing people, mainly women and children, to breath intoxicate air. In Chipangali district, located in the Eastern part of the country, where the project is implemented, the water access situation is critical. About 20.000 people currently do not have access to safe water in the area but have to fetch water from open sources such rivers, dams & open pans, which are prone to contamination from human activities. The objective of the project is to improve the livelihoods of people living in Chipangali Distict, where there is no or poor access to safe water by providing sufficient, affordable, and clean drinking water to the communities within reasonable proximity, by doing the following activities:

- Rehabilitation of already existing but broken boreholes (about 100 boreholes)
- Creation of new boreholes in villages without access to safe water at all (about 20 boreholes)
- Training the local population on WASH (Water, Sanitation and Hygiene) topics

## Benefits

The project strategy for benefit sharing with local communities is based on a two components model. The first component is based on the provision of safe water to the targeted population for free. The second component of the benefit sharing strategy is based on the establishment of a revenue-sharing mechanism with local communities whereby part the net profit will be allocated to the installation of solar systems on public buildings to improve social services for the communities (e.g., schools, health centres, additional boreholes to be repaired/built)

## Key impact metrics

| | |
|---|---|
| **10k tCO2e** | Est. carbon offset annually |
| **120** | Boreholes will either be repaired (100) or created (20) |
| **25k m3** | People will benefit from the project by gaining access to clean water |
| **36k m3** | Annual volume of safe water provided by the project |
| **5.9k tonnes** | Annual volume of wood saved by the local thanks to clean drinking water provided |

# Chipangali Safe Water Access – OffgridSun

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 10k | 2025 | 2024 |
| 1 | - | 20k | 2027 | 2025/2026 |
| 1 | - | 20k | 2029 | 2027/2028 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2025 |
| **Year of last issuance of carbon credits,** realized or expected | 2040 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2039 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | OffgridSun |
| **Project proponent** | OffgridSun |
| **Website** | https://offgridsun.com/en/ |
| **Contact** | v.quaranta@offgridsun.com |

Offgridsun, an Italian company founded in 2016, strives to comply with the Paris Agreement and UN's 2030 Agenda. The company aims to provide reliable, clean,

and affordable solar energy worldwide, particularly in off-grid locations. Offgridsun collaborates with local partners, developing and deploying innovative solar

solutions that boost livelihoods, resilience, and mitigates climate change. Registered as a project developer at Gold Standard since 2022, it has projects in Kenya,

Tanzania, and Zambia on safe water access and clean cooking.

# DelAgua / Live Well – DelAgua

## Project overview

| | |
|---|---|
| **Project name** | DelAgua / Live Well |
| **Project developer** | DelAgua |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Rwanda, Gambia, Sierra Leone |
| **Registration standard** | Verra |
| **Project ID** | 2749, 3699, 4150, 3837, 4000, 4409, 4410 |
| **Methodology** | AMS.II-G, VMR0006, TPDDTEC, BAMG. |
| **Validation body** | Earthood and ClimateCheck |
| **Date of PDD submission** | 02/08/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

The DelAgua Live Well programme works in partnership with host governments to provide, free of charge, high performance stoves to rural communities dependent on 3 stone fires. These families live well below the poverty line so have been excluded from access to clean cooking because of lack of affordability. The stoves cut wood fuel use by 71%, reduce cooking times by half and because they are portable, designed to be used outside, cut household air pollution by 73%.

We pioneered the use of technology to monitor usage of every stove and believe our data is market leading. Each household is visited at least every 6 months by our CHWs who use the DelAgua app to scan the unique barcode on each stove and to conduct usage surveys. This means we hold accurate data on each of our 1.5 million stoves ensuring the integrity of our carbon credits.

## Benefits

SD Vista – Certification under way

Live Well provides a plethora of benefits, transforming health, gender equality, education and the environment. The project delivers measurable impacts on SDGs 1, 3, 4, 5, 7, 8, 13, 15.

We believe in developing local talent to run our programmes: our model is to transfer skills, creating empowered country teams including a network of 7k trusted Community Health Workers (CHWs), trained by DelAgua, who are focused on education and support for all our stove recipients.

## Key impact metrics

**7M** tCO2e — Est. carbon offset annually

**1.5M** — Energy-efficient cookstoves delivered since 2012

**71%** — Wood consumption reduced by the modern firewood cookstoves

**7k** — Community Health Workers (CHWs) trained

**$1.6k** — A rural Rwanda household will save on average from reduction in wood usage

# DelAgua / Live Well – DelAgua

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 2019 vintage | - | 349,786 | 2023 | 2019 |
| 2020 vintage | - | 592,224 | 2023 | 2020 |
| 2021 vintage | - | 350k | 2023 | 2021 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2015 |
| **Year of last issuance of carbon credits,** realized or expected | 2023 |
| **Year of vintage for first carbon credits,** realized or expected | 2014 |
| **Year of last vintage carbon credit,** realized or expected | 2033 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 3.5M |
| **Financing need** | - |

| | |
|---|---|
| **Project developer** | DelAgua |
| **Project proponent** | DelAgua Health Rwanda (Voluntary) Limited |
| **Website** | www.delagua.org |
| **Contact** | kate.bruges@delagua.org |

DelAgua is the leading carbon project developer in clean cookstoves for rural sub-Saharan Africa. Our mission is Transforming Lives and Nature Through Enterprise. Since 2012, we have delivered over 1.5m energy efficient stoves, free of charge to the rural poor, improving more than 7.5m lives. The Live Well programme operates in Rwanda, Sierra Leone and The Gambia. MoUs are in progress with other LDC governments to expand the programme elsewhere in Africa. DelAgua manages every aspect of the programme, from distribution, education and ongoing support, to data capture and carbon issuance.

# 2

# Presentation of projects – 2023 edition

Section 1: Project validated against an ICROA-endorsed independent standard

**Section 2: Projects not yet validated against an ICROA-endorsed independent standard**

Section 3: Projects designed against new or emerging methodologies

# GRASSLAND RESTORATION IN EAST AFRICA THROUGH SOIL ENRICHMENT – Boomitra Incorporated and EarthAcre Incorporated

Project overview

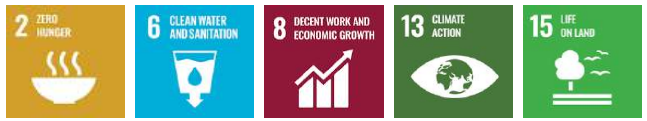
| | |
|---|---|
| **Project name** | GRASSLAND RESTORATION IN EAST AFRICA THROUGH SOIL ENRICHMENT |
| **Project developer** | Boomitra Incorporated and EarthAcre Incorporated |
| **Project type** | Agriculture (pastoral) |
| **Type of credit** | Removal |
| **Country (location)** | Kenya |
| **Registration standard** | Verra |
| **Project ID** | 3340 |
| **Methodology** | VM00042 |
| **Validation body** | - |
| **Date of PDD submission** | 31/07/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

## Project description

This project helps pastoralists in deploying practices that contribute to the sustainable development of the Savanna grasslands of East Africa. The pastoralists of this region have largely resorted to implementing traditional grassland management methods on their lands. The grazing of grasslands by both livestock and wildlife is widely prevalent, and degradation of land due to overgrazing is a prominent issue. In this context, the opportunity to introduce improved grassland management practices, including sustainable grazing practices, will significantly help the grasslands of the region and restore carbon to their soil, creating carbon removals while improving overall soil health. In this project, pastoralists will be mobilized to take up a variety of improved grassland management practices. These practices are proven ways to increase soil organic carbon, prevent further degradation of the grasslands, and enable pastoralists to improve their productivity.

## Benefits

The project aims to provide substantial benefits. The majority of the revenue generated from carbon will be returned to the landowners and communities who are actively participating in the project. Furthermore, the project will establish a local organization in partnership with landowners, pastoralists and local stakeholders for capacity building, knowledge sharing, and regional coordination of interventions. The project is designed to enhance the group management of grasslands which is essential for long term stewardship and regeneration, while ensuring transparent sharing of benefits. By safeguarding grasslands known for their exceptional mammalian densities, the project will contribute to the preservation of diverse wildlife. Additionally, it will make significant contributions to several Sustainable Development Goals (SDGs), including SDG 2 (Zero Hunger), SDG 6 (Clean Water and Sanitation), SDG 8 (Decent Work and Economic Growth), SDG 13 (Climate Action), and SDG 15 (Life on Land).




## Key impact metrics

**50k** tCO2e — Est. carbon offset annually

**70%** — Gross credit sales will be distributed to landowners and communities

**50k+** acres — Acres of land protected

Commercial needs: Financing needs | Off-take agreement | Spot sales

# GRASSLAND RESTORATION IN EAST AFRICA THROUGH SOIL ENRICHMENT – Boomitra Incorporated and EarthAcre Incorporated

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2038 |
| **Year of vintage for first carbon credits,** realized or expected | 2018 |
| **Year of last vintage carbon credit,** realized or expected | 2038 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |
| **Financing need** | - |

| | |
|---|---|
| **Project developer** | Boomitra Incorporated and EarthAcre Incorporated |
| **Project proponent** | Boomitra Incorporated |
| **Website** | www.boomitra.com and www.earthacre.com |
| **Contact** | info@earthacre.com |

Boomitra operates and manages carbon projects for the purpose of promoting Improved Ecosystem Regeneration Practices by landowners with the objective of reducing or removing Greenhouse Gases (“GHG”). Boomitra is involved with 5M+ acres and 150k+ landowners across the world.

EarthAcre designs and builds equitable solutions to address climate change and biodiversity collapse with community knowledge and technology. EarthAcre’s team includes leaders with over 30 years of experience pioneering payment for ecosystem services solutions with indigenous and rural landowners

# Boomitra Carbon Farming in East Africa through Soil Enrichment – Boomitra Inc

Project overview

| | |
|---|---|
| **Project name** | Boomitra Carbon Farming in East Africa through Soil Enrichment |
| **Project developer** | Boomitra Inc |
| **Project type** | Agriculture (arable) |
| **Type of credit** | Removal |
| **Country (location)** | Kenya, Uganda<br>Tanzania, Rwanda |
| **Registration standard** | Verra (VCS) |
| **Project ID** | 3774 |
| **Methodology** | VM0042 |
| **Validation body** | - |
| **Date of PDD submission** | 29/09/2022 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This project aims to help farmers deploy improved cropland management and regenerative agricultural practices. Over time, these croplands have undergone severe degradation due to anthropological factors, environmental conditions, and recurring natural calamities. In this context, the opportunity to introduce improved cropland management practices will significantly help the croplands of the region and restore soil organic matter to their land, creating carbon removals while improving overall soil health. The project activities include the adoption of practices such as no-till or reduced tilling, mulching with crop residues, optimized fertilizer use, using organic manures, improved water management, improved crop planting and harvesting methods, and agroforestry activities. These practices are proven ways to increase soil organic carbon, preventing further degradation of croplands and their soils, and enabling farmers to improve their productivity

## Benefits

Boomitra's equitable business model ensures that a super-majority share of the carbon revenue generated will be transferred back to the farmers and communities involved in the project. In addition to this financial incentive, farmers involved in the project are also provided with an Agtech stack (insights on carbon, NPK, soil moisture levels and more) at zero cost to the farmer. Farmers are better equipped to combat the repercussions arising from conditions of erratic rainfall and severe drought. Additionally, the project is expected to generate several community benefits and contributes to SDGs 2,6,8,11,13,15.

## Key impact metrics

**300k** tCO2e — Est. carbon offset annually

**120k+** acres — Project cover in Kenya

**5k+** — Farmers will be supported by the project

# Boomitra Carbon Farming in East Africa through Soil Enrichment – Boomitra Inc

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2039 |
| **Year of vintage for first carbon credits,** realized or expected | 2019 |
| **Year of last vintage carbon credit,** realized or expected | TBD |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

boomitra

| | |
|---|---|
| **Project developer** | Boomitra Inc |
| **Project proponent** | Boomitra Inc |
| **Website** | https://boomitra.com/ |
| **Contact** | Info@boomitra.com |

Boomitra operates a leading carbon marketplace working with farmers and landowners worldwide to mitigate climate change through improved agricultural practices. We use proprietary AI and remote-sensing technology to monitor, report, and verify (MRV) soil organic carbon to a 30cm+ depth, without hardware or physical soil sampling, reducing measurement costs by 99%. The process is cost-efficient, time effective, and scalable across various landholding sizes – enabling Boomitra to work globally: 5M+ acres, 150k+ farmers, 4 continents. Our inclusive ecosystem offers cost-effective opportunities

# Oubangui REDD+ Project – ClimeTrek Ltd

Project overview

| | |
|---|---|
| **Project name** | Oubangui REDD+ Project |
| **Project developer** | ClimeTrek Ltd |
| **Project type** | Forestry |
| **Type of credit** | Avoidance |
| **Country (location)** | Democratic Republic of the Congo |
| **Registration standard** | Verra (VCS), CCBS |
| **Project ID** | VCS 4407 |
| **Methodology** | VM0009 |
| **Date of PDD submission** | 15/11/2023 |

## Project description

The Oubangui Redd+ project covers an area of 310,537 ha and its located in the Northern part of DRC, Nord Ubangi province .The project aims at conserving this precious ecosystem and it involves conservation of the existing forest lands by preventing further cases of deforestation. These activities will increase the carbons sequestration potential of the forests thereby leading to emissions reductions .The project will use disruptive technologies such as remote sensing in the surveillance of the project activities so as to minimize any issues of leakages.

## Benefits

The project will be additionally certified under the Climate, Community and Biodiversity Standard (CCB Standard) apart from VERRA VCS.
The project aligns its benefits to a number of SDGs:
1. SDG 1, 2, 3, 5, 6, 12, 13 & 15


## Key impact metrics

**4.95M** tCO2e — Est. carbon offset annually

**50%** — Net revenue realised form the sale of the credits will be earmarked for the communities

**310k** ha — Forest and mangrove area to be covered under the conservation project

Commercial needs: Financing needs | Off-take agreement | Spot sales

# Oubangui REDD+ Project – ClimeTrek Ltd

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 19,815,012 | 2024 | 2020-2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2052 |
| **Year of vintage for first carbon credits,** realized or expected | 2020 |
| **Year of last vintage carbon credit,** realized or expected | 2050 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

ClimeTrek

| | |
|---|---|
| **Project developer** | ClimeTrek Ltd |
| **Project proponent** | ClimeTrek and Global Treaty Corporation Congo SARL |
| **Website** | https://climetrek.com/ |
| **Contact** | anuran.khan@climetrek.com |

ClimeTrek is carbon offset project developer having a gamut of projects of different types in the portfolio, with a particular focus in NbS projects in LDCs, primarily located in Africa. Being a project developer, we provide end-to-end services working with our implementation partners on the ground from the inception of the project to the issuance. We further liquidate the issued credits through our trading team by retiring such credits for our clientele of end-users, thereby generating revenues for our stakeholders who are always the maximum benefactors basis the benefit-sharing mechanism.

# Boyazala REDD+ Project – ClimeTrek Ltd

Project overview

| | |
|---|---|
| **Project name** | Boyazala REDD+ Project |
| **Project developer** | ClimeTrek Ltd |
| **Project type** | Forestry |
| **Type of credit** | Avoidance |
| **Country (location)** | Democratic Republic of the Congo |
| **Registration standard** | Verra (VCS), CCBS |
| **Project ID** | VCS 4406 |
| **Methodology** | VM0009 |
| **Date of PDD submission** | 15/11/2023 |

## Project description

The project will execute activities aiming to avoid ecosystem conversion and so the avoidance of the resulting emissions, the project will provide sustainable development benefits to the communities through financial incentives for conservation of forests sustainably and thus halting or reversing forest loss. This conservation project is located in Sud Ubangi Provinces at northern part of DRC and and it covers an area of 291,691 hectares. The overall objective of the project is to bring about net-positive climate, community and biodiversity impacts. Such as making communities less vulnerable and more resilient to climate change and biodiversity values that are better conserved .

## Benefits

The project will be additionally certified under the Climate, Community and Biodiversity Standard (CCB Standard) apart from VERRA VCS.
The project aligns its benefits to a number of SDGs:
1. SDG 1, 2, 3, 5, 6, 12, 13 & 15


## Key impact metrics

**5.46M** tCO2e — Est. carbon offset annually

**50%** — Net revenue realised form the sale of the credits will be earmarked for the communities

**~290k** ha — Forest and mangrove area to be covered under the conservation project

Commercial needs: Financing needs | Off-take agreement | Spot sales

# Boyazala REDD+ Project – ClimeTrek Ltd

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 21,848,860 | 2024 | 2020-2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2052 |
| **Year of vintage for first carbon credits,** realized or expected | 2020 |
| **Year of last vintage carbon credit,** realized or expected | 2050 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 163,866,450 |

ClimeTrek

| | |
|---|---|
| **Project developer** | ClimeTrek Ltd |
| **Project proponent** | ClimeTrek and Global Treaty Corporation Congo SARL |
| **Website** | https://climetrek.com/ |
| **Contact** | anuran.khan@climetrek.com |

ClimeTrek is carbon offset project developer having a gamut of projects of different types in the portfolio, with a particular focus in NbS projects in LDCs, primarily located in Africa. Being a project developer, we provide end-to-end services working with our implementation partners on the ground from the inception of the project to the issuance. We further liquidate the issued credits through our trading team by retiring such credits for our clientele of end-users, thereby generating revenues for our stakeholders who are always the maximum benefactors basis the benefit-sharing mechanism.

# Volta Mangrove Rehabilitation and Blue Carbon Development – Igugu Global

Project overview

| | |
|---|---|
| **Project name** | Volta Mangrove Rehabilitation and Blue Carbon Development |
| **Project developer** | Igugu Global |
| **Project type** | Blue carbon |
| **Type of credit** | Avoidance & Removal |
| **Country (location)** | Ghana |
| **Registration standard** | Verra (VCS) |
| **Methodology** | AR-AM0014 |
| **Validation body** | SCS Global Services |
| **Date of PDD submission** | 31/08/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This project aims at restoring and sustainably managing the Volta region mangroves. Volta mangroves together with the creeks and rivers are a major source of food and livelihood. Other ecosystem services provided by this unique environment are flood control, ground water re-fill, reservoir of biodiversity, fuel wood, cultural values etc. The purpose of the project is to restore the degraded local mangrove ecosystem and increase forest cover by planting a variety of native mangrove species and establish a healthy local ecological and economic system by involving residents into the projects implementation directly.

## Benefits

Benefit Sharing to ensure that indigenous communities' benefit from blue carbon projects. The project has engaged a land rights partner to support negotiating and establishing mechanisms for fair and equitable benefit sharing, which include financial compensation, capacity-building opportunities, employment, and community development initiatives.

## Key impact metrics

**854k** tCO2e — Est. carbon offset annually

**112** — Mangrove firewood workers are transitioning to more sustainable livelihoods

**2.2k** — Women and girls are participating in educational scholarships and vocational training programs supported by the project

**1** — improved healthcare facilities, schools, and sanitation systems in the community

# Volta Mangrove Rehabilitation and Blue Carbon Development – Igugu Global

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 2024 | Offset purchase agreement | 4,271 | 2024 | 2023 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2032 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2032 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Igugu Global |
| **Project proponent** | Igugu Global |
| **Website** | https://igugu.global/ |
| **Contact** | anele@igugu.global |

Igugu Global is a technology company accelerating the flow of capital by making it incredibly easy to search, structure and finance green and carbon assets. Africa has a $1,5 trillion gap in sustainable infrastructure- from renewable energy to nature-based solutions. Igugu is the isiZulu word for treasure. Our solutions help business navigate negative environmental externalities, creating low carbon, climate resilient and inclusive investment opportunities. For us treasure is revealing and enhancing the natural value of an asset – from origination to deal making, asset management and exit.

# Northern DRC REDD+ Project 1 – ClimeTrek Ltd

Project overview

| | |
|---|---|
| **Project name** | Northern DRC REDD+ Project 1 |
| **Project developer** | ClimeTrek Ltd |
| **Project type** | Forestry |
| **Type of credits** | Avoidance |
| **Country (location)** | Democratic Republic of Congo |
| **Registration standard** | Verra (VCS) , CCBS |
| **Project ID** | VCS 4154 |
| **Methodology** | VM0009 |
| **Date of PDD submission** | 11/10/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

ClimeTrek Limited in partnership with Global Treaty Corporation Congo purposes to develop a REDD+ project at the Northern part of Congo ,Sud- Ubangi province.The conservation project activity will cover a total area of 320,802 ha. The project activity aims at ensuring the survival of the endangered bonobo by conserving it natural habitat. Bonobo ,is the least known species of the four great apes in the world, With the protection of bonobos, other species too will be protected as their habitats will be preserved. The project will improve farming and food delivery systems using various types of interventions and strategic awareness , behavior change campaigns, train and employ the population to protect the wildlife, particularly the endangered species such as Bonobo and Black Leopard, there will be educational processes in the villages, directed at people of all ages and promote of alternative sources of fuel.

## Benefits

The project will be additionally certified under the Climate, Community and Biodiversity Standard (CCB Standard) apart from VERRA VCS.
The project aligns its benefits to a number of SDGs:
1. SDG 1, 2, 3, 4, 5, 8, 12, 13 & 15


## Key impact metrics

**5.6m** tCO2e — Est. carbon offset annually

**50%** — Net revenue realised form the sale of the credits will be earmarked for the communities

**~320k** ha — Forest area to be covered under the conservation project

# Northern DRC REDD+ Project 1 – ClimeTrek Ltd

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 8,384,786 | 2024 | 2023-2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2054 |
| **Year of vintage for first carbon credits,** realized or expected | 2022 |
| **Year of last vintage carbon credit,** realized or expected | 2052 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

ClimeTrek

| | |
|---|---|
| **Project developer** | ClimeTrek Ltd |
| **Project proponent** | ClimeTrek Ltd |
| **Website** | https://climetrek.com/ |
| **Contact** | anuran.khan@climetrek.com |

ClimeTrek is carbon offset project developer having a gamut of projects of different types in the portfolio, with a particular focus in NbS projects in LDCs, primarily located in Africa. Being a project developer, we provide end-to-end services working with our implementation partners on the ground from the inception of the project to the issuance. We further liquidate the issued credits through our trading team by retiring such credits for our clientele of end-users, thereby generating revenues for our stakeholders who are always the maximum benefactors basis the benefit-sharing mechanism.

