

EEP AFRICA IMPACT AND PERFORMANCE EVALUATION END-USER RESEARCH SUPAMOTO

Presented to the Nordic Development Fund



- 1. Context and Objectives**
2. Sample Overview
3. Using the SupaMoto Cookstove
4. Impact on Quality of Life
5. Economic Impact

The objective of this presentation is to detail the results of the SupaMoto end-user research in Zambia

Context

- The acquisition of the Energy and Environment Partnership Africa Trust Fund by the Nordic Development Fund in 2018 has **transformed it into an open-ended, multi-donor trust fund**
- NDF has mandated Altai Consulting to conduct the **first impact and performance evaluation of EEP Africa since the NDF acquisition and change of structure**

Evaluation approach and data collection

- To conduct the evaluation Altai has leveraged **three types of data**: desk review, stakeholders Key Informant Interviews (KIIs), end-user research
- **Three end-user studies of EEP-funded projects** have been performed



Countries

Uganda



Zambia



Zimbabwe



Services



Objectives

- The objective of the end-user studies is to provide an independent assessment of the impact of selected grantees
- The results will serve to confirm the underlying assumptions in EEP Africa’s Theory of Change and provide tangible examples and data for the final evaluation report
- Additionally, the results will be shared with SupaMoto

685 quantitative phone-based interviews have been conducted with SupaMoto customers

SupaMoto

- SupaMoto is a **Zambian company** which offers access to clean energy through biomass cookstoves. The cookstove may be sold with a small **solar home system**
- It is a **pay-as-you-go** product



Sample size

- The **685** participants were randomly selected from the customer database shared by SupaMoto

Data collection tools

- The questionnaire was written by Altai. It was composed of **close-ended questions**
- Enumerators **used tablets (CATI)**
- The questionnaire was administered **over the phone**

Fieldwork

- The data collection was conducted between July 30th and August 7th by **enumerators of Sagaci Research, Altai's long-term field partner in Africa**
- Before the data collection, **enumerators received a training on the questionnaire**

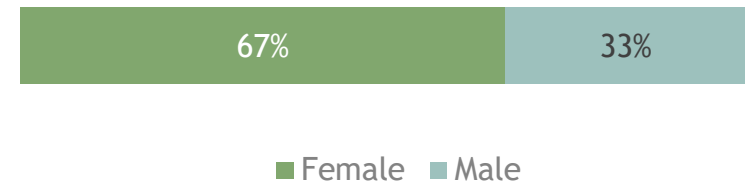
1. Context and Objectives
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The average interviewee is a 42-year-old woman

- Number of customers interviewed: **685**
- Among purchasers, 33% are men and 45% are 25-39 years old
- The average age is **42 y.o.**

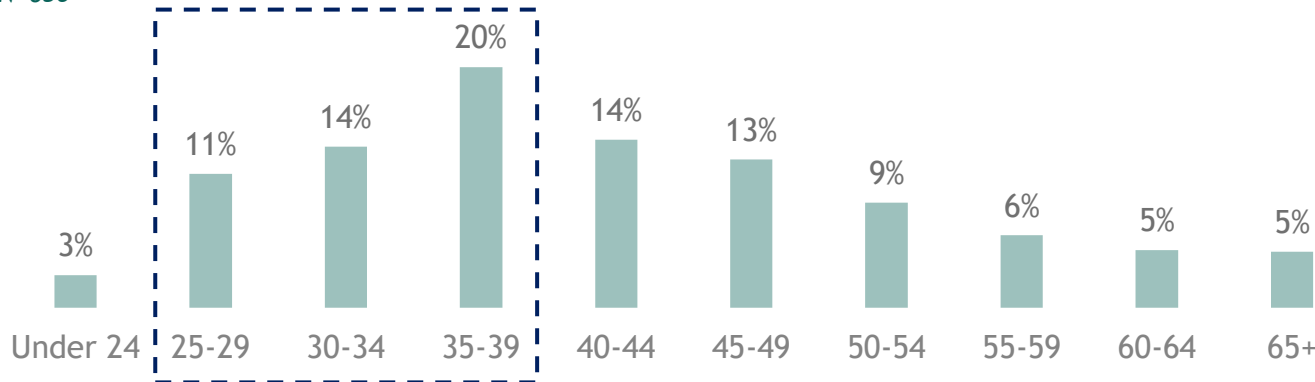
Gender distribution of customer

N=685



Age distribution of customer

N=650



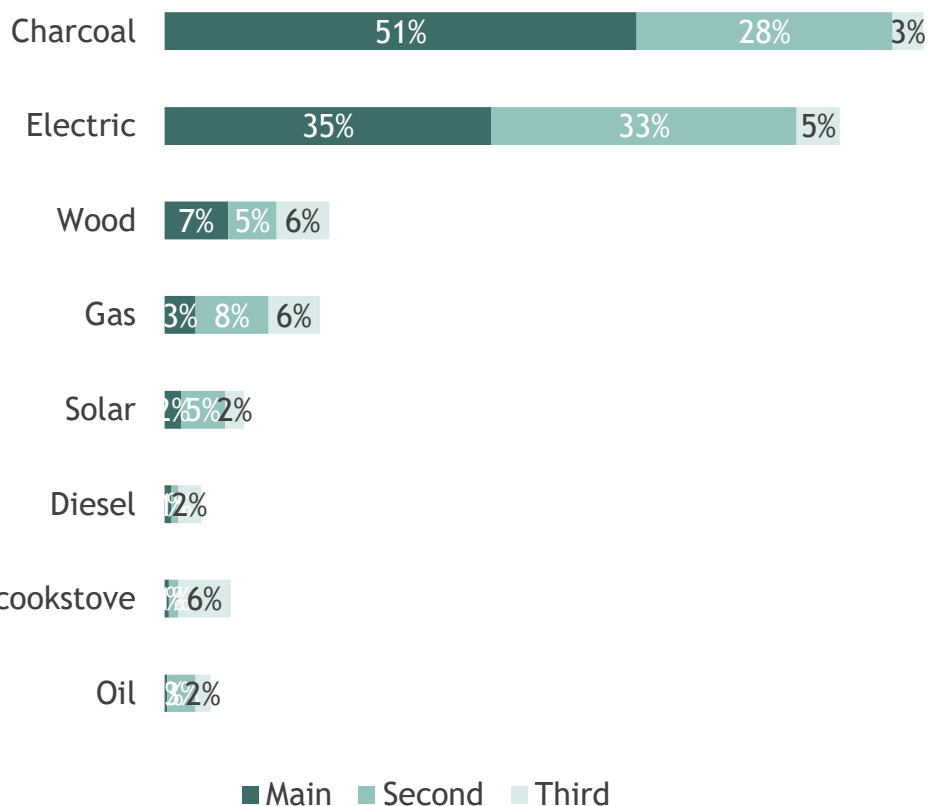
Sources: Baseline questionnaire QE and QF.

