


Guatemala – Cookstoves project



PROJECT NAME	CO ₂ MITIGATION	PROJECT DURATION	SECTOR	LOCATION
Efficient Use of Firewood and Alternative Fuels in Indigenous and Rural Communities in Guatemala	134,362 tCO ₂ e (by end of 2025)	2022-2027	Energy	

On behalf of



Supported by:



of the Federal Republic of Germany

The project

OBJECTIVE

The project promotes the sustainable use of firewood in Guatemala's indigenous and rural communities through the adoption of clean and efficient cookstove technologies. It aims to reduce household air pollution, improve health outcomes, decrease forest degradation, and lower greenhouse gas emissions. By mobilising public and private finance, the project seeks to develop a sustainable market for energy-efficient cookstoves that supports both climate and social objectives.

CONTEXT

Around 57% of Guatemala's total energy consumption comes from fuelwood, mainly used for cooking. Approximately 2.1 million households, mostly in poor and vulnerable municipalities, rely on firewood as their primary energy source. Women and children are particularly exposed to smoke from traditional stoves, facing increased risks of respiratory and cardiovascular diseases. With population growth, an additional 65,000 families per year are projected to rely on firewood, worsening environmental and health pressures.

APPROACH

The project builds on the National Strategy for Firewood Production and Use and focuses on three strategic pillars:

- **Enhancing access** to efficient cookstove technologies through tailored financial products including vouchers, grants, and guarantee schemes.
- **Promoting an enabling environment** through coordination among government, private sector, and financial institutions to scale up sustainable firewood use.
- **Increasing demand** by raising awareness of clean cooking benefits and supporting households to transition from traditional stoves.

The project combines technical assistance, financial innovation, and policy support to ensure the long-term sustainability of clean cooking solutions.

THE FACTS

Project name
Guatemala – Cookstoves

Funding volume provided
EUR 11.7 million

Project duration
2022–2027

Call
3rd Call (2015/2016)

Partner ministries
Ministry of Economy, Ministry of Environment and Natural Resources

Implementation organisations
Inter-American Development Bank

Project partners
Alterna

Project status
Implementation

Evaluation status
Mid-term ELE 2025



The mid-term results

The project is effectively supporting the promotion and implementation of improved cookstoves in Guatemala. The following mid-term results have been documented:



1 NATIONAL FIREWOOD STRATEGY ALIGNMENT PROCESS

is underway, integrating project lessons into long-term policy development.



63 HOUSEHOLDS

were covered in a field validation pilot across four departments in 2024, confirming proper stove installation and monitoring of usage indicators.



1.1 MILLION PEOPLE

primarily indigenous women and children are expected to directly benefit from project interventions, improving living conditions, health, and economic resilience.



1 NATIONAL MRV FRAMEWORK

for improved cookstoves is being developed, supporting transparent tracking of performance and



1 DIGITAL PLATFORM PILOT

for monitoring stove distribution and user feedback has been initiated to support data-driven implementation.

38,420

IMPROVED COOKSTOVES

have been reported as sold through project mechanisms as of 2024, reflecting early adoption trends across target municipalities (including units with uncertain attribution).



106,652 tCO₂e

IN REPORTED GHG REDUCTIONS

have been claimed under the M1 indicator for 2023–2024, demonstrating early climate mitigation potential.



4,184 IMPROVED COOKSTOVES

have verified household-level data in the project's monitoring system, providing a foundation for adoption tracking and social impact measurement.



3,891 HOUSEHOLDS (19,097 INDIVIDUALS)

are recorded as direct beneficiaries based on verified improved cookstove installations.



Predicted legacy



"The trainings have allowed us to know how improved stoves work, what their benefits are and how to use them correctly. The guides are illustrated, clear and accessible, which makes it easier for this information to reach families and promotes positive changes in the care of the environment and in the way of cooking."

Jackueline Estefany Méndez Calderón, Teacher at the La Palmera School



"I am a health promoter, and I recognise the importance of reducing smoke pollution inside the home. The use of improved stoves helps protect the respiratory health of families and, by sharing this information in the community, more people are interested in changing their stoves for a safer option."

Marta del Cid, Health promoter and community midwifeInstitute

The project is establishing foundational structures that are expected to strengthen the clean cooking sector beyond its implementation period. By introducing new financial instruments, certification processes, and coordinated delivery models, the project is supporting a more organised and resilient national ecosystem for improved cookstoves, particularly in rural and indigenous communities. While some elements have taken longer than anticipated to align across institutions, the project continues to make progress in shaping the conditions needed for long-term scale up.

