

CONSORTIUM Partners



MIN RESEARCH STUDY

Lead Partner : Cornerstone International e.V Germany

Partners2: Center for environmental Justice Zambia

Partner2: Save Congo – DRC

Prepared by consortium Program and MEAL departments

1. Background: Rapid Needs Assessment Report based on the data collected using structured professionally form for the purposes of providing primary data of project need and to be used in submission of concept note to CCAC by the Eco **Flame project** made up the following three partners Caritas Abl –, Center Environmental Justice –Zambia, and Cornerstone International e.V Zambia.

Target population: Sample population targeted was 440 which 10% of 4400 targeted population 2200 per each country to reach during project implementation of which 70% should be women and girls

Assessment Period: June – July 2025

Total Respondents: 430 (310 female, 120 male)

Target Population Represented: 4400 individuals

Assessment Mode: Hard-copy surveys face to face



2. Introduction

The Consortium partner conducted a Rapid Needs Assessment to determine the relevance, acceptability, and readiness for adopting **clean eCooking solutions** (solar and electric stoves) in rural communities in **DRC, and Zambia**.

The assessment aims to inform the design of a two country eCooking project that reduces deforestation, improves health, and enhances women's economic empowerment.

3. Methodology

- **Sample:** 430 respondents (310 female, 120 male)
- **Age range:** 18–70 years
- **Locations:** rural areas across DRC and Zambia
- **Sampling Goal:** 95% respondents per country (8% representation of the intended 4400 project beneficiaries)
- **Tools:** Standardized questionnaire administered online and via hard copies
- **Data Focus Areas:**
 - Current cooking practices

- Awareness of eCooking
- Accessibility & affordability
- Women's empowerment
- School/community readiness
- Climate & health concerns

4. Key Findings based on attached questionnaire populated to two countries in French and English

4.1 Demographics

Category	Number
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Total respondents	430
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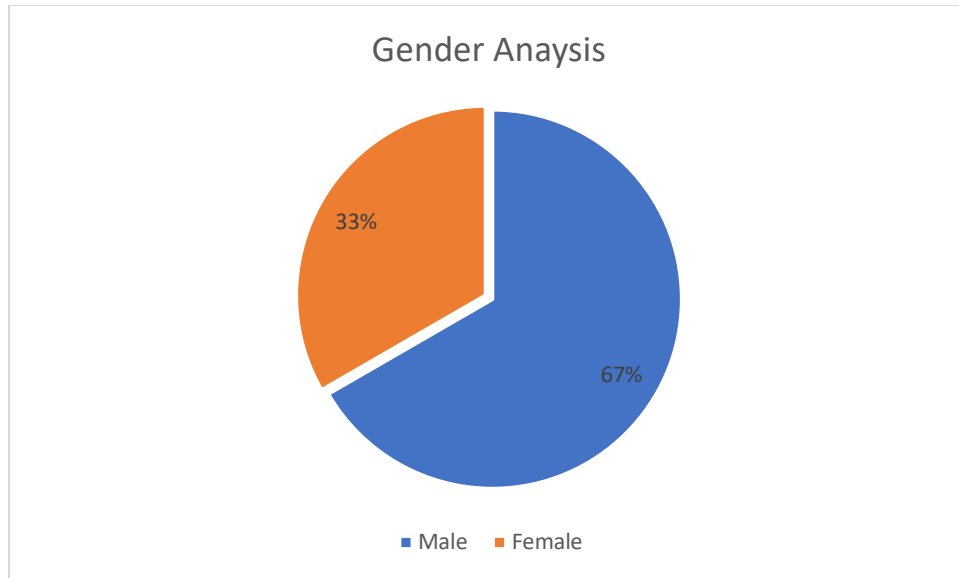
Female	310 (67%)
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Men	120 (33%)
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Age range	18–70
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Geographic spread DRC, and Zambia

Majority of respondents were **households**, followed by a smaller number of schools/cooperatives.