# Ishima REDD+ Project – ClimeTrek Ltd

Project overview

| | |
|---|---|
| **Project name** | Ishima REDD+ Project |
| **Project developer** | ClimeTrek Ltd |
| **Project type** | Forestry |
| **Type of credit** | Avoidance credits |
| **Country (location)** | Zambia |
| **Registration standard** | Verra (VCS), CCBS |
| **Project ID** | VCS 4405 |
| **Methodology** | VM0015 |
| **Date of PDD submission** | 15/11/2023 |

## Project description

The Ishima REDD+ project in Zambia is an Avoided Unplanned Deforestation and Degradation (AUDD) project located in the Zambezi region of the North-Western Province in Zambia. This project aims at the conservation of the project area which is rapidly showing signs of deforestation and increased tree cover loss, and thus through planned interventions seeks to promote mitigation of climate change in the project site. The Ishima REDD+ Project aims at Reducing Emissions from Deforestation and Degradation (REDD+) by avoiding unplanned deforestation under VERRA scheme VM0015. The project aims at the conservation of 120k hectares of land spread across the Zambezi region in the Ishima kingdom. There is specific need of conservation in this area, as the project site is located to the east of the Zambezi River, and the area around Zambezi River is considered as a key area for biodiversity significance. Through this project, apart from the conservation of the 120k hectares from unplanned deforestation and logging, unsustainable fuelwood extraction by the local communities, and the prevalence of slash and burn type of agriculture that is predominant in the project area, the project will aim to additionally provide benefit to the communities in the project area in a bid to increase their economic resilience and assist in their capacity building. The REDD+ Project is expected to avoid unplanned deforestation on an area of 120k hectares, equating to 4,394,550 tCO2e in emissions reductions over the 30-year project lifetime with an annual average of 146,485 tCO2e.

## Benefits

The project will be additionally certified under the Climate, Community and Biodiversity Standard (CCB Standard) apart from VERRA VCS.
The project aligns its benefits to a number of SDGs:
1. SDG 1, 3, 4, 5, 6, 8, 13 & 15


## Key impact metrics

**146k tCO2e** — Est. carbon offset annually

**50%** — Net revenue realised form the sale of the credits will be earmarked for the communities

**~120k ha** — Forest and mangrove area to be covered under the conservation project

Commercial needs: Financing needs | Off-take agreement | Spot sales

# Ishima REDD+ Project – ClimeTrek Ltd

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 585,940 | 2024 | 2020-2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2052 |
| **Year of vintage for first carbon credits,** realized or expected | 2020 |
| **Year of last vintage carbon credit,** realized or expected | 2050 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

ClimeTrek

| | |
|---|---|
| **Project developer** | ClimeTrek Ltd |
| **Project proponent** | ClimeTrek Ltd |
| **Website** | https://climetrek.com/ |
| **Contact** | anuran.khan@climetrek.com |

ClimeTrek is carbon offset project developer having a gamut of projects of different types in the portfolio, with a particular focus in NbS projects in LDCs, primarily located in Africa. Being a project developer, we provide end-to-end services working with our implementation partners on the ground from the inception of the project to the issuance. We further liquidate the issued credits through our trading team by retiring such credits for our clientele of end-users, thereby generating revenues for our stakeholders who are always the maximum benefactors basis the benefit-sharing mechanism.

# Leading renewable biomass fuels producer – CYNK

## Project overview

| | |
|---|---|
| **Project name** | Leading renewable biomass fuels producer in Kenya |
| **Project developer** | CYNK |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Gold Standard |
| **Project ID** | GS12187 |
| **Methodology** | AMS-III.AS |
| **Validation body** | Earthhood |
| **Date of PDD submission** | 15/06/2023 |

## Project description

Tamuwa specializes in upcycling agri-waste to produce renewable biomass fuels, which are delivered to a wide cross-section of industries across Kenya. As Kenya's leading renewable biomass fuels producer, Tamuwa enables the avoidance of millions of tonnes of carbon emissions and helps accelerate Kenya's growing low carbon economy. Tamuwa's project will generate 7.5 million tonnes of carbon credits over the life of the project, which it intends to tokenize through Cynk's Launchpad and Carbonport.

## Benefits

This is a Gold Standard project on the 5 SDGs 5, 7, 8, 13, 15, achieving them by:


## Key impact metrics

**500k** tCO2e — Est. carbon offset annually

**360k** tonnes — Wood fuel is saved annually by the project

**350** — Jobs are created by the first VPA at the first Kibos plant

Commercial needs: Financing needs | Off-take agreement | Spot sales

# Leading renewable biomass fuels producer – CYNK

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 20k | 2023 | 2023 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2038 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2038 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |
| **Financing need** | - |

| | |
|---|---|
| **Project developer** | CYNK |
| **Project proponent** | CYNK |
| **Website** | cynk.io |
| **Contact** | Nils.Razmilovic@tamu-group.com |

Cynk is an end-to-end carbon credit platform delivering the highest quality of carbon credits with an immutable audit trail, providing financing at every stage for carbon credit projects and directly linking projects to buyers via a full-service marketplace. The platform will help increase the value of the carbon asset for carbon credit projects by ensuring the credits are of the highest quality.

# DR Congo Mangrove Blue Carbon Project – ClimeTrek Ltd

Project overview

| | |
|---|---|
| **Project name** | DR Congo Mangrove Blue Carbon Project |
| **Project developer** | ClimeTrek Ltd |
| **Project type** | Blue carbon |
| **Type of credit** | Avoidance & Removal |
| **Country (location)** | Democratic Republic of Congo |
| **Registration standard** | Verra (VCS), CCBS |
| **Project ID** | VCS 4372 |
| **Methodology** | VM0007: REDD+ Methodology Framework (REDD+MF), v1.6 |
| **Date of PDD submission** | 01/11/2023 |

## Project description

Through the implementation of the mangrove REDD+ project in the area the project proponents aim to conserve the mangrove areas by addressing the drivers of deforestation leading to a potential emission reduction of 689,274 tCO2e/year. Furthermore, the project proponent also aims to restore the already degraded and deforested area of 1161 ha during the project lifetime that will lead to additional emission reductions of 33,379 tCO2e/yr along with other benefits such as shoreline protection and biodiversity conservation.

Thus, this REDD and RWE project is expected to avoid unplanned deforestation and degradation, along with restoration of the already degraded areas on an area of 23,684 ha equating to 21,691,891 tCO2e in emissions reductions over the 30 year project lifetime with an annual average of 723,063 tCO2e.

## Benefits

The project will be additionally certified under the Climate, Community and Biodiversity Standard (CCB Standard) apart from VERRA VCS.
The project aligns its benefits to a number of SDGs:
1. SDG 1, 2, 3, 4, 5, 13 & 15


## Key impact metrics

**723k** tCO2e — Est. carbon offset annually

**50%** — Net revenue realised form the sale of the credits will be earmarked for the communities

**~25k** ha — Forest and mangrove area to be covered under the conservation project

Commercial needs: Financing needs | Off-take agreement | Spot sales

# DR Congo Mangrove Blue Carbon Project – ClimeTrek Ltd

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 2.5M | 2024 | 2020-2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2052 |
| **Year of vintage for first carbon credits,** realized or expected | 2020 |
| **Year of last vintage carbon credit,** realized or expected | 2050 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

ClimeTrek

| | |
|---|---|
| **Project developer** | ClimeTrek Ltd |
| **Project proponent** | ClimeTrek Ltd |
| **Website** | https://climetrek.com/ |
| **Contact** | anuran.khan@climetrek.com |

ClimeTrek is carbon offset project developer having a gamut of projects of different types in the portfolio, with a particular focus in NbS projects in LDCs, primarily located in Africa. Being a project developer, we provide end-to-end services working with our implementation partners on the ground from the inception of the project to the issuance. We further liquidate the issued credits through our trading team by retiring such credits for our clientele of end-users, thereby generating revenues for our stakeholders who are always the maximum benefactors basis the benefit-sharing mechanism.

# Sud-Ubangi REDD+ Project – ClimeTrek Ltd

Project overview

| | |
|---|---|
| **Project name** | Sud-Ubangi REDD+ Project |
| **Project developer** | ClimeTrek Ltd |
| **Project type** | Forestry |
| **Type of credit** | Avoidance |
| **Country (location)** | Democratic Republic of Congo |
| **Registration standard** | Verra (VCS), CCBS |
| **Project ID** | VCS 4378 |
| **Methodology** | VM0009 |
| **Date of PDD submission** | 11/10/2023 |

## Project description

The Sud-Ubangi Redd+ Project is located on the southern part of Ubangi river and it covers an area of 269,022 ha. This project will ensure the conservation of this area from planned deforestation and will employ the VM0009 methodology. Furthermore there will be implementation of technologies and strategies outlined such as: a) Advancements of the educational sector whereby both formal and informal skills will be imparted in all the community members especially on matters environmental protection and conservation ,b) Biodiversity protection through community sensitization. This will help in the protection of species judged endangered by extinction such as the Bonobo and the Black Leopard among others. The activities to be executed in this project will help achieve this by integrating the community efforts with the local wildlife protection groups ,c) Improve farming and food delivery systems. This will be done through introduction of agricultural practices. The project will result in an annual reduction of 4,949,424 tCO2e.

## Benefits

The project will be additionally certified under the Climate, Community and Biodiversity Standard (CCB Standard) apart from VERRA VCS.
The project aligns its benefits to a number of SDGs:
1. SDG 1, 2, 3, 5, 6, 12, 13 & 15


## Key impact metrics

**5M** tCO2e — Est. carbon offset annually

**50%** — Net revenue realised form the sale of the credits will be earmarked for the communities

**~270k** ha — Forest area to be covered under the conservation project

Commercial needs: Financing needs | Off-take agreement | Spot sales

# Sud-Ubangi REDD+ Project – ClimeTrek Ltd

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 7,424,136 | 2024 | 2022-2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2054 |
| **Year of vintage for first carbon credits,** realized or expected | 2022 |
| **Year of last vintage carbon credit,** realized or expected | 2052 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

ClimeTrek

| | |
|---|---|
| **Project developer** | ClimeTrek Ltd |
| **Project proponent** | ClimeTrek Ltd |
| **Website** | https://climetrek.com/ |
| **Contact** | anuran.khan@climetrek.com |

ClimeTrek is carbon offset project developer having a gamut of projects of different types in the portfolio, with a particular focus in NbS projects in LDCs, primarily located in Africa. Being a project developer, we provide end-to-end services working with our implementation partners on the ground from the inception of the project to the issuance. We further liquidate the issued credits through our trading team by retiring such credits for our clientele of end-users, thereby generating revenues for our stakeholders who are always the maximum benefactors basis the benefit-sharing mechanism.

# Kabwafu-Mzimba Agroforestry Community Project – ClimeTrek Ltd

Project overview

| | |
|---|---|
| **Project name** | Kabwafu-Mzimba Agroforestry Community Project |
| **Project developer** | ClimeTrek Ltd |
| **Project type** | Land use |
| **Type of credit** | Removal |
| **Country (location)** | Malawi |
| **Registration standard** | Verra (VCS) |
| **Project ID** | VCS 4393 |
| **Methodology** | AR ACM0003 |
| **Date of PDD submission** | 20/09/2023 |

## Project description

The selected project area is in a trust that is in Northwest Mzimba and covers areas of Senior Traditional Authority. This land covers an area of 12,800 hectares, out of which, 9494 ha is being targeted for an agroforestry project.

The project's primary goal is to revitalize the damaged land through reforestation and will utilize the support of small-scale farmers and renew the unproductive areas into agroforestry land.

The project aims at addressing the problems through an integrated landscape approach, balancing restoration and conservation needs.

## Benefits

The project will be additionally certified under the Climate, Community and Biodiversity Standard (CCB Standard) apart from VERRA VCS.
The project aligns its benefits to a number of SDGs:
1. SDG 1, 2, 3, 5, 6, 12, 13 & 15


Commercial needs: Financing needs | Off-take agreement | Spot sales

## Key impact metrics

**84k** tCO2e — Est. carbon offset annually

**9494** Ha — Forest land to be conserved

# Kabwafu-Mzimba Agroforestry Community Project – ClimeTrek Ltd

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 11,500 | 2025 | 2020 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2025 |
| **Year of last issuance of carbon credits,** realized or expected | 2061 |
| **Year of vintage for first carbon credits,** realized or expected | 2020 |
| **Year of last vintage carbon credit,** realized or expected | 2060 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

| | |
|---|---|
| **Project developer** | ClimeTrek Ltd |
| **Project proponent** | ClimeTrek and Sustainable Farming Solutions |
| **Website** | https://climetrek.com/ |
| **Contact** | anuran.khan@climetrek.com |

ClimeTrek has the expertise and experience in developing carbon offset projects around the world which have a positive impact in reducing carbon emissions, benefiting the local communities and helping in preserving the biodiversity.

We have been at the forefront of developing carbon offset projects and have over 50 projects in our portfolio.

We provide end-to-end services from inception of credit to issuance.

Furthermore, we monetise the credits generated for benefits of all stakeholders involved in our projects, ensuring the maximum benefits are provided to the local communities.

# Nord-Ubangi and Sud-Ubangi REDD+ Project – ClimeTrek Ltd

Project overview


| | |
|---|---|
| **Project name** | Nord-Ubangi and Sud-Ubangi REDD+ Project |
| **Project developer** | ClimeTrek Ltd |
| **Project type** | Forestry |
| **Type of credits** | Avoidance |
| **Country (location)** | Democratic Republic of Congo |
| **Registration standard** | Verra (VCS) |
| **Project ID** | VCS 3995 |
| **Methodology** | VM0015 |
| **Date of PDD submission** | 11/09/2023 |

## Project description

The Nord-Ubangi and Sud-Ubangi REDD+ Project, located in the northern region of Democratic Republic of Congo (DRC), is a grouped project that is focused on forest conservation of the ecologically rich and diverse project area in this rainforest.

This project aims to conserve 893,422 ha, and additionally provide benefits to the communities in the project.

The REDD+ Project is expected to avoid unplanned deforestation on an area of 893,422 hectares, equating to 40,203,990 tCO2e in emissions reductions over the 30-year project lifetime with an annual average of 1,340,133 tCO2e.

## Benefits

The project will be additionally certified under the Climate, Community and Biodiversity Standard (CCB Standard) apart from VERRA VCS.

The project aligns its benefits to a number of SDGs:


## Key impact metrics

**~900k** hectares — Forest land to be conserved

**1.3m** tCO2e — Est. carbon offset annually

Commercial needs: Financing needs | Off-take agreement | Spot sales

*Information provided by project developer*

# Nord-Ubangi and Sud-Ubangi REDD+ Project – ClimeTrek Ltd

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 2,010,200 | 2024 | 2022-2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2054 |
| **Year of vintage for first carbon credits,** realized or expected | 2022 |
| **Year of last vintage carbon credit,** realized or expected | 2052 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

| | |
|---|---|
| **Project developer** | ClimeTrek Ltd |
| **Project proponent** | ClimeTrek and Global Treaty Corporation Congo SARL |
| **Website** | https://climetrek.com/ |
| **Contact** | anuran.khan@climetrek.com |

ClimeTrek is carbon offset project developer having a gamut of projects of different types in the portfolio, with a particular focus in NbS projects in LDCs, primarily located in Africa.

We provide end-to-end services working with our implementation partners on the ground from the inception of the project to the issuance.

We further liquidate the issued credits through our trading team by retiring such credits for our clientele of end-users, thereby generating revenues for our stakeholders who are always the maximum benefactor's basis the benefit-sharing mechanism.

# Global EverGreening Alliance – Restore Africa

Global EverGreening Alliance

## Project overview

| | |
|---|---|
| **Project name** | Restore Africa |
| **Project developer** | Global EverGreening Alliance |
| **Project type** | Agriculture (pastoral) |
| **Type of credit** | Removal |
| **Country (location)** | Kenya; Uganda; Malawi<br>Ethiopia; Tanzania; Zambia. |
| **Registration standard** | Verra |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **Date of PDD submission** | 20/06/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Restore Africa is the world's largest community-led; nature-based carbon removal programme. The programme currently spans across six African countries - Ethiopia; Kenya; Malawi; Tanzania; Uganda; and Zambia - restoring over two million hectares while supporting over two million smallholder farmers and their communities.

## Benefits

As per the Gold Standard for the Global Goals


## Key impact metrics

**5.2M** tCO2e — Est. carbon offset annually

**3.84M** ha — Land to be restored under the project

# Global EverGreening Alliance – Restore Africa

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2027 |
| **Year of last issuance of carbon credits,** realized or expected | 2054 |
| **Year of vintage for first carbon credits,** realized or expected | 2022 |
| **Year of last vintage carbon credit,** realized or expected | 2054 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Global EverGreening Alliance |
| **Project proponent** | Global EverGreening Alliance |
| **Website** | www.evergreening.org |
| **Contact** | katerina.koteska@evergreening.org |

Restore Africa is the world's largest community-led; nature-based carbon removal programme. The programme currently spans across six African countries - Ethiopia; Kenya; Malawi; Tanzania; Uganda; and Zambia - restoring over two million hectares while supporting over two million smallholder farmers and their communities.

# THE INTERNATIONAL SMALL GROUP AND TREE PLANTING PROGRAM (TIST) – CLEAN AIR ACTION CORPORATION

Project overview

| | |
|---|---|
| **Project name** | The International Small Group And Tree Planting Program (TIST) |
| **Project developer** | Clean Air Action Corporation |
| **Project type** | Forestry |
| **Type of credit (avoidance/removal)** | Removal |
| **Country (location)** | Tanzania, Uganda, Kenya |
| **Registration standard** | Verra VCS |
| **Project ID** | Example 2338 (For the 16 validated TIST projects) |
| **Methodology** | AR-AMS0007 |
| **Validation body** | Aenor international; ESI; EPIC; JACO |
| | - |
| **Date of PDD submission** | 8/14/2020 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

TIST program is a tree planting and leadership growing program that has been verified under voluntary carbon standards (VCS) and CCBA.

TIST program started in Tanzania in 1999. We are now working in four countries: Uganda; Kenya; Tanzania and India.
TIST works with small scale farmers who form small groups of 6-12 people, who then form a cluster of 30-50 small groups which is the common forum of administration and trainings.

A cluster is led by three people (The leader; coleader and accountability person). Each position is voluntary, and leaders rotate every 4 months. We require each gender in those positions to make sure women and youth are given leadership opportunities.

TIST values are: honesty, accuracy, mutual accountability, transparency, and being a servant to each other.

These are the pillars of making TIST deliver high integrity carbon credits.

## Benefits

Has Triple Gold Certificate in CCBA

## Key impact metrics

**3M**
**tCO2e**

Est. carbon offset annually

# THE INTERNATIONAL SMALL GROUP AND TREE PLANTING PROGRAM (TIST) – CLEAN AIR ACTION CORPORATION

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2011 |
| **Year of last issuance of carbon credits,** realized or expected | 2063 |
| **Year of vintage for first carbon credits,** realized or expected | 2000 |
| **Year of last vintage carbon credit,** realized or expected | 2063 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 27M |

| | |
|---|---|
| **Project developer** | Clean Air Action Corporation |
| **Project proponent** | The International Small Group and Tree Planting Program (TIST) |
| **Website** | www.cleanairaction.com and www.tist.org |
| **Contact** | sarahnkunda@tist.org |

Clean air action corporation (CAAC) has more than 20 years experience in forestry carbon. clean air action; working for economic empowerment; and the institute for environmental innovation (I4EI); working for sustainable development; jointly started TIST program. the international small group and tree planting program (TIST) was the first program in the world to pass validation and verification in afforestation and reforestation (A/R) carbon credits in the year 2010 and CCBA gold in 2011.

# Kajiado Rangelands Carbon Project – Soils for the Future Africa

## Project overview

| | |
|---|---|
| **Project name** | Kajiado Rangelands Carbon Project |
| **Project developer** | Soils for the Future Africa |
| **Project type** | Land use |
| **Type of credit** | Removal |
| **Country (location)** | Kenya |
| **Registration standard** | Verra (VCS) |
| **Project ID** | Not yet available |
| **Methodology** | VM0032 |
| **Validation body** | Not yet available |
| **Date of PDD submission** | 12.06.2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Soils for the Future Africa will act in partnership with local communities to implement rapid rotational grazing (RRG) practices that actively restore forage production, remove carbon dioxide ($CO_2$) from the atmosphere to soil organic carbon (SOC), and enhance biodiversity.

The KRCP involves a two-tiered approach to monitoring project activities and resultant impacts by 1) tracking on-the-ground movements of livestock via grazing coordinators, and 2) remotely measuring the impacts of grazing on vegetation via satellite imagery.

Improved grazing management, which is modeled on traditional grazing practices implemented by Maasai communities in the region for centuries and up to Kenyan independence, will yield significant removal of $CO_2e$ from the atmosphere.

## Benefits

The KRCP will accrue exceptional benefits in community adaptation to climate change, improved community well-being, and increased biodiversity in a crucial swath of southern Kenya's savannas and grasslands.

CCB Standard. Metrics include number of people in local communities gaining community benefits such as training, employment, livelihood, education, and health benefits.

Expected change in the number of hectares managed significantly better by the project for biodiversity conservation

Number of Endangered and Critically Endangered species benefiting from reduced threats.

## Key impact metrics

**1.6M** $tCO_2e$ — Est. carbon offset annually

**1.1M** — Expected hectares managed significantly better by the project for biodiversity conservation

**18** — Expected globally critically endangered or endangered species benefiting from reduced threats as a result of project activities

**345** — Total number of community members who are expected to have improved skills and/or knowledge resulting from training provided as part of project activities

# **Kajiado Rangelands Carbon Project** – Soils for the Future Africa

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2053 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2023 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Soils for the Future Africa |
| **Project proponent** | Soils for the Future Africa |
| **Website** | https://www.carbonsolve.world/about-1-1 |
| **Contact** | markritchie@soilsfuture.com |

Soils for the Future Africa (SftFA) is a Kenya-based for-profit company.

Mark Ritchie, Ph.D., is a Director of Soils for the Future Africa and is the author of the approved Verra methodology “VM0032: Methodology for the Adoption of Sustainable Grasslands through Adjustment of Fire and Grazing”. This is the same methodology used on the validated Verra Northern Kenya Grasslands Project, upon which Dr. Ritchie worked extensively in designing and monitoring carbon storage and climate benefits. Dr. Ritchie is a leading expert in sustainable grazing approaches to soil carbon projects.

# UfarmX – UfarmX

Project overview

| | |
|---|---|
| **Project name** | UfarmX |
| **Project developer** | UfarmX |
| **Project type** | Agriculture (arable) |
| **Type of credit** | Removal |
| **Country (location)** | Senegal, Nigeria |
| **Registration standard** | Verra (VCS) |
| **Methodology** | ISO 10694 |
| **Date of PDD submission** | 01/03/2024 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Through our technological software and data driven approach we create ecosystems to empower smallholder farmers financially by creating a pathway for the unbanked to become bankable through sustainable agricultural practices.

This level of direct engagement allows us to calculate the emissions and carbon credits available to the farmers on our platform and redistribute them on market.

## Benefits

The project embeds its objectives with the community:

1. Increase the income and livelihoods of rural African farmers through participation in carbon credit schemes.
2. Mitigate climate change by promoting sustainable agricultural practices and carbon sequestration in rural communities.
3. Facilitate the redistribution of carbon credits generated by rural farmers to ensure equitable benefits and reduce wealth disparities.

## Key impact metrics

**1M** tCO2e — Est. carbon offset annually

**300%** — Target increase of farmers' yields

# UfarmX – UfarmX

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2023 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2023 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | UfarmX |
| **Project proponent** | UfarmX SN |
| **Website** | www.ufarmx.com |
| **Contact** | zanders@ufarmx.com |

UfarmX is an agri-fintech company founded in 2019 that leverages blockchain technology to create ecosystems which provide smallholder farmers in Africa access to inputs and guaranteed markets for off taking.

Through our technological software and data driven approach we are not only able to empower these farmers financially by creating a pathway for the unbanked to become bankable but increase yields on average of 300% also present an opportunity to promote clean energy initiatives through redistribution of carbon credits.

# Frias Bio Energy – Fortune Riagbayire

Project overview

| | |
|---|---|
| **Project name** | Frias Bio Energy |
| **Project developer** | Fortune Riagbayire |
| **Project type** | Energy efficiency |
| **Type of credit (avoidance/removal)** | Removal (reduces GHG emissions) |
| **Country (location)** | Nigeria |
| **Registration standard** | VCS |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| | - |
| **Date of PDD submission** | 2/01/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The appliance, a solar biomass cook burner, will make clean energy accessible through solar electricity and smart cooking. It will offer access to electricity and power the ventilator required for clean biomass combustion, the gadget combines solar and thermal energy with a solar-charged battery. The solution will allow users to power light bulbs, charge electronics, and maintain connectivity while saving an average of 83% on energy costs and reducing dangerous indoor air pollution. The smart system, which includes a smartphone with an integrated app, may be acquired using a flexible microloan, allowing clients to pay via energy cost savings realized and recoup their initial investment within six to nine months.

## Benefits

-

## Key impact metrics

**1M** tCO2e — Est. carbon offset annually

**82%** — Fuel savings on average

# Frias Bio Energy – Fortune Riagbayire

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 0 | - | 10k | 0 | 0 |
| 0 | - | - | 2023 | 0 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2027 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2027 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Fortune Riagbayire |
| **Project proponent** | Frias Bio Energy |
| **Website** | https://mohammedkashimawo.github.io/fortune/ |
| **Contact** | vokerias@gmail.com |

I am a young vibrant and enthusiastic clean energy advocate with a background in mechanical engineering. I am passionate about contributing to the sustainable development goals. I have been actively involved in programs and projects that advances de-carbonization operations through continuous improvement in energy efficiency and reduction of carbon footprints.

# Abydos Solar Power Project – AMEA Power LLC

## Project overview

| | |
|---|---|
| **Project name** | Abydos Solar Power Project |
| **Project developer** | AMEA Power LLC |
| **Project type** | Renewable energy |
| **Type of credit (avoidance/removal)** | Avoidance |
| **Country (location)** | Egypt |
| **Registration standard** | Gold Standard |
| **Project ID** | GS 11972 |
| **Methodology** | ACM0002 - Grid-connected electricity generation from renewable sources - Version 20.0 |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 9/21/2022 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

500MW greenfield solar PV utility scale renewable energy project developed by AMEA Power in Egypt; located in the Kom Ombo region within the Aswan Governate.

## Benefits

-

## Key impact metrics

**792k** tCO2e — Est. carbon offset annually

**500** mw — Greenfield solar project

# Abydos Solar Power Project – AMEA Power LLC

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 80k | 2025 | 2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2025 |
| **Year of last issuance of carbon credits,** realized or expected | 2049 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2049 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | AMEA Power LLC |
| **Project proponent** | Abydos Solar Power Company |
| **Website** | www.ameapower.com |
| **Contact** | sultan.rasoul@ameapower.com |

AMEA Power is one of the fastest growing renewable energy companies in the region with a pipeline of over 6GW across 20 countries. AMEA Power is rapidly expanding its investments in wind; solar; energy storage and green hydrogen; demonstrating its long-term commitment to the global energy transition. AMEA Power already has more than 1;230MW of clean energy projects either in operation or under construction (As of Q1 2023) in Burkina Faso; Egypt; Jordan; Morocco and Togo. To support its growth; AMEA Power is rapidly expanding its investments in wind; solar; energy storage and green hydrogen.

# Amunet Wind Power Project – AMEA Power LLC

## Project overview

| | |
|---|---|
| **Project name** | Amunet Wind Power Project |
| **Project developer** | AMEA Power LLC |
| **Project type** | Renewable energy |
| **Type of credit (avoidance/removal)** | Avoidance |
| **Country (location)** | Egypt |
| **Registration standard** | Gold Standard |
| **Project ID** | GS 11875 |
| **Methodology** | ACM0002: Grid-connected electricity generation from renewable sources Version 21.0 |
| **Validation body** | - |
| | - |
| **Date of PDD submission** | 5/26/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

A 500MW utility scale greenfield wind power project developed by AMEA Power in the Ras Ghareib region in the Red Sea Governorate of Egypt.

## Benefits

-

## Key impact metrics

**1.176M** tCO2e — Est. carbon offset annually

**500** mw — Greenfield solar power project

# Amunet Wind Power Project – AMEA Power LLC

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 110k | 2026 | 2025 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2026 |
| **Year of last issuance of carbon credits,** realized or expected | 2051 |
| **Year of vintage for first carbon credits,** realized or expected | 2025 |
| **Year of last vintage carbon credit,** realized or expected | 2051 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | AMEA Power LLC |
| **Project proponent** | Amunet Wind Power Company |
| **Website** | www.ameapower.com |
| **Contact** | sultan.rasoul@ameapower.com |

AMEA Power is one of the fastest growing renewable energy companies in the region with pipeline of over 6GW across 20 countries. AMEA Power is rapidly expanding its investments in wind; solar; energy storage and green hydrogen; demonstrating its long-term commitment to the global energy transition. AMEA Power already has more than 1;230MW of clean energy projects either in operation or under construction (As of Q1 2023) in Burkina Faso; Egypt; Jordan; Morocco and Togo. To support its growth; AMEA Power is rapidly expanding its investments in wind; solar; energy storage and green hydrogen.

# Electric cooking for families in Tanzania – BURN

Project overview

| | |
|---|---|
| **Project name** | Distribution of electrical Induction Improved Cookstoves (e-ICS) for Efficient and Clean Cooking for Households in Tanzania |
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Tanzania |
| **Registration standard** | Gold Standard |
| **Project ID** | - |
| **Methodology** | MMECD |
| **PDD** | - |
| **Date of PDD submission** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

More than **90%** of the population of Tanzania lack access to clean cooking, relying on inefficient and smoky biomass stoves. As access to electricity improves, this project aims to transition grid-connected households to electric cooking. With high levels of renewable energy on the grid (more than 80%), electric cooking in Tanzania offers the lowest emission cooking, and produces **zero indoor air pollution.**

BURN's electric stoves offer faster, safer, and cleaner cooking. Pilot studies in Tanzania have shown high adoption rates, strong customer satisfaction, and improved health outcomes. Families save **$2.30** in weekly fuel costs.

Carbon finance has been invested to distribute stoves at subsidized prices, increasing the number of people who are able to purchase. This project is expected to issue its first credits in 2024.

## Benefits

Seeking Gold Standard certification for the following SDGs:


## Key impact metrics

**414k tCO2e** — Est. carbon offset annually

**0** — Indoor air pollution

**85%** — Thermal efficiency

**$2.30** — Household savings per week

**Lowest emission cooking**

# Electric cooking for families in Tanzania – BURN

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Any | 50k | 2024 | 2023-24 |
| 2 | Any | 100k | 2025 | 2024-25 |
| 3 | Any | 100k | 2026 | 2025-26 |
| 4 | Any | 100k | 2027 | 2026-27 |
| 5 | Any | 100k | 2028 | 2027-28 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2032 |
| **Year of vintage for first carbon credits,** realized or expected | 2023-2024 |
| **Year of last vintage carbon credit,** realized or expected | 2031 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project proponent** | ECOA Climate Capital |
| **Website** | https://www.burnstoves.com/ |
| **Contact** | molly.brown@burnmfg.com |

BURN is one of Africa's largest cookstove companies and carbon offset project developers. BURN believes that low-income families deserve access to the world's best stoves.

Headquartered in Kenya since 2013, BURN has sold 3.6M stoves, saved 8M tons of wood, and impacted over 20M lives.

Following pilots in Kenya and Tanzania, BURN is launching electric cooking projects across 6 African countries in 2023.

# Electric cooking for families in Tanzania – BURN

Project overview

| | |
|---|---|
| **Project name** | Distribution of electrical Induction Improved Cookstoves (e-ICS) for Efficient and Clean Cooking for Households in Kenya |
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Gold Standard |
| **Project ID** | - |
| **Methodology** | MMECD |
| **PDD** | - |
| **Date of PDD submission** | - |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

Less than **25%** of households in Kenya have access to clean cooking, but more than **70%** of the population has access to electricity. This project will help grid-connected families transition to electric cooking. With high levels of renewable energy on the grid (more than 75%), electric cooking in Kenya offers the lowest emission cooking.

BURN's electric stoves offer faster, safer, and cleaner cooking. Pilot studies in Kenya have shown that our electric stoves reduce household charcoal consumption by 85% - combating deforestation and saving families **more than $5 per week**.

Carbon finance has been invested to distribute stoves at subsidized prices, increasing the number of people who are able to purchase. This project is expected to issue its first credits in 2024.

## Benefits

Seeking Gold Standard certification for the following SDGs:


## Key impact metrics

**525k tCO2e** — Est. carbon offset annually

**0** — Indoor air pollution

**85%** — Thermal efficiency

**$5** — Household savings per week

**Lowest emission cooking**

# Electric cooking for families in Kenya – BURN

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Any | 50k | 2024 | 2023-24 |
| 2 | Any | 100k | 2025 | 2024-25 |
| 3 | Any | 100k | 2026 | 2025-26 |
| 4 | Any | 100k | 2027 | 2026-27 |
| 5 | Any | 100k | 2028 | 2027-28 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2032 |
| **Year of vintage for first carbon credits,** realized or expected | 2023-2024 |
| **Year of last vintage carbon credit,** realized or expected | 2031 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project proponent** | ECOA Climate Capital |
| **Website** | https://www.burnstoves.com/ |
| **Contact** | molly.brown@burnmfg.com |

BURN is one of Africa's largest cookstove companies and carbon offset project developers. BURN believes that low-income families deserve access to the world's best stoves.

Headquartered in Kenya since 2013, BURN has sold 3.6M stoves, saved 8M tons of wood, and impacted over 20M lives.

Following pilots in Kenya and Tanzania, BURN is launching electric cooking projects across 6 African countries in 2023.

# Deployment of LPG Cookstoves – Sun King (Paygo)

Project overview


| | |
|---|---|
| **Project name** | Deployment of LPG Cookstoves in Kenya |
| **Project developer** | Sun King (Paygo) |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Gold Standard |
| **Project ID** | GS11970 |
| **Methodology** | Methodology for Metered & Measured Energy Cooking Devices", Version 1.0 |
| **Validation body** | Earthood |
| **PDD** | - |
| **Date of PDD submission** | 23/02/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

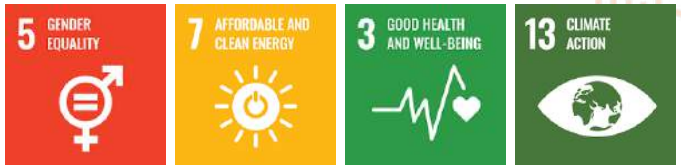
## Project description

Sun King is developing a large-scale program that will deploy LPG stoves in Kenya in order to reduce the demand for expensive and polluting fuels like wood, charcoal and kerosene. LPG has significantly less environmental impact than other available fuels due to its source, combustion byproducts and yield. The result will be substantial reductions in both greenhouse gas and non-GHG pollution.

Sun King's approach will be to use a Cylinder Smart Meter (CSM) system that enables a "pay as you go" service. The CSM contains a low-pressure LPG regulator, metering capabilities and a communications system. The product affixes to existing cylinder valves and provides precise amounts of LPG based on a customer's digital interaction with the LPG marketer via the customer's phone. To use PayGo's CSM, a customer need only have mobile money.

## Benefits

We monitor for, and report on, the following SDGs:




## Key impact metrics

**184k** tCO2e

Est. carbon offset annually

# Deployment of LPG Cookstoves – Sun King (Paygo)

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2032 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2032 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Sun King |
| **Project proponent** | PayGo Energy |
| **Website** | sunking.com |
| **Contact** | nick@paygoenergy.co |

Sun King is the world's leading off-grid solar energy company. Sun King's 2,500 staff serve 100 million product users based in 65 countries around the world. Sun King designs, distributes, installs, and finances solar energy solutions for those who cannot access or afford traditional electrical grid connections. The energy needs of consumers in Africa and Asia are diverse. From cost-effective and durable lamps to powerful home and business energy systems as well as modern entertainment and energy storage systems, Sun King's broad array of products unlock a higher quality of life.

# Electric cooking for families in Ghana – BURN

Project overview

| | |
|---|---|
| **Project name** | Distribution of electrical Induction Improved Cookstoves (e-ICS) for Efficient and Clean Cooking for Households in Ghana |
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Ghana |
| **Registration standard** | Gold Standard |
| **Project ID** | - |
| **Methodology** | MMECD |
| **PDD** | - |
| **Date of PDD submission** | - |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

Despite more than **85%** of the Ghanaian population having access to electricity, only 30% have access to clean cooking. This project aims to increase adoption of electric cooking in Ghana.

BURN's electric stoves offer faster, safer, and cleaner cooking. Pilot studies in East Africa have shown high adoption rates, strong customer satisfaction, and significant savings in weekly fuel budgets. In 2023, this project will roll out across Ghana, offering lowest emission cooking with **zero indoor air pollution**.

Carbon finance has been invested to distribute stoves at subsidized prices, increasing the number of people who are able to purchase. This project is expected to issue its first credits in 2024.

## Benefits

Seeking Gold Standard certification for the following SDGs:


## Key impact metrics

**294k tCO2e** — Est. carbon offset annually

**0** — Indoor air pollution

**85%** — Thermal efficiency

**$2-5** — Household savings per week

**Lowest emission cooking**

# Electric cooking for families in Ghana – BURN

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | Any | 30k | 2024 | 2023-24 |
| 2 | Any | 100k | 2025 | 2024-25 |
| 3 | Any | 100k | 2026 | 2025-26 |
| 4 | Any | 100k | 2027 | 2026-27 |
| 5 | Any | 100k | 2028 | 2027-28 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2032 |
| **Year of vintage for first carbon credits,** realized or expected | 2023-2024 |
| **Year of last vintage carbon credit,** realized or expected | 2031 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | BURN Manufacturing / ECOA Climate Capital |
| **Project proponent** | ECOA Climate Capital |
| **Website** | https://www.burnstoves.com/ |
| **Contact** | molly.brown@burnmfg.com |

BURN is one of Africa's largest cookstove companies and carbon offset project developers. BURN believes that low-income families deserve access to the world's best stoves.

Headquartered in Kenya since 2013, BURN has sold 3.6M stoves, saved 8M tons of wood, and impacted over 20M lives.

Following pilots in Kenya and Tanzania, BURN is launching electric cooking projects across 6 African countries in 2023.

# Solad Market Electrification Projects – Solad Integrated Power Solutions Limited

## Project overview

| | |
|---|---|
| **Project name** | Solad Market Electrification Projects |
| **Project developer** | Solad Integrated Power Solutions Limited |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance (averts GHG emissions) |
| **Country (location)** | Nigeria |
| **Registration standard** | Verra |
| **Project ID** | … |
| **Methodology** | VM0002 |
| **Validation body** | - |
| **PDD** | … |
| **Date of PDD submission** | 30/09/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Solad Market Electrification Projects is power provision to key economic clusters across Nigeria using solar and battery hybrid technology with smart metering. The initial project involves the electrification of 11 sites across Southwest Nigeria where Solad would manage the design, development, implementation of solar systems as well as the operations post implementation in metering, billing and maintenance services.

## Benefits

Local jobs to be created as operational personnel in project site to be absorbed by the company

Increased productivity from improved power supply due to longer opening hours and the visibility of goods and services for sale

Product subsidies in end user electricity price discounts

Infrastructure rehabilitation (Roofwork repairs for panels, installation of new distribution network where existing network is lacking or not present)

Indirect benefits - improved air-quality and noise reduction from elimination of self generator sets

## Key impact metrics

**100k**
**tCO2e**

Sequestered annually emissions offset

# Solad Market Electrification Projects – Solad Integrated Power Solutions Limited

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2043 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2043 |
| **Total number of carbon credits issued to date,** if any (tCO2) | … |

| | |
|---|---|
| **Project developer** | Solad Integrated Power Solutions Limited |
| **Project proponent** | Solad Integrated Power Solutions Limited |
| **Website** | www.solad.co |
| **Contact** | oyinda.sogunle@solad.co |

Founded in 2017, Solad Integrated Power solutions Limited (Solad) is a power platform developer, provider and manager of decentralized energy assets across Nigeria. We provide tailored, fit-for purpose, environmentally-friendly power solutions to economically viable clusters. Our focus is to deliver Power as a Service (PaaS), whilst strategically scaling up our asset base. Presently, Solad supplies power to thousands of businesses, spanning 4 states and manages 4MW across its portfolio with an additional pipeline of 11 solar electrification project sites to be implemented by 2023/2024.

# Malawi Improved Cookstove Project – ClimeTrek Ltd

## Project overview

| | |
|---|---|
| **Project name** | Malawi Improved Cookstove Project |
| **Project developer** | ClimeTrek Ltd |
| **Project type** | Energy Efficiency Project (Improved Cookstove) |
| **Type of credit (avoidance/removal)** | Avoidance |
| **Country (location)** | Malawi |
| **Registration standard** | Gold Standard (GS4GG) |
| **Project ID** | - |
| **Methodology** | Reduced Emissions From Cooking And Heating: Technologies and Practices to Displace Decentralized Thermal Energy Consumption (TPDDTEC)<br>October 2021, v4.0 |
| **Validation body** | - |
| **PDD** | PDD under development |
| **Date of PDD submission** | 17th August 2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Maeve, with the support of ClimeTrek, will distribute over 75k improved cookstoves (Chitetezo Mbaula Cookstoves) having a thermal efficiency of 28% across the country, targeting ultra poor households, especially those under the Social Cash Transfer Programme (SCTP) of the Government of Malawi which are provided with free stoves, households close to production centres and refugees and informal settlements, as well as by selling the Chitetezo Mbaula stoves at a lower than market price in the range of MWK 500 to MWK 1500.

The improved cookstoves distributed by the Project are significantly more efficient and thus will reduce wood consumption, nonetheless locally available wood is still being used and as such, the Project does not consist in a fuel switch resulting in annual emission reduction of 92,980 tCO2e.

## Benefits

SDG 1: Poverty is fought by providing an extra source of income to the cookstove's producers and promoters.

SDG 3: The improved cookstoves reduce the amount of harmful smoke emitted during cooking and therefore improve the health of the communities. Furthermore, as there is no open flame it also reduces risks to small children.

SDG 5: Gender equality is promoted by freeing time of women, from collecting wood and cooking, for other activities they find useful and fulfilling.

SDG 7: More efficient cookstoves fulfill the energy needs in a more affordable and sustainable way.

SDG 13: The cookstoves reduce the amount of greenhouse gases, through the reduction of the amount of firewood burned.

SDG 15: This project promotes the sustainable use of forests by reducing the amount of firewood needed and raising awareness on the consequences of deforestation.

## Key impact metrics

**93k** tCO2e — Est. carbon offset annually

**76k** cookstoves — Will be distributed to different beneficiaries across Malawi in the first instance

# Malawi Improved Cookstove Project – ClimeTrek Ltd

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| Batch 1 | - | 185,960 | 2024 | 2022-2023 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2027 |
| **Year of vintage for first carbon credits,** realized or expected | 2022 |
| **Year of last vintage carbon credit,** realized or expected | 2027 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |
| **Financing need** | - |

| | |
|---|---|
| **Project developer** | ClimeTrek Ltd |
| **Project proponent** | ClimeTrek Ltd and Maeve Project |
| **Website** | https://climetrek.com/ |
| **Contact** | joao.farinho@climetrek.com |

ClimeTrek is carbon offset project developer having a gamut of projects of different types in the portfolio, with a particular focus in NbS projects in LDCs, primarily located in Africa. Being a project developer, we provide end-to-end services working with our implementation partners on the ground from the inception of the project to the issuance. We further liquidate the issued credits through our trading team by retiring such credits for our clientele of end-users, thereby generating revenues for our stakeholders who are always the maximum benefactors basis the benefit-sharing mechanism.

