

Carbon Initiative for Development





The Carbon Initiative for Development (Ci-Dev) mobilizes private finance for clean energy access in low-income countries. It delivers results-based finance to innovative and transformative business models driven by the private sector.

By 2025, Ci-Dev will have mobilized more than \$250 million in private finance to provide low-carbon energy to more than 10 million people in the communities most vulnerable to climate change.





CARBON FINANCE



STANDARDIZED CREDITING FRAMEWORK



PROGRAMS



KNOWLEDGE PRODUCTS

Increasing energy access

Ci-Dev provides financing for projects that support low-carbon energy access in low-income countries in collaboration with other parts of the World Bank Group.

Piloting innovative results-based climate finance

Ci-Dev uses results-based payments as a vehicle for financing energy access projects building on two decades of carbon finance experience of the World Bank Group.

New Standardized Crediting Framework

Building on the infrastructure that was created by the Clean Development Mechanism (CDM) Ci-Dev developed a new, simplified approach to crediting emissions reductions - the Standardized Crediting Framework (SCF).

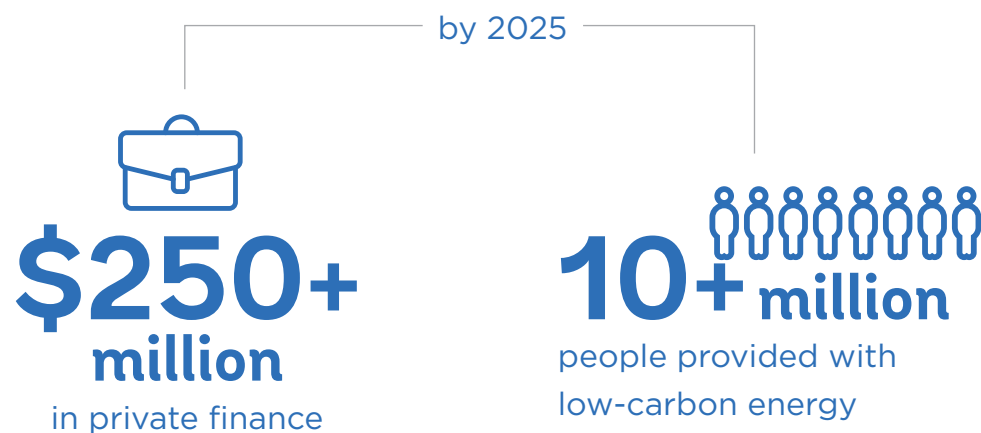




Results-based Climate Finance

Ci-Dev has committed to purchase approximately \$78 million in emission reductions (commonly known as carbon credits) from 13 energy access programs. Ci-Dev's programmatic crediting approach supports similar projects at small-scale within a larger, regional or national, program.

The fund will utilize the Clean Development Mechanism (CDM) as the methodological framework to quantify, verify and certify the emission reductions while transitioning the portfolio to Paris Agreement-compliant approaches after 2020. The projects supported by Ci-Dev through the programmatic crediting approach can be a blueprint for scaled-up action through replication.







CarbonPlus benefits

In addition to 8 million tons of CO2 equivalent reduced, Ci-Dev programs will have provided about 400+ Megawatts of low-carbon energy by 2025.

For a community this means



Gender

Enhanced security, more educational opportunities for women and girls



Economic

New commercial activity from longer business hours, more jobs, entrepreneurship



Environment

Reduced air pollution from less kerosene and diesel lights; support for healthy forests from less wood fuel



Health

Reduction in illness and death from household air pollution; secure storage and transport for medicine and food

Standardized Crediting Framework

Ci-Dev has developed a new simplified approach to crediting emissions reductions. The Standardized Crediting Framework (SCF) provides a country-led crediting approach adapted to domestic circumstances, reduces transaction costs, and potentially unlocks climate finance for the country.

The adoption of the Paris Agreement in December 2015 has raised hopes for carbon market continuity beyond 2020. However, important strategic questions linger including how CDM programs will continue and/or transition to new Paris-compliant approaches, how carbon market mechanisms will be structured in future, and others.

Ci-Dev seeks to help address these questions - including how CDM projects can transition to the Paris Agreement framework and how new market mechanisms can be adapted.





The Standardized Crediting Framework (SCF) is a new approach to crediting emission reductions, owned and managed by the country, which allows for more comprehensive geographic coverage, flexibility, has lower transaction costs, and encourages private sector engagement.

The Standardized Crediting Framework provides a host country-led approach to carbon crediting that simplifies scaling-up and replication of project activities within defined sectors of the economy-starting with energy access.

The Standardized Crediting Framework is important for several reasons. First, the framework proposes a systematic approach to counting carbon credits. Second, making things simple and standardized helps improve transparency of the carbon market and reduce transaction costs. Finally, country-owned and managed frameworks like SCF help build capacity of host country institutions, improve coordination among domestic entities, and help align climate change policy goals with the sectoral ones. As such the framework directly benefits a country's Nationally Determined Contribution (NDC) under the Paris Agreement.