1. Context and Objectives
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- 3. Using the SupaMoto Cookstove**
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Before buying a SupaMoto cookstove, respondents mostly used charcoal and electricity as sources of heat for cooking

Past sources of heat for cooking

N=685



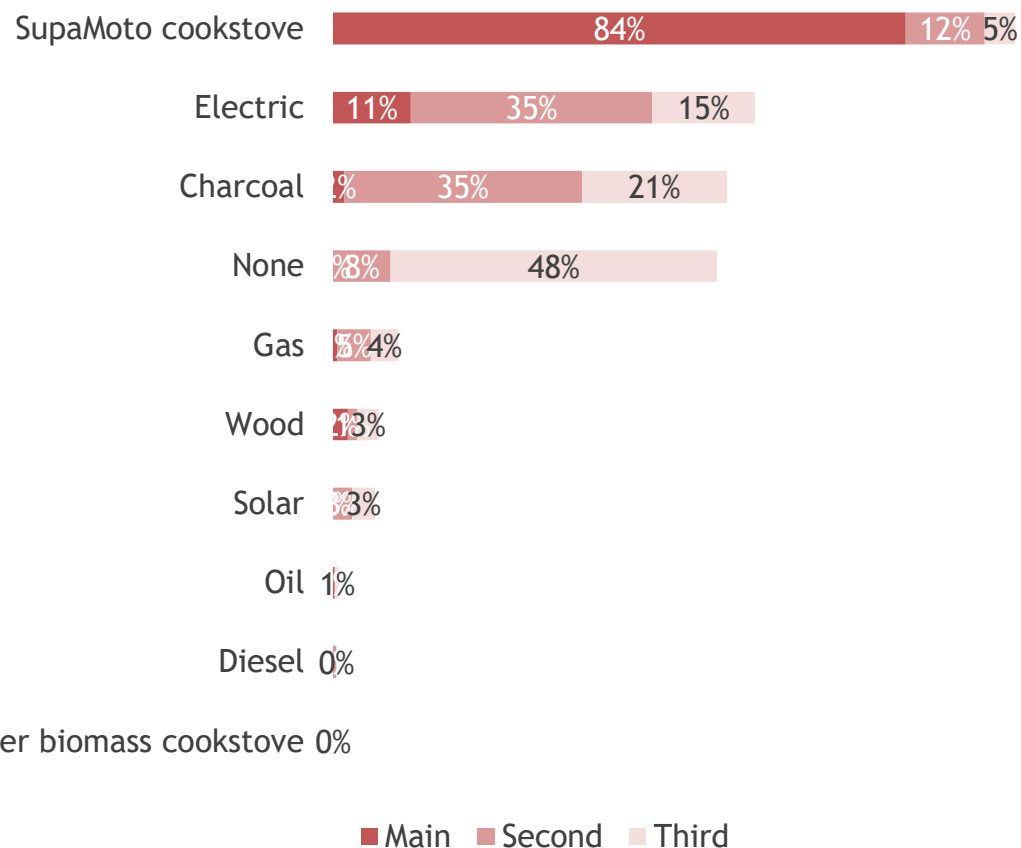
Before they bought the SupaMoto cookstove :

- **82%** of respondents were using **charcoal** as a source of heat for cooking, including **51%** using it as their **main source** of heat for cooking
- **Charcoal and electricity** accounted for **86%** of the **main sources of heat for cooking** of respondents
- Wood and Gas are respectively used by 18% and 17% of respondents

84% of respondents now use the SupaMoto cookstove as their main source of heat for cooking

Current sources of heat for cooking

N=685



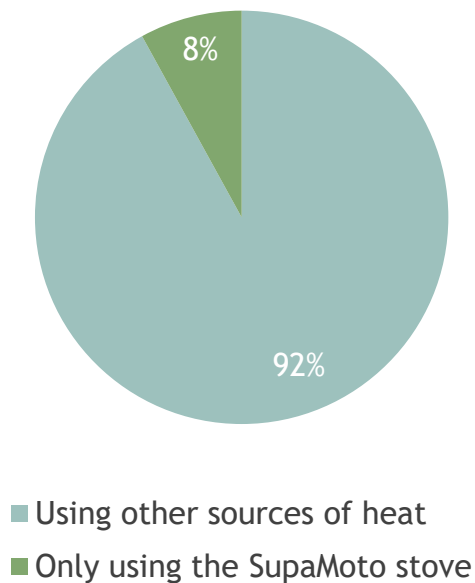
Now that they bought a SupaMoto cookstove :

- 100% of respondents are using it as a source of heat for cooking, and **84% as their main source of heat for cooking**
- Electricity and charcoal remain sources of heat for cooking for respectively **62% and 58% of respondents**, and seem to have become complementary or back-up sources
- **Electricity is still the main source of heat for cooking for 11% of respondents**

The SupaMoto cookstove reduced the use of other sources of heat for cooking, but these are still used by 92% of respondents as complementary sources.

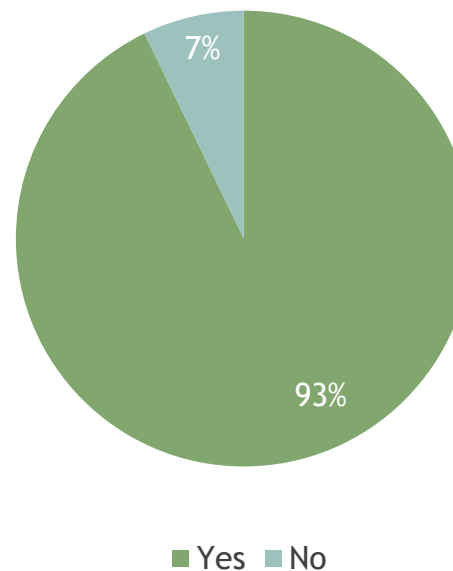
Households using other sources of heat in addition to the SupaMoto cookstove

N=685



Households reporting they use other sources of heat less now than before using the SupaMoto cookstove