4.2 Country participations

S/No	Gender/Country	DRC	ZAMBIA	Total	%
1	Female	205	105	310	67%
2	Male	76	44	120	33%
	Total	310	120	430	100%

5. Section Analysis

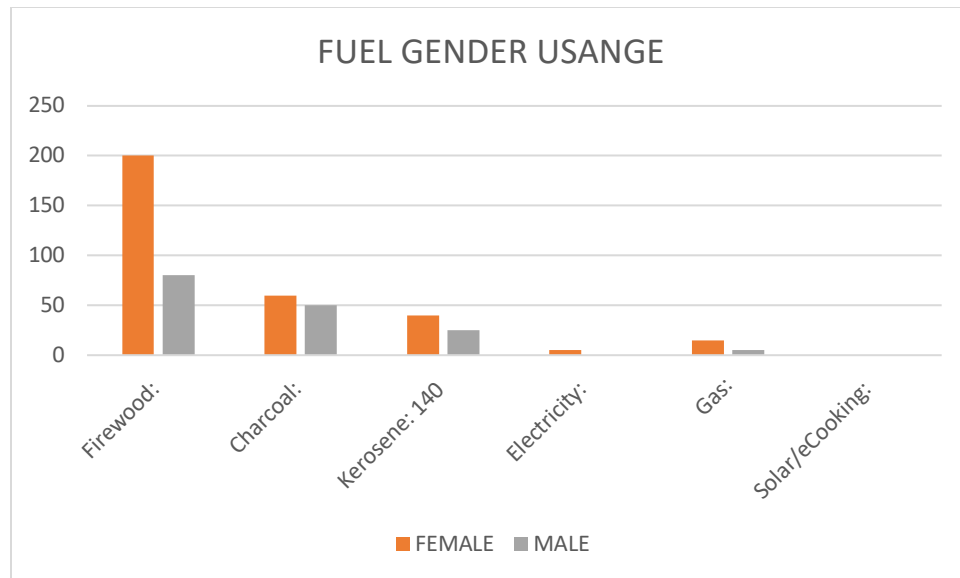
5.1 Current Cooking Practices

5.1.1. Fuel Use

Firewood and charcoal dominate:

- **Firewood:** 250 (200 Female, 50 male)
- **Charcoal:** 80 (60 female, 20 male)
- **Kerosene:** 100 (100 women, 40 male)
- **Solar/eCooking: 0**

Results: respondents currently use solar or electric eCooking — indicating a major opportunity.



5.1.2. Time spent collecting cooking fuel

- **400 (92%) spend <1 hour/day**

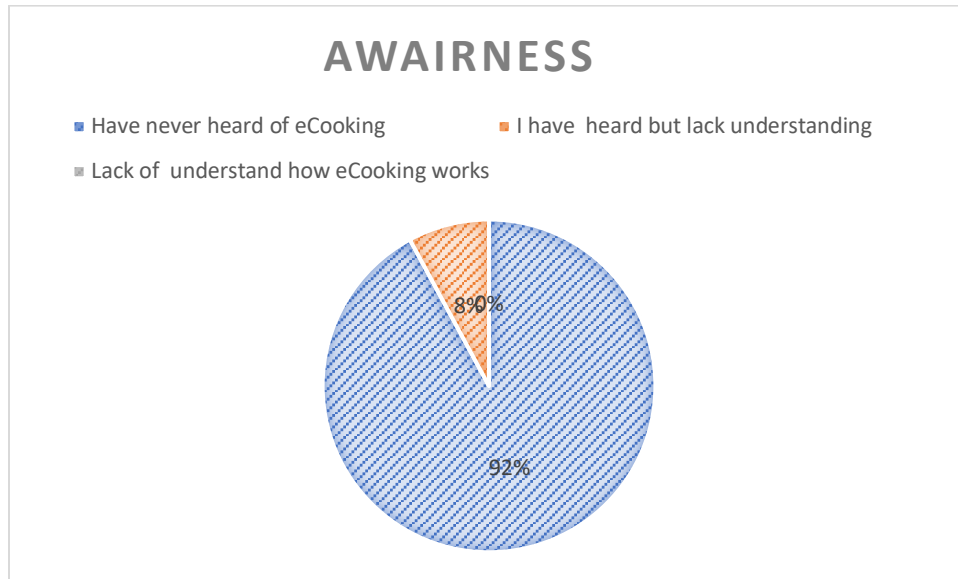
Results: Minimal long-distance fuel collection, but urban buyers spend money on charcoal.

5.1.3 Who cooks?

- Adult women: 180
- Adolescent girls: 200
- Men: 20
- Shared: 30

Results: Women and girls shoulder the cooking burden, reinforcing gendered vulnerability.