# Biochar-Producing Cookstoves and Biomass Briquettes as Affordable, Reliable, and Sustainable Clean Cooking Alternatives in Uganda – Mandulis Energy Limited

## Project overview

| | |
|---|---|
| **Project name** | Biochar-Producing Cookstoves and Biomass Briquettes as Affordable, Reliable, and Sustainable Clean Cooking Alternatives in Uganda |
| **Project developer** | Mandulis Energy Limited |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance, Removal |
| **Country (location)** | Uganda |
| **Registration standard** | Verra (VCS) |
| **Project ID** | - |
| **Methodology** | VM0044, AMS I.I, VMR0006 |
| **Validation body** | - |
| **Date of PDD submission** | 31/08/2023 |

## Project description

Mandulis Energy's clean cooking project involves the manufacture and distribution of biochar-producing gasifier cookstoves and biomass clean-cooking briquettes. The project aims to reduce greenhouse gas (GHG) emissions and sequester carbon. Gasifier-cookstoves burn biomass-pellets efficiently and produce biochar as a byproduct. Compared to traditional and inefficient cookstoves, these gasifier cookstoves reduce the amount of biomass needed for cooking. The cookstoves also burn the biomass more cleanly, resulting in fewer emissions of black carbon, a potent short-lived climate pollutant. The briquettes are made from agricultural residues, e.g., rice husks, which are renewable and abundant in Uganda. Using these briquettes instead of non-renewable biomass reduces deforestation and the associated GHG emissions and avoids the burning of agricultural waste, which would release GHGs into the atmosphere. The biochar produced by the gasifier-cookstoves will be used as a soil amendment, sequestering carbon in the soil and removing CO2 from the atmosphere.

## Benefits

64k households to be benefited from clean cooking solutions. Clean cooking alternatives enable women and children, to unlock more than 3 hours per day for education and other productive activities.

Biochar-Producing Cookstoves and Biomass Briquettes also improve the health conditions of women and children due to the replacement of fossil fuels

Households are able to unlock savings that come from the efficiency of the fuel,

Other benefits are the reduction of deforestation which contributes to the protection of ecosystems. The biochar generated after cooking can be used as a soil enhancement and biofertiliser for crop yield increase.

## Key impact metrics

**236k** tCO2e — Est. carbon offset annually

**430k** tons — Clean cooking briquettes volumes produced over the project lifetime

**64k** — Rural households to receive biochar-producing gasifier cookstoves

**~117** tons — Biochar volumes to be produced over the lifetime operations of the project

Commercial needs: Financing needs; Off-take agreement; Spot sales

# Biochar-Producing Cookstoves and Biomass Briquettes as Affordable, Reliable, and Sustainable Clean Cooking Alternatives in Uganda – Mandulis Energy Limited

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 36,033.12 | 2023 | 2024 |
| 2 | - | 104,255.97 | 2023 | 2025 |
| 3 | - | 277,935.92 | 2023 | 2026 |
| 4 | - | 277,935.92 | 2023 | 2027 |
| 5 | - | 277,935.92 | 2023 | 2028 |
| 6 | - | 277,935.92 | 2023 | 2029 |
| 7 | - | 277,935.92 | 2023 | 2030 |
| 8 | - | 277,935.92 | 2023 | 2031 |
| 9 | - | 277,935.92 | 2023 | 2032 |
| 10 | - | 277,935.92 | 2023 | 2033 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2023 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2033 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Mandulis Energy Limited |
| **Project proponent** | Mandulis Energy Limited |
| **Website** | https://www.mandulisenergy.com/ |
| **Contact** | peter@reparle.co.uk |

Mandulis Energy is a for-profit clean-tech start-up and social enterprise focused on developing positive social, economic and environmental impact for rural communities in Uganda through deployment of clean energy and value addition technologies and approaches. Mandulis Energy, founded in 2012, developed and implements a circular model which uses bioenergy technology, to transform agricultural residues into electricity, and clean cooking fuel, manufacturing as well biochar-producing gasifier cookstoves, by products of the system as biochar are leveraged as carbon sequestration and soil enhance

# Village Corps Ghana Ltd – Zuza Impact

## Project overview


| | |
|---|---|
| **Project name** | Village Corps Ghana Ltd |
| **Project developer** | Zuza Impact |
| **Project type** | Agriculture (arable) |
| **Type of credit** | Removal (reduces GHG emissions) |
| **Country (location)** | Ghana |
| **Registration standard** | Gold Standard |
| **Methodology** | Afforestation/Reforestation (A/R) GHG Emissions Reduction and Sequestration Version 2.0<br>Soil Organic Carbon Framework Methodology Version 1.0 |
| **Validation body** | - |
| **Date of PDD submission** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The Project is a 10,000+ hectare organic agroforestry system that reverses soil and ecological degradation of former mining lands, regenerating them into arable land—restoring soils, restoring ecosystems and biodiversity, cleaning water, replenishing aquifers, growing food, and removing and offsetting CO2e. The regenerated arable land will be utilized for cash crop revenue by a gender-balanced smallholder workforce of ~5,000 persons, 50% of whom will be women.

The ecosystem regeneration and agro-forestry process is expected to remove >2 million tCO2e of atmospheric carbon over a 20 year time frame.

## Benefits

We align with and create social impacts related the following United Nations Sustainable Development Goals (SDGs) each of which highlights the extensive environmental impacts of The Project


## Key impact metrics

**100k** tCO2e — Sequestered annually emissions offset

**25k** acres — Of degraded ecosystem regenerated

# Village Corps Ghana Ltd– Zuza Impact (1/2)

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| Batch 1 | - | 100,000 | 2025 | 2024 |
| Batch 2 | - | 100,000 | 2026 | 2025 |
| Batch 3 | - | 100,000 | 2027 | 2026 |
| Batch 4 | - | 100,000 | 2028 | 2027 |
| Batch 5 | - | 100,000 | 2029 | 2028 |
| Batch 6 | - | 100,000 | 2030 | 2029 |
| Batch 7 | - | 100,000 | 2031 | 2030 |
| Batch 8 | - | 100,000 | 2032 | 2031 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2025 |
| **Year of last issuance of carbon credits,** realized or expected | 2045 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2044 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Zuza Impact |
| **Project proponent** | Village Corps Ghana, Ltd. |
| **Website** | www.village-corps.com |
| **Contact** | norman@villagecorps.com |

The Project's farming system development and management experience as well as community engagement experience is extensive in Africa and most specifically in Ghana. The management team has 20+ years of Africa based experience in managing large scale farming operations totaling 25,000 hectares of various crops and sugarcane grasses inclusive of managing 2,200 personnel. Additionally, the Project developers have 25+ years of experience in social work and in socioeconomic impact planning and assessment in Ghana at the intersection of rural communities and development initiatives.

# Village Corps Ghana Ltd– Zuza Impact (2/2)

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| Batch 9 | - | 100,000 | 2033 | 2032 |
| Batch 10 | - | 100,000 | 2034 | 2033 |
| Batch 11 | - | 100,000 | 2035 | 2034 |
| Batch 12 | - | 100,000 | 2036 | 2035 |
| Batch 13 | - | 100,000 | 2037 | 2036 |
| Batch 14 | - | 100,000 | 2038 | 2037 |
| Batch 15 | - | 100,000 | 2039 | 2038 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2025 |
| **Year of last issuance of carbon credits,** realized or expected | 2045 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2044 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Zuza Impact |
| **Project proponent** | Village Corps Ghana, Ltd. |
| **Website** | www.village-corps.com |
| **Contact** | norman@villagecorps.com |

The Project's farming system development and management experience as well as community engagement experience is extensive in Africa and most specifically in Ghana. The management team has 20+ years of Africa based experience in managing large scale farming operations totaling 25,000 hectares of various crops and sugarcane grasses inclusive of managing 2,200 personnel. Additionally, the Project developers have 25+ years of experience in social work and in socioeconomic impact planning and assessment in Ghana at the intersection of rural communities and development initiatives.

# WEZESHA GREEN MICROFUND INITIATIVE – AJVDC Brigade Verte

## Project overview

| | |
|---|---|
| **Project name** | WEZESHA GREEN MICROFUND INITIATIVE |
| **Project developer** | AJVDC Brigade Verte |
| **Project type** | Others |
| **Type of credit (avoidance/removal)** | Avoidance & Removal |
| **Country (location)** | Democratic Republic of Congo |
| **Registration standard** | VCS |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 2024-12-15 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

WEZESHA GREEN MICROFUND INITIATIVE est une initiative qui vise à catalyser et regrouper toute activité génératrice des crédits carbones et ainsi chercher les financements climatiques nécessaires pour promouvoir ces projets carbones dans différents secteurs d'activités (restauration des terres ,reboisement, Reinsertion des Jeunes Ex-rebelles dans la vie civile, agriculture durable, conservation des forets, production et usage des énergies renouvelables, biocharbon, biogaz, etc.

## Benefits

-

## Key impact metrics

**400k** tCO2e — Est. carbon offset annually

**4M** trees — Are to be planted

**15** MW — Energy has been produced

**50k** ha — Of community forests protected

# WEZESHA GREEN MICROFUND INITIATIVE – AJVDC Brigade Verte

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| | | | | |

*No information supplied*

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2040 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2040 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 1000 |

BRIGADE VERTE

| | |
|---|---|
| **Project developer** | AJVDC Brigade Verte |
| **Project proponent** | SIMWERAYI KAZIMWE LEON |
| **Website** | - |
| **Contact** | greenbrigadedrc@gmail.com |

Depuis déjà 10 ans que l'AJVDC Brigade Verte est opérationnelle dans la région, elle focalise ses actions dans la restauration des terres, des écosystèmes agricoles, forestiers et littoraux dans la région du bassin du lac Kivu et du paysage Virunga, à l'Est de la RDCongo. Elle travaille aussi pour renforcer la capacité des petits exploitants agricoles, pêcheurs et éleveurs afin d'être capables s'adapter aux effets du changement climatique. AJVDC cherche à mobiliser partout le moyens les financements climatiques afin d'aider le pays, la RDC à l'atteinte de ses objectifs CDN, et les ODD.

# Climate Resilience for Central Kenya – Bio-Logical

Project overview

| | |
|---|---|
| **Project name** | Climate Resilience for Central Kenya |
| **Project developer** | Bio-Logical |
| **Project type** | Others |
| **Type of credit** | Removal |
| **Country (location)** | Kenya |
| **Registration standard** | Puro Earth |
| **Methodology** | Puro biochar Methodology |
| **Date of PDD submission** | 30/06/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Bio-Logical' s project focuses on building the climate resilience of smallholder farmers in Kenya's central region. To do this, Bio-Logical has built strong partnerships with macadamia companies within the region who between them work with over 200k smallholder farmers. Via these partnerships, Bio-Logical will process 30k tons of nut waste into biochar annually, which would otherwise be burnt or left to rot in the field. This biochar is then incorporated into Bio-Grow, an in-house organic fertilizer, before being returned to smallholder farmers via our partner network. By returning biochar to those who need it most, we help build climate resilience through the region whilst simultaneously sequestering carbon for Millenia. Our Kenya Biochar project will sequester 25k tons of CO2 annually and support over 100k smallholder farmers.

## Benefits

Our project has a number of co- benefits for both the environment and the local community:

1.We distribute heavily subsidized fertilizer to smallholder farmers, helping them improve their climate resilience and agricultural yields.

2.By distributing biochar, our project also regenerates degraded land and the wider ecosystem.

3.We will implement vocational training for women, providing them with the means to access a wide array of jobs within the agricultural sector and beyond..

4.Job creation: Our project will be run by local hires, creating jobs in the region.

## Key impact metrics

**25k** tCO2e — Est. carbon offset annually

**30k** tons — Waste will be processed into biochar annually

**100k+** — Farmers will be supported by the project

**30k** tonnes — Volumes of nut waste will be processed into biochar annually

# Bio-Logical Kenya Biochar Project – Bio-Logical

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 4k | 2023 | 2023 |
| 2 | - | 16k | 2024 | 2024 |
| 3 | - | 25k | 2025 | 2025 |
| 4 | - | 25k | 2026 | 2026 |
| 5 | - | 25k | 2027 | 2027 |
| 6 | - | 25k | 2028 | 2028 |
| 7 | - | 25k | 2029 | 2029 |
| 8 | - | 25k | 2030 | 2030 |
| 9 | - | 25k | 2031 | 2031 |
| 10 | - | 25k | 2032 | 2032 |
| 11 | - | 25k | 2033 | 2033 |
| 12 | - | 25k | 2034 | 2034 |

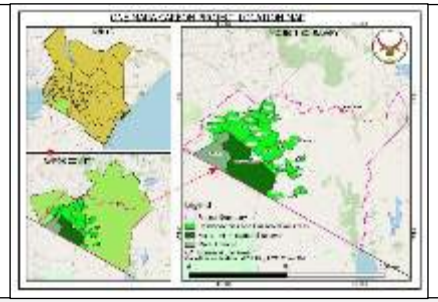
| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2043 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2043 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Bio-Logical |
| **Project proponent** | Bio-Logical Carbon Ltd |
| **Website** | www.bio-logical.green |
| **Contact** | rory@bio-logical.green |

- Throughout Sub-Saharan Africa, climate change poses a direct threat to the livelihoods of the continent's 33 million smallholder farmers. At Bio-Logical we build climate-resilient communities of smallholder farmers through the development of high-impact biochar carbon removal projects. We do this by implementing a circular economy in which we transform agricultural waste into biochar before incorporating it into our in-house organic fertilizer Bio-Grow. This is returned to smallholder farmers, helping to reverse soil degradation and improve yields, all whilst sequestering carbon for millen

# One Mara Carbon – One Mara Carbon

## Project overview



| | |
|---|---|
| **Project name** | One Mara Carbon |
| **Project developer** | One Mara Carbon |
| **Project type** | Land Use |
| **Type of credit (avoidance/removal)** | Removal |
| **Country (location)** | Kenya |
| **Registration standard** | Verra (VCS) |
| **Project ID** | - |
| **Methodology** | VM0032 |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | Mar-24 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

One Mara Carbon is a project which will support community owned conservancies implement and monitor effective grazing management practices with the aim of generating carbon credits.

Through implementation of VM0032, we will apply a mixed approach to field monitoring and modeling to ensure accurate carbon sequestration measurements. Because the science for the SNAP-Graze model was developed in the Serengeti ecosystem we are confident this approach will also yield sound results in the Maasai Mara ecosystem.

Project activities will include holistic grazing, animal health and ecosystem restoration work.

One Mara Carbon firmly believes in FPIC principles and comprehensive stakeholder engagement throughout the life of the project.

## Benefits

CCB standard compliant.

Livestock health interventions.

Direct contributions towards community livelihoods.

Restoration of degraded lands.

Restoration of traditional livestock herding and grassland management practices.

Conservation of Kenya's iconic wildlife.

## Key impact metrics

**473** tCO2e — Est. carbon offset annually

**125k** ha — Area land, with existing conservancies

**330k** ha — Goal of future conservancy growth

**15k** people — Current conservancy community members

**25%** — Of Kenya's wildlife reside within the project area and benefit from sustainable land use and conservation

# One Mara Carbon – One Mara Carbon

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2054 |
| **Year of vintage for first carbon credits,** realized or expected | 2020 |
| **Year of last vintage carbon credit,** realized or expected | 2050 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | One Mara Carbon |
| **Project proponent** | One Mara Carbon |
| **Website** | - |
| **Contact** | tarn.breedveld@gmail.com |

One Mara Carbon is supported by Ahueni & Conservation International. OMC will form a local company limited by guarantee which will allow member/ownership from community owned conservancies.

# Distributed Microgrids for Nigerian Small Businesses – ICE SOLAR COMMERCIAL POWER LTD

Project overview

| | |
|---|---|
| **Project name** | Distributed Microgrids for Nigerian Small Businesses |
| **Project developer** | ICE SOLAR COMEMRCIAL POWER LTD |
| **Project type** | Renewable energy |
| **Type of credit** | Removal |
| **Country (location)** | Nigeria |
| **Registration standard** | Verra (VCS) |
| **Project ID** | - |
| **Methodology** | - |
| **Date of PDD submission** | 01/11/2019 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

ICE Solar Inc. (ICE) operates a solar pay-as-you-go (PAY-G) model that quickly provides underserved small and medium sized enterprise (SME) customers in commercial clusters across rural and peri-urban areas with affordable and reliable clean energy for productive use. By leveraging custom artificial intelligence (AI) software through active youth engagement, ICE sources and analyses market intelligence data from target underserved communities leading to scaled project deployment.

Over a three-year period, ICE plans to deploy a 40-Megawatt peak (MWp) capacity portfolio of 8k solar microgrids to connect 120k underserved SMEs in Nigeria to PAY-G solar energy.

## Benefits

Empowering small businesses

Empowering women-led businesses

Youth digital upskilling and employment

## Key impact metrics

**2.6k** tCO2e — Est. carbon offset annually

**40k** — Est. Nigerian SMEs energized daily

**24k** — Est. Nigerian women-led SMEs energized annually

**200** — Est. Nigerian youth upskilled and employed annually

# Distributed Microgrids for Nigerian Small Businesses – ICE SOLAR COMEMRCIAL POWER LTD

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | EPRA | 500 | 2024 | 2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2017 |
| **Year of last issuance of carbon credits,** realized or expected | - |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2052 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | ICE SOLAR COMEMRCIAL POWER LTD |
| **Project proponent** | Emmanuel Ekwueme |
| **Website** | www.icesolar.co |
| **Contact** | emmanuel@icesolar.co |

ICE Solar Inc. (ICE) is a technology-enabled clean energy provider deploying distributed Micro utilities to serve small and medium-sized enterprises in remote and underserved communities in Africa.

In 2022, ICE partnered with the United States African Development Foundation (USADF), All On, and Microsoft to complete a pilot project to deploy a 100-Kilowatt peak(kWp) distributed solar microgrid network across 20 commercial clusters to connect 160 underserved SMEs to clean energy for productive use.

# Water and Climate, Uganda – Helioz GmbH

HELIOZ FUTURE ECONOMY

## Project overview

| | |
|---|---|
| **Project name** | Water and Climate, Uganda |
| **Project developer** | Helioz GmbH |
| **Project type** | Energy efficiency |
| **Type of credit** | Avoidance |
| **Country (location)** | Uganda |
| **Registration standard** | Gold Standard |
| **Project ID** | - |
| **Methodology** | Methodology for Emission Reductions from Safe Drinking Water Supply (version 1.0) |
| **Date of PDD submission** | 01/11/2023 |
| **Independent rating** | If required, a rating agency assessment is possible. |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

This project will provide safe drinking water to low-income rural communities in Mayuge District in eastern Uganda. The target group is 25k households boiling unsafe drinking water using non-renewable biomass (e.g., firewood) and consuming unsafe water due to common barriers (suppressed demand). The VPA is part of the global “Water4Climate” initiative by the Social Enterprise HELIOZ GmbH, which aims to increase access to safe drinking water for at-risk and marginalized communities.

## Benefits

Other monitored project KPIs:


## Key impact metrics

**~47k** tCO2e — Est. carbon offset annually

**25k** — Target household reach

# Water and Climate, Uganda – Helioz GmbH

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 35,412 | 2024 | 2024 |
| 2 | - | 50,472 | 2025 | 2025 |
| 3 | - | 50,472 | 2026 | 2026 |
| 4 | - | 50,472 | 2027 | 2027 |
| 5 | - | 50,472 | 2028 | 2028 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2028 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2028 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

HELIOZ
FUTURE ECONOMY

| | |
|---|---|
| **Project developer** | Helioz GmbH |
| **Project proponent** | Helioz GmbH |
| **Website** | www.helioz.org |
| **Contact** | j.krajcovicova@helioz.org |

Helioz is a certified B Corp and social enterprise that implements safe drinking water projects that avoid or reduce CO2 and create high social impact. Relying on its easy-to-use and environmentally friendly solution for water disinfection, the WADI device, Helioz provides safe drinking water to thousands of families across Sub-Saharan Africa and South East Asia. Helioz is a project developer of multiple VPAs focused on energy efficiency-improving household technologies, including under its small-scale PoA "Water and Climate" certified by Gold Standard (GS11445).

# SAVE Solar for Water Project – Empower New Energy

## Project overview

| | |
|---|---|
| **Project name** | SAVE Solar for Water Project |
| **Project developer** | Empower New Energy<br>Engazaat Agro Development |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance |
| **Country (location)** | Egypt |
| **Registration standard** | Verra (VCS) (expected) |
| **Project ID** | VCS (expected) |
| **Methodology** | - |
| **Validation body** | 5/6/2024 |
| **PDD** | - |
| **Date of PDD submission** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This solar project is a unique collaboration between Empower New Energy and Engazaat Agro Development Company Limited. Engazaat, an Egyptian company specializing in agricultural development and sustainability, serves as both the project partner and beneficiary. Their commitment lies in implementing innovative solutions to enhance agricultural practices and support smallholder farmers.

This innovative project involving the installation of a ground-mounted solar PV system with a capacity of 12.2 MWp will provide green electricity to desalination and storage facilities in desert areas of Northern Egypt. Referred to as "Solar for Water", the project will help transform parts of the desert in North Egypt into agricultural land and lower costs, facilitating exports of food products. Engazaat Agro Development recognizes the significance of sustainable energy practices in the agricultural sector, which drives their adoption of solar power. Reliable and affordable energy plays a pivotal role in transforming agricultural methods and improving overall productivity. Carbon credits will facilitate this project and its expansion across the desert regions of the country.

## Benefits

This project is expected to generate or protect over 550 jobs (locally) and will provide enough renewable energy to electrify the equivalent of 3,642 households in Egypt. As part of Empower's impact-focused commitment, the company also invests a proportion of every investment into a community development program. This is unrelated to carbon credit rights.

## Key impact metrics

**23k** tCO2e — Est. carbon offset annually

**12.2** MWp — Project size

# SAVE Solar for Water Project – Empower New Energy

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2049 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2049 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Empower New Energy |
| **Project proponent** | Empower New Energy |
| **Website** | https://www.empowernewenergy.com/ |
| **Contact** | raja@empowernewenergy.com |

Established in 2017, Empower New Energy is a renewable energy financier and co-developer that finances, builds and owns clean power plants for commercial, industrial and agricultural energy users. An award-winning investment platform, we're pioneering the market for impact investments in the C&I space in Africa. Our mission is to bridge the financing gap that currently impedes the deployment of renewable energy in developing countries, with a vision of a world empowered by clean, affordable and reliable energy.

# PRIME Infrastructure Telecoms Towers – Empower New Energy

Project overview

| | |
|---|---|
| **Project name** | PRIME Infrastructure Telecoms Towers |
| **Project developer** | Empower New Energy<br>PRIME Engineering Services |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance |
| **Country (location)** | Nigeria |
| **Registration standard** | Verra (VCS) |
| **Project ID** | VCS (expected) |
| **Methodology** | - |
| **Validation body** | 5/6/2024 |
| **PDD** | - |
| **Date of PDD submission** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This 1.125 MWp solar power project in partnership with Prime Infrastructure and Engineering Services Limited will provide solar PV and battery energy storage systems to cell phone base stations spread across across across sixteen states in Nigeria. These are currently powered by diesel alone. As mobile phone infrastructure rapidly expands, identifying cost-effective ways to power these by renewable energy will hold a significant, scalable effect that can be replicated whilst supporting the growth in connectivity across the continent in the poorest and most remote areas.

## Benefits

This project is expected to generate or protect around 77 jobs (locally) and will provide enough renewable energy to electrify the equivalent of 2,885 households in Nigeria. As part of Empowers impact-focused commitment, the company also invests a proportion of every investment into a community development program. This is unrelated to carbon credit rights

## Key impact metrics

**1.8k** tCO2e — Est. carbon offset annually

**1.125** MWp — Project size

**16** States — Project reach in Nigeria

# PRIME Infrastructure Telecoms Towers – Empower New Energy

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2049 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2049 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Empower New Energy |
| **Project proponent** | Empower New Energy |
| **Website** | https://www.empowernewenergy.com/ |
| **Contact** | raja@empowernewenergy.com |

Established in 2017, Empower New Energy is a renewable energy financier and co-developer that finances, builds and owns clean power plants for commercial, industrial and agricultural energy users. An award-winning investment platform, we're pioneering the market for impact investments in the C&I space in Africa. Our mission is to bridge the financing gap that currently impedes the deployment of renewable energy in developing countries, with a vision of a world empowered by clean, affordable and reliable energy

# Pan African Towers Solar project – Empower New Energy

## Project overview

| | |
|---|---|
| **Project name** | Pan African Towers Solar project |
| **Project developer** | Empower New Energy<br>First Watt Renewables Limited |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance |
| **Country (location)** | Nigeria |
| **Registration standard** | Verra (VCS) |
| **Project ID** | VCS (expected) |
| **Methodology** | - |
| **Validation body** | 5/6/2024 |
| **PDD** | - |
| **Date of PDD submission** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This solar project, with a total capacity of 2.548 MWp, comprises installation of a number of ground-mounted solar PV installations with storage for Pan African Towers Limited – a prominent Nigerian company specializing in the development and management of telecommunications infrastructure. Pan African Towers constructs, operates and maintains telecom towers and rooftops to facilitate seamless wireless signal transmission. The project is developed in partnership with First Watt Renewables Limited in Nigeria.

These installations will primarily replace diesel. At the heart of the telecommunications industry lies the crucial role in bridging the digital divide and enhancing connectivity across society – a goal that SDG 9 (target 9.c) addresses. Consequently, with this solar project, it is expected that the telecommunication towers operated by Pan African Towers will have a reliable and uninterrupted power supply, translating into uninterrupted signal transmission. This will enable mobile network operators in Nigeria to extend their coverage and deliver reliable connectivity to urban and rural communities, thus allowing households to have continuous and sustained communication.

## Benefits

This project is expected to generate or protect around 174 jobs (locally), and will provide enough renewable energy to electrify the equivalent of 5,366 households in Nigeria. As part of Empowers impact-focused commitment, the company also invests a proportion of every investment into a community development program. This is unrelated to carbon credit rights.

The project is in line with SDG 9


## Key impact metrics

**3.3k** tCO2e — Est. carbon offset annually

**2.55** MWp — Project size

# Pan African Towers Solar project – Empower New Energy

## Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2049 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2049 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Empower New Energy |
| **Project proponent** | Empower New Energy |
| **Website** | https://www.empowernewenergy.com/ |
| **Contact** | raja@empowernewenergy.com |

Established in 2017, Empower New Energy is a renewable energy financier and co-developer that finances, builds and owns clean power plants for commercial, industrial and agricultural energy users. An award-winning investment platform, we're pioneering the market for impact investments in the C&I space in Africa. Our mission is to bridge the financing gap that currently impedes the deployment of renewable energy in developing countries, with a vision of a world empowered by clean, affordable and reliable energy

# Off-grid Cameroon Minigrid Electrification Project – Empower New Energy

Project overview

| | |
|---|---|
| **Project name** | Off-grid Cameroon Minigrid Electrification Project |
| **Project developer** | Empower New Energy<br>PriVida Energy |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance |
| **Country (location)** | Cameroon |
| **Registration standard** | Verra (VCS) |
| **Project ID** | - |
| **Methodology** | VCS (expected) |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 5/6/2024 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This 2 MWp (total) solar project developed in partnership with PriVida Energy will provide critical support to a new, scalable, solar mini-grid and battery pilot project in Cameroon, initially serving three of the poorest districts in the country before being scaled up to other sites. 125 KWp of ground-mounted solar and 0.15 MWh batteries will be installed on each site, facilitating 24-hour access. All targeted areas are unelectrified meaning development indicators are poor. Lack of electrification limits education, commerce, and reduces safety for women / girls. Furthermore, fuels currently used (e.g., kerosene) pose long-term health risks, particularly for women who undertake most cooking. As these fuels are high in carbon, the project's CO2 avoidance will be significant.

## Benefits

This project is expected to generate or protect over 60 jobs (locally), and will directly electrify at least 7,040 households in three villages in Cameroon, benefitting around 35,200 people. As part of Empowers impact-focused commitment, the company also invests a proportion of every investment into a community development program. This is unrelated to carbon credit rights.

## Key impact metrics

**3.3k** tCO2e — Est. carbon offset annually

**2** MWp — Project size

# Off-grid Cameroon Minigrid Electrification Project – Empower New Energy

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2049 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2049 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Empower New Energy |
| **Project proponent** | Empower New Energy |
| **Website** | https://www.empowernewenergy.com/ |
| **Contact** | raja@empowernewenergy.com |

Established in 2017, Empower New Energy is a renewable energy financier and co-developer that finances, builds and owns clean power plants for commercial, industrial and agricultural energy users. An award-winning investment platform, we're pioneering the market for impact investments in the C&I space in Africa. Our mission is to bridge the financing gap that currently impedes the deployment of renewable energy in developing countries, with a vision of a world empowered by clean, affordable and reliable energy

# BePEARL (Bioenergy Powering agriculture and Rural Livelihoods) - Eight 500 kW hybrid power plant sites in Uganda – Mandulis Energy Limited

Project overview

| | |
|---|---|
| **Project name** | BePEARL (Bioenergy Powering agriculture and Rural Livelihoods) - Eight 500 kW hybrid power plant sites in Uganda |
| **Project developer** | Mandulis Energy Limited |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance & Removal |
| **Country (location)** | Uganda |
| **Registration standard** | Verra (VCS) |
| **Project ID** | - |
| **Validation body** | - |
| **Methodology** | AMS-I.L , AMS-I.F, AMS-I., AMS-III.D , VM0044 |
| **PDD** | |
| **Date of PDD submission** | 31/08/2023 |

## Project description

Mandulis Energy will establish up to eight renewable-energy sites hybrid power plant gasification (250 kW) and digestion (250kW), for generation of clean electricity from agricultural waste, and production and leverage of byproducts such as biogas, biochar and bio-fertilizer. Each site will have an additional 125 kW solar PV for a total capacity of 625 kW guaranteeing a 500kW electricity output 24h-365 days. The 8 sites are in Northern rural Uganda, and each will power a: 1) mini-grid, providing electricity to 1k households, businesses and academic institutions 2) an agricultural processing hub for value addition of crops. Generated residues will be bought to the farmers and will be used as feedstock for the electricity generation and, 3) a clean cooking briquette production line. The clean-energy will also power the company's fleet of electric- vehicles tuk-tuks for waste and biochar transportation. The byproducts, e.g., biochar, will be supplied to the farming communities as carbon sequestration inputs.

## Benefits

8k households, businesses and academic institutions will access clean electricity at a very affordable rates. The affordable electricity price will lead to businesses increasing productivity and households increasing savings, therefore, generating economic development in the villages.

The rural farming community members will be able to process their crops in the facilities, again at a very affordable price, adding value to their crops and selling their agricultural waste which enlarges their revenues in the market. Biofertilizers, made out of byproducts of the power hybrid plants as biochar and bio-slurry, will be accessible for improving crop yields and soil conditions for smallholder farmers.

## Key impact metrics

**36k** tCO2e — Est. carbon offset annually

**8** — Power plants across Northern Uganda

**8k** — households will have access to electricity, with each power plant supplying 1000 households

**~70k** tons — Biochar volumes to be produced over the lifetime operations of the project

Commercial needs: Financing needs | Off-take agreement | Spot sales

# BePEARL (Bioenergy Powering agriculture and Rural Livelihoods) - Eight 500 kW hybrid power plant sites in Uganda – Mandulis Energy Limited

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 5,258.00 | 2023 | 2024 |
| 2 | - | 15,773.99 | 2023 | 2025 |
| 3 | - | 42,063.98 | 2023 | 2026 |
| 4 | - | 42,063.98 | 2023 | 2027 |
| 5 | - | 42,063.98 | 2023 | 2028 |
| 6 | - | 42,063.98 | 2023 | 2029 |
| 7 | - | 42,063.98 | 2023 | 2030 |
| 8 | - | 42,063.98 | 2023 | 2031 |
| 9 | - | 42,063.98 | 2023 | 2032 |
| 10 | - | 42,063.98 | 2023 | 2033 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2023 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2033 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 357543.81 |

| | |
|---|---|
| **Project developer** | Mandulis Energy Limited |
| **Project proponent** | Mandulis Energy Limited |
| **Website** | https://www.mandulisenergy.com/ |
| **Contact** | peter@reparle.co.uk |

Mandulis Energy is a for-profit clean-tech start-up and social enterprise focused on developing positive social, economic and environmental impact for rural communities in Uganda through deployment of clean energy and value addition technologies and approaches. Mandulis Energy, founded in 2012, developed and implements a circular model which uses bioenergy technology, to transform agricultural residues into electricity, and clean cooking fuel, manufacturing as well biochar-producing gasifier cookstoves, by products of the system as biochar are leveraged as carbon sequestration and soil enhance

# Project Hummingbird – Octavia Carbon × Cella Mineral Storage

OCTAVIA CARBON

## Project overview

| | |
|---|---|
| **Project name** | Project Hummingbird |
| **Project developer** | Octavia Carbon × Cella Mineral Storage |
| **Project type** | Engineered Carbon Dioxide Removal (CDR) |
| **Type of credit** | Removal |
| **Country (location)** | Kenya |
| **Registration standard** | Puro Earth |
| **Methodology** | Geologically Stored Carbon (GSC) standard |
| **PDD** | |
| **Date of PDD submission** | 31/01/2024 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Project Hummingbird, the Global South's first Direct Air Capture (DAC)+Storage plant, will be commissioned by Octavia Carbon and Cella Mineral Storage in Naivasha, Kenya. The plant will have the capacity to capture and securely store >10k tons of CO2 during its 10-year lifetime. Octavia Carbon is building the DAC capacity for the project by manufacturing 100 modular DAC units, which will be used to facilitate the direct capturing of atmospheric Carbon Dioxide (CO2). The Kenyan Rift Valley is estimated to hold ~400 Gt of permanent CO2 storage potential via mineralization in basalts. Cella will inject the air captured CO2 into basaltic formations, which will then mineralize to form a stable solid, ensuring secure and permanent storage for millions of years. Generation of commercial credits from the project will commence in H2-'24.

## Benefits

Project Hummingbird will actively contribute to making geothermal power affordable for rural and urban communities. This will extend electricity access to more Kenyans and support the government's goal of achieving a 100% renewable grid by 2030. Project Hummingbird will also provide job opportunities to local pastoralist communities residing within the deployment area whose main source of livelihood has been depleted by climate induced droughts. Through this, the project will support the recovery and resilience within the community and promote sustainable economic development in the region.

## Key impact metrics

**1k+** tCO2e — Carbon capture and storage capacity of the Project Hummingbird DAC plant

**96%** — Carbon removal efficiency

**66** tCO2e — Est. project emissions

# **Project Hummingbird –** Octavia Carbon × Cella Mineral Storage (1/2)

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 24_1 | - | 50 | 2023 | 2024 |
| 24_2 | - | 100 | 2023 | 2024 |
| 25_1 | - | 100 | 2023 | 2025 |
| 25_2 | - | 200 | 2023 | 2025 |
| 26_1 | - | 100 | 2023 | 2026 |
| 26_2 | - | 200 | 2023 | 2026 |
| 27_1 | - | 100 | 2023 | 2027 |
| 27_2 | - | 200 | 2023 | 2027 |
| 28_1 | - | 100 | 2023 | 2028 |
| 28_1 | - | 200 | 2023 | 2028 |
| 29_1 | - | 100 | 2023 | 2029 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2034 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2034 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

OCTAVIA CARBON

| | |
|---|---|
| **Project developer** | Octavia Carbon × Cella Mineral Storage |
| **Project proponent** | Octavia Carbon |
| **Website** | https://www.octaviacarbon.com \| https://www.cellamineralstorage.com |
| **Contact** | martin@octaviacarbon.com |

Octavia Carbon is Global South's first Direct Air Capture (DAC) Company that designs and builds DAC machines that directly capture CO2 from the atmosphere in Kenya. Their latest DAC machine model, 'Lenana,' with a CO2 capture capacity of 10 tons per year (10 tCO2/yr), is going into mass manufacture for deployment in the project. Leveraging Kenya's geology and renewable energy in their machines' processes, Octavia Carbon aims to establish itself as a low-cost DAC company. Cella is a carbon mineralization company and the storage partner for the DAC+Storage plant. They have developed proprietary technology to convert CO2 emissions into rocks for safe and permanent sequestration through geological injections. The company's scientific advisory committee includes the world's leading experts on in-situ mineralization. Cella has selected the Kenyan Rift Valley as its first deployment site where they are set to start trial injections.

# **Project Hummingbird –** Octavia Carbon × Cella Mineral Storage (2/2)

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 29_2 | - | 200 | 2023 | 2029 |
| 30_1 | - | 100 | 2023 | 2030 |
| 30_2 | - | 200 | 2023 | 2030 |
| 31_1 | - | 100 | 2023 | 2031 |
| 31_2 | - | 200 | 2023 | 2031 |
| 32_1 | - | 100 | 2023 | 2032 |
| 32_2 | - | 200 | 2023 | 2032 |
| 33_1 | - | 100 | 2023 | 2033 |
| 33_2 | - | 200 | 2023 | 2033 |
| 34_1 | - | 50 | 2023 | 2034 |
| 34_2 | - | 100 | 2023 | 2034 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2034 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2034 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

OCTAVIA CARBON

| | |
|---|---|
| **Project developer** | Octavia Carbon × Cella Mineral Storage |
| **Project proponent** | Octavia Carbon |
| **Website** | https://www.octaviacarbon.com \| https://www.cellamineralstorage.com |
| **Contact** | martin@octaviacarbon.com |

Octavia Carbon is Global South's first Direct Air Capture (DAC) Company that designs and builds DAC machines that directly capture CO2 from the atmosphere in Kenya. Their latest DAC machine model, 'Lenana,' with a CO2 capture capacity of 10 tons per year (10 tCO2/yr), is going into mass manufacture for deployment in the project. Leveraging Kenya's geology and renewable energy in their machines' processes, Octavia Carbon aims to establish itself as a low-cost DAC company. Cella is a carbon mineralization company and the storage partner for the DAC+Storage plant. They have developed proprietary technology to convert CO2 emissions into rocks for safe and permanent sequestration through geological injections. The company's scientific advisory committee includes the world's leading experts on in-situ mineralization. Cella has selected the Kenyan Rift Valley as its first deployment site where they are set to start trial injections.

# Sistema.bio Global Carbon Program: Waste management, clean energy and regenerative agriculture on family farms. – Sistema.bio

Project overview

| | |
|---|---|
| **Project name** | Sistema.bio Global Carbon Program: Waste management, clean energy and regenerative agriculture on family farms. |
| **Project developer** | Sistema.bio |
| **Project type** | Waste Management |
| **Type of credit (avoidance/removal)** | Avoidance |
| **Country (location)** | Kenya |
| **Registration standard** | Gold Standard |
| **Project ID** | GS 12204 |
| **Methodology** | Methodology for Animal Manure Management and Biogas Use for Thermal Energy Generation V.1.1 |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 2023-01-08 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Sistema.bio is a social enterprise that provides access to innovative biodigester technology, training, and financing to help family farmers, who produce over 80% of the world's food, face the threats of climate change (e.g., poverty, food security, and climate change).

Sistema.bio manufactures and distributes high-quality, affordable biodigesters that enable farmers around the world to convert waste into energy and fertilizer. Biodigesters avoid emissions at farms by providing a proper manure management system and by generating a clean, renewable source of energy that can displace conventionally used fuel sources such as firewood, charcoal and LP gas. The Program will focus on small and family farmers, especially farmers who typically use wood fuel or LPG for their energy needs both in the household and productive uses in the farm, and who currently do not manage the manure generated by their animals having either solid or liquid storage practices for this.

## Benefits


## Key impact metrics

**54k** tCO2e

Est. carbon offset annually

# Sistema.bio Global Carbon Program: Waste management, clean energy and regenerative agriculture on family farms. – Sistema.bio

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | TDB- from yearly avg of 59,924 | 2024 | 2023 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2029 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2028 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Sistema.bio |
| **Project proponent** | Sistema.bio |
| **Website** | https://sistema.bio/ |
| **Contact** | stephanie@sistema.bio |

A social enterprise that provides access to innovative biodigester technology, training and financing to address the challenges of poverty, food security, and climate change. Manufactures and distributes high-quality, affordable biodigesters that enable farmers around the world to convert waste into energy and fertilizer, to ensure they become more sustainable, independent, and productive.

Sistema.bio was founded in Mexico in 2010. It has a direct commercial scheme in Mexico, Colombia, Kenya and India, and operates through partnerships in 30 other countries.

# The Switch Energy Project – Switch Solar

## Project overview

| | |
|---|---|
| **Project name** | The Switch Energy Project |
| **Project developer** | Switch Solar |
| **Project type** | Renewable energy |
| **Type of credit (avoidance/removal)** | Removal |
| **Country (location)** | Nigeria |
| **Registration standard** | Gold Standard |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 2023-12-01 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

Lagos State utilizes 16GW of electrical capacity, only 1GW comes from the national grid whilst the other 15GW from the burning of off-grid generators, making it the true base load for the State.

"The Switch Energy Project (SEP)" aims to transition 3,250 MSMEs and households from small-scale fossil-fuel generators to PayGo enabled Solar Generators with matching load requirements. This SEP will stabilize energy supply & expenditure and reduce CO2 emissions by 34 tons per annum per customer. Furthermore, increasing disposable income and stimulating economic growth.

Consumers will be transitioned leveraging a lease to own model, in partnership with financial institutions who will launch exclusive Switch Solar Loan products to reduce the bulk up-front cost of the energy transition.

## Benefits

-

## Key impact metrics

**22k** tCO2e — Est. carbon offset annually

**3250** MSMEs and households — Will be transformed to PayGo enables solar generators

**34** tCO2e — Est. carbon offset annually per customer

**300** youth — Will receive training to be solar installers

# The Switch Energy Project – Switch Solar

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 15,300 | 2025 | 2024 |
| 2 | - | 18,700 | 2026 | 2025 |
| 3 | - | 22,100 | 2027 | 2026 |
| 4 | - | 25,500 | 2028 | 2027 |
| 5 | - | 28,900 | 2029 | 2028 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2025 |
| **Year of last issuance of carbon credits,** realized or expected | 2029 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2028 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Switch Solar |
| **Project proponent** | Switch Solar Energy Services Limited |
| **Website** | https://www.switchsolarng.com/ |
| **Contact** | bolaji.onalaja@switchsolarng.com |

Switch Solar Energy Services Limited is a clean energy technology company serving underserved and unserved households & MSMEs with domestic & productive uses of energy leveraging PayGo technology for our range of products. Established in 2021, Switch Solar has grown into a reputable driven clean tech company having built a strong foundation based on Innovation, Integrity and our commitment to customer satisfaction. We have developed long-term relationships with key partners and delivered clean energy services, directly benefitting up to 400 people across Nigeria.

# Photizo – Chemotronix Limited

## Project overview

| | |
|---|---|
| **Project name** | Photizo |
| **Project developer** | Chemotronix Limited |
| **Project type** | Renewable energy |
| **Type of credit (avoidance/removal)** | Avoidance & Removal |
| **Country (location)** | Nigeria |
| **Registration standard** | Puro earth, Gold Standard |
| **Project ID** | - |
| **Methodology** | ACM0002, ACM0010, AM0094 |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 2/1/2024 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Photizo aims to lighten up various rural communities across Ibadan, Oyo State, Nigeria with Clean Energy (solar farms, biogas and hydrogen (much later)- serving as carbon credit projects to offset various emissions. This will help enhance the productivity & IGR, providing young populace with clean jobs and collaborating with Oyo State International Business Sustainable Pillars recently launched. We have submitted various proposals to international organizations like UNICEF, Youth Climate Summit, RES4Africa and we're optimistic of securing partnerships and expertise in coming months to begin the project.

Photizo aims to model carbon credit projects integrated with digital technologies for real-time monitoring, reporting and verification of progress made regarding reduction of Greenhouse gases.