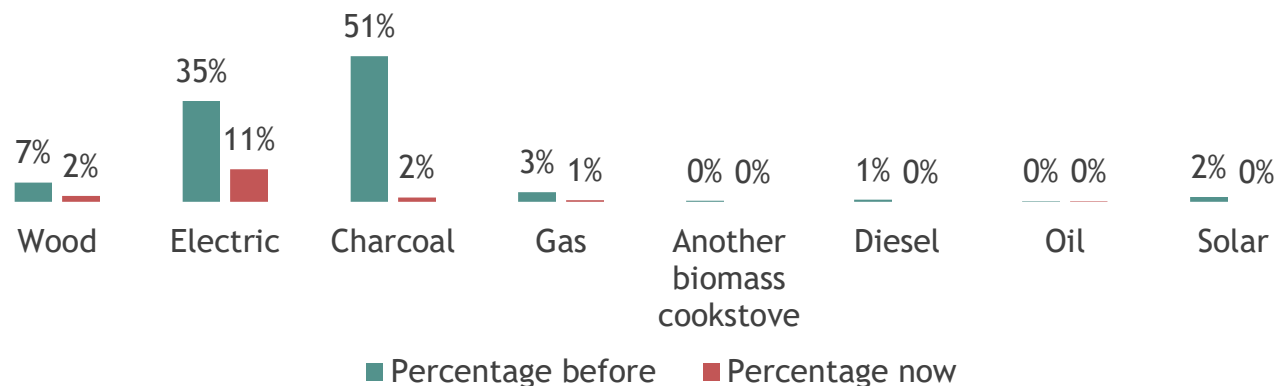
N=627



Most sources were abandoned as main sources of heat for cooking. Electricity and charcoal became the major complementary sources

Evolution of primary sources of heat for cooking

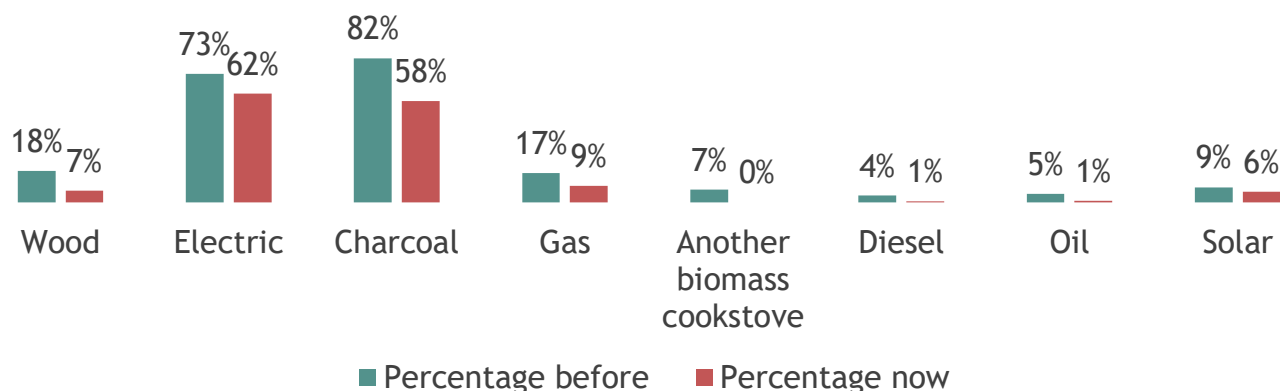
N=685



- Electricity is almost as used as before overall, but is now the main source of heat for cooking for **only 11% of respondents now** (35% before)

Evolution of all sources of heat for cooking

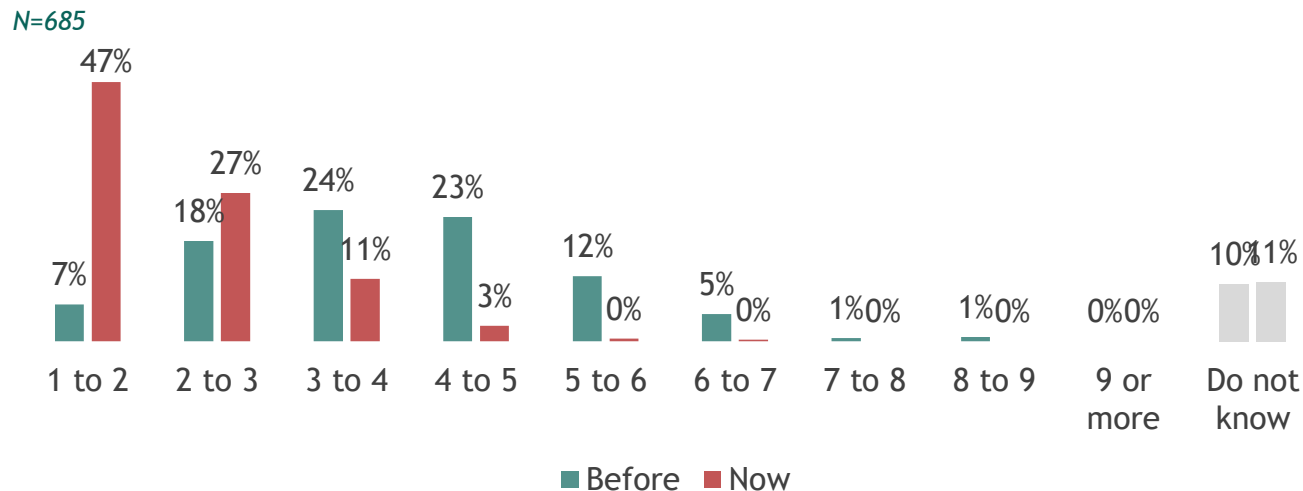
N=685



- Charcoal is used far less than before (decreased from 82% to 58%), and is **almost never the main source of heat for cooking** (2% now, 51% before the SupaMoto cookstove)

The SupaMoto cookstove turns out to be a considerable time saver for respondents, who spend far fewer hours per day cooking

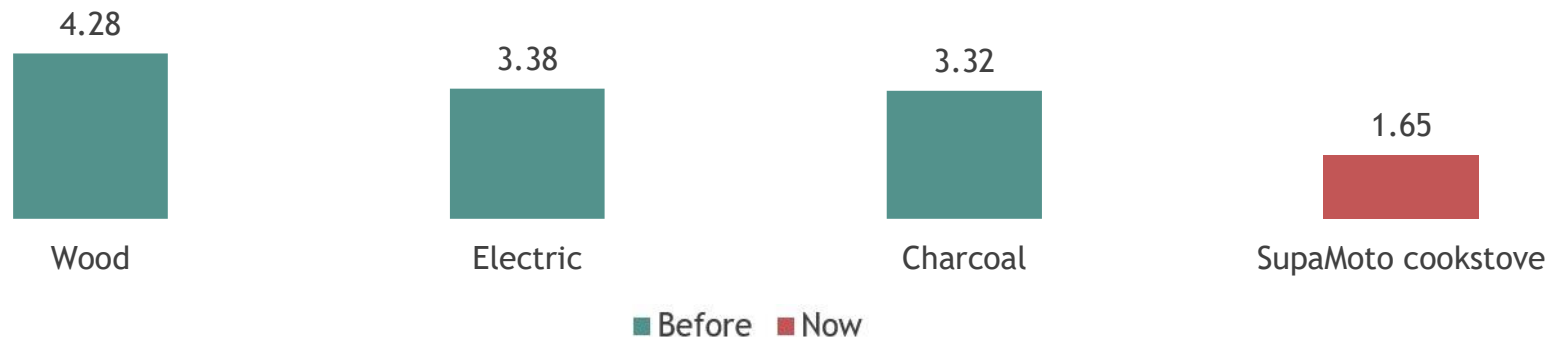
Hours of cooking per day from all sources