An important legacy of the project is the stronger collaboration it has fostered across government ministries, financial institutions, local organisations, and community networks. These partnerships are improving policy alignment, expanding technical capabilities, and generating shared ownership of clean cooking goals. Early lessons on user preferences, behavioural drivers, and community engagement are helping shape more accessible and culturally appropriate approaches to future scale-up.

The project's long-term contribution is reflected in its role as a learning platform for Guatemala's National Firewood Strategy. Through piloting financial mechanisms, refining distribution pathways, and strengthening monitoring systems, it is producing evidence that will inform national policies and future programmes. This knowledge-driven approach helps position the cookstove sector for sustainable expansion and deeper impact in the years ahead.



ACHIEVING TRANSFORMATIONAL CHANGE

While large-scale market transformation remains challenging, the project contributes to strengthening the enabling conditions for a sustainable clean cooking market in Guatemala. Through government ownership, community engagement, and emerging financial structures, it lays important groundwork for future replication and longer-term market development.

Preliminary learnings

The mid-term evaluation identified several important lessons that have informed the refinement of project strategies. These learnings illustrate how the project team is acting on evaluation recommendations to improve coordination, target behaviour change more effectively, and strengthen institutional and financial mechanisms:

LEARNING

RECOMMENDATION

PROJECT RESPONSE

Learning 1: Early and strong coordination is essential

Strong alignment across communication, behaviour change, financing, manufacturing, and outreach components would have enhanced coherence and market-building impact.

Establish shared coordination spaces such as regular technical working groups with all stakeholders to align interventions from the start.

Coordination is reinforced through joint outreach activities such as fairs, behaviour change campaigns, and training-of-trainers initiatives. The upcoming guarantee mechanism will be integrated into the communication strategy to reinforce access to finance.

Learning 2: Integrating financial access and behaviour change

Behavioural campaigns are most effective when paired with accessible, trusted financing. Uncoordinated rollout limits adoption.

Align financial mechanisms with outreach to convert interest into practical uptake.

The project is expanding credit access, implementing a guarantee fund, re-engaging microfinance institutions, and implementing the credit-results-based financing (C-RBF) mechanism with financing options to connect demand generated through outreach and access.

Learning 3: Gender strategies must address structural barriers

Women's participation is important, but meaningful and sustained gender impact depends on tackling underlying barriers related to access, decision-making, and equitable economic opportunities.

Embed indicators and activities in the GESI plan to tackle structural inequalities, promote women in manufacturing and distribution, and design inclusive outreach.

Culturally tailored training (including courses in local languages) develops women's technical and economic capacities, outreach and behaviour-change messages are gender-sensitive, and partners are supported to integrate gender-sensitive practices in their operations.

Learning 4: Laboratory testing must link to market and communication strategies

Testing capacity has limited impact unless results inform product improvements, public messaging, and procurement frameworks.

Create feedback loops to translate lab results into design improvements, outreach campaigns, and enhanced procurement mechanisms.

Manufacturers receive technical advisory to implement lab recommendations, improving improved cookstoves (ICS), and some manufacturers are already implementing adjustments to improve performance.

MITIGATION ACTION FACILITY KNOWLEDGE & LEARNING HUB

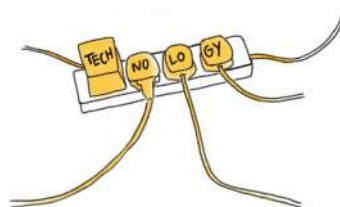
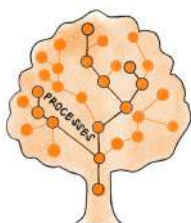


A comprehensive list of all lessons can be found in the full mid-term Evaluation & Learning Exercise (ELE) report available via the [Mitigation Action Facility website](#). Just select the filter "Report" and the country you are looking for in the pulldown menu of our digital library.

What are the ELEs?

The Mitigation Action Facility engages in a number of strategic efforts to extract lessons learnt from its project portfolio and create valuable resources for future implementations. This is part of its role as Knowledge and Learning Hub. All projects with an overall duration of more than three years are subject to both a mid-term and final Evaluation and Learning Exercise (ELE). These evaluations are part of the Mitigation Action Facility's approach to catalyse transformational change through continuous monitoring processes that support fearless learning.

The ELEs follow a theoretical framework that combines document reviews, participatory workshops, and stakeholder interviews to collect evidence for in-depth analysis of project results and lessons. Mid-term ELEs are conducted halfway through the project to assess early progress, while final ELEs analyse the overall impact and lessons learnt at the end of the project. All ELEs can be accessed through the [download library](#) on the Mitigation Action Facility's website. This factsheet is based on the mid-term ELE of the project "[Guatemala – Sustainable Cooking](#)".



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