## Benefits

Job Creation

Reduction & Avoidance of Greenhouse Gas (GHG) Emissions

Enhanced Agricultural Production, Storage & Preservation

Increased Digital Training & Education for young Rural Populace

Increased Infrastructural Development

## Key impact metrics

**10k** tCO2e — Est. carbon offset annually

**10k** jobs — To be created in 10 years

**10** communities — Will have accelerated infrastructure development

**>50%** — Sustainable agricultural activity growth rate impacted by the project

**10k** children — Will be equipped with digital skills in 10 years

# **Photizo –** Chemotronix Limited

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 10000 | - | 5k | 2024 | - |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2030 |
| **Year of vintage for first carbon credits,** realized or expected | 2025 |
| **Year of last vintage carbon credit,** realized or expected | 2032 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

CHEMOTRONIX

| | |
|---|---|
| **Project developer** | Chemotronix Limited |
| **Project proponent** | ( Not Finalized- Discussions Still Ongoing): Youth Climate Summit & United Nations Development Program |
| **Website** | www.chemotronix.org |
| **Contact** | info@chemotronix.org |

Chemotronix is an early stage startup led by young individuals. We are developing clean energy technologies and digital solutions to ensure net zero emissions. Currently, we have submitted proposals regarding scaling up solar farms, biogas and hydrogen in coming years across African communities. We are also building a digital Monitoring, Reporting and Verification Platform for Carbon Credit Projects across Africa.

# KiotaSIC Innovative Clean Cookstove – Kiota Social Innovation Center

Project overview

| | |
|---|---|
| **Project name** | KiotaSIC Innovative Clean Cookstove |
| **Project developer** | Kiota Social Innovation Center |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance & Removal |
| **Country (location)** | Nairobi, Kenya |
| **Registration standard** | Gold Standard |
| **Methodology** | SouthPole process |
| **Validation body** | SouthPole |
| **Date of PDD submission** | 29/06/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Our strategy is to develop and deploy clean energy alternatives in the bottom of the pyramid households with potential to expand economic opportunity, improve community well-being, reduce health problems, and contribute to mitigation of climate change while creating sustainable livelihood opportunities. These households have been using inefficient and unhealthy means to cook, lighting etc due to a lack of information, finances, and clean alternatives. We are empowering communities and transforming lives through improved clean cookstoves, designed and manufactured locally. Bringing durable, clean, safe, affordable cooking energy to households. Our clean cookstoves are tier 4.

To begin with, we are aiming to replace all dirty cookstoves with culturally appropriate innovative clean cookstoves that reduce or eliminate black carbon emissions and prevent illness and death from air pollution for people at base of pyramid in sub-Saharan Africa. Clean cooking is a nature-based solution, a technology-based solution, a community-based solution, and an opportunity for climate justice.

## Benefits

Sustainable living at the Base of Pyramid Benefits: Cost savings through reduced fuel consumption, Time savings by women, Access to education / productive time, Healthier life/ Improved life expectancy, Improved gender balance, Improved safety and Improved air quality

## Key impact metrics

**14** tCO2e — Est. carbon offset annually

**600k** — Projected clean cooking units to be manufactured by the project in one year

**1.2m** — Clean cooking units manufacturing capacity in one year

**60%** — Reduced fuel requirement by the clean cooking units

**80%** — Toxic emissions reduction by the clean cooking units

# KiotaSIC Innovative Clean Cookstove – Kiota Social Innovation Center

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2035 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2023 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Kiota Social Innovation Center |
| **Project proponent** | Kiota Social Innovation Center |
| **Website** | http://www.kiotasic.org |
| **Contact** | peter.githinji@kiotasic.org |

At Kiota Social Innovation Center (KiotaSIC) we are committed to innovating smart energy products and services that improve lives on a global scale. Using a market-based approach, KiotaSIC will continue developing a product line of wood, charcoal clean cookstoves that cook faster while reducing  use, smoke, and toxic emissions. Our strategy is to develop and deploy clean energy alternatives in the bottom of the pyramid households while creating sustainable livelihood opportunities. Our strategy is to serve more than 15 million people in energy poverty in the next 10 years. KiotaSIC's smart stoves reduce climate change, create new jobs, and enable families to save money. We are very keen on productive use of renewable energy to increase productivity, strengthen local businesses, create jobs, expand economic opportunities, and spur long-term development in rural communities.

# Adopt a streetlight Initiative – LITE-UP NAIJA PROJECTS LIMITED

Project overview

| | |
|---|---|
| **Project name** | Adopt a streetlight Initiative |
| **Project developer** | LITE-UP NAIJA PROJECTS LIMITED |
| **Project type** | Solar Streetlighting Project |
| **Type of credit (avoidance/removal)** | Avoidance |
| **Country (location)** | Nigeria |
| **Registration standard** | Verified Carbon Standard (VCS). |
| **Project ID** | - |
| **Validation body** | - |
| **Methodology** | . |
| **PDD** | - |
| **Date of PDD submission** | 14/07/1905 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

The "Adopt a Street Light" initiative is a community-driven project aimed at promoting sustainability and enhancing public safety through the adoption and maintenance of solar streetlights. As part of this initiative, individuals, businesses, and organizations have the opportunity to contribute to their community by sponsoring the installation and upkeep of solar-powered streetlights.

The project involves identifying areas in need of adequate lighting, particularly in underprivileged or remote locations. Through partnerships with local authorities and stakeholders, the initiative facilitates the installation of solar streetlights, reducing reliance on traditional energy sources and minimizing environmental impact.

## Benefits

By adopting a streetlight, participants play an active role in creating well-lit, safer communities, improving road visibility, and deterring criminal activities during night-time hours. The initiative not only enhances public safety but also promotes sustainability by harnessing the power of renewable energy.

Through collective efforts, the Adopt a Street Light initiative seeks to foster community engagement, create a sense of ownership, and contribute to the overall well-being of the society.

## Key impact metrics

**7**
**tCO2e**

Est. carbon offset annually

# Adopt a streetlight Initiative – LITE-UP NAIJA PROJECTS LIMITED

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| Batch 1 | - | 2.31 | 2023-2024 | 2023-2024 |
| Batch 2 | - | 2.77 | 2024-2025 | 2024-2025 |
| Batch 3 | - | 3.33 | 2025-2026 | 2025-2026 |
| Batch 4 | - | 4.00 | 2026-2027 | 2026-2027 |
| Batch 5 | - | 4.80 | 2027-2028 | 2027-2028 |
| Batch 6 | - | 5.76 | 2028-2029 | 2028-2029 |
| Batch 7 | - | 6.91 | 2029-2030 | 2029-2030 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2023 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2023 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | LITE-UP NAIJA PROJECTS LIMITED |
| **Project proponent** | Adopt a streetlight Initiative |
| **Website** | www.liteupnaija.com |
| **Contact** | manager@liteupnaija.com |

Liteup Naija Projects Limited, a leading solar project development company in Nigeria with over 5 years of experience and 100+ completed jobs, we are dedicated to transforming Nigeria's energy landscape. Our expert project developers have a proven track record of delivering successful solar installations for residential, commercial, and industrial clients. With deep knowledge of solar technology, we provide tailor-made solutions that optimize energy production and efficiency. We take pride in our commitment to quality, reliability, and customer satisfaction. Liteup Naija Projects Limited is at the forefront of driving the adoption of solar energy in Nigeria, contributing to a sustainable and greener future.

# Eco Social Market Economy (ESME) solar project – Empower New Energy

Project overview

| | |
|---|---|
| **Project name** | Eco Social Market Economy (ESME) solar project |
| **Project developer** | Empower New Energy<br>SunPower Innovation Limited |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance |
| **Country (location)** | Nigeria |
| **Registration standard** | Verra (VCS) |
| **Project ID** | - |
| **Methodology** | VCS (expected) |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 5/6/2024 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This solar project is a collaboration between Empower New Energy and SunPower Innovation Limited, and will deliver a 2.8 MWp solar installation, serving GO-University European Business Park Limited, an organization and business park focusing on the realization of an ecological social market economy. To this end, the core of their mission is the construction of an eco-friendly business park that provides essential services such as water, electricity, and sanitation for companies, students, and residents in Enugu, Nigeria. Their decision to embrace solar power is driven by a recognition of the significance of reliable and clean electricity in day-to-day operations. The electricity requirements of the park are substantial, and. the transition to solar power presents an opportunity to minimize dependence on fossil fuels.

## Benefits

This project is expected to generate or protect over 190 jobs (locally), and will provide enough renewable energy to electrify the equivalent of 2,542 households in Nigeria. As part of Empowers impact-focused commitment, the company also invests a proportion of every investment into a community development program. This is unrelated to carbon credit rights

## Key impact metrics

**859** tCO2e — Est. carbon offset annually

**2.8** MWp — Project size

# Eco Social Market Economy (ESME) solar project – Empower New Energy

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2049 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2049 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Empower New Energy |
| **Project proponent** | Empower New Energy |
| **Website** | https://www.empowernewenergy.com/ |
| **Contact** | raja@empowernewenergy.com |

Established in 2017, Empower New Energy is a renewable energy financier and co-developer that finances, builds and owns clean power plants for commercial, industrial and agricultural energy users. An award-winning investment platform, we're pioneering the market for impact investments in the C&I space in Africa. Our mission is to bridge the financing gap that currently impedes the deployment of renewable energy in developing countries, with a vision of a world empowered by clean, affordable and reliable energy

# LouisVille Residential – Smarterise Integrated Solutions

## Project overview

| | |
|---|---|
| **Project name** | LouisVille Residential |
| **Project developer** | Smarterise Integrated Solutions |
| **Project type** | Energy efficiency |
| **Type of credit** | Avoidance |
| **Country (location)** | Nigeria |
| **Registration standard** | Gold Standard |
| **Project ID** | - |
| **Methodology** | AM0091: Energy efficiency technologies and fuel switching in new and existing buildings |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 6/14/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Louisville is a development that combines residential and commercial spaces in Eko Atlantic city, Lagos. The goal is to create a smart and sustainable living environment that prioritizes energy efficiency and environmental preservation. Louisville aims to set the standard for sustainable and affordable luxury housing with a Level 2 edge certification in progress. Its success will inspire future developments across the country.

## Benefits

The project is in line with SDGs: 6, 7, 11, 15


## Key impact metrics

**473** tCO2e — Est. carbon offset annually

**5,500** m2 — Of green vegetation integrated

**314** — Smart and resilient buildings housing 1300+ people

**44%** — Energy savings

**38%** — Water savings

# LouisVille Residential – Smarterise Integrated Solutions

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | OTC | 4,370 | 2026 | 2036 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2026 |
| **Year of last issuance of carbon credits,** realized or expected | 2026 |
| **Year of vintage for first carbon credits,** realized or expected | 2036 |
| **Year of last vintage carbon credit,** realized or expected | 2036 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Smarterise Integrated Solutions |
| **Project proponent** | Total Energies Staff Housing Cooperative Multipurpose Society Ltd (TEHCOOP) |
| **Website** | https://www.smarterise.com/ |
| **Contact** | reach@smarterise.com |

Smarterise provides digital solutions to utilities and businesses to enable them better monitor and manage their energy operations; and reduce wastage by up to 40%. Smarterise's team comprises certified energy managers; data scientists and energy engineers. Our flagship product includes a relevant feature for the digital tracking of carbon emissions across several power assets of buildings.

# Denguele – ENVIRO PROTECT

Project overview


| | |
|---|---|
| **Project name** | Denguele |
| **Project developer** | ENVIRO PROTECT |
| **Project type** | Engineered Carbon Dioxide Removal (CDR) |
| **Type of credit** | Removal |
| **Country (location)** | Côte d'Ivoire |
| **Registration standard** | Gold standard |
| **Methodology** | - |
| **Date of PDD submission** | 08/06/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

ENVIRO-PROTECT fights against forest destruction by promoting improved stoves.

This area is very exposed to the use of wood as fuel. Such a project could consequently reduce the large-scale use of wood. We will then target other regions of Côte d'Ivoire, then Guinea and Mali.

## Benefits

-

# Denguele – ENVIRO PROTECT

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2039 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2039 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 80k |

| | |
|---|---|
| **Project developer** | ENVIRO PROTECT |
| **Project proponent** | ENVIRO-PROTECT |
| **Website** | - |
| **Contact** | djagbapaul@gmail.com |

ENVIRO-PROTECT is a company that executes carbon projects in Côte d'Ivoire. We have executed Burn Manufacturing's carbon project in the distribution of improved stoves over 2 years.

We have an available, young and dynamic team to reach objectives very quickly.

# 2

# Presentation of projects – 2023 edition

Section 1: Project validated against an ICROA-endorsed independent standard

Section 2: Projects not yet validated against an ICROA-endorsed independent standard

**Section 3: Projects designed against new or emerging methodologies**

# Installation of 300kw Solar Power Plant – ZENELGIE GLOBAL CONSULTING LIMITED

## Project overview

| | |
|---|---|
| **Project name** | Installation of 300kw Solar Power Plant |
| **Project developer** | ZENELGIE GLOBAL CONSULTING LIMITED |
| **Project type** | Renewable energy |
| **Type of credit** | Removal |
| **Country (location)** | Nigeria |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **Date of PDD submission** | 28/07/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

369.2kWp of solar power and 960kWh (768kWh usable energy @ 80% DOD) PV Hybrid System

Solar Photovoltaic power generator consists of solar modules in series and parallel connections, these convert solar radiations into DC electrical power at the pre-determined range of Voltages whenever sufficient solar radiation is available.

To achieve a higher system voltage, modules are installed in a row arrangement, called a string. A higher system voltage has the advantage of lesser installation work, higher efficiency of the entire plant and usage of smaller cross section cables.

Calculated no. of strings is connected in parallel and fed to the string inverter solar generated DC power in to conventional 3 phase AC power. AC power from multiple inverters will be fed to LV panel.

The system is automatic and has the below basic operation mode: PV Production greater than Load Demand: The Solar system supply the load and charge the batteries, PV Production less than the Load Demand: The Solar and battery system supply the load, no PV Production and Battery DOD is greater than 80%: The battery supply the load, no PV Production and Battery DOD is less than 80%: The generator supply the load and charge the battery

## Benefits

The benefits of climate change mitigation include local economic value creation, new employment opportunities, cleaner air, access to affordable energy, and rural development.

## Key impact metrics

**3.4M** tCO2e — Est. carbon offset annually

**299.2** kWp — Capacity of solar power in the project

**1152** kWh — PV Hybrid system capacity

# Installation of 300kw Solar Power Plant – ZENELGIE GLOBAL CONSULTING LIMITED

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 222 | 2023 | 2030 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2030 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2030 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 234,564 |

| | |
|---|---|
| **Project developer** | ZENELGIE GLOBAL CONSULTING LIMITED |
| **Project proponent** | ZENELGIE GLOBAL CONSULTING LIMITED |
| **Website** | WWW.ZENLLOYDS.COM |
| **Contact** | FREDNIYI2@ZENLLOYDS.COM |

ZenelGie Global Consulting Limited was founded on this premise and driven with zeal by the founder to help solve the energy crisis facing households and businesses with solar energy to electricity for clean, reliable and affordable power supply. Towards this realisation, we at ZenelGie Global have worked tirelessly with our partners, associates, customers and collaborators in ensuring that solar prices witness dramatic fall over the years.

# Africa Diamond Business – Clean Cooking SSA Senegal

## Project overview

| | |
|---|---|
| **Project name** | Africa Diamond Business |
| **Project developer** | Clean Cooking SSA Senegal |
| **Project type** | Energy efficiency |
| **Type of credit (avoidance/removal)** | Avoidance & Removal |
| **Country (location)** | Mali and Senegal |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | National Environment Agency |
| **PDD** | - |
| **Date of PDD submission** | 2023-11-29 |
| **Independent rating** | Southpole |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The use of ethanol stoves has many environmental, social, and economic development benefits for households and for Senegal as a whole.

Most Senegalese have relied on charcoal for cooking meals. With an ethanol stove, they will be able to cook for their families in a clean indoor environment. Note that this new way of cooking can save their health and also reduce the cost of cooking and save their time.

## Benefits

-

## Key impact metrics

**2M**
**tCO2e**

Est. carbon offset annually

# Africa Diamond Business – Clean Cooking SSA Senegal

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 001 | - | 650k | 3 | 5 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2028 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2028 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 230000 |

| | |
|---|---|
| **Project developer** | Clean Cooking SSA Senegal |
| **Project proponent** | Clean Cooking Sub Sahara Senegal |
| **Website** | www.africadiamondgroup.com |
| **Contact** | cleancookingsubsahara@gmail.com |

Clean Cooking Senegal is a company that promotes renewable energy for households in Senegal. Its main role is to support the Senegal Ethanol Stove Program while ensuring that all parties involved in this program comply with the requirements of this program to ensure the best quality of this. The objective of this program is to sell 35k ethanol stoves to Senegalese households by 2023. These stoves are not only profitable but will also allow Senegalese households to have "a better life". This program will also bring economic development for Senegal as a whole.

# MySol by ENGIE Energy Access – ENGIE Energy Access

## Project overview

| | |
|---|---|
| **Project name** | MySol by ENGIE Energy Access |
| **Project developer** | ENGIE Energy Access |
| **Project type** | Household devices |
| **Type of credit** | Avoidance |
| **Country (location)** | Africa, including Benin, Ivory Coast, Kenya, Mozambique, Nigeria, Rwanda, Tanzania, Uganda, Zambia |
| **Registration standard** | CarbonClear (https://www.carbonclear.earth/) |
| **Project ID** | - |
| **Validation body** | Det Norske Veritas (DNV) (https://www.dnv.com/) |
| **Methodology** | AMS-I.L version 3.0 |
| **Date of PDD submission** | 10/1/2018 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

With 9% of the world population still living without access to electricity, the challenge of achieving affordable and clean energy, as outlined in SDG 7, still persists.

Today, in the voluntary carbon market, only few decentralized solar home systems projects benefit from climate financing due to inadequate validation and certification processes, unsustainable cost structures and lengthy approval times.

To address these limitations, ENGIE Energy Access, a leading off-grid solar solutions provider in Africa and CarbonClear, a prominent solar home system standard have joined forces to develop an innovative and fully digitalized carbon issuance model.

By integrating real-time data from the usage of solar kits with the issuance of carbon credits, this partnership ensures strong integrity claims while delivering multiple benefits through the project.

## Benefits

The project yields multiple benefits that strongly contribute to the United Nations' Sustainable Development Goals. Beyond providing access to clean energy and promoting climate action, solar home systems bring about significant enhancements in the lives of individuals and communities, encompassing areas such as health, safety, education, and energy savings. Moreover, the project generates numerous job opportunities, particularly for women, thereby fostering economic growth in developing countries

## Key impact metrics

**88k** tCO2e — Est. carbon offset annually

**500k** tCO2e — Est. carbon offset annually

**1200** Jobs — Locally created in developing countries

**10M** — Lives impacted in Sub-Saharan Africa

# MySol by ENGIE Energy Access – ENGIE Energy Access

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| Batch 1 | - | 6k | 2023 | 2022 |
| Batch 2 | - | 80k | 2023 | 2023 |
| Batch 3 | - | 84k | 2024 | 2024 |
| Batch 4 | - | 88k | 2025 | 2025 |
| Batch 5 | - | 92k | 2026 | 2026 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2026 |
| **Year of vintage for first carbon credits,** realized or expected | 2022 |
| **Year of last vintage carbon credit,** realized or expected | 2026 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | ENGIE Energy Access |
| **Project proponent** | Steven FLEURUS (CFO ENGIE Energy Access) |
| **Website** | https://engie-energyaccess.com/ |
| **Contact** | mathieu.brun@engie.com |

ENGIE Energy Access is the leading Pay-As-You-Go and mini-grids solutions provider in Africa. The company develops innovative, off-grid solar solutions for homes, public services and businesses, enabling customers and distribution partners access to clean, affordable energy. With over 1,700 employees, operations in nine countries across Africa, over 1.9 million customers, the company aims to impact 20 million lives across Africa by 2025.

An innovative digital Monitoring, Reporting & Verification (dMRV) of the credits:

- Payment data and/or device usage data are collected per units and integrated to the CarbonClear platform to automatize the dMRV, while issuing 100% real life usage credits.
- Unlike traditional projects, where issuance occurs every 1 or 2 years based on an audit performed on a limited sample of users, this project allows for an efficient, global and continuous verification and issuance process. Yearly audits by DNV GL ensures a regular and external control of the process.
- When retired, the credits provide access to a proof of retirement going up to the geohash and the timestamp of the solar systems associated to the emissions' reductions.

# First Modular Gas System Limited (FMGSL) – Argentil Capital Management Limited (ACML) and Dharmattan Gas Facilities Limited (DGFL)

## Project overview

| | |
|---|---|
| **Project name** | First Modular Gas System Limited |
| **Project developer** | ACML and DGFL |
| **Project type** | Alternative fuels |
| **Type of credit** | Removal |
| **Country (location)** | Nigeria |

## Project description

First Modular Gas Systems Limited (FMGSL) is an innovative midstream energy company focused on sustainable and environmentally friendly fuel production. FMGSL's primary goal is to reduce gas flaring and promote the use of clean energy sources. This would be achieved by commercializing flare gas, a byproduct of oil production, and converting it into compressed natural gas (CNG) and liquefied petroleum gas (LPG).

By processing this gas, FMGSL contributes to significant reductions in greenhouse gas emissions by offering an alternative to traditional Fuels. This process helps combat climate change and improves air quality in the surrounding areas.

FMGSL's commitment to the environment extends beyond gas processing. The project in Abia state aims to establish a 5.0 million standard cubic feet per day (mmscf/d) gas processing plant, utilizing feed gas from the Oza Marginal Field in OML 11. With plans for expansion to 50mmscf/d over the next 10 years.

## Benefits

FMGSL will provide:

1. Clean cooking alternatives
2. Cost efficient alternatives to petrol and diesel
3. Reduced CO2 Emission in Africa
4. Low-emission power generation

## Key impact metrics

**90k** tCO2e — Est. carbon offset annually

**15** mmscf per day — CNG and LPG that would have been flared will be processed

**129M** litres — Annual possible volume of diesel displaced by adopting FMGSL's gas

**~56** MW — Will be contributed by FMGSL

Commercial needs: Financing needs; Off-take agreement; Spot sales

# **First Modular Gas System Limited (FMGSL)** – Argentil Capital Management Limited (ACML) and Dharmattan Gas Facilities Limited (DGFL)

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| - | - | 89,921 | 2024 | 2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2044 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2044 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

| | |
|---|---|
| **Project developer** | Argentil Capital Management Limited (ACML) and Dharmattan Gas Facilities Limited (DGFL) |
| **Project proponent** | Argentil Capital Management Limited (ACML) and Dharmattan Gas Facilities Limited (DGFL) |
| **Website** | www.argentilcm.com and www.dharmattangroup.com |
| **Contact** | ProjectBaker@argentilcp.com |

Àrgentil Capital Management Limited (ACML) is a principal investment, private equity, and asset management firm with a track record of investing in SMEs across Sub-Saharan Africa and has completed transactions in excess of US$50m. ACML is affiliated with the Àrgentil group which has raised over US$ 5 billion in completed deals.