- 74% of respondents now spend less than 3 hours cooking (25% before)
- The time spent cooking with the SupaMoto cookstove is considerably lower than with all other sources

Hours of cooking per day with primary sources of heat used in the past and with the SupaMoto cookstove

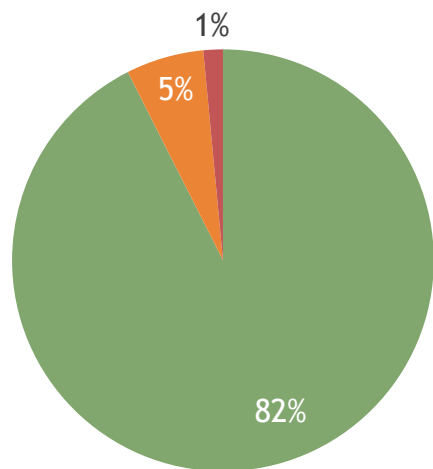
N(Wood) = 47 ; N(Electric) = 242 ; N(Charcoal) = 350 ; N(SupaMoto) = 575



The SupaMoto cookstove turns out to be a considerable time saver for respondents, who spend far fewer hours per day cooking

Share of households spending less time cooking now they are using the SupaMoto cookstove

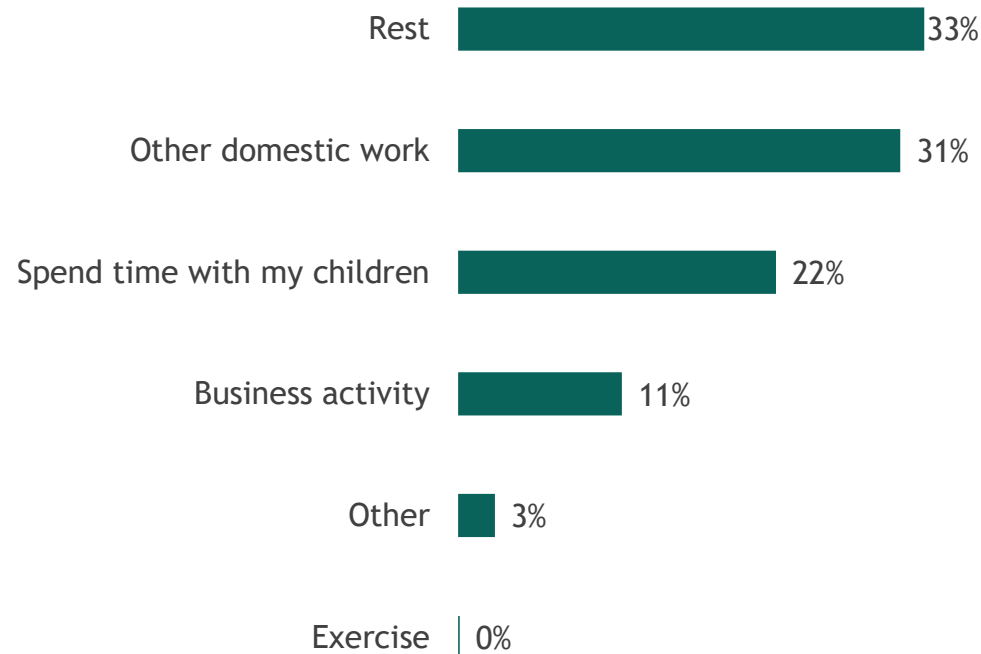
N=604 (excluding "Do not know")



■ Less time now ■ As much time now ■ More time now

Use of additional time

N=559 (Among respondents spending less time cooking)

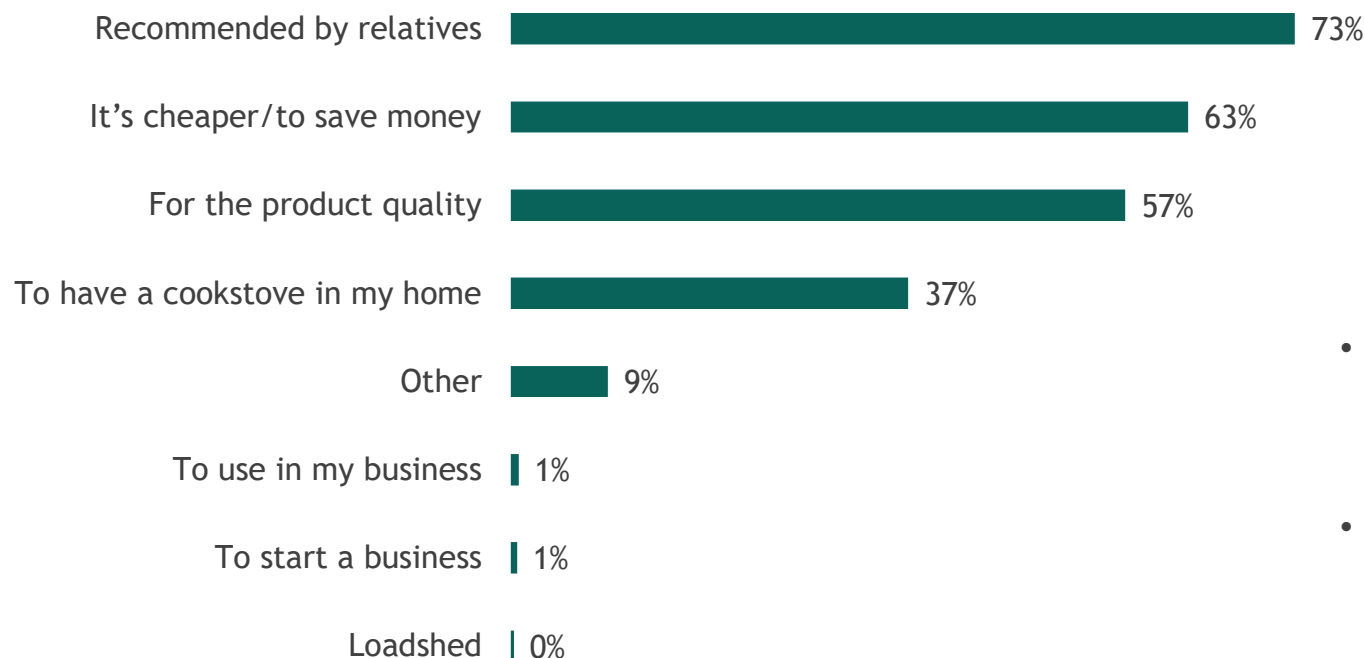


1. Context and Objectives
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4. **Impact on Quality of Life**
5. Economic Impact