5.2 Awareness and Knowledge



- **410 respondents (92%) have never heard of eCooking**
- 20 have heard but lack understanding 8%
- **0 I understand how eCooking works 0%**

Results: Extremely low awareness, requiring strong sensitization campaigns.

5.3 Perceived benefits (among those aware)

- 320 identified “reduces smoke & health problems”
- 110 selected “protects forests”
- No one identified:
 - Saves money
 - Business opportunities for women

Results: Communities link clean cooking with **health and environment**, not economics.

6.1 Accessibility and Affordability

Barriers to Adoption

- **Not available in markets:** 204
- **Lack of information:** 221

- Cost was a minimal barrier (only 5 men mentioned it)

Results: The main barrier is **access and awareness**, not price.

Willingness to Pay

- <25 USD: 410
- 25–50 USD: 18
- 51–100 USD: 12
- 100 USD: 0

Results: 97% of Households can make small contribution as down **payments or deposit** to support in having clean energy

7.1 Women’s Empowerment & Leadership

- **425 respondents (97%) say no women are involved in energy businesses**
- But **425 are very interested in training** to manage eCooking shops or cooperatives

Results: Strong opportunity for **women-led clean energy entrepreneurship**.

8.1 School and Community Readiness

- **100% of respondents** say schools would strongly support solar eCooking systems
- Priority activities for schools include:
 - Solar cooking demonstrations
 - Climate clubs
 - Art & media for awareness
 - Technical training on solar maintenance
 - 95 respondents selected **“All of the above”**

Results: High readiness among schools for integrated clean-cooking/climate-action programs.

9.1 Climate and Health Perceptions

Top concerns:

- **Smoke-related diseases:** 317
- **Deforestation:** 83
- **GBV risks during firewood collection:** 10 women
- **Fuel costs:** 14
- **Time waste:** 16

Results: **Health** 62% and **environmental** 25% are major findings. Hence, they need to give more education on the impact of deforestation as many populations (62%) are only worried on immediately health impact and not concerned on long term environmental impact due to deforestation which indirect will impact future health.

6. Overall Interpretation of Consortium findings

The collected primary data by the **consortium** strongly confirms both the **need** and **demand** for an eCooking project across the target four countries. Currently, **no households use eCooking solutions**, highlighting a major technology gap and a clear opportunity for clean energy adoption. Levels of awareness are extremely low, which demonstrates an urgent need for **intensive education and sensitization campaigns** to build knowledge and trust in modern cooking technologies. The findings also show that **firewood and charcoal remain the dominant cooking fuels**, underscoring their long-term unsustainability and the negative impacts on forests, health, and household finances. The burden of cooking continues to fall overwhelmingly on **women and girls**, reflecting deep-rooted gender inequalities that the project can help address, and this call to support women with green income through this project. Importantly, **470 respondents expressed interest in receiving training**, signaling strong potential for skills development, income generation, and the growth of clean cooking micro-enterprises. Schools also showed high receptiveness to the concept of eCooking, making them excellent platforms for awareness, demonstrations, and long-term behavior change among youth especially young women/ girls. Overall, communities clearly recognize the health and environmental benefits of transitioning to clean cooking.

Based on these findings, the project is strongly justified and requires **urgent investment** in interventions such as **solar and electric stove distribution**, development of **market access mechanisms**, and **technical and business training for women and youth**. Additional priorities

include **school-based climate and energy education**, continuous **awareness and demonstration campaigns**, and the promotion of **clean cooking enterprises** to drive sustainability and scale.

7. Recommendations for Sun Drum project

1. Awareness & Behavior Change Campaigns

- Community demos
- Radio and school outreach
- Hands-on training

2. Establish Women-Led eCooking Cooperatives

- 470 willing trainees
- Business incubation
- Micro-franchising models

3. Improve Market Access

- Importation and local distribution networks
- Village sales agents
- Partnerships with stove manufacturers

4. Financing Models

- Revolving funds
- Small loans
- Cooperative-owned stoves for schools

5. School Programs

- Climate clubs
- Demonstration kitchens
- Maintenance training

7. Conclusion

The rapid assessment clearly demonstrates a **strong need, acceptance, and readiness** for a multi-country eCooking initiative across DRC and Zambia.

Communities — especially women — show high interest in clean cooking solutions, despite low awareness lack of finance and limited market access. Schools and local actors are supportive and eager to participate.

The Consortium is well positioned to implement an impactful regional eCooking program that improves **health, environment, gender equality, energy access, and local livelihoods**