Dharmattan Gas Facilities Limited (DGGL) is a leading marketer of LPG and related gas products, with multiple distribution channels and wholesale units across Ten (10) states in Nigeria. Dharmattan has the largest network of LPG station skids and mall installations in Nigeria

# 16.5MW Simu & Sisi hydropower project –
## Kwanza Infrastructure Group

Project overview

| | |
|---|---|
| **Project name** | 16.5MW Simu & Sisi hydropower project |
| **Project developer** | Kwanza Infrastructure Group |
| **Project type** | Others |
| **Type of credit** | Removal |
| **Country (location)** | Uganda |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 30/11/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The Project is at an advanced stage of development with all feasibility studies completed and material permits and approvals secured with two separate 24year generation licenses. The Project shall comprise the following components: two intakes on the Simu river and one intake on the Sisi river, one forebay, one stilling well, interconnection chamber at which point the 9.5 MW Simu starts sharing structures with the 7.0 MW Sisi project, 2 penstocks and a combined Powerhouse on the Simu river at an elevation of 1120msl with two turbines.

## Benefits

-

## Key impact metrics

**36k** tCO2e — Est. carbon offset annually

**16.5** MW — Installed power capacity

**1%** — Community revenue share

**200** Green jobs — Will be contributed by the project to the community

# 16.5MW Simu & Sisi hydropower project –
## Kwanza Infrastructure Group

### Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2027 |
| **Year of last issuance of carbon credits,** realized or expected | 2046 |
| **Year of vintage for first carbon credits,** realized or expected | 2026 |
| **Year of last vintage carbon credit,** realized or expected | 2046 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |

kwanza infrastructure group

| | |
|---|---|
| **Project developer** | Kwanza Infrastructure Group |
| **Project proponent** | rAREH Sisi Hydropower Limited & rAREH Simu Limited |
| **Website** | www.kwanzaig.com |
| **Contact** | herbert@kwanzaig.com |

Kwanza Infrastructure Group (KIG) is an Independent Power Producer (IPP) and Independent Power Transmitter (IPT) established in 2016 and with development assets consisting of 4 hydropower projects and 2 high voltage transmission projects with a ticket size of approximately USD 120 million; all located Uganda. KIG identifies greenfields and derisks the projects to achieve bankability to attract credible and experienced investors to co-invest in the construction and operation of the projects. KIG is co-developing its portfolio with Serengeti Energy, Mecamidi india HPP and Ceylex Engineering

# 13.8 MW Run-of-River Hydropower Project –
## Kwanza Infrastructure Group

### Project overview

| | |
|---|---|
| **Project name** | 13.8 MW Run-of-River Hydropower Project |
| **Project developer** | Kwanza Infrastructure Group |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance |
| **Country (location)** | Uganda |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 30/11/2023 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The 13.8MW Ngenge hydropower project is a fully developed project with all studies completed and all material permits required to progress to construction secured. The project is located in Kween District, Eastern Uganda. The Project shall comprise the following components: two low diversion weirs; two intakes with two short connection channels; two forebays or desilting tanks; two separate steel penstocks from desanders 1 and 2 and a common penstock from the confluence downwards; a powerhouse; a tail race; and a 6.25km evacuation line.

## Benefits

-

## Key impact metrics

| | |
|---|---|
| **31k tCO2e** | Est. carbon offset annually |
| **13.8 MW** | Installed power capacity |
| **1%** | Community revenue share |
| **120 Green jobs** | Will be contributed by the project to the community |
| **111k trees** | Will be planted after project construction |

# 13.8 MW Run-of-River Hydropower Project –
## Kwanza Infrastructure Group

### Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2027 |
| **Year of last issuance of carbon credits,** realized or expected | 2046 |
| **Year of vintage for first carbon credits,** realized or expected | 2026 |
| **Year of last vintage carbon credit,** realized or expected | 2046 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 619,164 |

kwanza infrastructure group

| | |
|---|---|
| **Project developer** | Kwanza Infrastructure Group |
| **Project proponent** | Nguvu Energy (Uganda) Limited |
| **Website** | www.kwanzaig.com |
| **Contact** | herbert@kwanzaig.com |

Kwanza Infrastructure Group (KIG) is an Independent Power Producer (IPP) and Independent Power Transmitter (IPT) established in 2016 and with development assets consisting of 4 hydropower projects and 2 high voltage transmission projects with a ticket size of approximately USD 120 million; all located Uganda. KIG identifies greenfields and derisks the projects to achieve bankability to attract credible and experienced investors to co- invest in the construction and operation of the projects. KIG is co-developing its portfolio with Serengeti Energy, Mecamidi india HPP and Ceylex Engineering.

# Addis Ababa Automated Parking And EV Charging Station – Aries investment

## Project overview

| | |
|---|---|
| **Project name** | Addis Ababa Automated Parking And EV Charging Station |
| **Project developer** | Aries investment |
| **Project type** | Transportation |
| **Type of credit** | Removal |
| **Country (location)** | Ethiopia |
| **Methodology** | - |
| **Date of PDD submission** | 26/05/2023 |

## Project description

The integration of EV charging stations into automated parking systems promotes the use of electric vehicles, which can have a significant impact on reducing greenhouse gas emissions and improving air quality in cities.

By offering convenient and reliable EV charging, drivers are more likely to make the switch to electric vehicles, which can lead to a reduction in the number of gas-powered vehicles on the road.

## Benefits

The project aligns with several SDGs:


## Key impact metrics

**80m tCO2e**

est. emission reductions over total project lifetime

Commercial needs: Financing needs | Off-take agreement | Spot sales

# Addis Ababa Automated Parking And EV Charging Station – Aries investment

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2024 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2024 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 0 |
| **Financing need** | Project Financing |

| | |
|---|---|
| **Project developer** | Aries investment |
| **Project proponent** | Daniel Tsegaye |
| **Website** | http://www.ariesinvestment.com.et/ |
| **Contact** | dannytsegaye@outlook.com |

Our company in Ethiopia is working on an innovative solution for urban parking in Addis Ababa. With the rise of electric vehicles and the growing need for green transportation initiatives, our company is introducing automated parking with EV charging stations service. This service will allow car owners to park and charge their vehicles at the same time.

The innovative solution is expected to cater to the growing demand for convenient parking facilities in Addis Ababa, where parking has always been a challenge. The EV charging stations incorporated in the system will also be valuable for elect

# 13.8 MW Ngenge Hydropower Project – Kwanza Infrastructure Group

## Project overview

| | |
|---|---|
| **Project name** | 13.8 MW Ngenge Hydropower Project |
| **Project developer** | Kwanza Infrastructure Group |
| **Project type** | Renewable energy |
| **Type of credit (avoidance/removal)** | Avoidance (averts GHG emissions) |
| **Country (location)** | Uganda |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 30/11/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The 13.8MW Ngenge hydropower project is a fully developed project with all studies completed and all material permits required to progress to construction secured. The project is located in Kween District, Eastern Uganda. The Project shall comprise the following components: two low diversion weirs; two intakes with two short connection channels; two forebays or desilting tanks; two separate steel penstocks from desanders 1 and 2 and a common penstock from the confluence downwards; a powerhouse; a tail race; and a 6.25km evacuation line.

## Benefits

-

## Key impact metrics

**13.8 MW** — Installed capacity in the plant

**52.02 GWh** — Annual energy production

**~35 acres** — Total project land required

# 13.8 MW Ngenge Hydropower Project – Kwanza Infrastructure Group

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2027 |
| **Year of last issuance of carbon credits,** realized or expected | 2046 |
| **Year of vintage for first carbon credits,** realized or expected | 2026 |
| **Year of last vintage carbon credit,** realized or expected | 2046 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Kwanza Infrastructure Group |
| **Project proponent** | Nguvu Energy (Uganda) Limited |
| **Website** | www.kwanzaig.com |
| **Contact** | herbert@kwanzaig.com |

Kwanza Infrastructure Group (KIG) is an Independent Power Producer (IPP) and Independent Power Transmitter (IPT) established in 2016 and with development assets consisting of 4 hydropower projects and 2 high voltage transmission projects with a ticket size of approximately USD 120 million; all located Uganda. KIG identifies greenfields and derisks the projects to achieve bankability to attract credible and experienced investors to co-invest in the construction and operation of the projects. KIG is co-developing its portfolio with Serengeti Energy, Mecamidi india HPP and Ceylex Engoineering.

# Northern Namibia Carbon Markets – Dr. Andreas Nikodemus

## Project overview

| | |
|---|---|
| **Project name** | Northern Namibia Carbon Markets |
| **Project developer** | Dr. Andreas Nikodemus |
| **Project type** | Forestry |
| **Type of credit (avoidance/removal)** | Avoidance & Removal |
| **Country (location)** | Namibia |
| **Registration standard** | Registered with the ministry of industry and business intellectual properties of Namibia; recognized by the ministry of environment; forestry; and tourism. |
| **Project ID** | CC/2015/15644 |
| **Methodology** | Awareness and educational programs on climate change and forest ecosystem services Agroforestry Forestation Research and database system |
| **Validation body** | Ministry of Environment; Forestry; and Tourism |
| **PDD** | |
| **Date of PDD submission** | 6/30/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Northern Namibia Carbon Markets is an initiative by Nico Research Institute to educate local communities about the importance of forests and woodlands in comparing climate change. The project will also create awareness about agroforestry. Local farmers will be trained to apply for funds to implement agroforestry activities in their farmlands.

## Benefits

-

## Key impact metrics

**5** **tCO2e** Est. carbon offset annually

**100** **trees** Will be planted per acre

# Northern Namibia Carbon Markets – Dr. Andreas Nikodemus

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2027 |
| **Year of vintage for first carbon credits,** realized or expected | 2023 |
| **Year of last vintage carbon credit,** realized or expected | 2027 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 20 |

| | |
|---|---|
| **Project developer** | Dr. Andreas Nikodemus |
| **Project proponent** | Northern Namibia Carbon Markets |
| **Website** | - |
| **Contact** | anikodemusp@gmail.com |

Dr. Nikodemus obtained a PhD in forestry and climate change from the Czech University of Life Sciences Prague in May 2023. His excellent academic achievements were validated by the three scientific papers which he published in peer-review journals during his PhD studies. He also works for the Ministry of Environment; Forestry; and Tourism of Namibia since 20215; where he is responsible for forest inventories. His role centres on data collection; report compiling and local community engagement. Dr. Nikodemus also runs an institution called Nico Research Institute.

# Easy Solar – Easy Solar

## Project overview

| | |
|---|---|
| **Project name** | Easy Solar |
| **Project developer** | Easy Solar |
| **Project type** | Renewable energy |
| **Type of credit (avoidance/removal)** | Avoidance |
| **Country (location)** | Liberia, Sierra Leone |
| **Registration standard** | CarbonClear |
| **Project ID** | - |
| **Methodology** | The CarbonClear programme https://cdm.unfccc.int/methodologies/DB/CCZKY3FSL1T28BNEGDRSCKS0CY0WVA |
| **Validation body** | DNV |
| **PDD** | |
| **Date of PDD submission** | 12/2/2021 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Easy Solar provides access to renewable energy and mitigates CO2 emissions by replacing kerosene lamps and diesel generators with off-grid solar lanterns and solar home systems. Thanks to the PayGo credit facilities offered by Easy Solar to the unbanked and low-income population; the project will also favor financial inclusion.Put simply: People need reliable light to reach their full potential. Secure off-grid power helps people live safer and more productive lives. Joining the CarbonClear programme enables Easy Solar to accelerate the rate at which they can deploy new systems; giving more communities access to renewable energy and/or lowering the rates paid by users of solar systems; thus making it more affordable for the ones that cannot afford their current offerings.

## Benefits

-

## Key impact metrics

**4k**
**tCO2e**

Est. carbon offset annually

# Easy Solar – Easy Solar

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 1000 | 01/01/2024 | 2021 |
| 2 | - | 3000 | 01/01/2024 | 2022 |
| 3 | - | 4000 | 01/01/2024 | 2023 |
| 4 | - | 4000 | 01/01/2025 | 2024 |
| 5 | - | 4000 | 01/01/2026 | 2025 |
| 6 | - | 4000 | 31/12/2026 | 2026 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2026 |
| **Year of vintage for first carbon credits,** realized or expected | 2021 |
| **Year of last vintage carbon credit,** realized or expected | 2026 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

easy solar

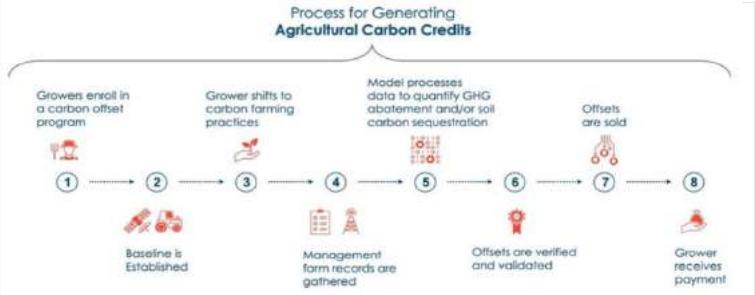
| | |
|---|---|
| **Project developer** | Easy Solar |
| **Project proponent** | Nthabiseng Mosia |
| **Website** | https://easysolar.org |
| **Contact** | hello@carbonclear.earth |

Easy Solar's aspiration is to democratize access to energy; financial services; and products that improve quality of life; making them attainable for everyone. We provide an assortment of products; from solar lanterns and home lighting systems to appliances and cookstoves; all available through cost-effective financing plans.

# Nigeria Agricultural Voluntary Carbon Offset Programme – Verdure Climate Limited

Verdure Climate Limited

## Project overview




| | |
|---|---|
| **Project name** | Nigeria Agricultural Voluntary Carbon Offset Programme |
| **Project developer** | Verdure Climate Limited |
| **Project type** | Agriculture (arable) |
| **Type of credit** | Avoidance & Removal |
| **Country (location)** | Nigeria |
| **Registration standard** | Verra (VCS) |
| **Project ID** | - |
| **Methodology** | VCS VM0017 |
| **PDD** | |
| **Date of PDD submission** | 30/09/2023 |
| **Independent rating** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Verdure is developing an ecosystem of Carbon Credit Projects that generate Agricultural Carbon credits as a means of additional income earnings for smallholder farmers. Verdure as a Project developer will be partnering with farmers to lead the execution of an Agricultural Carbon offset project. Verdure shall be responsible for recruiting/enrolling farmers for the offset programme, supporting their adoption of new farm management practices through tools, and consulting advice.

## Benefits

1. Smallholder and Commercial Farmers as Beneficiaries: They follow the Climate Smart Agriculture (CSA) Protocols) developed by Verdure to remove and sink CO2 and Methane into the soil,

2. Aggregators as a service distribution channel,

3. Governments: Assist the Nigerian government to achieve her net zero carbon target by 2050,

4. The Carbon credit buyers: These are people or organizations that want to offset their emissions.

## Key impact metrics

**120**
**tCO2e**

Est. carbon offset annually

# Nigeria Agricultural Voluntary Carbon Offset Programme – Verdure Climate Limited

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2023 |
| **Year of last issuance of carbon credits,** realized or expected | 2023 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2024 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 500 |

Verdure Climate Limited

| | |
|---|---|
| **Project developer** | Verdure Climate Limited |
| **Project proponent** | Verdure Climate Limited |
| **Website** | https://verdureclimate.com |
| **Contact** | opeyemi@verdureclimate.com |

Verdure is a climate-tech company offering Climate- Risk Mitigation & Decarbonization solutions to accelerate sustainability & resilience to our local food systems. Our solutions mainstream climate risk mitigation & adaptation practices that not only de-risk the uncertainties in the agribusiness value chain but also unlock access to climate adaptation finance (i.e. carbon credits, green bonds) to smallholder farmers and other value chain actors, whilst also taking into cognizance the best climate mitigation and adaptive practices to address Nigeria's food systems, & Net-zero carbon objectives.

# Mass electrification for poverty alleviation impact in North-East communities – Cloud Energy Photoelectric Limited

Project overview

| | |
|---|---|
| **Project name** | Mass Electrification For Poverty Alleviation Impact In Northeast Communities. |
| **Project developer** | Cloud Energy Photoelectric Limited |
| **Project type** | Renewable energy |
| **Type of credit (avoidance/removal)** | Removal |
| **Country (location)** | Nigeria |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 2023-12-08 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs, Off-take agreement, Spot sales

## Project description

This particular project is part of a larger initiative that involved equipping six communities with 100-kW solar mini-grid systems. The aim of this project, as outlined in the Rural Electrification Agency's 2022 programmatic budgeting report, was to prioritize productive users such as agro-processing businesses, homes, commercial establishments, and public spaces. As a result of this effort, a total of 8,155 individuals have benefited from uninterrupted power supply and access to clean and affordable water. Additionally, the project has had several positive outcomes, including the creation of over 60 direct and indirect jobs, improved security, increased productivity, enhanced healthcare services, and the replacement of over 40 diesel and petrol generators.

Furthermore, the project has made significant strides in reducing carbon emissions, as indicated by the current and projected estimations based on the SEforALL mini-grid emissions data. These reductions in carbon emissions are an encouraging outcome of the project's focus on sustainable and environmentally friendly energy solutions.

## Benefits

-

## Key impact metrics

**13** tCO2e — Est. carbon offset annually

**6** communities — Are targeted by the project

**100** kW — Solar mini-grid systems will be distributed across the 6 communities

# Mass electrification for poverty alleviation impact in North-East communities – Cloud Energy Photoelectric Limited

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1 | - | 5 | 2024 | 2024 |
| 1 | - | 8 | 2024 | 2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2037 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2037 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Cloud Energy Photoelectric Limited |
| **Project proponent** | Rural Electrrification Agency |
| **Website** | - |
| **Contact** | osayu.ogboghodo@rea.gov.ng |

Cloud Energy Photoelectric Ltd is a solar energy company based in Nigeria. The company's main focus is on energy conservation and meeting immediate energy needs. They employ various conservation techniques such as using inverter systems, solar energy, and energy-saving LED lighting to ensure the most efficient use of energy. They provide comprehensive after-sales support with dedicated engineers and client service representatives, offering alternative energy solutions to homes, organizations, schools, industries, and more across the country.

# Sun King – Sun King

## Project overview

| | |
|---|---|
| **Project name** | Sun King |
| **Project developer** | Sun King |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance |
| **Country (location)** | Cameroon, Kenya, Malawi, Nigeria, South Africa, Tanzania, Togo, Uganda, Zambia |
| **Registration standard** | CarbonClear |
| **Project ID** | … |
| **Methodology** | CDM AMS-I.L version 3.0 /9/ |
| **Validation body** | DNV |
| **PDD** | |
| **Date of PDD submission** | 12-02-2021 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

Today, 1.8 billion people are living without reliable access to an electric grid. Without electricity, most are left to light their homes with kerosene, an unsafe and expensive pollutant, or to walk miles just to charge their mobile phones, find a place to study, or finish their day's work.

Put simply: People need reliable light to reach their full potential. Secure off-grid power helps people live safer and more productive lives. Joining the CarbonClear programme enables Sun King to accelerate the rate at which they can deploy new systems, giving more communities access to renewable energy and/or lowering the rates paid by users of solar systems, thus making it more affordable for the ones that cannot afford their current offerings.

## Benefits

In East and West Africa, most solar home system (SHS) customers live in larger-than-average households, earning under $3.20/day. Transitioning from kerosene to solar lighting reduces energy costs by 40-60%, freeing about 4% of their total income. Adopting off-grid solar, especially in kerosene-subsidizing countries brings significant savings; India saved over half a billion dollars from 2015-16 to 2016-17 by cutting kerosene subsidies. The IRENA's 2016 study shows that the solar off-grid industry globally generates tens of thousands of jobs, with 7% of SHS-owning households reporting new job opportunities. Health and safety dramatically improve when households switch to solar energy from kerosene, reducing burns, respiratory issues, and accidents. Solar energy also enhances mobile money adoption, stimulates digital financial literacy, and fosters frequent account activities, enabling customer power consumption data collection and establishing credit history for the unbanked. Good credit ratings open up access to an array of products and services.

## Key impact metrics

**473k tCO2e** — Annual emissions offset

**20% Energy cost reduction** — From switching to Solar from Kerosene usage

# Sun King – Sun King

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| Batch 1 | - | 15,000 | 2022 | 2019 |
| Batch 2 | - | 15,000 | 2022 | 2020 |
| Batch 3 | - | 15,000 | 2022 | 2021 |
| Batch 4 | - | 20,000 | 2023 | 2022 |
| Batch 5 | - | 450,000 | 2023 | 2023 |
| Batch 6 | - | 460,000 | 2024 | 2024 |
| Batch 7 | - | 460,000 | 2025 | 2025 |
| Batch 8 | - | 460,000 | 2026 | 2026 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2021 |
| **Year of last issuance of carbon credits,** realized or expected | 2026 |
| **Year of vintage for first carbon credits,** realized or expected | 2019 |
| **Year of last vintage carbon credit,** realized or expected | 2026 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | Sun King |
| **Project proponent** | CarbonClear on behalf of Sun King |
| **Website** | https://sunking.com/ |
| **Contact** | hello@carbonclear.earth |

Starting with a solar lamp in 2009, Sun King has grown to be a top global provider of off-grid solar solutions. It employs 2,500 individuals who serve 100 million users across 65 countries. By designing, distributing, and installing solar solutions, it aids those without conventional power access. With a diverse product range, Sun King enhances living standards for off-grid communities in Africa and other regions, offering sustainable, reliable energy.