Quality and price are the main motivations for buying a SupaMoto cookstove, which was recommended by relatives to 73% of respondents

Reasons to buy the SupaMoto cookstove

N=685

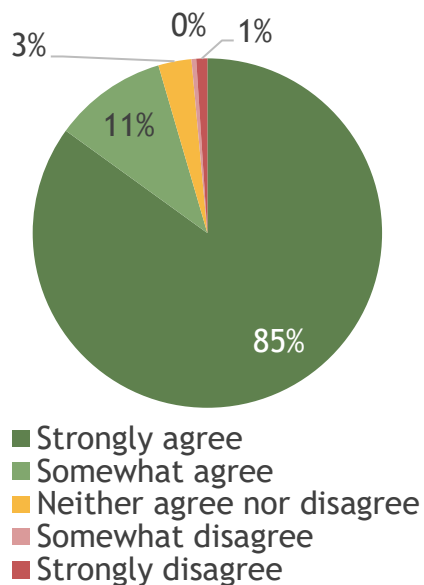


- The SupaMoto cookstove was recommended to **73% of respondents**
- The two other most cited motivations for purchase are: **quality (57%) and price (63%)**

The SupaMoto cookstove considerably improved the quality of life of respondents in many different ways

Perceived improvement in quality of life

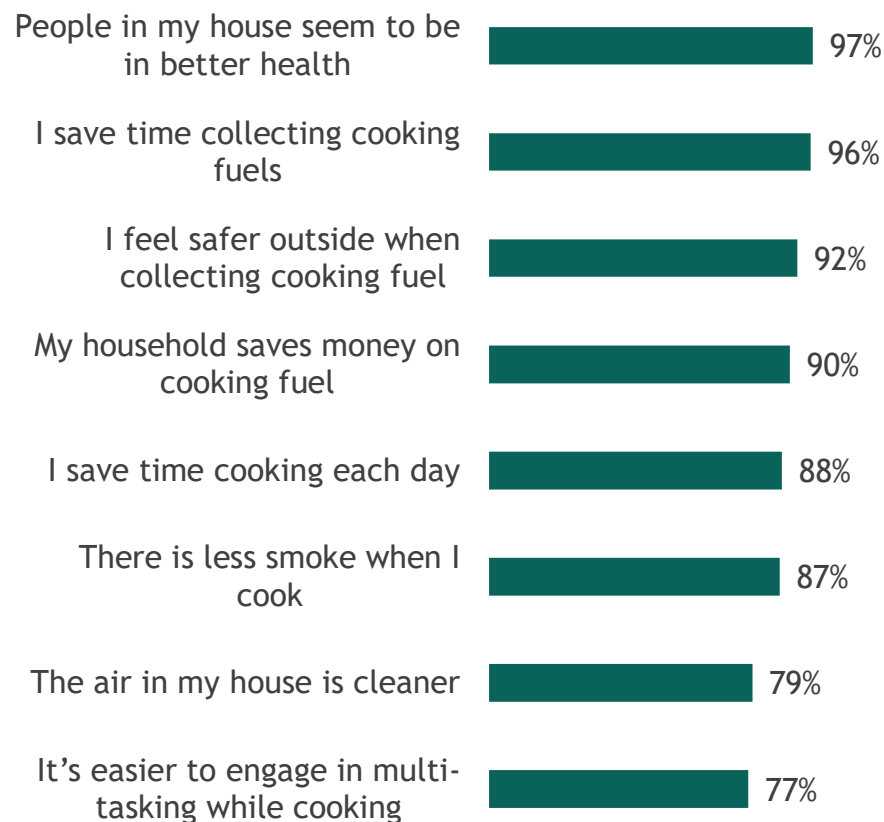
N=685



- **96% of respondents** agree that the SupaMoto cookstove improved their quality of life
- **All the reasons** proposed in the questionnaire were approved by **more than 75% of the respondents**

Reasons for quality of life improvement

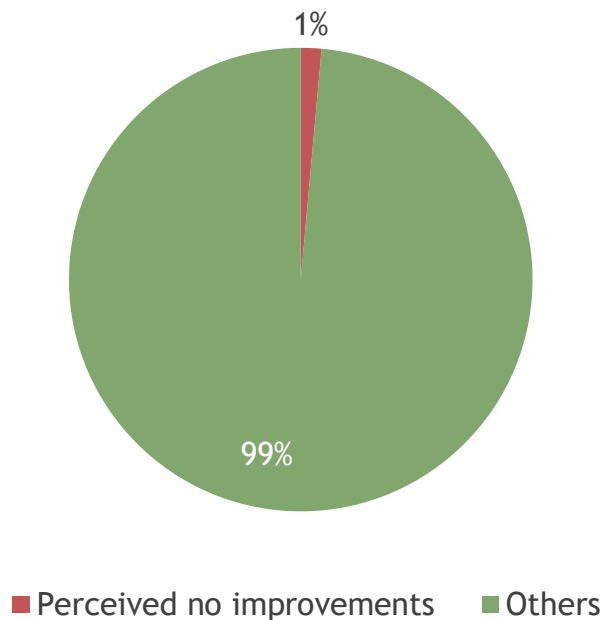
N(Households reporting improvement in quality of life)= 675



Almost no respondents reported negative effects, and almost half of them noted an improvement in the taste of food

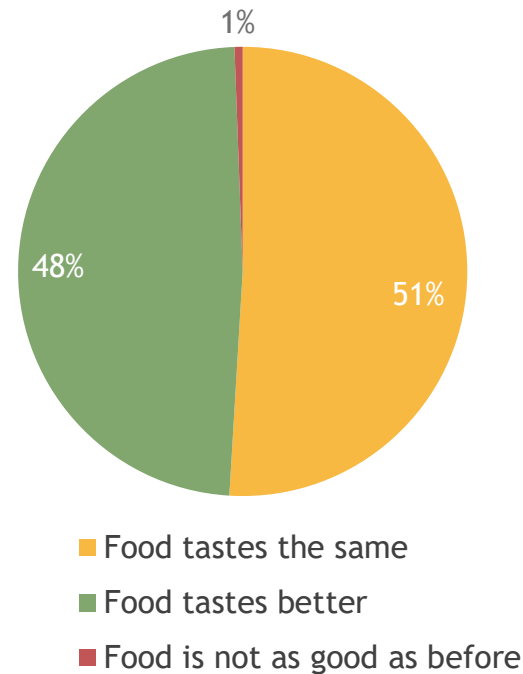
Households who do not perceive improvements from use of the SupaMoto cookstove

