

Form: HOUSEHOLD - 1

Research on wood fuels consumption in households in 2014

Date of the interview 2014. Beginning of the interview

1. HOUSEHOLD IDENTIFICATION DATA

Municipality

District

Apartment

Household

Listed number

Name and surname: _____

City (village) address _____

Telephone number _____

Do you use the Internet: 1. YES 2. NO

E-mail address: _____

2. HOUSEHOLD STRUCTURE

2.1. How many members does your household have?

2.2. How many members permanently live in your household?

3. CHARACTERISTICS OF HOUSING FACILITIES (SINGLE FAMILY HOUSE/APARTMENT)

3.1. In what type of residential property do you reside? (Please circle the appropriate answer or fill in the blank)

1. Single family house
2. apartment in the building (multiple occupancy)
3. other (specify) _____

*Individual data will be used only for statistical purposes and will be reported aggregately.
Please listen to the question and give the honest answers.*

3.2. What type of material was used to construct your residence?

(Please circle the appropriate answer)

1. brick / concrete
2. stone
3. wood
4. combination of brick and stone
5. combination of wood and stone
6. other (specify) _____

3.3. Does your residential property have thermal insulation (circle one of two answers)?

yes no

1 0

3.4. How many years of age has your residential property? *(Please circle the appropriate answer)*

1. up to 5 years
2. from 6 to 10 years
3. from 11 to 20 years
4. over 20 years

3.5. How many rooms does your house/ apartment have? (including kitchen and bathroom)

3.6. How many rooms do you heat during the heating season?
(including hallways, kitchen and bathroom)

3.7. What is the surface area of your house/apartment? (m²)

3.8. How many m² of your house/apartment do you heat during the heating season?

3.9. How old are the doors and windows in your house/apartment in years?

(Please circle the appropriate answer)

1. up to 10 years
2. from 11 to 20 years
3. over 20 years

3.10. The windows in your house/ apartment *(Please circle the appropriate answer)*

1. have thermally insulating glass?
2. don't have thermally insulating glass?

3.11. Do you reside in your house/ apartment? *(Please circle the appropriate answer)*

1. permanently
2. periodically

4. FUEL CONSUMPTION IN HOUSEHOLDS

4.1. What type of fuels do you use for heating and how much you consumed during the heating season 2013/2014?

(Input data for all types of fuels used in the household):

| No. | Type of fuel | Unit of measurement | Quantity in the unit of measurement | