



Wood Consumption Quantitative Study

Enabling the implementation of Georgia's
Forest Sector Reform - **ECO.Georgia**

Analytical report

**ISSA-Institute of Social Studies and
Analysis
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**Enabling the implementation of Georgia’s Forest Sector Reform –
ECO.Georgia**

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Methodology

Objective and Tasks

The objective of the assignment is to assess firewood consumption patterns in 8 target municipalities (Lanchkhuti, Ozurgeti, Chockatauri, Akhmeta, dedoplistskaro, Telavi, Kvareli, Tianeti). Quantitative survey outlines the following data:

- The amount and frequency of fuelwood consumption among different household types
- The price range that HHs are paying for firewood
- The sources of wood
- Awareness regarding energy-efficient stove co-financing program (voucher program) and energy-efficient stoves
- The level of awareness regarding Business Service Yards
- Socio-economic factors influencing fuelwood consumption.

In order to collect the necessary data, a quantitative research method was used, specifically, a face-to-face survey.

Quantitative method

The study employed a probability sampling model, specifically cluster sampling. The sampling process involved dividing the population into strata.

Clusters are defined based on territorial or geographical units that correspond to administrative units, such as municipalities within regions. Since the study pre-identified the target municipalities, these 8 municipalities were treated as strata.

In the clustering process, primary (PSU), secondary (SSU), and final (FSU) sampling units were identified:

- a) **Primary Sampling Unit (PSU):** Enumeration/electoral points in both rural and urban areas.
- b) **Secondary Sampling Unit (SSU):** Household. Household selection was carried out using the "random walk" method within predefined sampling points. Interviewers were provided with information regarding the geographic boundaries of the specific sampling point, including specific streets and addresses. In addition, they were given a starting address, from which they began counting the "step." This systematic approach ensured that each sampling address was visited only once, eliminating the possibility of repeat visits to the same households and minimizing bias in the selection process.
The so-called "step" was defined as follows for multi-storey buildings: in buildings up to 5 floors, every 7th household was selected; in buildings with 6–11 floors, every 9th household was selected; and in buildings with at least 12 floors, every 11th household was selected. In private housing areas, every 5th household was selected.
- c) **Final Sampling Unit (FSU):** Individuals aged 18 or older. Within the household, the respondent selected for interview was the person knowledgeable about household activities and able to provide information on firewood consumption trends.

In total, 2151 households were visited, with interviews **conducted in 1682 households**. 469 households were excluded from the sampling as they do not use a woodstove. For a detailed breakdown of information on the distribution of interviews, see Table #a.

Table #a

Location	N of interviews	%	Error (with 95% confidence)
Region ¹			
Guria	583	34.7	
Kakheti	521	31.0	
Mtsketa-mtianeti	578	34.4	
Municipality			
Lanchkuti	194	11.5	5.6%
Ozurgeti	193	11.5	5.8%
Chokatauri	196	11.7	5.1%
Akhmeta	121	7.2	7.3%
Dedoplistskaro	159	9.5	6.3%
Telavi	117	7.0	7.5%
Kvareli	124	7.4	7.2%
Tianeti	578	34.4	3.2%
Settlement type ²			
Urban	647	38.5	3.2%
Rural	1035	61.5	2.5%
Target population	1682	100	2.0%

Data Weighting and Generalization³

Version 1: Geostat 2024

In June 2025, the National Statistics Office of Georgia published the preliminary results of the population census. The release of household statistics is planned for June 2026.

ISSA used the population figures published by Geostat and, based on the average household size identified through the survey in the target municipalities, converted the population numbers into the number of households.

Additionally, based on the conducted survey, ISSA determined the percentage of households consuming firewood in the target municipalities, which was used to calculate the number of firewood-consuming households from the total number of households (see Table B).

¹ Regional grouping is done solely using the target 8 municipalities. Mtsketa-mtianeti region implies only Tianeti, Guria covers all 3 municipalities and Kakheti covers 4 target municipalities.

² Within the target municipalities, urban settlements refer to the official municipal centres. As the rural settlements cover every other point in the municipality.

³ Total population fields are filled using two approaches. On the one hand, the number of wood-consuming households is statistically calculated based on the percentage of wood-consuming households, and the price fields are then calculated in relation to this number. As a result, these three indicators are statistically consistent with one another. On the other hand, the total number of households and the volume of wood use are obtained by directly summing the results reported by each municipality.

Table b

Municipality	% of wood consuming HHs	Number of HHs	Number of wood consuming HHs
Lanchkuti	77.9%	8156	6351
Ozurgeti	81.2%	17454	14177
Chokatauri	82.1%	5233	4294
Akhmeta	62.8%	9133	5733
Dedoplistskaro	88.7%	6482	5747
Telavi	62.6%	17485	10945
Kvareli	65.9%	8851	5834
Tianeti	93.9%	3243	3044
Target population	73.8%	76037	56143

These figures were used to weight the database, based on which one version of firewood consumption and price estimates was prepared. According to the processed database based on Geostat data, the annual firewood consumption across the 8 target municipalities is estimated at 358,955 cubic meters (see Table c).

Table c

Municipality	Mean wood use in winter m3	Wood used in winter m3	Mean wood use in non-winter m3	Wood used in non-winter m3	Price in winter (Gel)	Price in non-winter (Gel)
Lanchkuti	8.02	50942	0.56	3578	104.21	81.36
Ozurgeti	6.03	85468	0.13	1898	129.32	108.37
Chokatauri	6.16	26449	0.19	799	117.19	107.15
Akhmeta	6.29	36057	0.45	2559	99.87	97.48
Dedoplistskaro	4.60	26443	0.15	873	151.55	116.57
Telavi	4.46	48831	0.09	1029	112.05	111.40
Kvareli	5.40	31487	0.29	1667	130.33	125.83
Tianeti	12.61	38379	0.78	2389	82.68	82.65
Target population		344057		14791	104.51	94.23

Version 2: Households spending more than 7 GEL per month on electricity during winter

ISSA utilized a report of the National Statistics Office of Georgia to identify the electric appliances commonly found in rural settlements and the monthly electricity consumption of these appliances in kilowatts. Based on these figures, the monthly expenditure of such households was calculated to be approximately 7 GEL.

Based on the database provided by ENERGO-PRO Georgia, the number of active households in the target municipalities during the winter and summer months, who paid 7 GEL or more for electricity each month, was determined.

The purpose of using this approach was to filter out households from the total number reported by the National Statistics Office of Georgia that are officially registered in the target municipalities but do not reside there permanently. Given that the peak season for firewood consumption is winter, it was important to determine the number of households that remain in the target municipalities as

permanent residents during the winter months. Finally, firewood consumption amounts were differentiated by winter and non-winter seasons, and consumption amounts were generalized by the number of households present seasonally on site. (see Table d).

Table d

Municipality	% of wood consuming HHs	Number of HHs Winter	Number of HHs Summer	Number of wood consuming HHs Winter	Number of wood consuming HHs Summer
Lanchkuti	78.0%	3926	7707	3062	6010
Ozurgeti	81.3%	7898	15927	6419	12945
Chokatauri	82.8%	2101	4661	1739	3857
Akhmeta	62.4%	4505	7454	2811	4651
Dedoplistskaro	88.6%	2820	5053	2499	4477
Telavi	62.8%	10254	15242	6440	9573
Kvareli	65.7%	4840	7525	3179	4942
Tianeti	93.3%	1599	2805	1492	2618
Target population	72.9%	37943	66374	27657	48381

Based on the weighted/processed data using the described method, the annual firewood consumption across the 8 target municipalities is estimated at **180,807 cubic meters** (see Table e).

Table e

Municipality	Mean wood use in winter m3	Wood used in winter m3	Mean wood use in non-winter m3	Wood used in non-winter m3	Price in winter (Gel)	Price in non-winter (Gel)
Lanchkuti	8.02	24557	0.56	3386	104.21	81.36
Ozurgeti	6.03	38700	0.13	1733	129.32	108.37
Chokatauri	6.16	10711	0.19	718	117.19	107.15
Akhmeta	6.29	17680	0.45	2076	99.87	97.48
Dedoplistskaro	4.60	11497	0.15	680	151.55	116.57
Telavi	4.46	28733	0.09	900	112.05	111.40
Kvareli	5.40	17156	0.29	1412	130.33	125.83
Tianeti	12.61	18814	0.78	2054	82.68	82.65
Target population		167848		12959	103.37	103.68

In this report, the data are weighted based on Version 2.

Main Findings

In the target municipalities, surveyed households generally own a single stove, which is of the so-called traditional type. Almost none of the surveyed households own energy-efficient stoves. Moreover, awareness of such stoves and co-financing programs for energy-efficient stoves is low. An exception is Tianeti Municipality, where 60% have heard about the stoves and 44% - about the program.

In nearly all municipalities, a significant proportion of households purchased their stove more than five years ago. An exception is Kvareli, where responses were distributed between households that acquired the stove 1–3 years ago (32%) and those that did so 6 months–1 year ago (36%). The average amount paid for a stove among the target population is 185.54 GEL. Compared to other municipalities, the highest average expenditure on stoves was observed in Akhmeta Municipality (283 GEL), whilst the lowest was recorded in Dedoplistskaro Municipality (85 GEL).

In all municipalities, the primary purpose of the stove is heating. However, the analysis shows that households living in rural settlements and/or those with below-average economic status are more likely to use the stove for additional purposes more frequently.

During winter, Tianeti Municipality exhibits the highest average firewood consumption (12.51 cubic meters). In Guria, consumption is relatively high in Lanchkhuti Municipality (8.02 cubic meters), whilst in Kakheti, Akhmeta Municipality records the highest consumption (6.29 cubic meters). Interestingly, households living in urban settlements consume more firewood on average during winter (9.48 cubic meters) compared to those in rural settlements (8.04 cubic meters).

It is notable that despite the use of stoves, one-third (34%) of households in areas supplied with natural gas also use gas/natural gas-based devices for heating. In most cases, this is a gas heater, although in rural settlements, 16% use a gas stove (cooking stove) for heating. Among households with access to natural gas that rely solely on a stove, the most commonly cited reasons are the absence of a gas heater (43%) or the costs associated with gas consumption (41%).

In the target municipalities, the vast majority of households (80%–91%) report daily use of stoves during winter months. In contrast, only one-third (33%) of households in Dedoplistskaro and nearly half (48%) in Kvareli report the same – figures that are significantly lower compared to other municipalities.

In the municipalities of Guria, the dominant practice among households is collecting firewood from private land (Lanchkhuti – 70%; Ozurgeti – 71%; Chokhatauri – 77%), whereas in other target municipalities, households primarily purchase firewood from local sellers (Akhmeta – 75%; Dedoplistskaro – 84%; Telavi – 82%; Tianeti – 71%). Akhmeta is an exception, with responses split between purchasing (47%) and collecting it from private land (41%).

In urban settlements, households mainly purchase firewood from private individuals (75%), whilst in rural settlements, they are more likely to collect firewood either from private land (42%) or from nearby forests (21%).

Awareness on changes to the “Forest Use Regulation”, according to which, starting from 2026, only the forest management authority will be responsible for harvesting firewood in the forest, is low across municipalities, as well as awareness on so-called “business yards”. In both cases, however, households in Tianeti Municipality are relatively more informed (change in forest use regulation – 60%; business

yards – 65%). Interestingly, nearly half of the surveyed households in Tianeti Municipality negatively assess the decision of the National Forestry Agency (47%), whereas evaluations in other municipalities tend to be more neutral or positive.

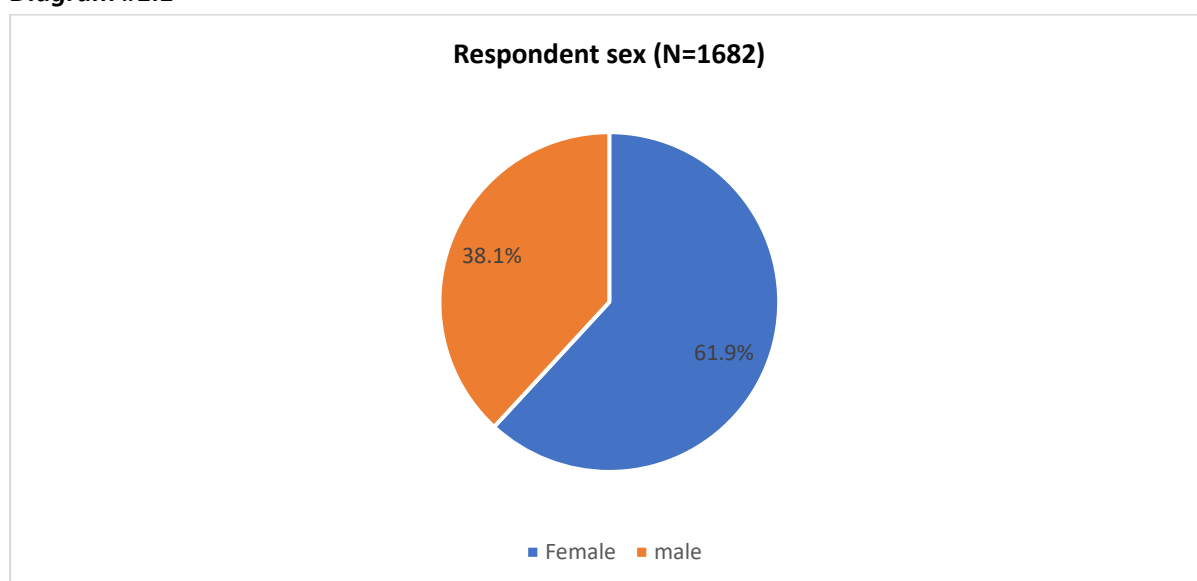
According to respondents who evaluated the initiative negatively, the updated Forest Use Regulation by the National Forestry Agency would be acceptable under certain conditions: if firewood is offered at a price below the market price, if a designated quantity of firewood is provided free of charge to every rural household, or if socially vulnerable households receive firewood free of charge.

Research Report

1. Household Demographic Characteristics

Among the surveyed respondents, 61.9% were female and 38.1% were male (see Diagram #1.1). Gender distribution may raise question regarding the gender bias concerning household use and expenditures on fuelwood. Regardless, according to UNFPA⁴ more than half of HHs make household purchasing decisions jointly, particularly when it involves significant financial expenditures. This may suggest that decisions related to fuelwood purchase, which can represent a sizable seasonal expense, are also likely to be discussed and made jointly within the household. Therefore, awareness and knowledge about forest use rules and BSY procedures may be more evenly distributed between genders than commonly assumed, particularly in households where fuelwood is a significant budget item.

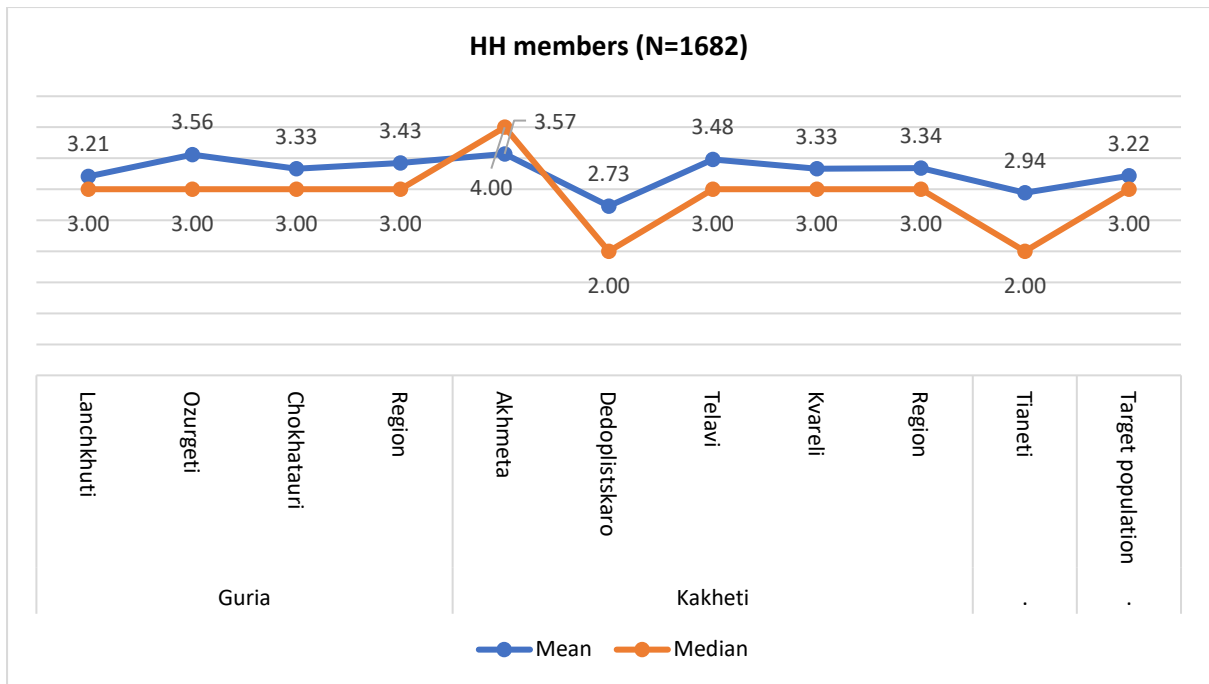
Diagram #1.1



In the target population, 3-member households were relatively more common (median = 3), whilst the average household size was 3.22 (see Diagram #1.2).

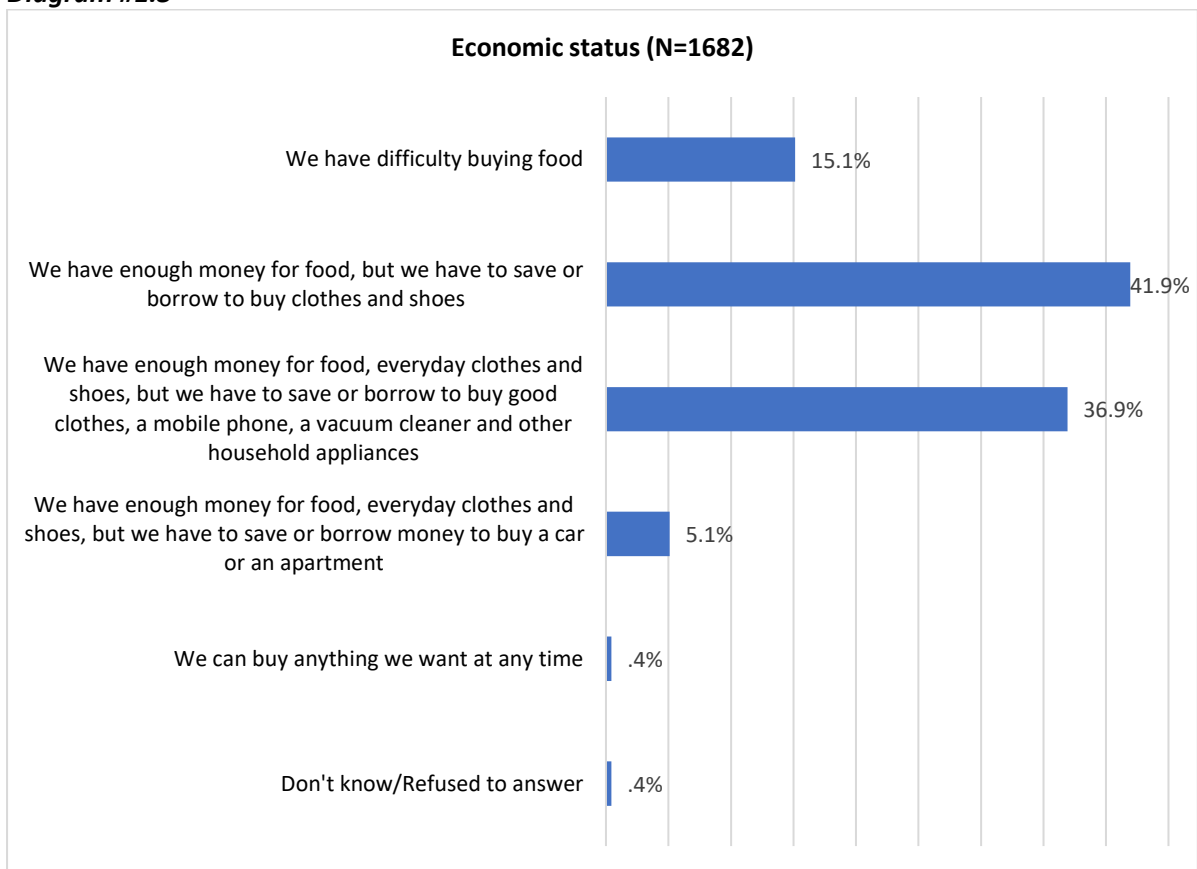
Diagram #1.2

⁴Men, Women, and Gender Relations in Georgia: Public Perceptions and Attitudes, UNFPA, 2025
https://georgia.unfpa.org/en/IMAGES_EN



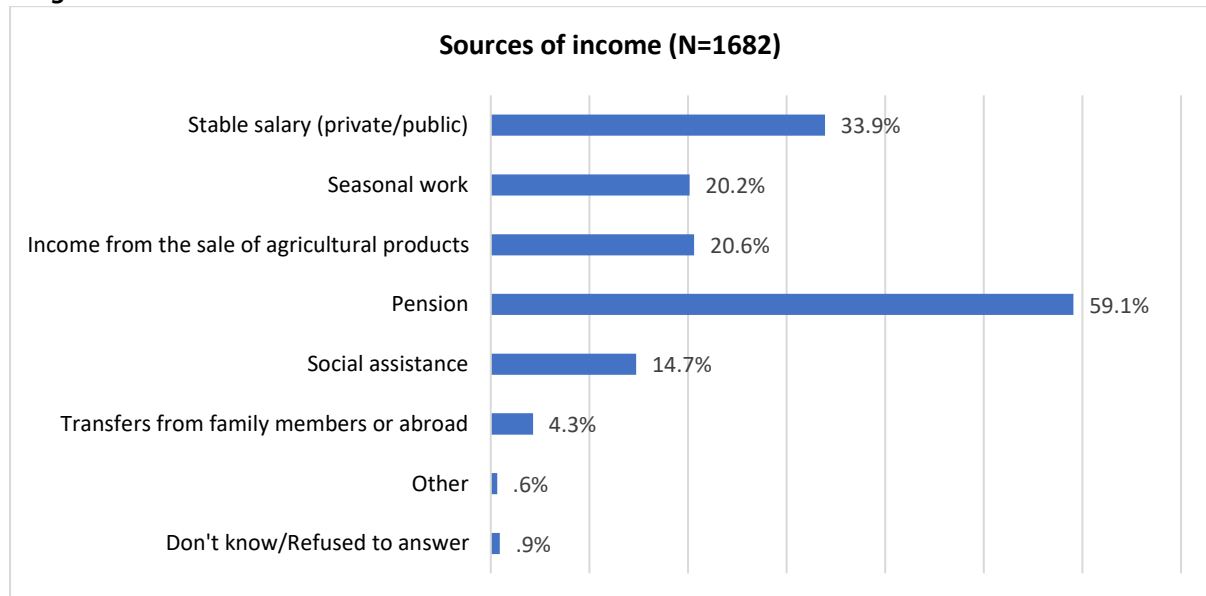
A relatively large proportion of households describe their economic situation as “we have enough money for food, but we need to save or borrow to buy clothes and shoes” (41.9%). On the other hand, a significant portion of households also fit in the category “we have enough money for food and everyday clothes and shoes, but we need to save or borrow to buy good clothes, a mobile phone, a vacuum cleaner, or other household appliances” (36.9%) (see Diagram #1.3).

Diagram #1.3



Among the surveyed households, a significant proportion (59.1%) report pensions as one of the sources of household income. Stable salaries are identified as a source of income in one-third of households (33.9%), whilst seasonal work (20.2%) or income from the sale of agricultural products (20.6%) are reported by one-fifth of households (see Diagram #1.4).

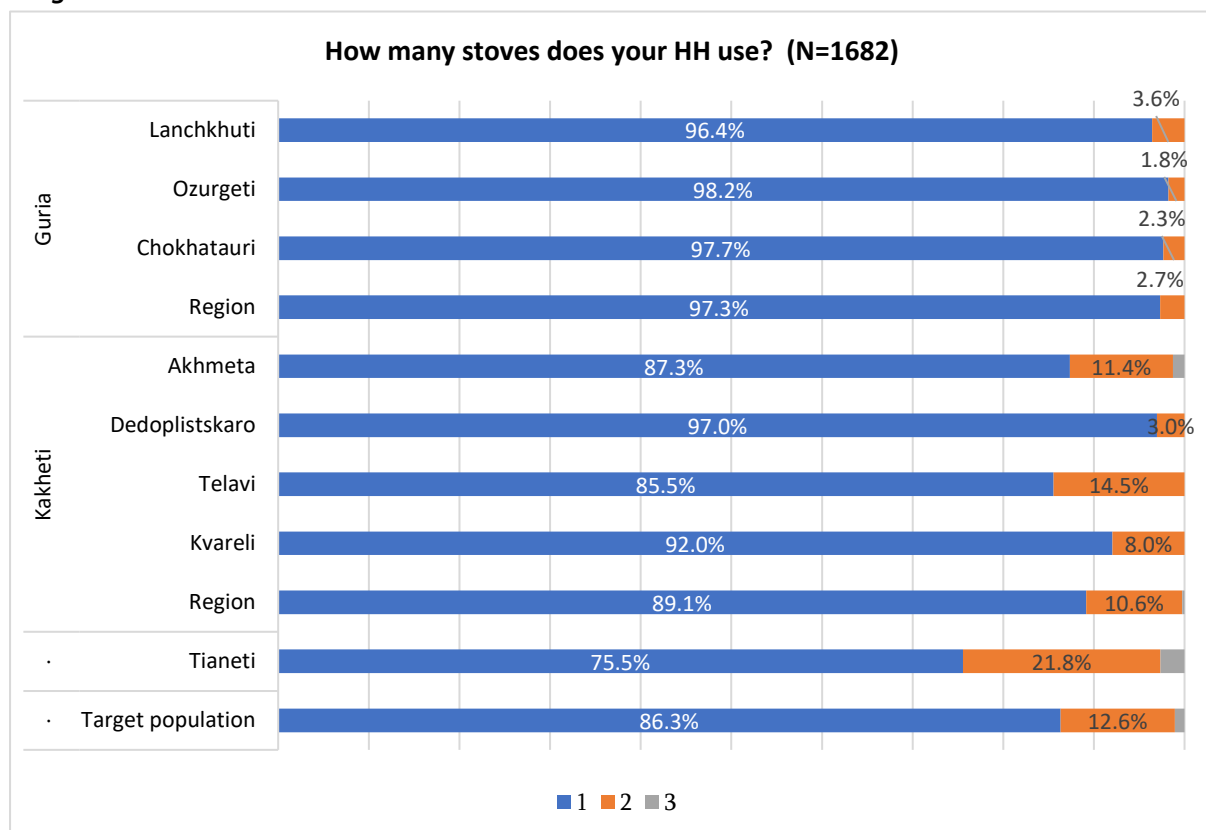
Diagram #1.4



2. Stove Use

By municipality and region, the majority of surveyed households use a single stove. Tianeti stands out from other municipalities, with one-fifth (21.8%) reporting the use of two stoves (see Diagram #2.1).

Diagram #2.1



Survey participants were asked to specify the type of stove owned by their household. If they owned more than one stove, respondents provided information on all existing stoves. In Telavi (65.8%), Tianeti (67.3%), and Guria (60.7%), including Gurian municipalities (Lanchkhuti – 58.2%; Ozurgeti – 61.7%; Chokhatauri – 61.7%), approximately two-thirds of surveyed households report owning a traditional/standard stove. In Dedoplistskaro (82.4%) and Kvareli (84.7%), such stoves are reported by the vast majority of respondents.

With the exception of Dedoplistskaro (18.2%) and Kvareli (16.1%), more than one-third of households in all other municipalities report owning a "Svanetian" stove. In Akhmeta, responses are almost evenly split between standard stoves (48.8%) and "Svanetian" stoves (53.7%) (see Table #2.1).

Table #2.1

What type of stove does your HH own? (N=1682) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
Standard/ traditional stove	58.2	61.7	61.7	60.7	48.8	82.4	65.8	84.7	69.3	67.3	66.3
"Svanetian" stove ⁵	41.8	37.8	38.3	39.0	53.7	18.2	38.5	16.1	33.3	39.6	37.2
Energyeffective stove	-	0.5	0.5	0.4	-	-	0.9	0.8	0.5	1.9	1.0
Fireplace	2.6	0.5		1.0	-	-	-	-	-	-	0.3
Don't know/ Refused to answer	-	-	-	-	-	-	-	0.8	0.2	-	0.1

Interestingly, households with below average economic status were less likely to have a Svanetian stove compared to other two economic groups. (See Table #2.2)

Table #2.2

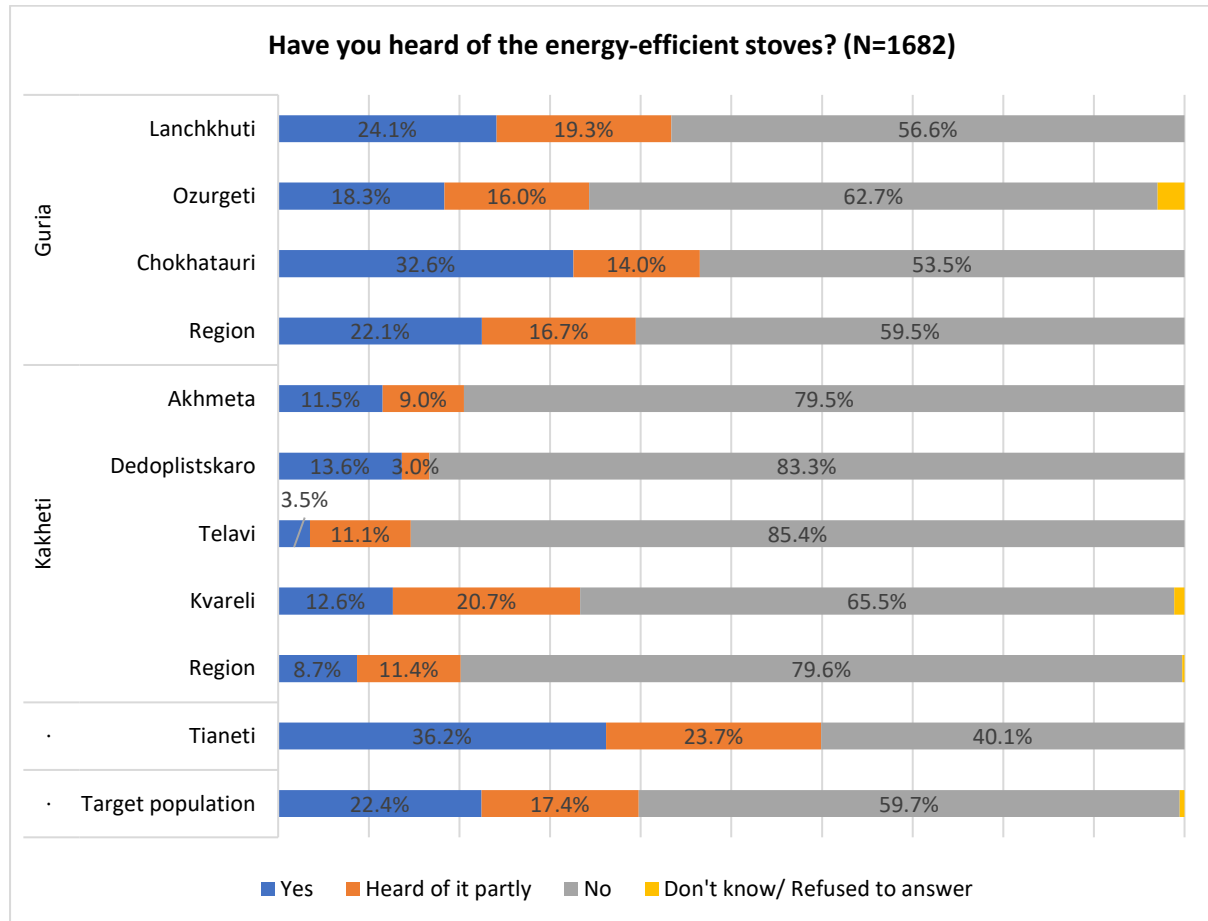
By economic status (Several answers allowed)	Below average	Average	Above average
Traditional stove	71.5%	59.8%	55.6%
"Svanetian" stove*	31.7%	44.2%	46.6%
Energy efficient stove	0.6%	1.6%	1.2%
Fireplace	0.3%	0.1%	1.4%

Compared to other municipalities, awareness of energy-efficient stoves is higher in Tianeti Municipality, where 59.9% say they have at least some knowledge of energy-efficient stoves. Awareness is particularly low in Kakheti, specifically in Akhmeta (79.5%), Dedoplistskaro (83.3%), and Telavi (85.4%). On the other hand, in Kvareli, one-third (33.3%) of surveyed households have at least some information about these stoves.

⁵ *Respondents who said they paid more than 200 Gel were moved to Svanetian stove, instead of traditional stove

In Guria, more than half (59.9%) of surveyed households also report being unaware of energy-efficient stoves. Among the Gurian municipalities, this figure is relatively higher in Ozurgeti (62.7%) compared to Lanchkhuti (56.6%) and Chokhatauri (53.5%) (see Diagram #2.2).

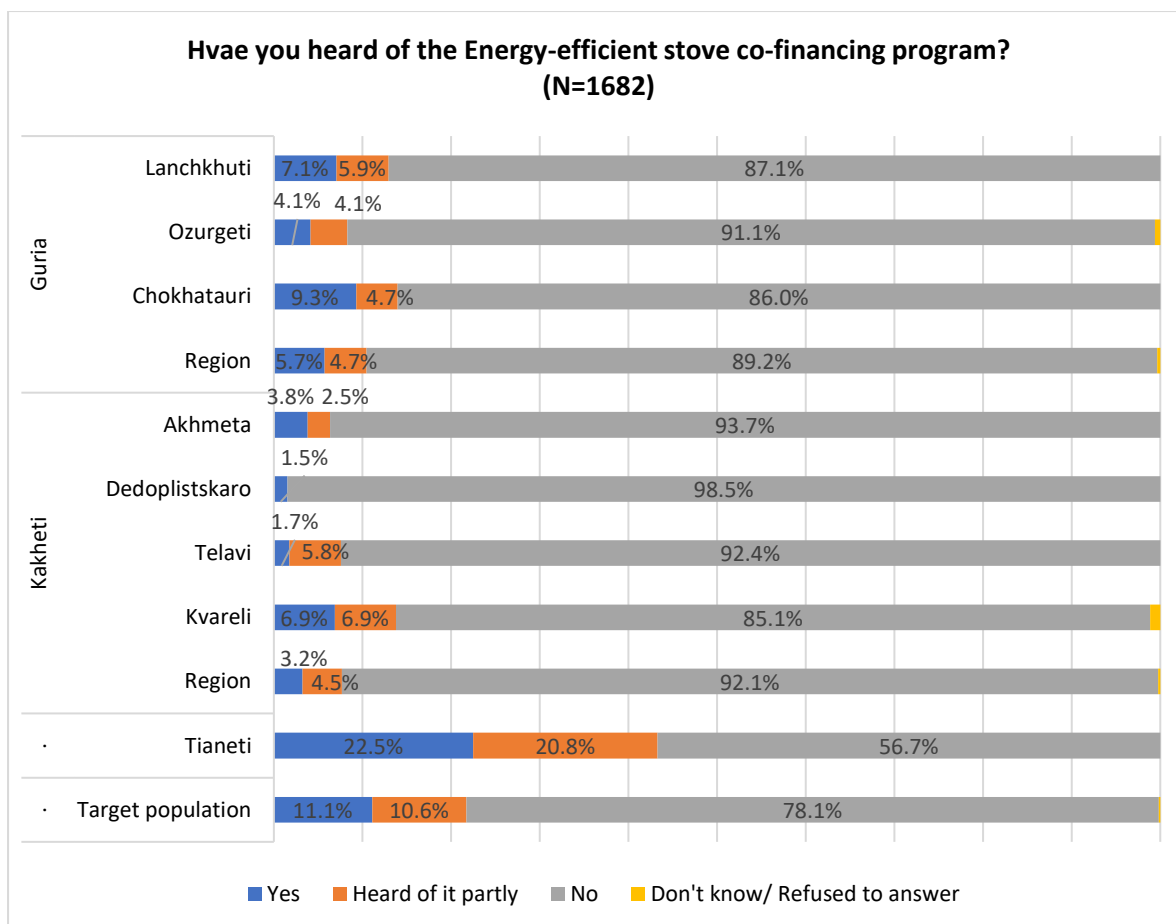
Diagram #2.2



Compared to other municipalities, Tianeti also stands out for its relatively high level of awareness regarding the energy-efficient stove co-financing program, reaching 43.3%.

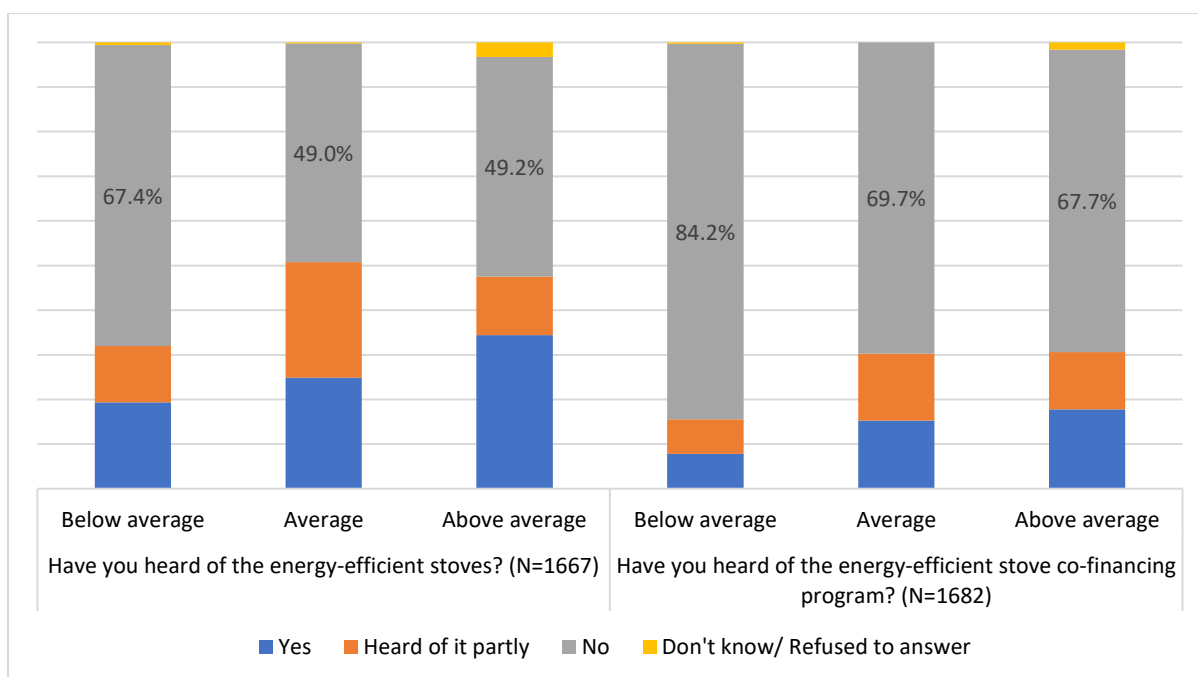
In the Kakheti and Guria regions, surveyed households report low awareness of the program. Specifically, in these 7 target municipalities, the proportion of households that have heard about the program does not exceed 15%, whilst in Dedoplistskaro this figure is 1.5% (1 household) (see Diagram #2.3)

Diagram #2.3



Analysis of the data by economic status reveals that households with below-average economic status are the least informed about both energy-efficient stoves (32%) and the energy-efficient stove co-financing program (15.5%). Households with average and above-average economic status show similar levels of awareness of both energy-efficient stoves (average – 50.7%; above-average – 47.5%) and the corresponding co-financing program (average – 30.3%; above-average – 30.6%). (The data are statistically significant: $X^2 = 62.085$; $P < 0.05$) (see Diagram #2.4).

Diagram #2.4



In the municipalities of Guria, the majority of surveyed households indicate that more than 5 years have passed since they purchased their stove (Lanchkhuti – 76.2%; Ozurgeti – 71.2%; Chokhatauri – 79.1%). The same is confirmed by more than half (53.8%) of respondents in Tianeti. On the other hand, nearly one-fifth (18%) report having purchased their stove within the past 1–3 years, whilst 16.8% did so within the last 3–5 years.

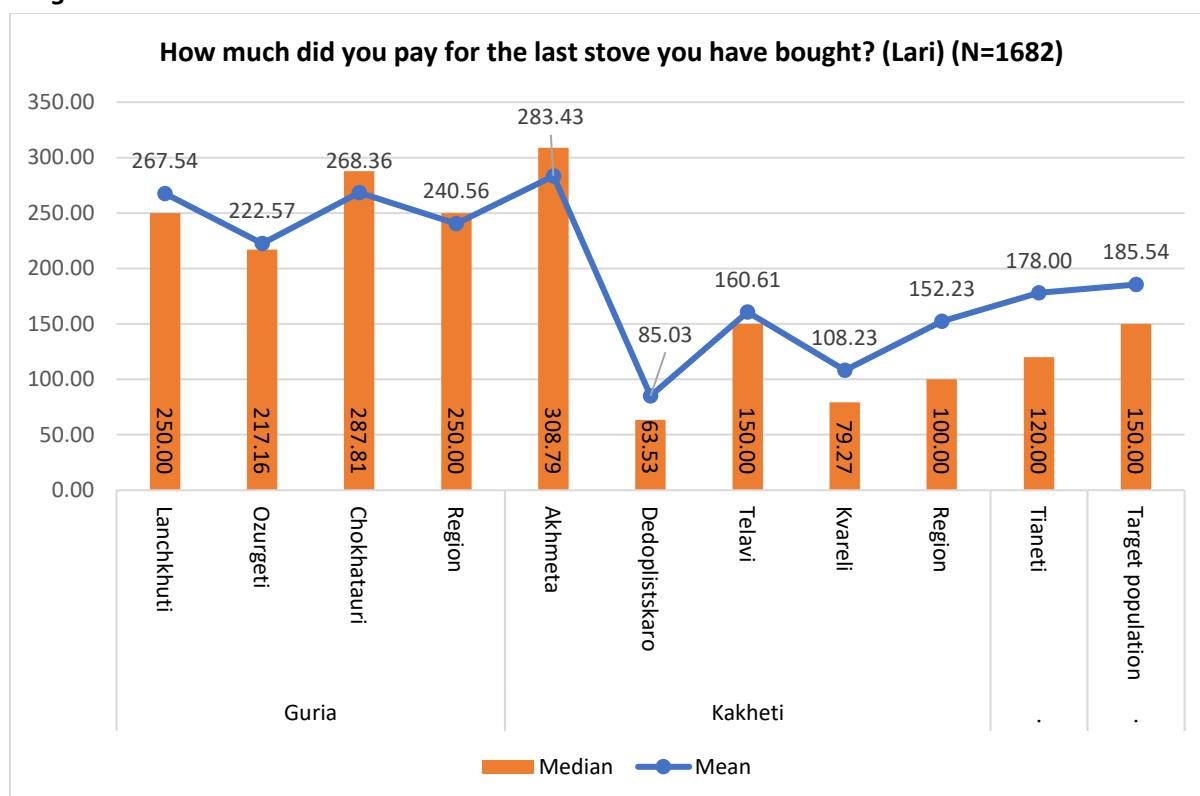
In Akhmeta (51.3%) and Telavi (59.9%), more than half of surveyed households report having purchased their stove over 5 years ago. However, one-quarter (24.4%) in Akhmeta and one-fifth (21.4%) in Telavi, indicate acquiring their stove within the past 3–5 years. In Dedoplistskaro, responses are mainly distributed between more than 5 years ago (39.1%) and 1–3 years ago (26.6%). In Kvareli, the most frequently reported periods are between 6 months to 1 year (36.4%) and 1–3 years (31.8%) (see Table #2.3).

Table #2.3

When was the last time you bought a stove? (N=1682) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
Less than 6 months	-	1.8	2.3	1.7	1.3	7.8	-	4.5	2.5	2.4	2.2
6 months to 1 year	2.4	1.8	2.3	1.7	1.3	10.9	5.2	36.4	12.1	8.4	8.1
1 to 3 years	10.7	9.4	4.7	8.8	7.7	26.6	1.7	31.8	13.6	18.0	14.0
3 to 5 years	9.5	12.9	11.6	11.8	24.4	15.6	21.4	14.8	19.6	16.8	16.5
More than 5 years	76.2	71.2	79.1	74.0	51.3	39.1	59.5	11.4	44.1	53.8	55.6
Don't know/ Refused to answer	1.2	2.9	-	2.0	14.1	-	12.1	1.1	8.2	0.5	3.7

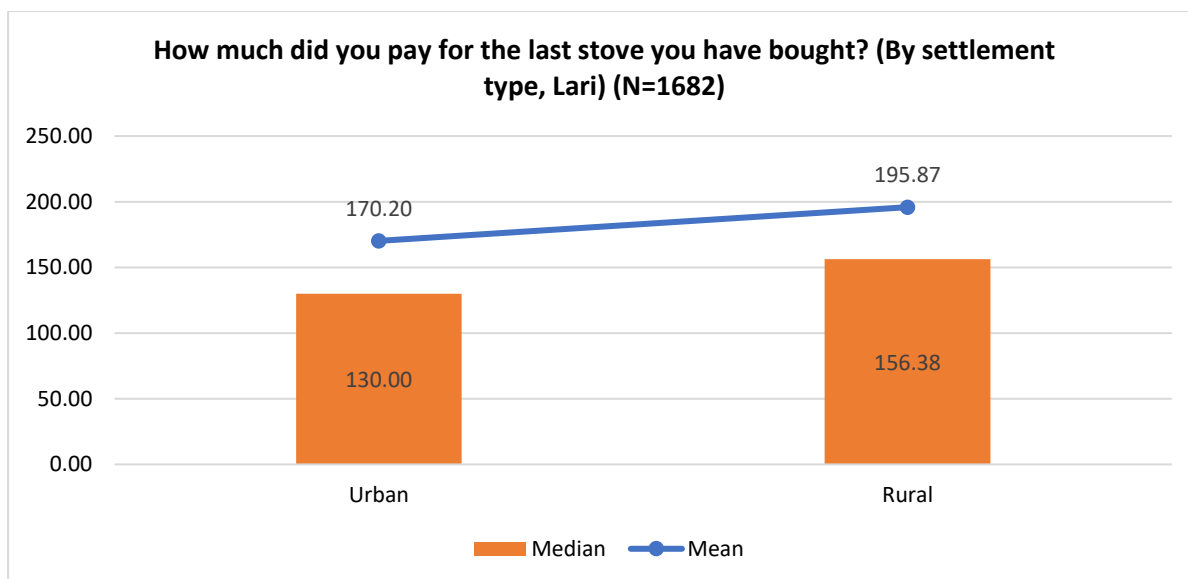
For the target population, the average amount paid for a stove is 185.54 GEL, whilst the median (most frequently reported) amount is 150 GEL. Notably, households in Akhmeta Municipality have the highest expenditure compared to other municipalities (average – 283 GEL, median – 308 GEL). Expenditures are also comparatively high in all three municipalities of Guria, ranging between 200 and 270 GEL. In contrast, the amounts paid for stoves are lower in Dedoplistskaro (average – 85 GEL, median – 63 GEL) and Kvareli (average – 108 GEL, median – 79 GEL) (see Diagram #2.5).

Diagram #2.5



Analysis of the data by settlement type reveals that households in rural-type settlements have spent relatively more on stoves than those in urban-type settlements. In urban areas, the average amount paid for a stove is 170 GEL, whilst in rural settlements, the average is 195.87 GEL. The median (most frequently reported) amount is 130 GEL for urban households and 156.38 GEL for rural households. (The data are statistically significant: $X^2 = 31.409$; $P < 0.05$) (see Diagram #2.6).

Diagram #2.6



The vast majority of respondents (94.1%) use only firewood as fuel for their stoves. In a small number of cases, participants report using gas (2.8%) or hazelnut shells (2.3%) (see Table #2.4).

Table #2.4

Apart from wood, what kind of fuel/material do you use for your stove? (N=1682)	N	%
Natural gas	31	2.8%
Nutshells	26	2.3%
Bricket or pallets	6	0.5%
Other	3	0.3%
None	1051	94.1%

The primary purpose of the stove in all households is heating (98%–100%). Additionally, in the municipalities of Guria, stoves are actively used for cooking (37.6%), heating liquids (37.5%), and drying household items (22.1%). In Tianeti, stoves also serve the functions of cooking (38.8%) and heating/boiling liquids (28.9%). Interestingly, in the target municipalities of Kakheti, the stove is less frequently used for purposes other than heating (less than 18%) (see Table #2.5)

Table #2.5

What purposes does your household use the stove for? (N=1682) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
For heating	99.5	100.0	100.0	99.9	98.3	99.4	100	98.4	99.2	99.7	99.6
For cooking	37.1	37.3	39.8	37.6	17.4	15.1	10.3	3.2	10.9	38.8	28.4
For heating water or other liquids	40.2	36.8	35.2	37.5	11.6	13.2	10.3	2.4	9.3	28.9	24.1
For drying household items	22.7	21.8	22.4	22.1	3.3	6.3	7.7	0.8	5.1	7.8	10.6
Other	0.5	-	-	0.1	0.8	-	-	0.8	0.3	0.2	0.2

In both urban and rural-type settlements, the primary function of the stove is heating. However, households living in rural-type settlements are more likely to use the stove for additional purposes, such as cooking (urban – 15.7%; rural – 35.9%), heating liquids (urban – 11.4%; rural – 31.6%), and drying household items (urban – 5.8%; rural – 13.5%). (The data are statistically significant: $X^2 = 129.717$; $P < 0.05$).

As economic status decreases, the proportion of households reporting stove use for purposes beyond heating increases. Accordingly, households with below-average economic status are more likely to indicate using their stove for cooking (33.2%), heating liquids (28.6%), and drying items (13.5%). (The data are statistically significant: $X^2 = 55.618$; $P < 0.05$) (see Table #2.6).

Table #2.6

What purposes does your household use the stove for? (By settlement type and economic status) (N=1682) (%)	Settlement type		Economic status		
	Urban	Rural	Below average	Average	Above average
For heating	100.0	99.3	99.3	100.0	99.3
For cooking	15.7	35.9	33.2	23.4	13.0
For heating water or other liquids	11.4	31.6	28.6	18.6	14.2
For drying household items	5.8	13.5	13.5	6.9	6.3
Other	0.2	0.3	0.2	0.2	0.7

In the Kakheti municipalities, households more frequently identify the high cost of fuel as a challenge associated with stove use compared to other municipalities (Akhmeta – 86%; Dedoplistskaro – 73.6%; Telavi – 97.4%; Kvareli – 75.85%). Additionally, one-quarter of households in Akhmeta (25.6%) say their stove does not heat the house adequately, whilst in Dedoplistskaro (17%) and Kvareli (16.9%), respondents emphasize the discomfort of cooking on the stove.

In Guria, less than half of respondents identify the high cost of fuel as a challenge (Lanchkhuti – 46.9%; Ozurgeti – 47.2%; Chokhatauri – 48%). Notably, one-fifth in Lanchkhuti (21.1%) and 17.3% in Chokhatauri mention the discomfort of cooking on the stove. In Guria, a relatively large proportion of respondents report no challenges (18.4%) or refrain from answering (16.5%).

For the majority of surveyed households in Tianeti (64.2%), the high cost of firewood remains a problem, whilst one-fifth (21.6%) refrain from answering (see Table #2.7).

Table #2.7

What challenges does your household/family face when using a stove for household activities? (N=1682) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
Expensive fuel/lack of financial resources to buy fuel	46.9	47.2	48.0	47.2	86.0	73.6	97.4	75.8	86.6	64.2	67.8
Cooking food with the stove takes a long time	21.1	12.4	17.3	15.6	7.4	17.0	6.8	16.9	10.8	5.7	10.2
The stove heats the house improperly	0.0	2.1	1.0	1.3	25.6	4.4	4.3	4.8	8.6	5.5	5.5
The stove is technically faulty	5.7	5.7	6.6	5.8	3.3	5.7	0.0	1.6	1.9	1.4	2.8
The stove emits gases/substances harmful to health	0.5	0.5	2.6	0.8	-	1.9	1.7	-	1.0	5.0	2.5
Using the stove is dangerous	0.5	-	1.0	0.3	6.6	1.3	-	-	1.5	2.6	1.6
It is difficult to maintain cleanliness	2.6	0.5	2.0	1.3	-	2.5	-	-	0.4	4.5	2.2
Nothing	17.5	18.1	20.9	18.4	-	0.6	-	-	0.1	5.0	6.8
Don't know/refused to answer	14.4	18.1	14.3	16.5	-	-	1.7	4.0	1.6	21.6	13.0

The vast majority of households use the stove daily during the winter/heating season (88.7%), whilst in other seasons, the stove is not in use (80.8%) (see Table #2.8).

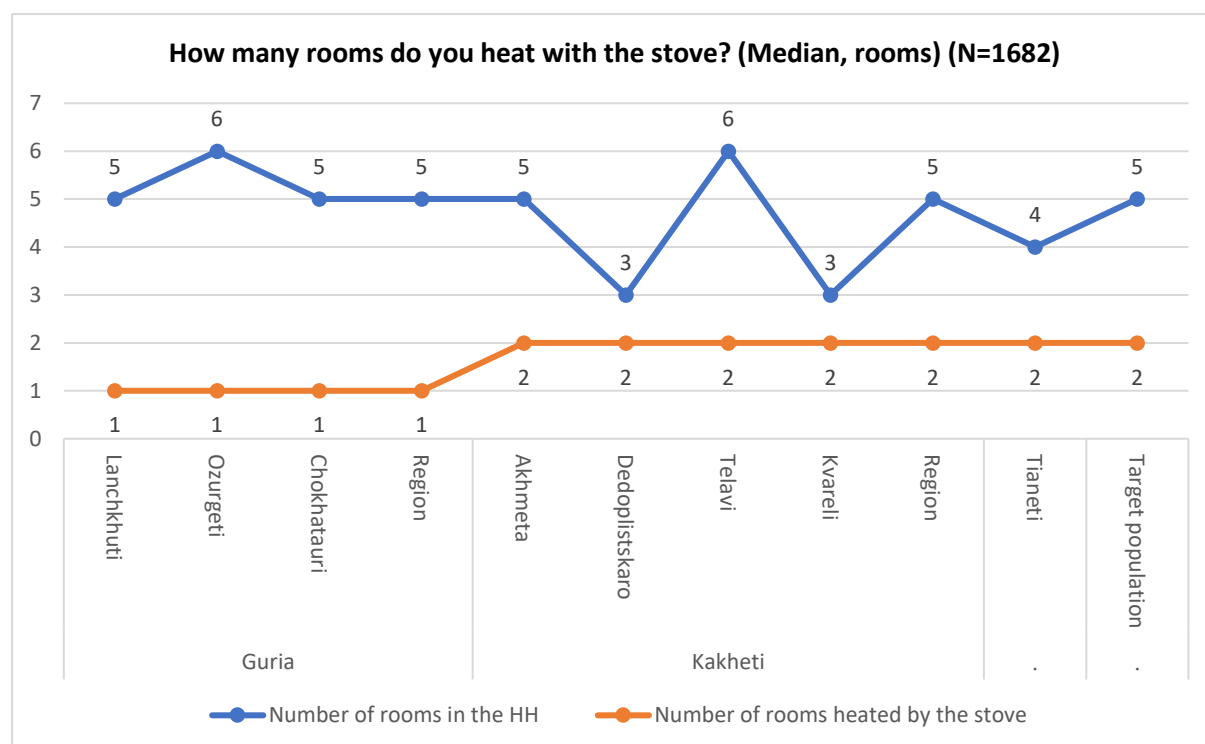
Table #2.8

How often do you usually use your stove during the week during the heating/winter season? (N=1682) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
Rarely (once a week or less)	3.6	0.6	-	1.0	1.3	-	0.6	3.4	1.2	0.7	1.1
Sometimes (2-3 times a week)	1.2	3.0	2.3	2.7	1.3	10.6	0.6	2.3	3.0	2.9	2.7
Frequently (4-6 times a week)	3.6	8.9	4.7	6.8	5.1	9.1	0.6	4.5	3.7	2.2	3.9
Regularly (every day)	88.1	82.8	90.7	85.5	86.1	80.3	95.9	79.5	87.4	91.8	88.7
Regularly, but at night	3.6	4.1	2.3	3.7	6.3	-	2.3	9.1	4.4	2.4	3.4
Don't know/Refused to answer	-	0.6	-	0.3	-	-	-	1.1	0.2	-	0.2

How often do you usually use your stove during the week during other seasons? (N=1682) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
Rarely (once a week or less)	6.0	13.0	4.8	9.8	10.3	6.1	1.7	6.7	5.2	10.8	8.5
Sometimes (2-3 times a week)	7.2	3.0	2.4	4.4	2.6	3.0	0.6	2.2	1.7	9.1	5.1
Frequently (4-6 times a week)	2.4	0.6	-	1.0	1.3	-	1.7	1.1	1.2	2.2	1.5
Regularly (every day)	8.4	1.8	2.4	4.1	6.4	1.5	0.6	4.5	2.5	2.6	3.0
Regularly, but at night	-	0.6	-	0.7	-	-	-	1.1	0.2	1.7	0.8
I don't use it outside of winter	75.9	79.9	90.5	79.4	79.5	89.4	95.3	83.1	88.9	73.6	80.8
Don't know/Refused to answer	-	1.2	-	0.6	-	-	-	1.1	0.2	-	0.2

In the target population, households relatively often report having 5 rooms in their homes; however, only 2 of these rooms are typically heated using a stove. It is notable that in the municipalities of Guria, respondents indicate heating only 1 room (see Diagram #2.7).

Diagram #2.7



Respondents were asked in what form they usually calculate the fuelwood they purchase. If the answer was not in cubic meters, they were asked to specify the vehicle or tools by which they usually purchase the fuelwood. Additionally, they were asked how many cubic meters of wood this vehicle or tool typically holds. For each vehicle or tool, ISSA used the mean storage capacity as identified by the respondents. This storage amount was then used to calculate total consumption. (See Table #2.9)

Wood storage for each of the vehicles/tools are calculated according to the respondent approximation, which is based on common knowledge, or information given to them by the seller. This approximation does not consider space between the wood and a possibility that the seller is exaggerating the amount. Considering those reasons, slight error may occur when calculating storage.

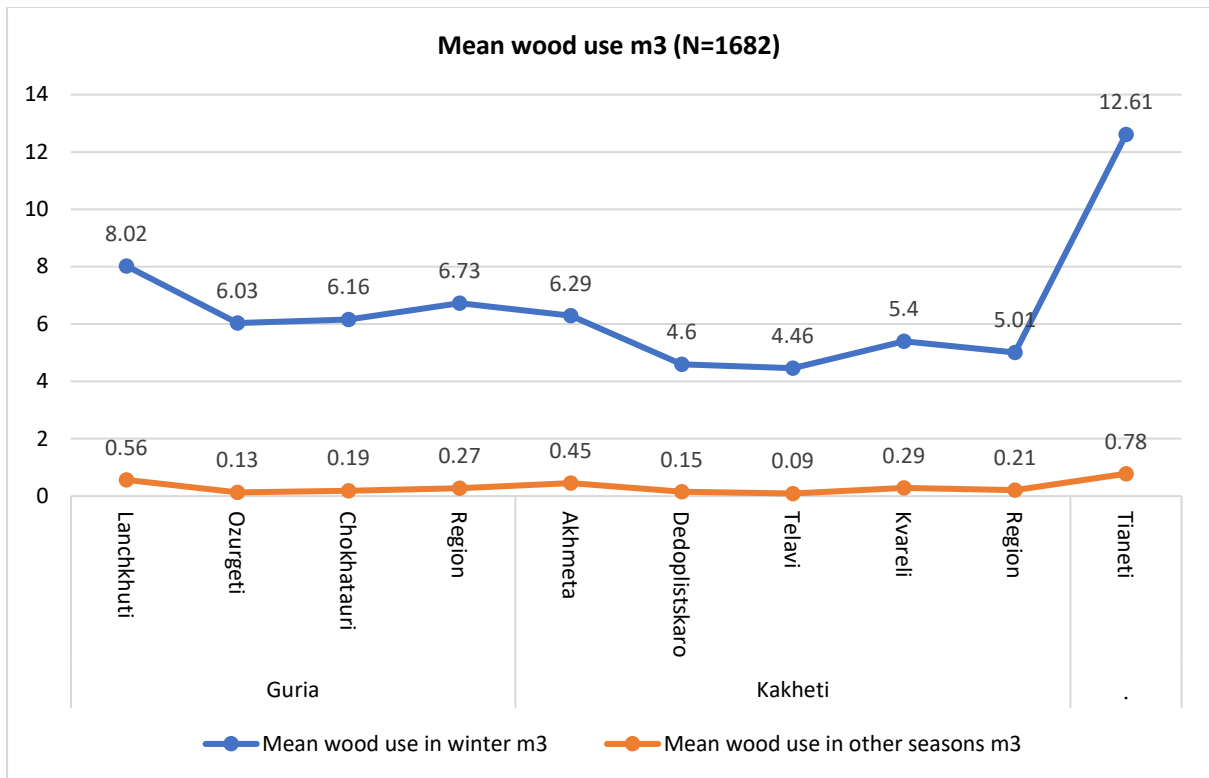
As for the households who collect fuelwood from their own land typically store it in designated, visible piles, which makes it possible to estimate the amount based on dimensions. This practice allows for a general visual approximation of quantity, even if it is not formally measured.

Table #2.9

Vehicles/tools for fuelwood purchase	Mean storage m3
"Ural"	8.61
"Shesti"	3.78
"Kolkhoznik"	2.02
A sazhen	8.09
"Piri"	2.00
Gaz 53 / ZIL	9.00
Gazelle	6.00
Minibus (Marshutka)	5.00
Light vehicle	2.00
Carriage / tachanka	1.93
Cart	1.00

Based on average firewood consumption during winter, surveyed households in Tianeti use a relatively large amount of firewood (12.51 cubic meters) compared to other municipalities. Similarly, within their respective regions, households in Lanchkhuti (8.02 cubic meters) in Guria and Akhmeta (6.29 cubic meters) in Kakheti also demonstrate higher consumption levels compared to other municipalities in those regions (see Diagram #2.8). In case of Lanchkhuti, higher fuelwood use may be connected to the 15.5% of surveyed Households living in non-gasified village(s), while for Ozurgeti it was 1.2% and for Chokhatauri it was none.

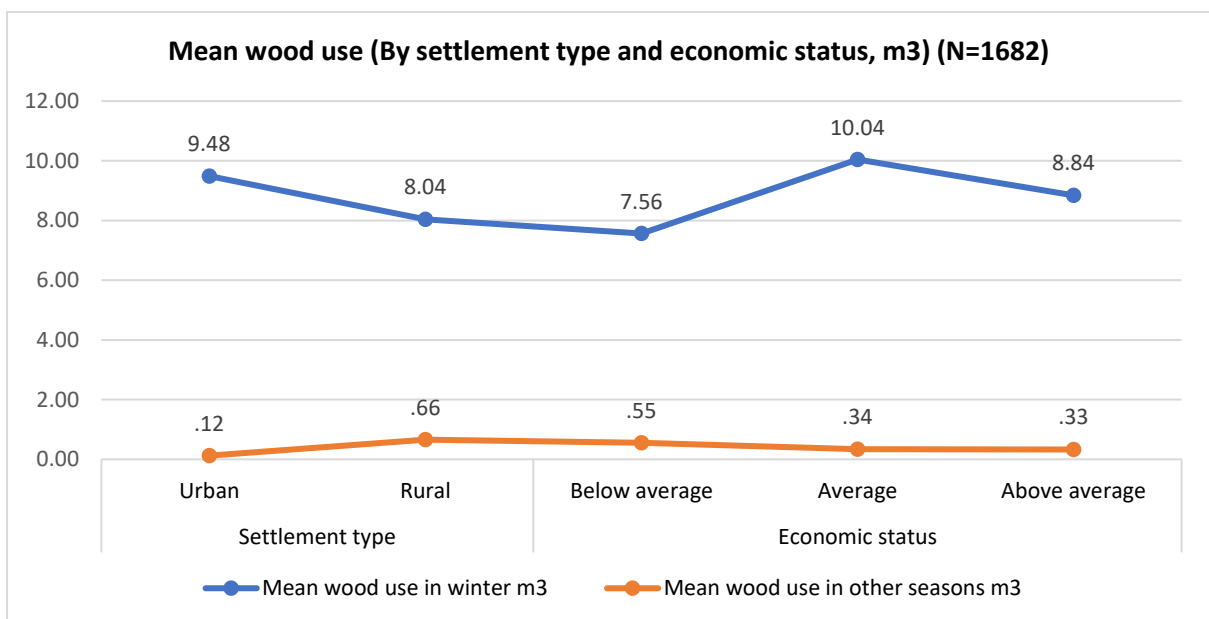
Diagram #2.8



By settlement type, it appears that households living in urban-type settlements consume more firewood on average during winter (9.48 cubic meters) than those in rural-type settlements (8.04 cubic meters). (Data are statistically significant: $X^2 = 469.476$; $P < 0.05$).

By economic status, households with average economic status consume the most firewood during winter on average (10.04 cubic meters), followed by households with above-average economic status (8.84 cubic meters), and finally, households with below-average economic status (7.57 cubic meters). (Data are statistically significant: $X^2 = 448.388$; $P < 0.05$) (see Diagram #2.9).

Diagram #2.9



Interestingly, svanetian/EE stove users use more fuelwood, compared to traditional stove users. Following factors may be contributing to this result:

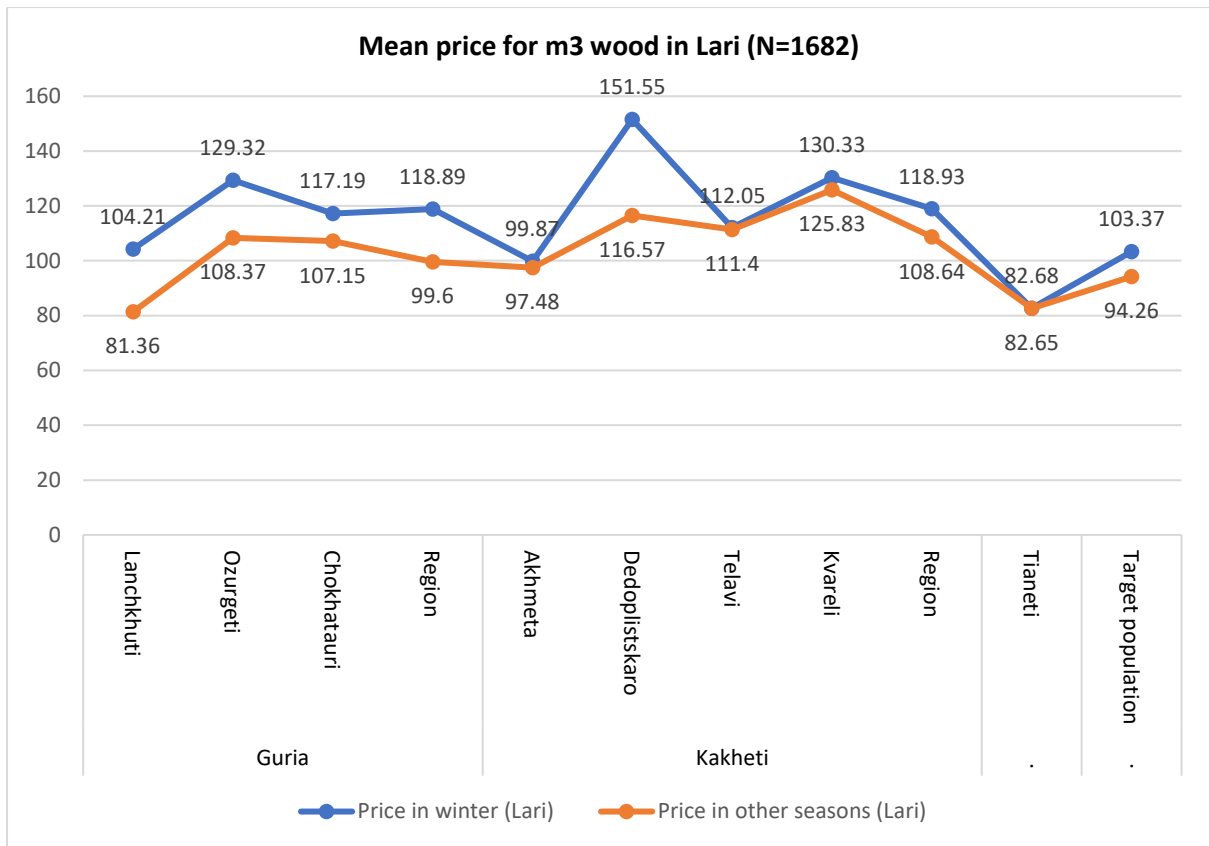
- Owners of the Svanetian/EE stoves are more likely to have larger households with more rooms and report heating a greater area compared to users of traditional stoves. This may indicate that they consume more firewood in order to maintain comfortable temperatures across a larger space.
- Among respondents who use alternative heating, traditional stove users were more likely to rely on gas heating, while only 14.7% of Svanetian/EE stove users reported using cooking gas for heating — which is not considered an effective means of space heating. This may suggest that they need to compensate by using more fuelwood to maintain adequate warmth. (See Table #2.10)

Table #2.10

		Traditional stove	Svanetian/EE stove
Fuelwood use by type of stove (m3)	Winter	8.04	9.4
	Other seasons	0.39	0.56
Rooms in the house	1 room	3.2%	0.9%
	2 rooms	10.7%	5.9%
	3 rooms	18.1%	10.3%
	4 rooms or more	68.0%	82.9%
How many rooms are heated by the stove	1 room	51.0%	32.1%
	2 rooms	32.6%	38.2%
	3 rooms	12.8%	19.2%
	4 rooms or more	3.6%	10.5%
What gas-powered means do you use for heating	Cooking gas stove	5.6%	14.7%
	Gas heating	93.9%	83.8%

In the target municipalities, the average price of 1 cubic meter of firewood during the winter season is 103.37 GEL. The lowest price per cubic meter in winter is observed in Tianeti (82.68 GEL), followed by Akhmeta (99.87 GEL). In contrast, firewood is most expensive in Dedoplistskaro (151.55 GEL) (see Diagram #2.10).

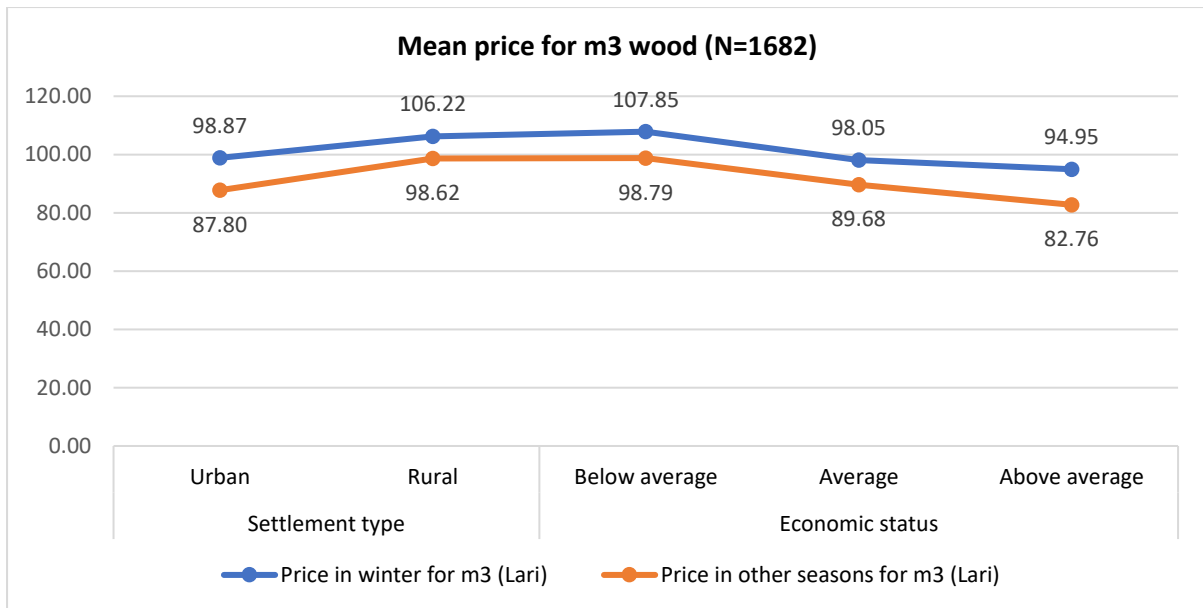
Diagram #2.10



Analysis of the data by settlement type shows that households residing in urban-type settlements report a lower average winter expenditure per cubic meter of firewood (98.87 GEL) than those in rural-type settlements (106.22 GEL). (Data are statistically significant: $X^2 = 114.458$; $P < 0.05$).

It is also noteworthy that, as economic status improves, the amount spent by surveyed households per cubic meter of firewood during winter decreases (below-average – 107.85 GEL; average – 98.05 GEL; above-average – 94.95 GEL). (Data are statistically significant: $X^2 = 127.137$; $P < 0.05$) (see Diagram #2.11).

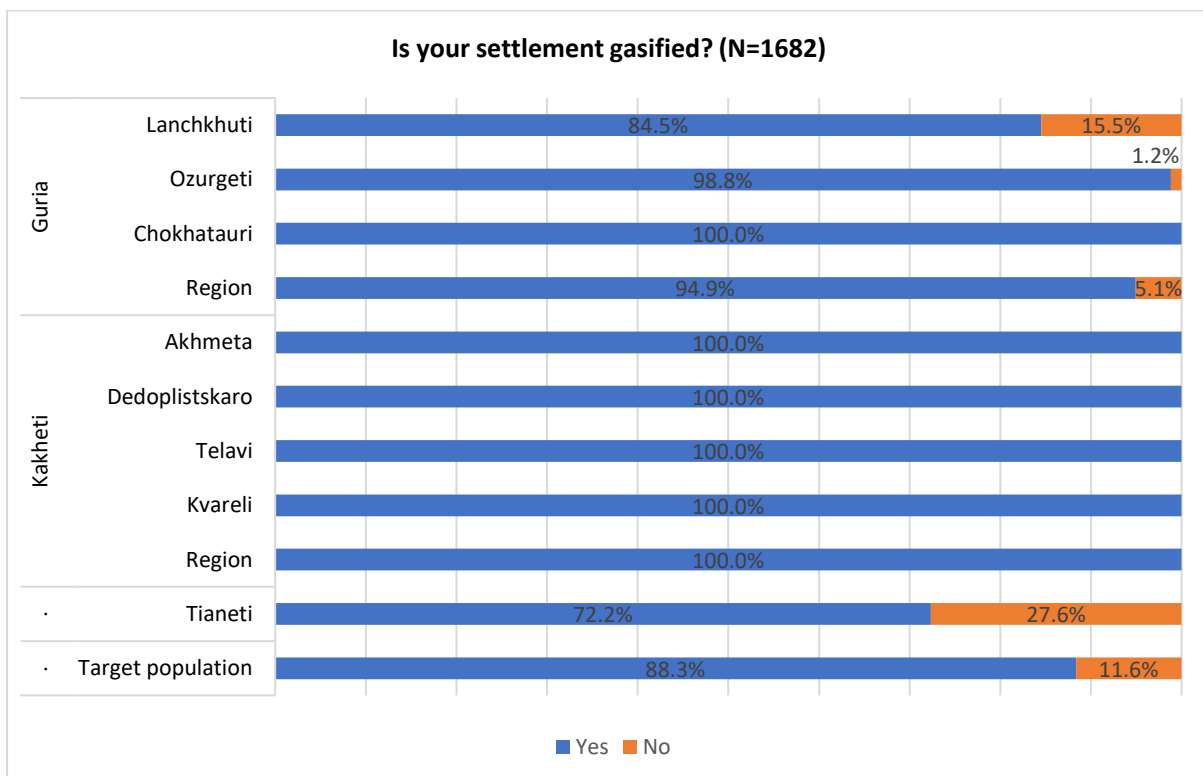
Diagram #2.11



3. Alternative Means of Heating Used by Households

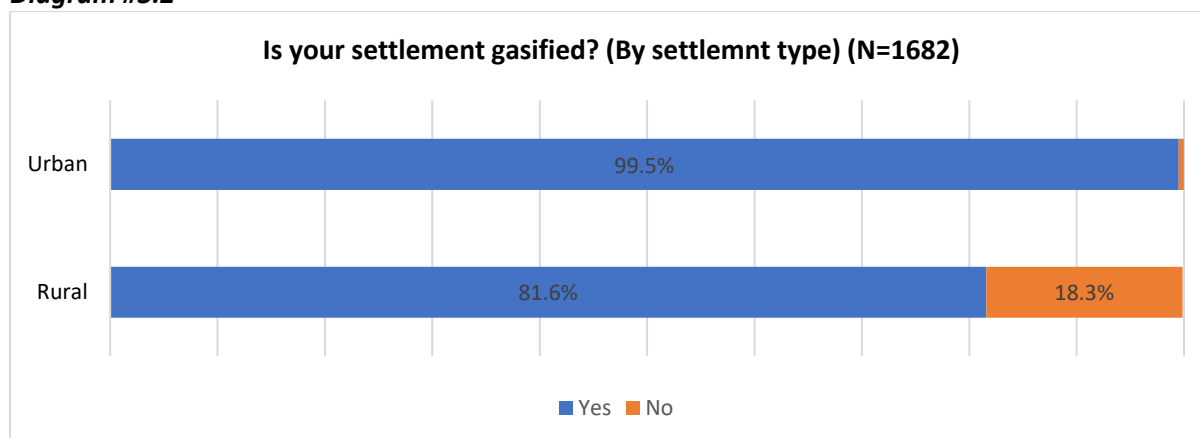
In the municipalities of Kakheti, all surveyed households confirm that natural gas is available in their settlements. In the case of Tianeti, one-quarter (27.6%) report that their settlement is not connected to natural gas. In Guria, Lanchkhuti stands out, with 15% of participants indicating that natural gas is not supplied to their settlement (see Diagram #3.1).

Diagram #3.1



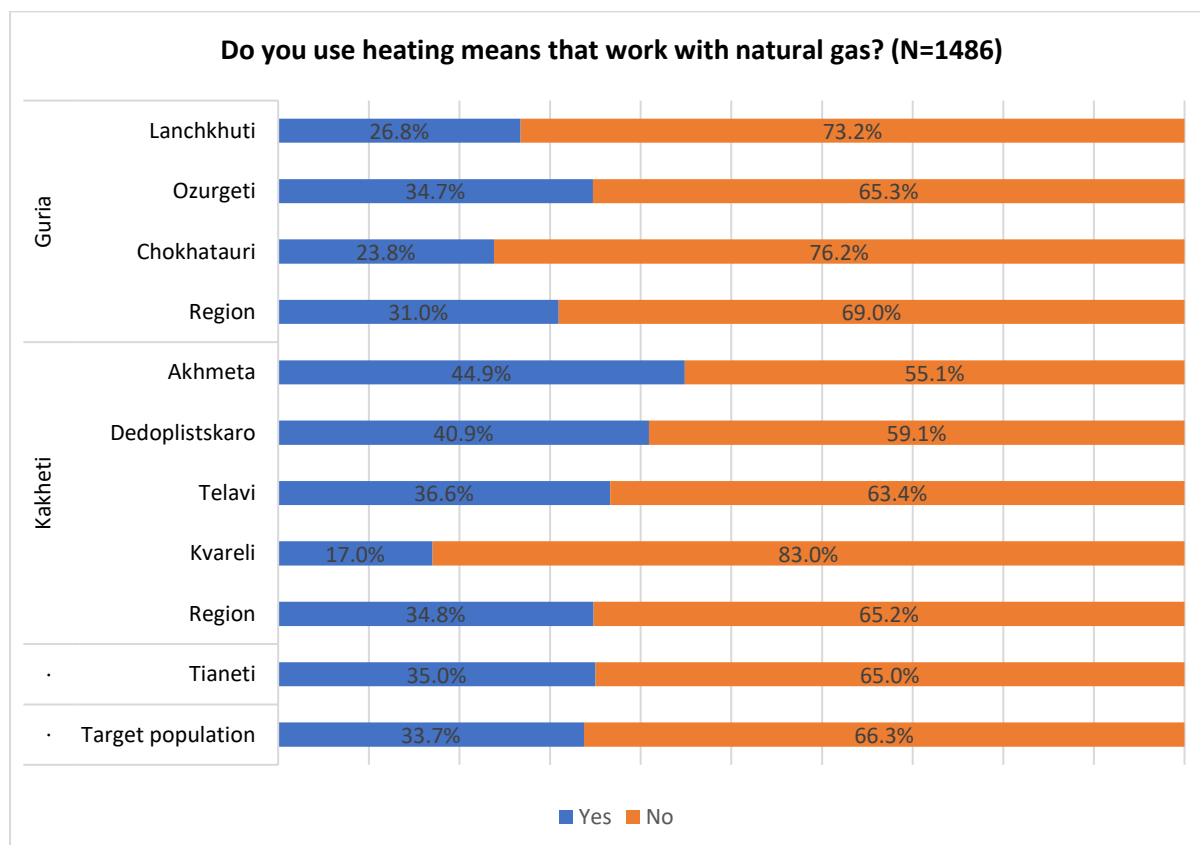
While natural gas is available in almost all urban-type settlements, nearly one-fifth (18.3%) of households living in rural-type settlements report that natural gas is not supplied to their settlement (see Diagram #3.2).

Diagram #3.2



Among the surveyed population 28.9% (N=486) use mixture of fuelwood and gas. As for specifically among households in settlements connected to natural gas, one-third (33.7%) use gas/natural gas-based devices for heating. Compared to other municipalities, the proportion of gas heater use is relatively high in Kakheti municipalities, except for Kvareli (Akhmeta – 44.9%; Dedoplistskaro – 40.9%; Telavi – 36.6%; Kvareli – 17%). In Guria, gas heaters are used more frequently in Ozurgeti (34.7%) than in Lanchkhuti (26.8%) and Chokhatauri (23.8%). In Tianeti, one-third (33.7%) of surveyed households use natural gas-based heating devices (see Diagram #3.3).

Diagram #3.3



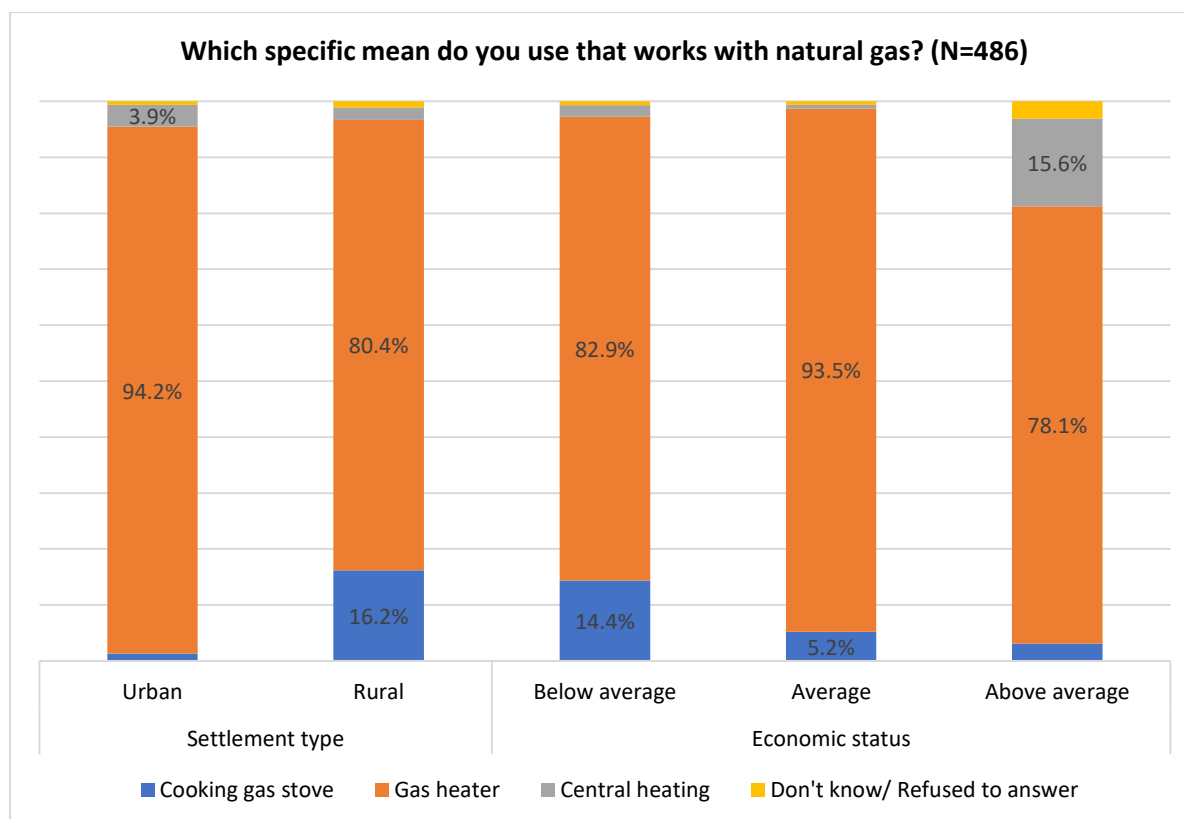
Among participants using natural gas-based devices, the majority report using gas heaters. A small number of households mention using gas stoves, which are more frequently reported in Akhmeta than in other municipalities (14.3%) (see Table #3.1)

Table #3.1

Which specific mean do you use that works with natural gas? (N=486) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
Cooking gas stove	-	-	-	-	14.3	7.1	-	6.7	3.9	3.9	9.1
Gas heater	100	94.8	100	96.6	82.9	92.9	98.4	80	91.3	91.3	87.3
Central heating	-	3.4	-	2.3	2.9	-	1.6	6.7	3.9	3.9	2.7

Analysis of the data by settlement type and economic status reveals that households using gas stoves for heating, rather than gas heaters, predominantly live in rural-type settlements (16.2%) and tend to have below-average economic status (14.4%). (Data is statistically significant: $X^2 = 22.503$; $P < 0.05$) (see Diagram #3.4)

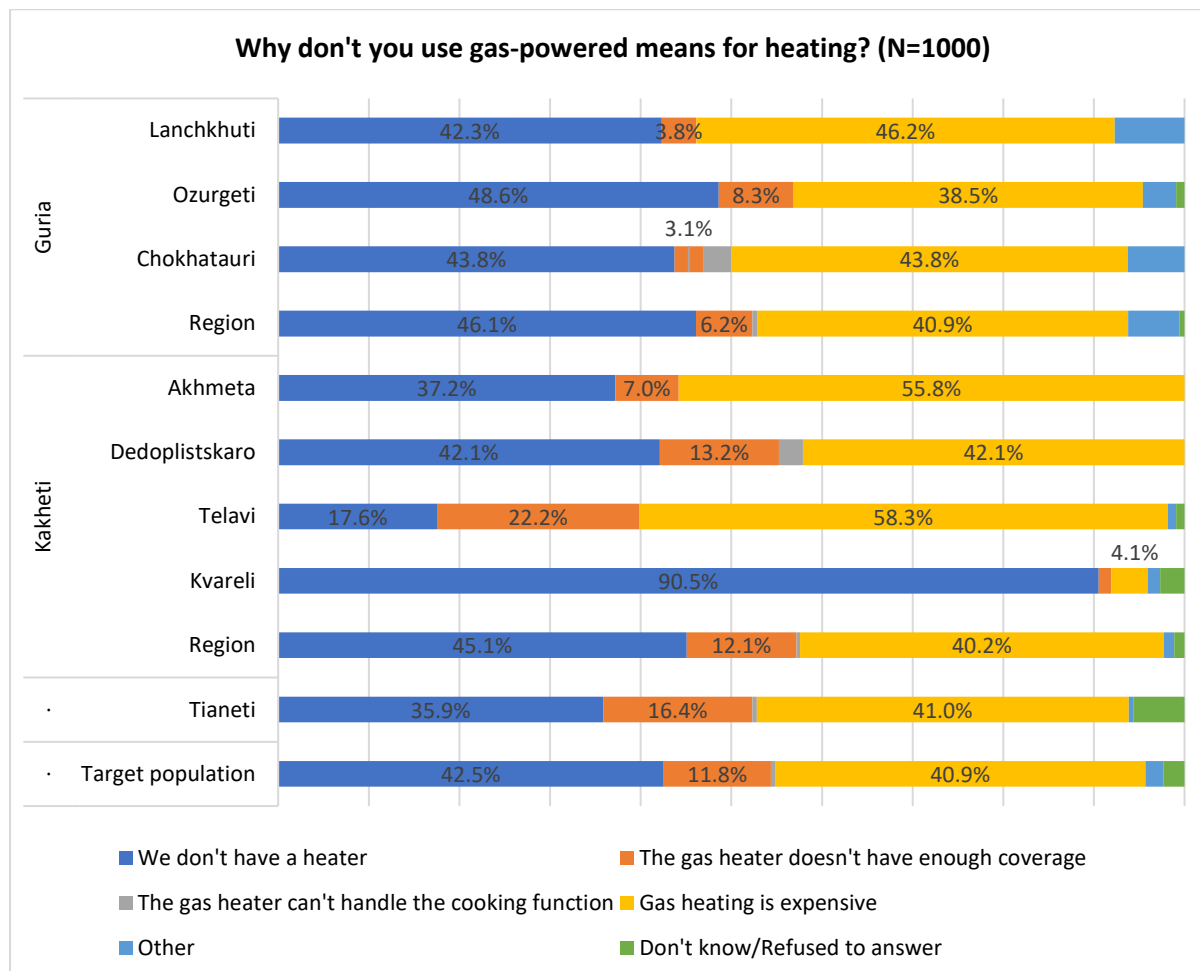
Diagram #3.4



Participants living in settlements with access to natural gas but not using gas-based heating devices identify reasons for this behaviour. Responses are mainly divided between the absence of a heating device (42.5%) and the high costs associated with a gas heater (40.9%). Notably, in Kvareli, the vast

majority of households (90.5%) cite the absence of a suitable device as the reason, whilst in Telavi Municipality, more than one-fifth (22.2%) report that a gas heater does not provide sufficient coverage (see Diagram #3.5).

Diagram #3.5



Analysis of the data by settlement type reveals that for rural residents (49.9%), the most common reason for not using gas-based heating devices is the absence of such a device, compared to a smaller proportion of urban residents (31.7%) who report the same. Conversely, urban residents more frequently cite high costs associated with gas heating (50%) and insufficient coverage by a gas heater (15.3%). (Data is statistically significant: $X^2 = 32.346$; $P < 0.05$).

Households with below-average economic status are more likely to indicate the absence of a heater as the reason (51.6%), whereas those with average (45.6%) and above-average (48.1%) economic status cite the cost of a gas heater as the main issue. (Data is statistically significant: $X^2 = 58.236$; $P < 0.05$) (see Table #3.2)

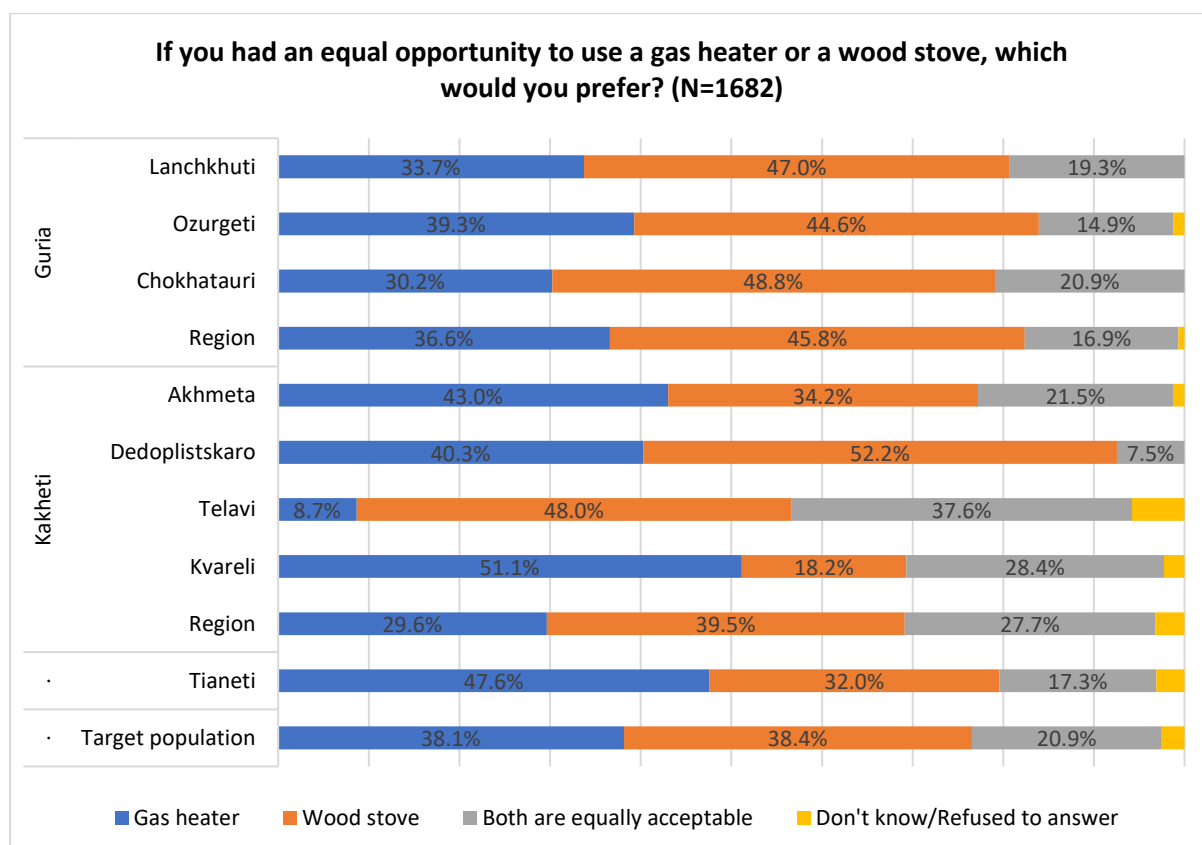
Table #3.2

Why don't you use gas-powered means for heating? (By settlement type and economic status) (N=1000) (%)	Settlement type		Economic status		
	Urban	Rural	Below average	Average	Above average
We don't have a heater	31.7	49.9	51.6	27.0	29.6
The gas heater doesn't have enough coverage	15.3	9.5	6.4	20.9	18.5
The gas heater can't handle the cooking function	0.8	0.3	0.5	-	-
Gas heating is expensive	50.0	34.5	38.0	45.6	48.1
Other	1.5	2.6	2.0	2.3	3.7
Don't know/Refused to answer	0.8	3.3	1.5	4.2	-

If households had equal access to both a gas heater and a wood stove, one part of the target population would prefer a gas heater (38.1%), whilst another part would choose a wood stove (38.4%). The proportion of households who find both options equally acceptable is one-fifth (20.9%).

In all three municipalities of Guria, a stronger preference for wood stoves (45.8%) over gas heaters (30.2%) is observed, as is the case in Dedoplistskaro (52.2%) and Telavi (48%). In contrast, a preference for gas heaters is reported in Akhmeta (43%), Kvareli (51.1%), and Tianeti (47.6%) (see Diagram #3.6)

Diagram #3.6



In the municipalities of Kakheti and Tianeti, the vast majority (85%–95%) do not use any other heating methods besides stoves and gas heaters. In contrast, 28.6% of surveyed households in Chokhatauri, 14.4% in Lanchkhuti, and 11.4% in Ozurgeti additionally use fireplaces for heating.

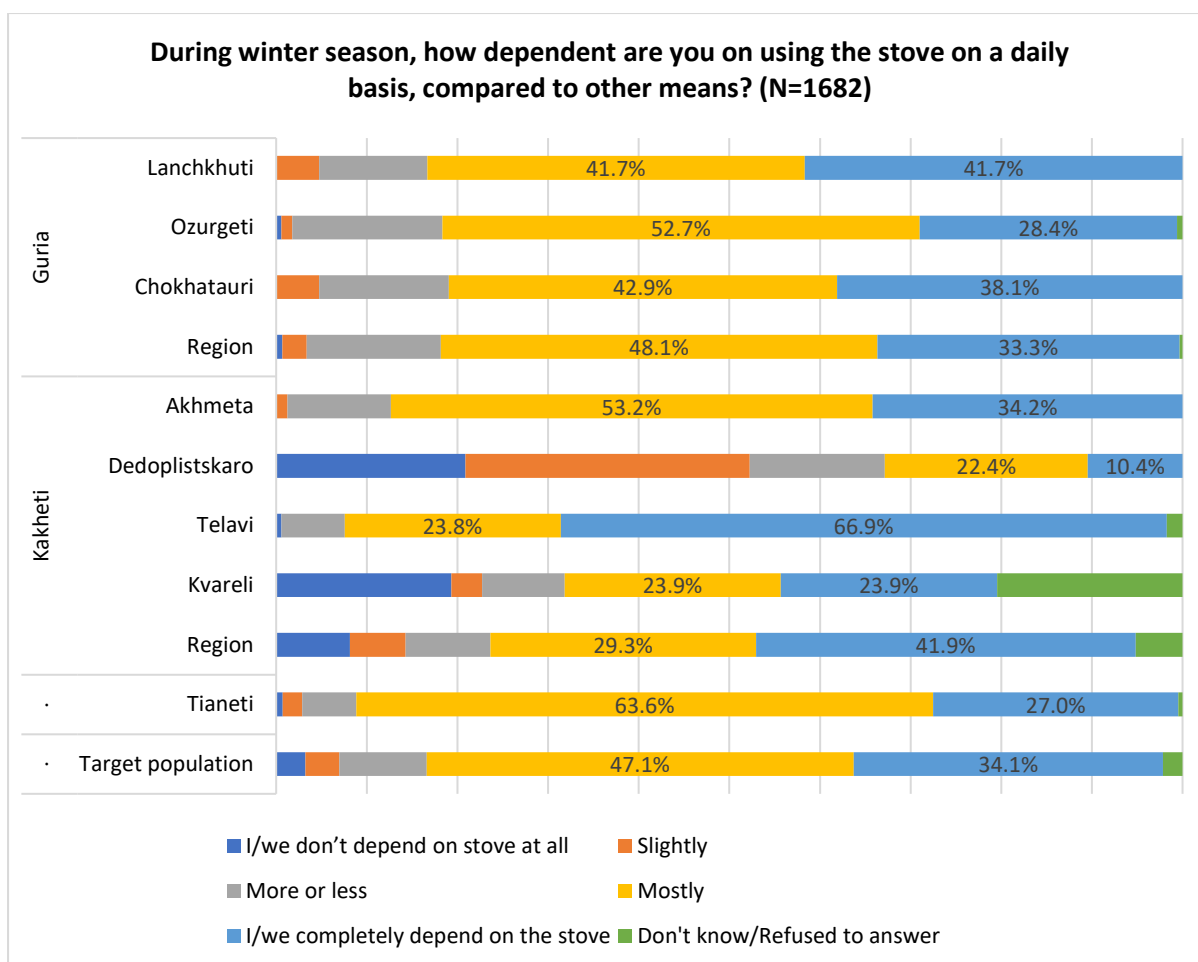
Regarding cooking or heating water, over 90% of respondents in all municipalities report not using any additional methods. The exception is Akhmeta, where one-fifth (18.2%) of households additionally use an open fire for cooking (see Table #3.3)

Table #3.3

Besides the stove and gas heater, what other means do you use to heat your home? (N=1682) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
Fireplace	14.4	11.4	28.6	14.8	4.1	0.6	0.9	1.6	1.6	2.1	5.3
Open fire	1.5	-	0.5	0.5	5.0	-	-	1.6	1.3	-	0.6
Electric heater	3.6	2.6	5.6	3.3	3.3	1.9	0.9	2.4	1.8	3.6	2.9
Air conditioner	1.5	2.1	0.5	1.7	-	-	-	-	-	-	0.4
None	80.4	83.4	65.3	79.9	87.6	96.9	98.3	93.5	95.0	91.7	89.8
Other	-	-	-	-	-	0.6	-	0.8	0.3	-	0.1
Don't know / Refused to answer	-	0.5	-	0.3	-	-	-	-	-	2.6	1.0
Besides the oven and stove, what other means do you use to prepare food and heat water/liquids? (N=1682) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
Electric stove	1.5	1.6	3.1	1.8	0.8	5.0	0.9	1.6	1.7	1.4	1.6
Fireplace	1.5	1.6	3.1	1.8	-	-	-	-	-	1.0	0.9
Open fire	5.7	1.0	1.5	2.4	18.2	-	1.7	3.2	5.0	0.2	2.5
None	90.2	92.7	93.4	92.1	81.0	94.3	97.4	94.4	93.1	94.8	93.5
Other	1.5	2.6	-	1.9	-	0.6	-	-	0.1	0.7	0.8
Don't know/Refused to answer	-	0.5	-	0.3	-	-	-	0.8	0.2	2.1	0.9

In the target municipalities, the vast majority of surveyed households report being primarily or fully dependent on stove use in their daily lives (Lanchkhuti – 83.3%; Ozurgeti – 81.1%; Chokhatauri – 81.5%; Akhmeta – 87.3%; Telavi – 90.7%; Tianeti – 90.7%). Interestingly, in Dedoplistskaro Municipality, only one-third of households confirm dependence on stoves (32.8%), whilst in Kvareli, less than half (47.7%) report the same (see Diagram #3.7)

Diagram #3.7



When analysing the data by settlement type, no significant difference is observed between households in urban (80.8%) and rural (81.6%) settlements in terms of daily dependence on stove use during the winter season. (Data is statistically significant: $X^2 = 77.170$; $P < 0.05$).

Compared to households with average (81.6%) and below-average (82%) economic status, a slightly lower proportion of households with above-average economic status (71.4%) report daily dependence on stove use. (Data is statistically significant: $X^2 = 37.949$; $P < 0.05$) (see Table #3.4).

Table #3.4

During winter season, how dependent are you on using the stove on a daily basis, compared to other means? (N=1682) (%)	Settlement type		Economic status		
	Urban	Rural	Urban	Rural	Urban
I/we don't depend on stove at all	2.9	3.6	3.3	3.2	6.3
Slightly	5.0	3.0	4.1	2.9	3.2
More or less	9.9	9.4	8.6	10.0	15.9
Mostly	61.5	38.6	41.8	55.1	47.6
I/we completely depend on the stove	19.2	43.0	40.2	26.5	23.8
Don't know/Refused to answer	1.4	2.4	2.0	2.4	3.2

4. Wood Sources

In all three municipalities of Guria, the majority of households say they collect firewood from private land (Lanchkhuti – 69.6%; Ozurgeti – 71%; Chokhatauri – 77%). At the same time, one-third of households in Lanchkhuti (36.1%) and Chokhatauri (31.1%) purchase firewood from local sellers. In Ozurgeti, this figure is one-quarter of respondents (24.4%).

In contrast, in the municipalities of Kakheti, except for Akhmeta, households primarily purchase firewood from local sellers (Akhmeta – 75%; Dedoplistskaro – 84.3%; Telavi – 82.1%). In Akhmeta Municipality, responses are split between purchasing (46.8%) and collecting from private land (41.1%).

In Tianeti Municipality, purchasing firewood from local sellers is also the predominant practice (70.9%). On the other hand, one-quarter (23.5%) of respondents in Tianeti report collecting firewood from a nearby forest (see Table #4.1)

Table #4.1

Sources of wood (N=1682) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
I collect wood in my private area (garden, vineyard, etc.)	69.6	71.0	77.0	71.5	28.1	29.6	33.3	41.1	33.4	10.9	35.1
I collect wood in the nearby forest	-	2.6	1.0	1.6	30.6	8.8	18.8	8.9	17.3	23.5	15.5
I collect wood in a municipal green space	0.5	0.5	1.5	0.7	8.3	-	1.7	0.8	2.50	8.1	4.1
I receive/purchase wood from the forest area allocated by the Forestry Agency	1.0	2.6	2.6	2.1	4.1	-	-	-	0.8	13.5	5.9
A family member/relative provides wood to me for free	12.4	5.7	9.7	8.2	13.2	6.3	20.5	2.4	12.9	1.2	7.3
I buy wood from a local seller	36.1	24.4	31.1	28.7	75.2	84.3	82.1	46.8	73.4	70.9	60.7
Social services/city hall provide wood to me for free	1.5	1.0	2.6	1.4	0.8	-	-	-	0.2	0.2	0.5
I use the leftovers	-	-	-	-	2.5	-	0.9	-	0.8	-	0.3
Other	0.5	-	0.5	0.2	-	-	1.7	-	0.7	-	0.3
Refused to answer	-	1.0	0.5	0.7	1.7	-	-	-	0.3	-	0.3
Don't know	-	2.6	-	1.5	-	-	-	3.2	0.7	-	0.6

The majority of households living in urban-type settlements purchase firewood from local sellers (75.1%). In rural-type settlements, firewood sourcing is split between purchasing from local sellers (52.1%) and collecting from private land (41.7%). A larger share of households in rural areas report collecting firewood from a nearby forest (urban – 6.5%; rural – 20.8%). (Data is statistically significant: $\chi^2 = 181,030$; $P < 0.05$).

By economic status, households with below-average economic status are more likely to collect firewood from their own land (36.1%) or from a nearby forest (16.4%) compared to other groups. Households with above-average economic status (50.1%) are less likely to purchase firewood from

local sellers compared to other economic groups (average – 60.7%; below-average – 60.1%). (Data is statistically significant: $X^2 = 35.837$; $P < 0.05$) (see Table #4.2).

Table #4.2

Sources of wood by settlement type and economic status (N=1682) (%)	Settlement type		Economic status		
	Urban	Rural	Urban	Rural	Urban
I collect wood in my private area (garden, vineyard, etc.)	23.9	41.7	36.1	32.6	26.5
I collect wood in the nearby forest	6.5	20.8	16.4	13.8	11.2
I collect wood in a municipal green space	1.5	5.7	5.3	3.0	2.5
I receive/purchase wood from the forest area allocated by the Forestry Agency	2.0	8.2	5.7	6.1	5.0
A family member/relative provides wood to me for free	5.3	8.4	9.0	4.1	3.3
I buy wood from a local seller	75.1	52.1	60.1	61.7	50.1
Social services/city hall provide wood to me for free	1.0	0.2	0.8	0.2	0.1
I use the leftovers	0.2	0.4	0.5	0.0	0.0
Other	0.4	0.3	0.0	0.8	0.7
Refused to answer	0.3	0.3	0.3	0.4	0.3
Don't know	1.5	0.1	0.9	0.4	0.3

Additional analysis has been done to reveal situations where respondents are **dependant on one singular source**:

- 52–63% of households in Guria **only** collect wood in their private area, while 16–24% is fully dependant on local sellers.
- In Kakheti, buying from local sellers is the **only** fuelwood source for 43–62% of households, with the highest shares in Telavi (62%) and Dedoplistskaro (58%). As Collection from private land is notably lower here (2–13%).
- In Tianeti, being dependant on buying from local sellers is even more dominant at 62.2%, while none of households are solely dependant on collecting in their private area. (See Table #4.3)

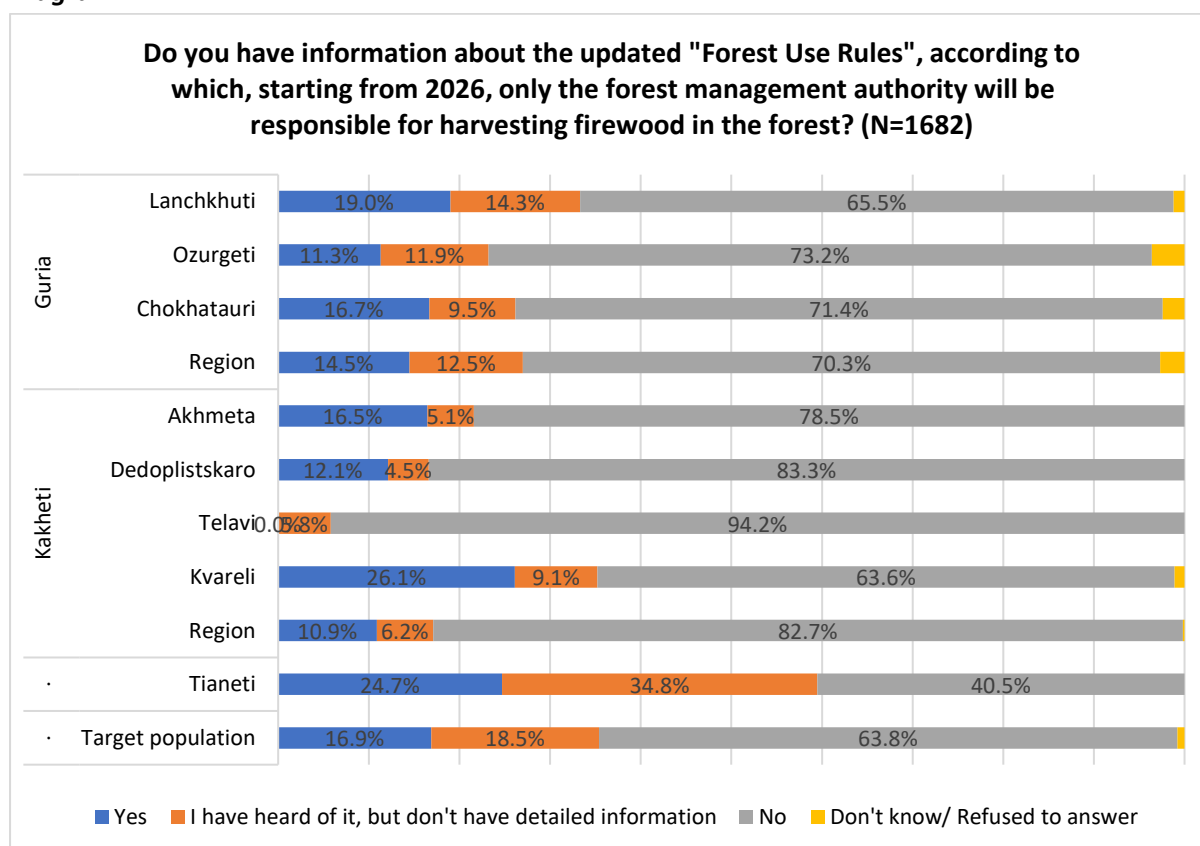
Table #4.3

Sources of wood (N=1682) (%)	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
I only collect wood in my private area (garden, vineyard, etc.)	52.0	62.6	54.2	56.2	2.5	9.7	1.9	38.1	13.1	-	32.0
I only collect wood in the nearby forest	-	1.9	-	0.6	7.6	4.2	-	8.3	5.0	8.9	3.0
I only collect wood in a municipal green space	-	-	-	0.0	-	-	-	1.2	0.3	2.2	0.2
I only receive/purchase wood from the forest area allocated by the Forestry Agency	1.0	1.5	1.7	1.4	1.3	-	-	-	0.3	6.7	1.1
Only a family member/relative provides wood to me for free	2.0	2.4	1.7	2.0	-	-	-	2.4	0.6	-	1.2
I only buy wood from a local seller	24.5	16.0	16.9	19.1	50.6	58.3	62.0	42.9	53.4	62.2	38.8
Only social services/city hall provide wood to me for free	1.0	1.0	1.7	1.2	-	-	-	-	0.0	-	0.5

Buys but also collects, or receives without a fee	10.8	8.3	15.3	11.5	25.3	26.4	19.6	3.6	18.7	8.9	14.2
Collects at all possible locations	-	-	1.7	0.6	3.8	-	0.6	-	1.1	4.4	0.9
Collects, but also receives without a fee (Relative, Agency)	7.8	2.9	6.8	5.8	7.6	1.4	13.9	-	5.7	6.7	6.2
Refused to answer	1.0	1.0	-	0.7	1.3	-	1.9		0.8	-	0.9
Don't know	-	2.4	-	0.8	-	-	-	3.6	0.9	-	1.0

In Tianeti Municipality, more than half of surveyed households (59.5%) report having information about the updated forest use regulation. In other target municipalities, awareness is significantly lower. In Ozurgeti (23.2%) and Chokhatauri (26.2%), about one-quarter are informed, whilst in Lanchkhuti, one-third (33.3%) report being aware. Among the Kakheti municipalities, awareness is particularly low in Telavi (5.8%) and Dedoplistskaro (16.6%). In Akhmeta Municipality, one-fifth (21.6%) indicate having full or partial information, whilst in Kvareli, one-third (35.2%) report being aware (see Diagram #4.1).