N= 685



Opinion about the cookstove's impact on the taste of food

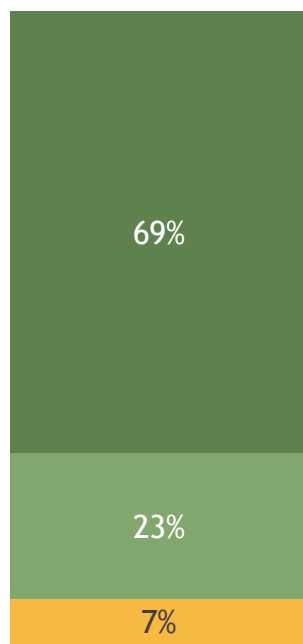
N = 685



92% of respondents consider the SupaMoto cookstove to be worth its price, and this opinion is even a bit stronger among women

Perceived value for money

N=685

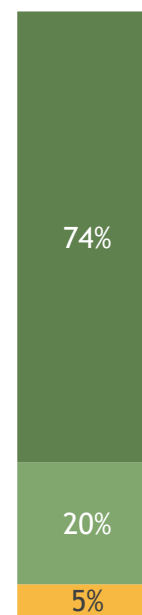


Total

Very poor Poor Fair Good Very good

Perceived value for money by gender

N(Female) = 459 ; N(Male) = 226



Female



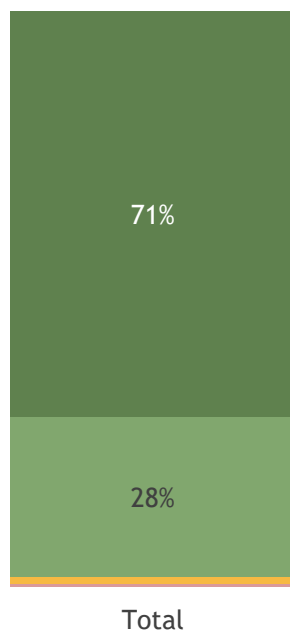
Male

Very poor Poor Fair Good Very good

99% of respondents are likely to recommend the SupaMoto cookstove, irrespective of their gender

Likelihood that the user will recommend the product

N=685



Likelihood that the user will recommend the product by gender

N(Female) = 459 ; N(Male) = 226



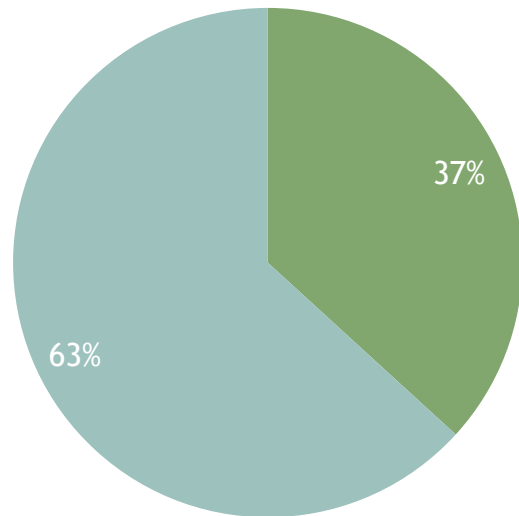
Very unlikely Unlikely Neither likely nor unlikely Likely Very likely

Very unlikely Unlikely Neither likely nor unlikely Likely Very likely

Among the 37% of respondents who received a solar lighting device, 63% are using it for cooking at night

Households having received a solar lighting device with their cookstove

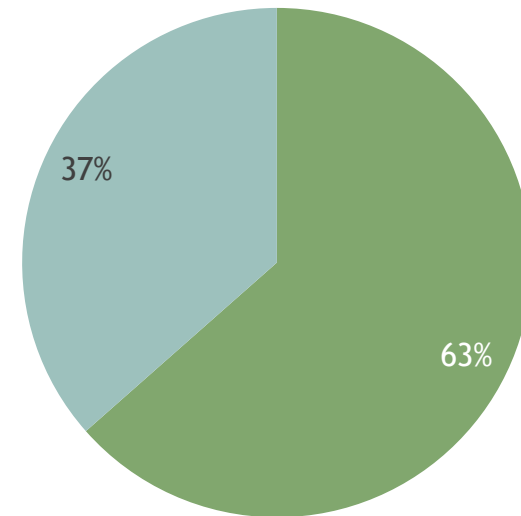
N=685



■ Yes ■ No

Households using the light when cooking at night

N(having received a solar lightning device)=252



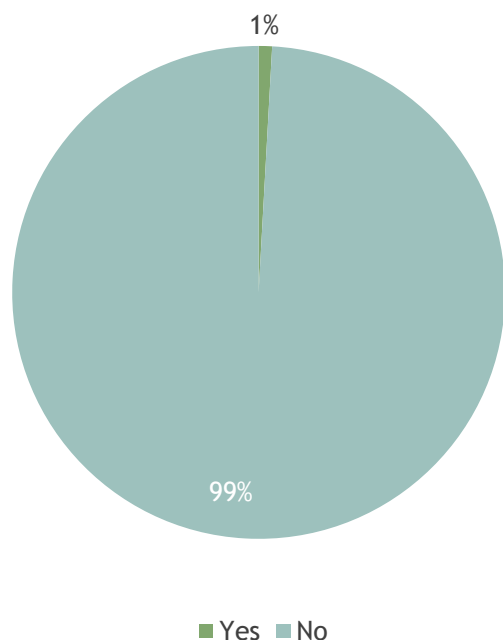
■ Yes ■ No

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5. **Economic Impact**

The use of the SupaMoto cookstove for business purposes is very marginal and concerns only 6 respondents out of 685.