The Standardized Crediting Framework approach provides:

- more comprehensive geographic coverage
- flexibility
- lower transaction costs
- encouragement for private sector engagement
- the opportunity to make use of future market mechanisms





Senegal

Rural Electrification



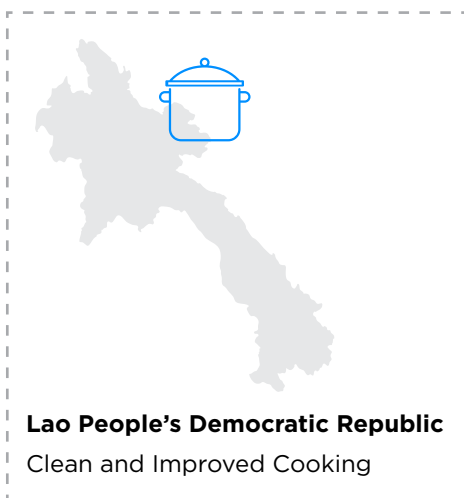
Mali

Rural Electrification



West Africa

Biodigesters



Lao People's Democratic Republic

Clean and Improved Cooking



Ethiopia

Biogas
Off-Grid Renewable Energy



Kenya

Biodigesters
Solar Lighting
Small hydro



Uganda

Rural Electrification

Rwanda

Clean and Improved Cooking



Madagascar

Ethanol Cookstoves





Programs

Ci-Dev has emission reduction purchase agreements (ERPAs) for 13 programs (12 in Sub-Saharan Africa and 1 in Asia)

Senegal

Rural Electrification

On December 20, 2016, Ci-Dev signed an emissions reduction purchase agreement (ERPA) with the rural electrification agency in Senegal, l'agence sénégalaise d'électrification rurale (ASER), for the purchase of certified emission reductions (CERs) to be generated through end 2024.

Mali

Rural Electrification

On December 27, 2016, Ci-Dev signed an emissions reduction purchase agreement (ERPA) with the rural electrification agency in Mali, l'agence malienne pour le développement de l'énergie domestique et l'électrification rurale (AMADER) for the purchase of 400,000 certified emission reductions (CERs) to be generated through end 2024.

West Africa

Biodigesters

On December 30, 2016, Ci-Dev signed an emissions reduction purchase agreement (ERPA) with the SNV Netherlands Development Organisation for the purchase of approximately 540,000 certified emission reductions (CERs) to be generated by biogas digesters installed in rural households in Burkina Faso through end 2024.

Lao People's Democratic Republic

Clean and Improved Cooking

On August 1, 2019, Ci-Dev signed an emissions reduction purchase agreement (ERPA) with Ministry of Energy and Mines (MEM) for the purchase of up to 538,860 certified emission reductions (CERs) to be generated through end 2022.

Ethiopia

Biogas

Ci-Dev signed an emissions reduction purchase agreement (ERPA) with the Development Bank of Ethiopia (DBE) on July 14, 2016 for the purchase of approximately 1.1 million certified emission reductions (CERs) to be generated through end 2024.

Ethiopia

Off-Grid Renewable Energy

Ci-Dev signed an emissions reduction purchase agreement (ERPA) with the Development Bank of Ethiopia (DBE) on July 14, 2016 for the purchase of approximately 800,000 certified emission reductions (CERs) to be generated through end 2024.

Kenya

Biodigesters

On January 29, 2016, Ci-Dev signed an emissions reduction purchase agreement (ERPA) with SimGas IP BV, a Dutch private company, for the purchase of 500,000 certified emission reductions (CERs) to be generated through end 2024.

Kenya

Solar Lighting

On August 1, 2018, Ci-Dev signed an emissions reduction purchase agreement (ERPA) with Rural Electrification Authority of Kenya for the purchase of 329,000 certified emission reductions (CERs) to be generated through end 2024.

Kenya

Small hydro

On March 14, 2019, Ci-Dev signed an emissions reduction purchase agreement (ERPA) with KTDA Power Company Limited for the purchase of 440,000 certified emission reductions (CERs) to be generated through end 2024.

Uganda

Rural Electrification

On December 30, 2016, Ci-Dev signed an emissions reduction purchase agreement (ERPA) with the Uganda Rural Electrification Agency (REA) for the purchase of approximately 990,000 certified emission reductions (CERs) to be generated through end 2024.

Rwanda

Clean and Improved Cooking

On April 24, 2017, Ci-Dev signed an emissions reduction purchase agreement (ERPA) with DelAgua for the purchase of 320,000 certified emission reductions (CERs) to be generated through end 2022.

Rwanda

Clean and Improved Cooking

On June 8, 2017, Ci-Dev signed an emissions reduction purchase agreement (ERPA) with Inyenyeri for the purchase of up to 1 million certified emission reductions (CERs) to be generated through end 2023.

Madagascar

Ethanol Cookstoves

Ci-Dev signed an emissions reduction purchase agreement (ERPA) with Norwegian company Green Development AS on May 6, 2016 for the purchase of 1.1 million certified emission reductions (CERs) to be generated through end 2024.









Senegal Rural Electrification Program

Senegal's rural electrification program uses a concession-based model where private companies compete for and win the right to sell, install, and maintain new electricity connections to rural households in one or more of 10 regional 'concessions', during a period of 25 years.

To facilitate electricity access for poor rural households, the rural electrification agency in Senegal (ASER) has decided to use the program's carbon payments to overcome financial access barriers. For this purpose, the project uses an innovative voucher scheme, and each voucher can be redeemed by the household to the private concessionaire in their territory for the service level and connection technology that best fits their needs. The concessionaire then installs the new connection and redeems the voucher with ASER for compensation. This subsidy is ultimately paid for by Ci-Dev for the generated emission reductions.

This ERPA committed Ci-Dev to purchase 660,000 certified emission reductions (CERs) generated through end 2024 from the rural electrification program. The program with the Rural Electrification Agency in Senegal is the site of the first Standardized Crediting Framework pilot.

The program with the Rural Electrification Agency in Senegal is the site of the first Standardized Crediting Framework pilot.







Rwanda Improved Cookstoves Program

Ci-Dev is helping a private company – Inyenyeri – to sell its biomass fuel pellets as a loss leader until it can set up and run its operations in a commercially-sustainable manner. Inyenyeri produces sustainably sourced wood pellets, that when paired with the cleanest available biomass cookstove, reduces the amount of wood used for cooking by 80-90% compared to traditional cooking methods.

The company aims to lease or distribute about 345,000 clean cookstoves (of tier 4 quality) to approximately 188,000 Rwandan families to generate demand for its biomass fuel pellets. It collects sustainably-sourced raw biomass from rural households to manufacture the biomass fuel pellets, which it sells to urban and peri-urban households that currently purchase charcoal. The sale of carbon credits generated by the program will allow the biomass fuel pellets to be sold at a price less than charcoal until Inyenyeri can scale up to the point where it can decrease costs, undercut charcoal, and still maintain a commercially-viable profit margin.

Inyenyeri has used the Ci-Dev Emission Reduction Purchase Agreement (ERPA) to secure up-front debt and equity financing, including a loan from Althelia Ecosphere.

The program with the Rwanda Environment Management Authority is the second Standardized Crediting Framework pilot.







Knowledge Generation

One of the main objectives for Ci-Dev is to distill and disseminate lessons learned from its work to inspire further scaling and replication. In particular, Ci-Dev has developed expertise and knowledge related to carbon crediting methodology, the fund's portfolio of low-carbon energy access programs in low income countries, and results-based finance barriers and approaches.



Carbon crediting
methodology



Energy access
programs



Climate finance for
energy access



Carbon crediting methodology

Ci-Dev has developed new methodologies, standardized approaches and business models that will help countries transition to the post-2020 regulatory environment under the Paris Agreement.

- A Standardized Crediting Framework for Scaling up Energy Access Programs
- Roadmap for the Standardized Crediting Framework Pilot in Senegal & Rwanda
- Lessons Learned Note for the Standardized Crediting Framework Pilot in Senegal & Rwanda



Energy access programs

The fund's pipeline of energy access programs has generated tangible knowledge to show how results-based climate finance contributes to success in the sector. This work can inform energy access practitioners and development professionals.

- Scalable Business Models for Alternative Biomass Cooking Fuels and Their Potential in Sub-Saharan Africa
- Post-2020 Ci-Dev Portfolio Transition Report
- The Impact of INDCS, NAMAs and LEDS on Ci-Dev Operations and Programs
- Ci-Dev CDM MRV Study: Facilitating Credit Issuance by Improving the MRV Procedures and Issuance Rules of the CDM



Climate finance for energy access

Ci-Dev's experience provides knowledge on financial models and financial barriers related to its programs, as well as work on results-based finance approaches for energy access activities.

- A New Approach for Pre-Financing Emission Reduction Purchase Agreements for Household Energy Access Programs
- Promoting Energy Access through Results-Based Finance within the Framework of the CDM: Assessing Business Models
- Integrating Carbon Finance in Traditional Financing - Key Barriers and Existing Experiences



The Climate Change Fund Management Unit (SCCFM) connects the World Bank and developing countries to innovative funding solutions to scale up climate action. The unit manages climate finance funds that complement funding from International Development Association (IDA) and the International Bank for Reconstruction and Development (IBRD). These funds bring together more than \$6 billion of donor funding and private sector capital to support low-carbon programs across 70+ countries.

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