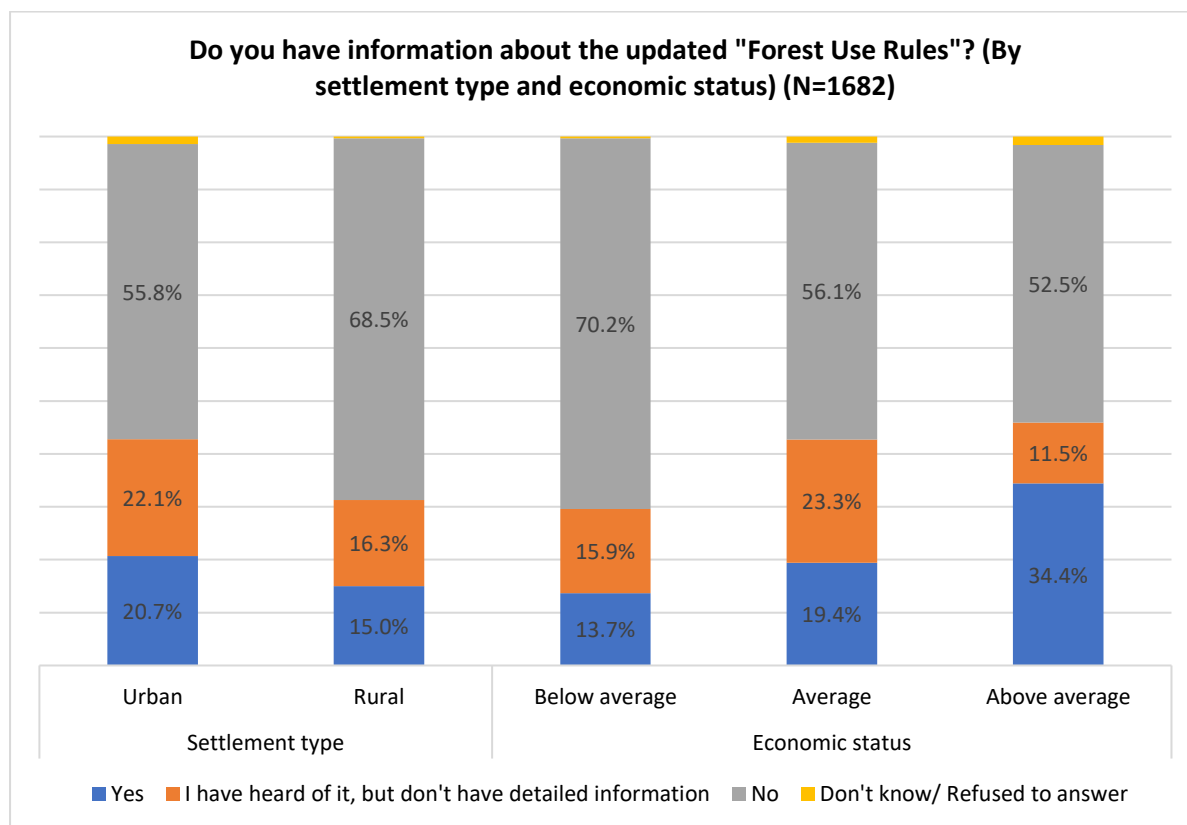
Diagram #4.1



Households surveyed in urban-type settlements are more likely to have heard about the updated forest use regulation (42.8%) than those in rural-type settlements (31.3%). (Data is statistically significant: $X^2 = 21.291$; $P < 0.05$).

Households with average (42.7%) and above-average (45.9%) economic status are more likely to have heard about the new forest use regulation compared to households with below-average economic status (29.6%). (Data is statistically significant: $\chi^2 = 40.963$; $P < 0.05$) (see Diagram #4.2).

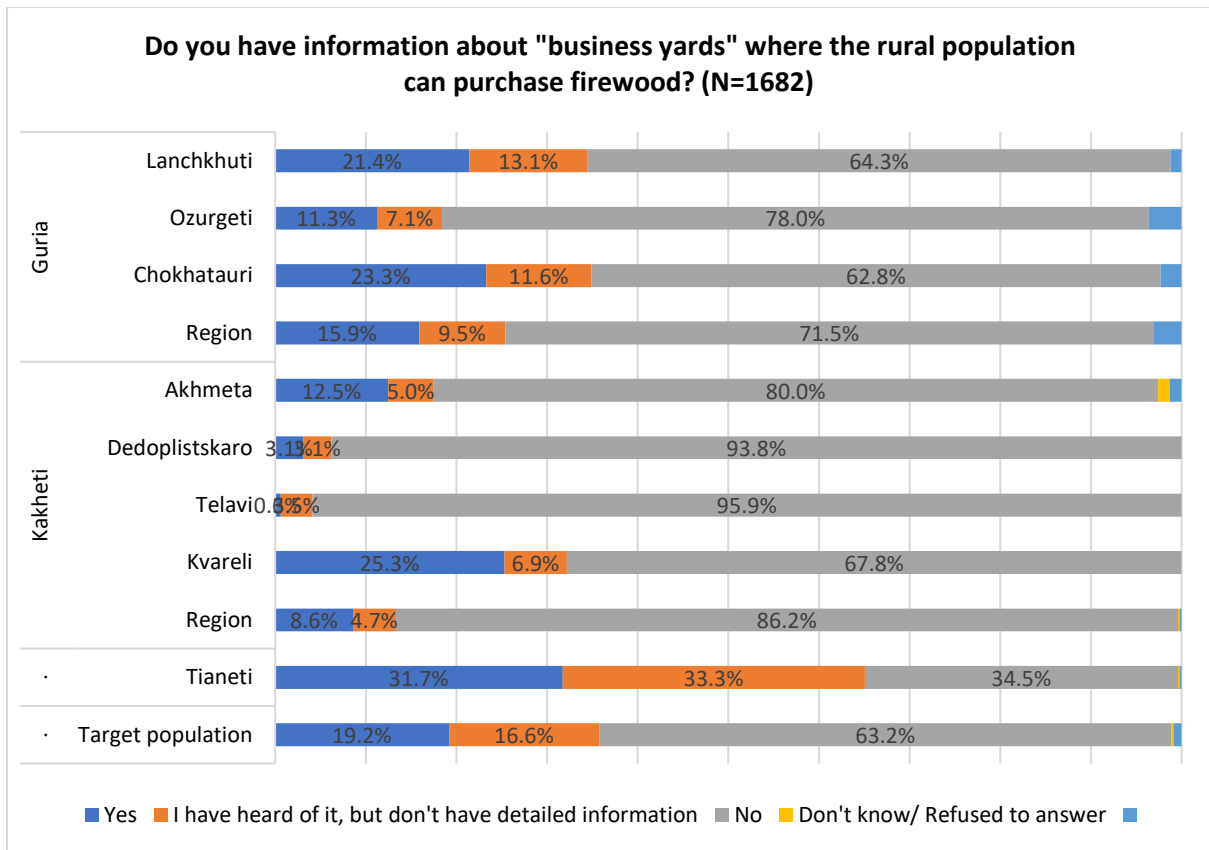
Diagram #4.2



Regarding the so-called business yards, Tianeti again reports a relatively high level of awareness (65%). In Guria, about one-third of households in Lanchkhuti (34.5%) and Chokhatauri (34.9%) confirm having at least some information about business yards, whilst in Ozurgeti this figure is nearly one-fifth (18.4%).

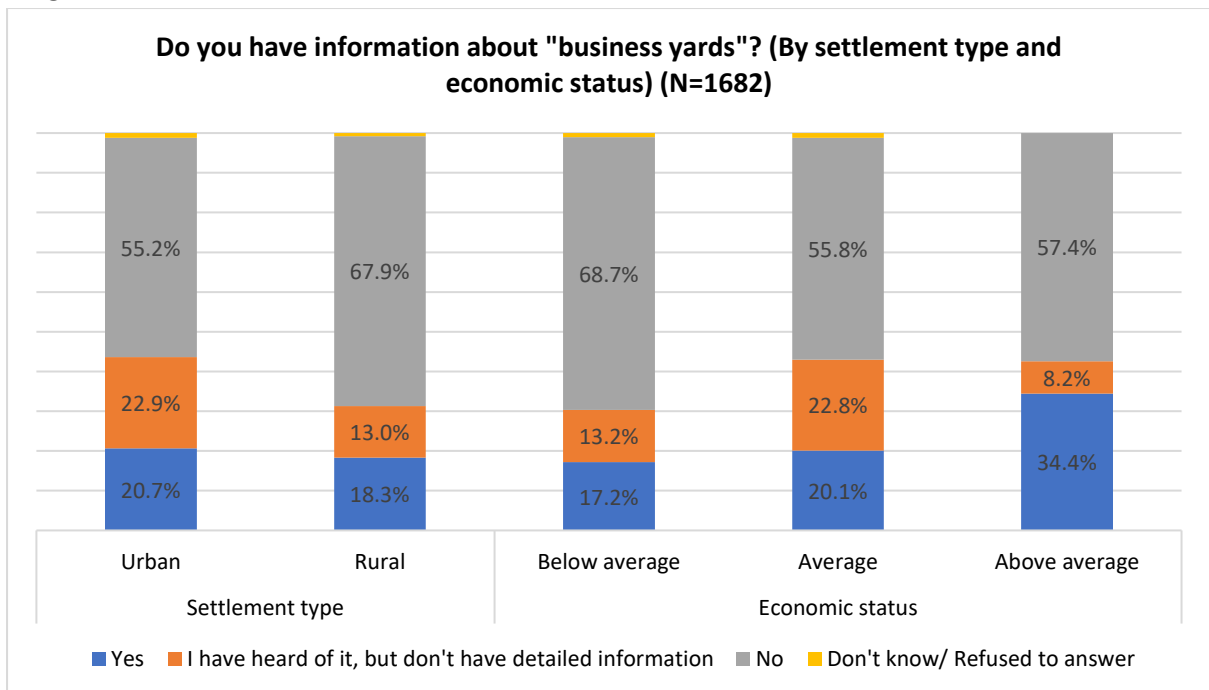
Similar to awareness of the forest use regulation, knowledge about business yards is lowest in Dedoplistskaro (6.2%) and Telavi (4.1%), whilst in Akhmeta it stands at 17.5%. Among the Kakheti municipalities, households surveyed in Kvareli report relatively higher awareness (32.2%) (see Diagram #4.3).

Diagram #4.3



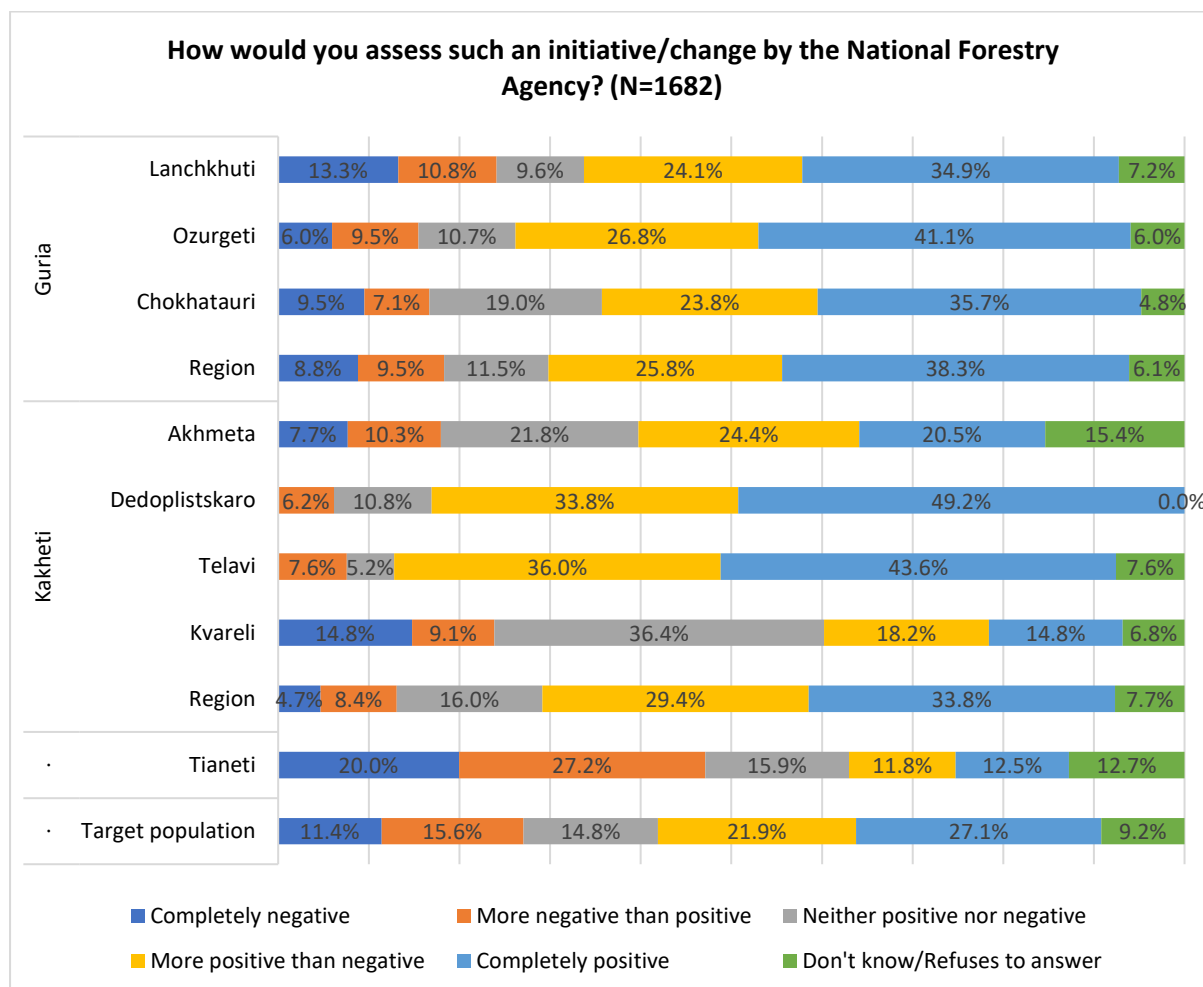
Awareness of business yards is relatively higher among households in urban-type settlements (43.6%) than in rural-type settlements (31.3%). (Data is statistically significant: $X^2 = 24.159$; $P < 0.05$). Additionally, households with below-average economic status are less informed (30.4%) compared to those with average (42.9%) and above-average (42.6%) economic status. (Data is statistically significant: $X^2 = 53.656$; $P < 0.05$). (See Diagram #4.4)

Diagram #4.4



Almost half of surveyed households in Tianeti Municipality assess the decision of the National Forestry Agency negatively (47.1%). In contrast, over half of households in all three municipalities of Guria view the initiative positively (Lanchkhuti – 59%; Ozurgeti – 67.9%; Chokhatauri – 59.5%). In Telavi (79.7%) and Dedoplistskaro (83.1%) municipalities, the initiative is rated positively by a large majority. In Akhmeta, a relatively large proportion (44.9%) evaluate the decision positively, whilst one-fifth (21.8%) remain neutral. In Kvareli Municipality, the proportion of positive assessments (33%) is slightly lower than that of neutral ones (36.4%) (see Diagram #4.5).

Diagram #4.5



Survey participants identify three main conditions under which the updated forest use regulation by the Rural Agency would be acceptable to them:

- If firewood prices are set below the market price (Lanchkhuti – 57.4%; Ozurgeti – 43.3%; Chokhatauri – 54.8%; Akhmeta – 81.8%; Dedoplistskaro – 80%; Telavi – 100%; Tianeti – 89.3%)
- If a free quantity of firewood is allocated for every rural household (Lanchkhuti – 48.9%; Ozurgeti – 46.7%; Chokhatauri – 48.4%; Dedoplistskaro – 30%; Kvareli – 56.7%; Tianeti – 72.4%)
- If socially vulnerable households receive firewood free of charge (Akhmeta – 31.8%; Tianeti – 24.3%; Ozurgeti – 20%; Chokhatauri – 22.6%) (see Table #4.4).

Table #4.4

	Guria				Kakheti					Tianeti	Target population
	Lanchkhuti	Ozurgeti	Chokhatauri	Region	Akhmeta	Dedoplistskaro	Telavi	Kvareli	Region		
If the price of firewood is lower than the market price	57.4	43.3	54.8	50.2	81.8	80	100	20	61.4	89.3	77.5
If socially vulnerable families receive firewood for free	10.6	20	22.6	16.8	31.8	10	11.1	10	16.2	24.3	21.5
If all families living in the village are provided with free firewood	48.9	46.7	48.4	47.8	9.1	30	-	56.7	27.5	72.4	60.2
If the income from the firewood fee is used for sustainable forest management and care	2.1	6.7	9.7	5.3	-	-	-	13.3	5.3	14	10.9
Other	-	-	3.2	.4	-	-	-	-	-	0.7	.5
Don't know/Refused to answer	2.1	13.3	3.2	7.8	-	-	-	-	-	-	1.4