Households using the SupaMoto cookstove for an income-generating activity

N=685

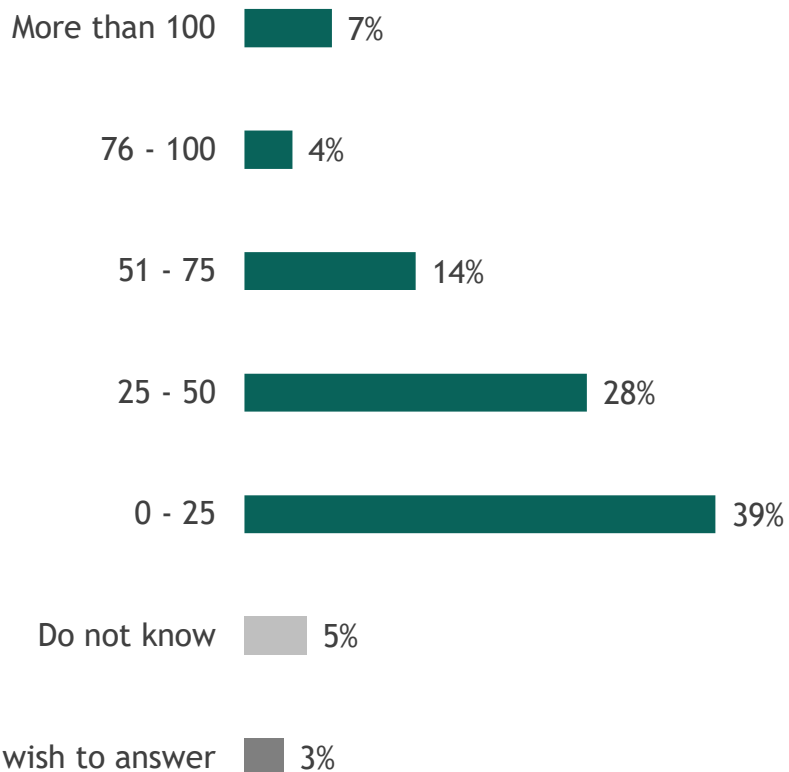


- The SupaMoto cookstove helps for a business or income-generating activities for **6 respondents**
- Among those 6 respondents, 2 use the SupaMoto cookstove 35 hours a week for their business or income-generating activity, while the 4 others use it only 4 to 5 hours a week for their business or income-generating activity
- The 6 respondents indicated that the SupaMoto cookstove **improved their income**
- Among those 6 respondents, 3 indicated that their started their activity after buying the SupaMoto cookstove. The others increased their productivity

Only 7% of respondents spend >100 ZMW per week on fuel for cooking with the SupaMoto cookstove, but 14% still spend >100 ZMW on other fuels for cooking

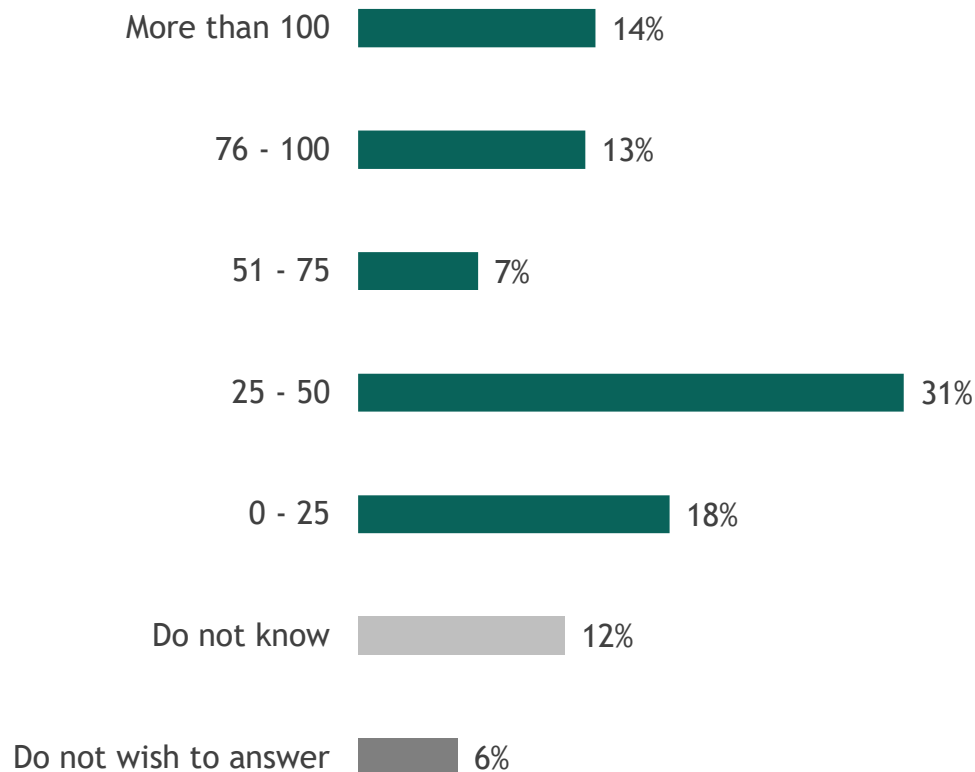
Expenses on SupaMoto cookstove

N=685



Expenses on other fuels

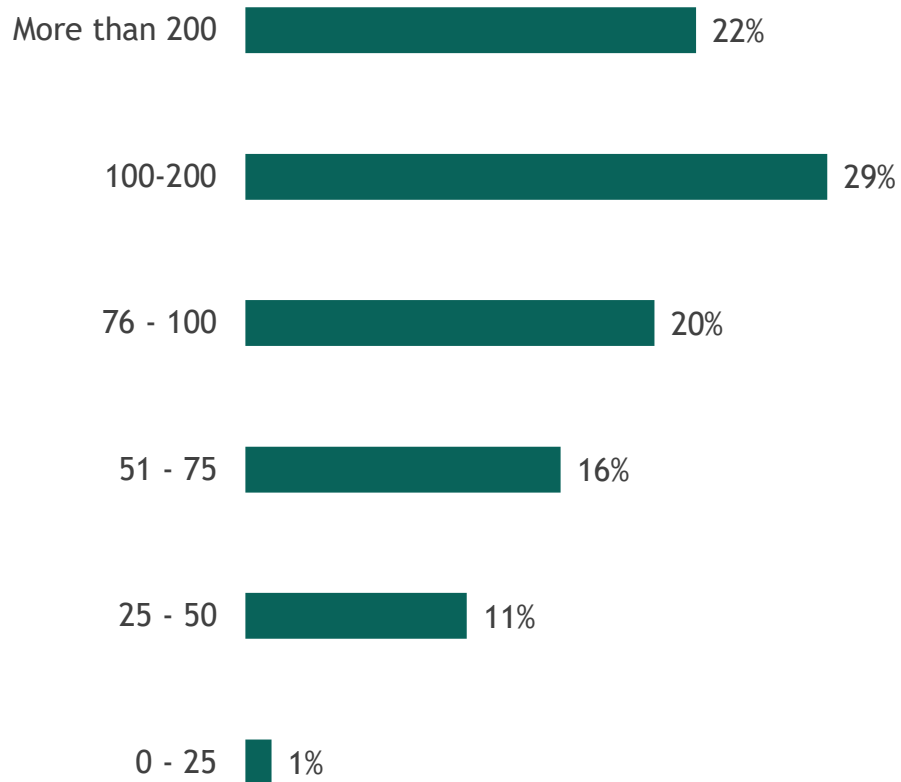
N=685



The share of respondents who spend more than 100 ZMW per week on fuel for cooking decreased from 51% to 35% thanks to the SupaMoto cookstove

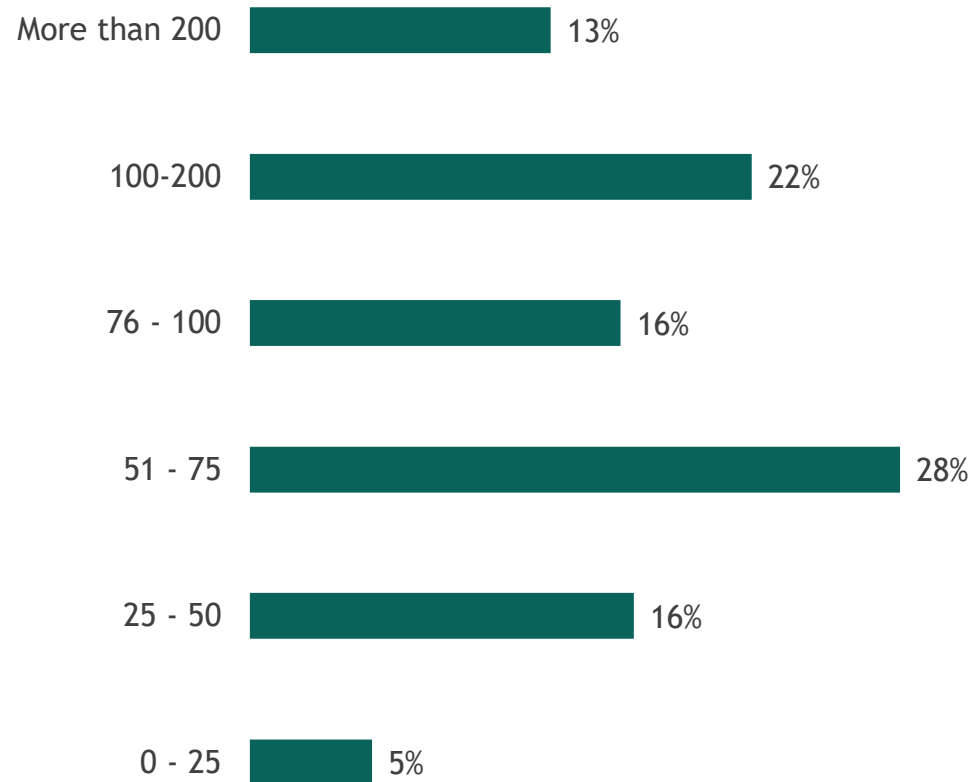
Expenses on fuel before the SupaMoto cookstove

N=534 - excl. Do not know, Do not wish to answer



Total expenses on fuel after the SupaMoto cookstove

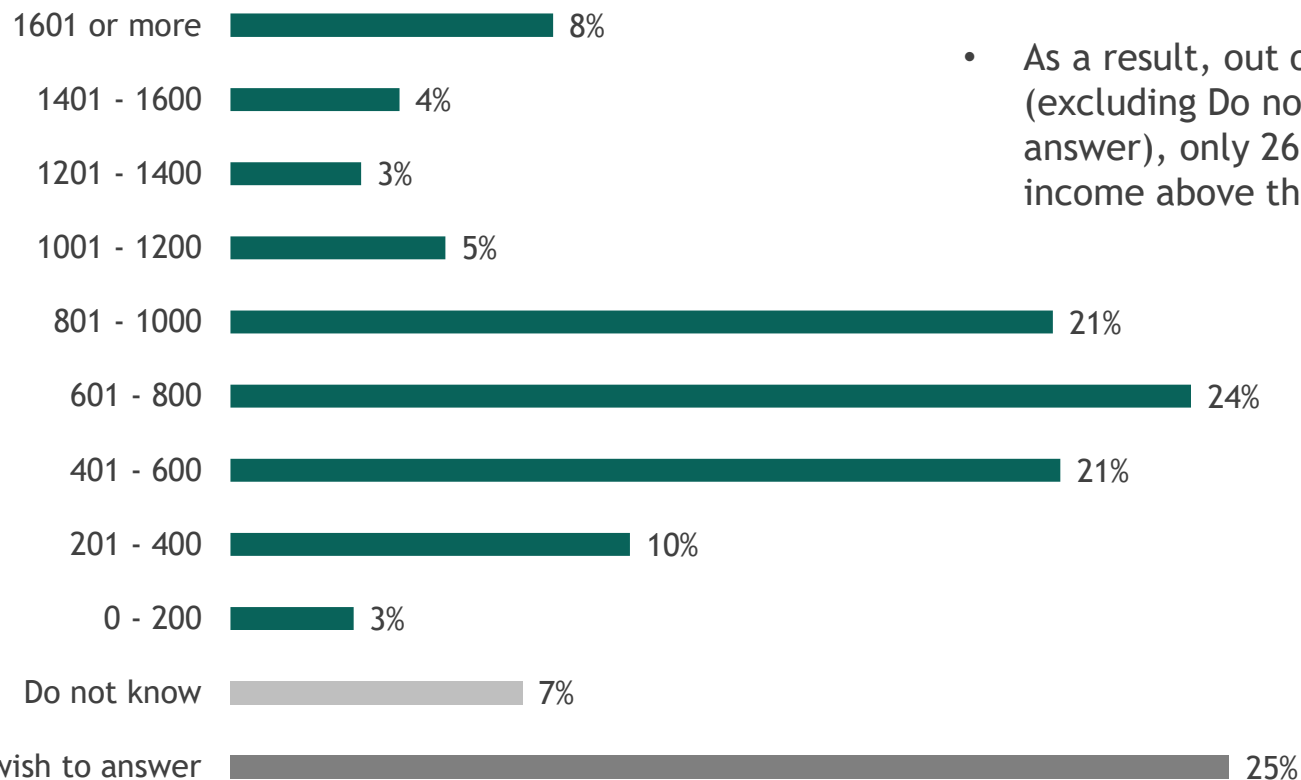
N=534 - excl. Do not know, Do not wish to answer



The majority of respondents' households are significantly poorer than the global population of Zambia

Weekly household Income

N=685



- Based on GDP per capita data, the average household income in Zambia was 2,386 ZMW in 2019*.
- As a result, out of the 480 respondents (excluding Do not know and Do not wish to answer), only 26 households report a weekly income above this national average.

*GDP per capita per week (based on the World Bank's annual figure for 2019) was multiplied by the average number of persons per household to obtain an estimate of the country's weekly household income.