# 100kW Off-grid Solar PV Plant Project in Ogbein-ama Community, Delta State – E-Sam Energy Solutions Ltd

Project overview

| | |
|---|---|
| **Project name** | 100kW Off-grid Solar PV Plant Project in Ogbein-ama Community, Delta State |
| **Project developer** | E-Sam Energy Solutions Ltd |
| **Project type** | Renewable energy |
| **Type of credit (avoidance/removal)** | Avoidance |
| **Country (location)** | Nigeria |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 2025-01-30 |
| **Independent rating** | - |
| **Independent rating agency** | - |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

The project is basically a 100 off-grid Solar PV Plant project to provide 24/7 power supply to the residents of Ogbein-ama community. The community has a population of about 2500 people. We aim to connect 300 households and small businesses to the solar plant.

There is currently no supply of grid power to the community and the closest grid line is about 15 – 20 kilometers away from the community. We've secured approval from the Nigerian Electricity Regulatory Commission (NERC) to build and operate the solar plant.

We have signed a 10-year power purchase agreement with the community to sell power through pre-paid meters to the community residents. We have also secured about 1 acre of land for plant construction.

The total project cost is estimated at $250k and will be sourced from both local and foreign investors.

The project will be funded by a mix of equity, debt and grant funding. Our potential funding partners are rural electrification agency of Nigeria and Sterling bank.

## Benefits

The project aims to connect 300 households and small businesses to the solar plant.

## Key impact metrics

**104** tCO2e — Est. carbon offset annually

**100** kW — Solar PV plant project

**300** households — Will be connected to the solar plant

# 100kW Off-grid Solar PV Plant Project in Ogbein-ama Community, Delta State – E-Sam Energy Solutions Ltd

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2049 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2049 |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | E-Sam Energy Solutions Ltd |
| **Project proponent** | E-Sam Energy Solutions Ltd (Contact Person - Enohi Ukpebor) |
| **Website** | www.esamenergy.com |
| **Contact** | info@esamenergy.com |

E-Sam Energy is an indigenous Nigerian company that specialises in providing renewable energy solutions for residential, commercial and industrial clients. We have a total installed capacity of over 1MW across Nigeria. We have a pipeline of up to 400MW of renewable energy projects currently under development across Nigeria.

# Mass Electrification For Poverty Alleviation Impact In North-West Communities – Havenhill Synergy Limited

Project overview


| | |
|---|---|
| **Project name** | Mass Electrification For Poverty Alleviation Impact In North-West Communities. |
| **Project developer** | Havenhill Synergy Limited |
| **Project type** | Renewable energy |
| **Type of credit** | Removal |
| **Country (location)** | Nigeria |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 31/01/2024 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This particular project is part of a larger initiative that involved equipping six communities with 100-kW solar mini-grid systems. The aim of this project, as outlined in the Rural Electrification Agency's 2022 programmatic budgeting report, was to prioritize productive users such as agro-processing businesses, homes, commercial establishments, and public spaces. As a result of this effort, a total of 8,155 individuals have benefited from uninterrupted power supply and access to clean and affordable water. Additionally, the project has had several positive outcomes, including the creation of over 60 direct and indirect jobs, improved security, increased productivity, enhanced healthcare services, and the replacement of over 40 diesel and petrol generators. Furthermore, the project has made significant strides in reducing carbon emissions, as indicated by the current and projected estimations based on the SE for ALL mini-grid emissions data. These reductions in carbon emissions are an encouraging outcome of the project's focus on sustainable and environmentally friendly energy solutions.

## Benefits

-

## Key impact metrics

**53** tCO2e — Est. carbon offset annually

**6** communities — Are targeted by the project

**100** kW — Solar mini-grid systems will be distributed across the 6 communities

# Mass Electrification For Poverty Alleviation Impact In North-West Communities – Havenhill Synergy Limited

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1<br>2 | … | 25<br>28 | 2024<br>2024 | 2024<br>2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2037 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2037 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 795 |

| | |
|---|---|
| **Project developer** | Havenhill Synergy Limited |
| **Project proponent** | Rural Electrrification Agency |
| **Website** | http://havenhillsynergy.com/ |
| **Contact** | osayu.ogboghodo@rea.gov.ng |

Ashipa Electric Ltd is a renewable energy company that works with homeowners, businesses, communities, and municipalities to help them reduce energy cost, promote clean energy, and establish energy independence, while maintaining reliability and resiliency. Ashipa's main mission is to expedite the transition to a distributed, decarbonized, digitized, and equitable energy future, while also maintaining a vision to be a top-five global partner for distributed energy systems.

# Mass Electrification For Poverty Alleviation Impact In South-West Communities – Beacon Creative Ideas Ltd

Project overview

| | |
|---|---|
| **Project name** | Mass Electrification For Poverty Alleviation Impact In South West Communities. |
| **Project developer** | Beacon Creative Ideas Ltd |
| **Project type** | Renewable energy |
| **Type of credit** | Removal |
| **Country (location)** | Nigeria |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 14/07/2024 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This particular project is part of a larger initiative that involved equipping six communities with 100-kW solar mini-grid systems. The aim of this project, as outlined in the Rural Electrification Agency's 2022 programmatic budgeting report, was to prioritize productive users such as agro-processing businesses, homes, commercial establishments, and public spaces. As a result of this effort, a total of 8,155 individuals have benefited from uninterrupted power supply and access to clean and affordable water. Additionally, the project has had several positive outcomes, including the creation of over 60 direct and indirect jobs, improved security, increased productivity, enhanced healthcare services, and the replacement of over 40 diesel and petrol generators. Furthermore, the project has made significant strides in reducing carbon emissions, as indicated by the current and projected estimations based on the SE for ALL mini-grid emissions data. These reductions in carbon emissions are an encouraging outcome of the project's focus on sustainable and environmentally friendly energy solutions.

## Benefits

-

## Key impact metrics

**435** tCO2e — Est. carbon offset annually

**100** kW — mini-grid systems will be installed in the community

**25k** naira — Average Energy cost saved (daily)

# Mass Electrification For Poverty Alleviation Impact In South-West Communities – Beacon Creative Ideas Ltd

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1<br>2<br>3 | … | 10<br>10<br>9 | 2024<br>2024<br>2024 | 2024<br>2024<br>2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2037 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2037 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 29 |

| | |
|---|---|
| **Project developer** | Beacon Creative Ideas Ltd |
| **Project proponent** | Rural Electrrification Agency |
| **Website** | http://beaconcreativeideas.com/ |
| **Contact** | osayu.ogboghodo@rea.gov.ng |

Over the past ten years, Beacon Creative Ideas Ltd has made a positive impact on various communities and cities across Nigeria through its energy projects. These initiatives have resulted in the increased adoption of sustainable power sources in households and offices, reducing both the expenses associated with diesel fuel and the CO2 emissions produced by fossil fuel generators. We have collaborated with local farmers to enhance agricultural production by using renewable energy to power irrigation systems and poultry farms. Beacon is fully committed to supporting the clean energy movement.

# Mass Electrification For Poverty Alleviation Impact in North-Central Communities – Ashipa Electric Ltd

Project overview

| | |
|---|---|
| **Project name** | Mass Electrification For Poverty Alleviation Impact in North Central Communities. |
| **Project developer** | Ashipa Electric Ltd |
| **Project type** | Renewable energy |
| **Type of credit** | Removal |
| **Country (location)** | Nigeria |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | - |
| **Date of PDD submission** | 31/01/2024 |

Commercial needs: Financing needs | Off-take agreement | Spot sales

## Project description

This particular project is part of a larger initiative that involved equipping six communities with 100-kW solar mini-grid systems. The aim of this project, as outlined in the Rural Electrification Agency's 2022 programmatic budgeting report, was to prioritize productive users such as agro-processing businesses, homes, commercial establishments, and public spaces. As a result of this effort, a total of 8,155 individuals have benefited from uninterrupted power supply and access to clean and affordable water. Additionally, the project has had several positive outcomes, including the creation of over 60 direct and indirect jobs, improved security, increased productivity, enhanced healthcare services, and the replacement of over 40 diesel and petrol generators. Furthermore, the project has made significant strides in reducing carbon emissions, as indicated by the current and projected estimations based on the SE for ALL mini-grid emissions data. These reductions in carbon emissions are an encouraging outcome of the project's focus on sustainable and environmentally friendly energy solutions.

## Benefits

-

## Key impact metrics

**48** tCO2e — Est. carbon offset annually

**60+** jobs — Both direct and indirect, will be created by the project

**6** communities — Are targeted by the project

**100** kW — Solar mini-grid systems will be distributed across the 6 communities

# Mass Electrification For Poverty Alleviation Impact in North-Central Communities – Ashipa Electric Ltd

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| 1<br>2 | … | 23<br>25 | 2024<br>2024 | 2024<br>2024 |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | 2024 |
| **Year of last issuance of carbon credits,** realized or expected | 2037 |
| **Year of vintage for first carbon credits,** realized or expected | 2024 |
| **Year of last vintage carbon credit,** realized or expected | 2037 |
| **Total number of carbon credits issued to date,** if any (tCO2) | 720 |

| | |
|---|---|
| **Project developer** | Ashipa Electric Ltd |
| **Project proponent** | Rural Electrrification Agency |
| **Website** | https://ashipaelectric.com/ |
| **Contact** | osayu.ogboghodo@rea.gov.ng |

Ashipa Electric Ltd is a renewable energy company that works with homeowners, businesses, communities, and municipalities to help them reduce energy cost, promote clean energy, and establish energy independence, while maintaining reliability and resiliency. Ashipa's main mission is to expedite the transition to a distributed, decarbonized, digitized, and equitable energy future, while also maintaining a vision to be a top-five global partner for distributed energy systems.

# PAS Solar Nigeria Limited – PAS Solar

## Project overview

| | |
|---|---|
| **Project name** | PAS Solar Nigeria Limited |
| **Project developer** | PAS Solar |
| **Project type** | Renewable energy |
| **Type of credit** | Avoidance & Removal |
| **Country (location)** | Nigeria |
| **Registration standard** | - |
| **Project ID** | - |
| **Methodology** | - |
| **Validation body** | - |
| **PDD** | |
| **Date of PDD submission** | 15/06/2023 |
| **Independent rating** | - |
| **Independent rating agency** | - |

## Project description

Diesel and petrol prices have steadily increased during the last 24 months and dramatically during Q1 2022 due to cost inflation and global shortages of refining capacity. In weak-grid circumstances (most states in Nigeria) require redundancy and/or base load to be provided by fossil gensets. However, increasing fuel shortages, combined with price spikes entail that mini solar systems both are cost competitive and provide critical redundancy. Hybridising a genset, i.e. operating MSS in parallel with the genset allows longer service, maintenance and refuelling intervals, which increases operational security.

## Benefits

-

Commercial needs: Financing needs | Off-take agreement | Spot sales

# PAS Solar Nigeria Limited – PAS Solar

Project details

| Batches | Contract Type | Number of credits (t) | Issuance year | Vintage year |
|---|---|---|---|---|
| *No information supplied* | | | | |

| | |
|---|---|
| **Year of first issuance of carbon credits,** realized or expected | - |
| **Year of last issuance of carbon credits,** realized or expected | - |
| **Year of vintage for first carbon credits,** realized or expected | - |
| **Year of last vintage carbon credit,** realized or expected | - |
| **Total number of carbon credits issued to date,** if any (tCO2) | - |

| | |
|---|---|
| **Project developer** | PAS Solar |
| **Project proponent** | PAS Solar Nigeria Limited |
| **Website** | https://passolar.energy |
| **Contact** | access@passolar.energy |

PAS Solar has been operating in Nigeria since Q1 2017 and has developed a unique, innovative and impactful Energy-as-a-Service (“EaaS”) business model that provides affordable renewable energy through the supply of solar systems for fixed monthly payments.

# 3

# Appendix

# Appendix

01 ACMI integrity principles

02 Glossary

03 FAQs

# ACMI's integrity principles

## Create a high integrity market and ensure fair revenue sharing with local communities to deliver broader socio-economic benefits

### High integrity suppliers should:

**Certify credits against a standard and programme compliant with the Integrity Council for the Voluntary Carbon Market (ICVCM) Core Carbon Principles**

Provide **accurate and transparent reporting** for MRV[1] entities, buyers, and the public to make informed decisions on integrity; published in a **standardized and accessible format**

Report **benefits and share of proceeds going to local implementer / communities** (articulate aspirations, report on effective delivery)

Prioritize the supply of **recent vintage** over older vintage to accelerate new climate impact

### Transparent and fair intermediation should:

Provide **transparency on benefits as well as the share of benefits** between market participants

Ensure **fair share of benefits** with local communities and asset owners

Set **quality and integrity standards for credits traded** and require data disclosure from buyers and sellers

Encourage **retirement of credits**

Fairly reflect **supply side costing** in price discovery

### High-integrity buyers should:

Work towards setting a **globally accredited net-zero target** (e.g., race to zero, VCMI claims code of practice) and a plan to achieve it

Prioritize **reducing own operational (scope 1, 2) and value chain (scope 3) emissions**, in line with science-based targets

Only use carbon credits **simultaneously to direct emissions reduction efforts** (e.g., to neutralize residual emissions to reach net-zero, or to compensate emissions during the transition to net zero)

Prioritize purchase of credits offering **benefits**

Building on: THE INTEGRITY COUNCIL FOR THE VOLUNTARY CARBON MARKET; SCIENCE BASED TARGETS; VCMI Voluntary Carbon Markets Integrity Initiative

1. Measurement, Reporting and Verification

# Glossary (1/3)

The glossary gives detailed definitions of terms used in the Carbon Credits Showcase

## Project overview – Supplier details

**Name of the project developer:** Entity responsible for (i) designing the project, (ii) quantifying and monitoring the delivery of benefits, and (iii) demonstrating that the project meets key quality criteria

**Name of project proponent:** Party with legal right to undertake the project, will be issued carbon credits created by the project and is legally responsible for meeting all obligations

## Project overview – Project details

**Name of the project:** Name under which the project has been registered or is commonly referred by

**Project type:** Category of carbon credit-generating projects, e.g., renewable energy, forestry and land use, chemical processes/manufacturing, agriculture, waste disposal, household devices, energy efficiency/fuel switching, transportation, cookstove

**Project Design Document (PDD):** The document(s) that describe the design of a project and the ways in which it meets each of the requirements of the chosen standard

## Key impact metrics

**Year of first issuance of carbon credits:** Year in which the first carbon credits were officially issued / or are expected to be Year of last issuance of carbon credits: Year in which the last carbon credits will be generated / or are expected to be

**Year of vintage of first carbon credits:** Year in which the first emission reduction or avoidance activity took place to generate the first carbon credits / or is expected to be

**Avoidance project:** Activities that prevent the release of further GHG emissions into the atmosphere relative to a baseline analysis

**Removal project:** Activities that remove GHG from the atmosphere and durably store it in geological, terrestrial or ocean reservoirs, or in products

## Batch(es) of credits

**Batch:** A single batch denotes a group of credits with similar characteristics as per the table's columns (e.g., issuance date), which could be offered for sale in a single agreement

**Delivery date:** Expected date for the delivery of carbon credits to potential buyers. This can be approximative/range

**Issuance year of credits:** Year in which the credits were issued to the project/or is expected to be

# Glossary (2/3)

The glossary gives detailed definitions of terms used in the Carbon Credits Showcase

## Quality and integrity details

**Standard:** Established complete set of rules, procedures and methodologies according to which certified carbon credits are generated and issued (e.g., VCS, Gold Standard, ART, Plan Vivo)

**Methodology:** Detailed procedures for setting project boundaries, establishing baselines, determining leakage areas, assessing additionality and, eventually, quantifying GHG emission reduction/avoidance

**Validation & Verification Body (VVB):** Independent body that certifies projects against methodologies and requirements

**Total number of carbon credits issued to date:** Cumulative number of carbon credits that have been issued up to end of May 2023

**Rating/assessment from independent rating agency:** Additional assessment of carbon credits by an independent entity to evaluate their quality

**Benefits:** Additional positive environmental, social, and/or economic outcomes that result from a carbon reduction or mitigation project beyond the direct reduction of GHG emissions, quantified and verified by a VVB

**Disclosure of agreements regarding use of benefits:**

There is no established practice for reporting on benefit-sharing. However, some countries, especially in Africa, are piloting regulations or guidelines, project developers are making voluntary commitments and some standards require benefit-sharing arrangements.

For the first edition of the showcase, ACMI has decided to allow suppliers to report freely, based on good faith effort and to the best of their knowledge, on the different agreements they have in place that may impact the use or distribution of benefits from the sales of carbon credits to communities. Developers may also wish to refer to the set of metrics (below) that have recently been developed by the United States Agency for International Development (USAID) and the Swedish International Development Cooperation Agency (SIDA), who are supporting Kenya's carbon market activation plan and the Government of the Republic of Kenya, in collaboration with ACMI.

Benefits necessary for project operations and success (e.g., job creation and capacity- building)

- Local jobs created, in number of direct or indirect jobs created, e.g., agricultural tool providers, clean cookstove providers)
- Project-related capacity-building in number of community members trained by type
- Project-related infrastructure in $ spend by infrastructure type (e.g., road built to connect project developer operations)

Cash/payments delivered to the community (e.g., share of revenue, payment for new infrastructure, subsidized products)

- Share of revenue/earnings in % contribution or in $ contribution/ton (e.g., percentage split of the value of the actual credit and how this is distributed over time, absolute value payment to the beneficiaries, e.g., allocated by hectare or impact
- Infrastructure rehabilitation and construction in $ spend by infrastructure type (e.g., public institutions such as schools, health clinics, crop storage facilities; infrastructure such as roads, bridges; sanitary facilities such as access to clean water, construction of toilets; energy sources such as solar energy plants)
- Input/product subsidies in $ spend by input/product type or in % price discount (e.g., agricultural inputs, subsidized products with % price discount such as LPG and cookstoves for communities)
- Service subsidies in $ spend on subsidies (e.g., salary subsidies for healthcare practitioners and teachers, social subsidies for school fees, healthcare supplies, and educational materials, food distribution)
- Non-project related capacity-building in number of community members trained (e.g., indirectly related to the project in areas such as tourism, fisheries management)

Indirect benefits/benefits, e.g., improved air quality, and water and soil protection (these can be included in the benefits section)

**Free, prior, and informed consent (FPIC):** Collective human right of indigenous peoples and local communities to give or withhold their consent prior to the commencement of any activity that may affect their rights, land, resources, territories, livelihoods and food security

# Frequently asked questions (1/3)

**What is ACMI?**

The African Carbon Markets Initiative (ACMI) is a collaborative effort supported by Sustainable Energy for All, the Global Energy Alliance for People and Planet, and The Rockefeller Foundation, in conjunction with the United Nations Economic Commission for Africa and the UN Climate Change High-Level Champions.

**What is the African Carbon credit showcase?**

The African Carbon credit Showcase is a centralized and extensive range of existing carbon credits projects in Africa that have declared adherence to the ACMI high integrity principles.

**What is the purpose of the African Carbon credit showcase?**

The purpose if the African Carbon credit Showcase is to increases awareness of the breadth and depth of the African supply.

**Which projects are featured on the African Carbon credit showcase?**

There are a 3 eligibility criteria for the first edition of the showcase:

1. Project that are based in Africa
2. Projects from project developers that have self-certified to respect ACMI integrity principles (see after)
3. Project that are either:
   a) Validated project against an ICROA-endorsed independent standard
   b) Not yet validated by an ICROA-endorsed independent body
   c) Designed against new or emerging methodologies

# Frequently asked questions (2/3)

**What are ACMI's integrity principles**

1. High integrity project developers should:
   a) Certify credits against a standard and program compliant with the Integrity Council for the Voluntary Carbon Market (ICVCM) Core Carbon Principles
   b) Provide accurate and transparent reporting for MRV1 entities, buyers, and the public to make informed decisions on integrity; published in a standardized and accessible format
   c) Report benefits and share of proceeds going to local implementer / communities (articulate aspirations, report on effective delivery)
   d) Prioritize the supply of recent vintage over older vintage to accelerate new climate impact
2. High integrity buyers should:
   a) Work towards setting a globally accredited net-zero target (e.g., race to zero, VCMI claims code of practice) and a plan to achieve it
   b) Prioritize reducing own operational (scope 1, 2) and value chain (scope 3) emissions, in line with science-based targets
   c) Only use carbon credits simultaneously to direct emissions reduction efforts (e.g., to neutralize residual emissions to reach net-zero, or to compensate emissions during the transition to net zero)
   d) Prioritize purchase of credits offering benefits

**Who owns the information contained in the African Carbon credit showcase?**

The African Carbon credit showcase is hosted by ACMI, but its information remains public and owned by the project developers having shared it.

# Frequently asked questions (3/3)

| | |
|---|---|
| **Will ACMI conduct future showcase cycles?** | After the release of the first showcase, ACMI will evaluate the reception/utility of the pilot showcase. |
| **Is the African carbon credit showcase exclusive?** | No, applying to the African carbon credit showcase is not exclusive of any other application to showcases, listing or platforms. |
| **Will the data be analyzed? By whom?** | The submissions are only checked for completeness & errors. All projects that meet the criteria abovementioned will be featured in the showcase.<br>ACMI does not review or verify any of the projects submitted, and is not responsible or liable for any of the information provided by any of the projects. ACMI is not doing any validation of the submitted project information, and relies on the information provided by the project developers. You must not rely on any of the information without your own independent verification |
| **Where will the showcase be shared?** | The African Carbon credit showcase is shared publicly through social media and hosted on ACMI's website. |
| **What does benefit-sharing mean?** | There is no established practice for reporting on benefit-sharing. However, some countries, especially in Africa, are piloting regulations or guidelines, project developers are making voluntary commitments and some standards require benefit-sharing arrangements.<br>For the first edition of the showcase, ACMI has decided to allow suppliers to report freely, based on good faith effort and to the best of their knowledge, on the different agreements they have in place that may impact the use or distribution of benefits from the sales of carbon credits to communities. |

# Thank you to all participant project developers! (1/3)


Echo Tech Carbon Corporation

# Thank you to all participant project developers! (2/3)


























# Thank you to all participant project developers! (3/3)






Frias Bio Energy









AFRICA CARBON MARKETS Initiative

# 2023

**Showcasing African carbon credit projects**

Global Energy Alliance for People and Planet

SUSTAINABLE ENERGY FOR ALL

ECA

UN Climate Change High-Level Champions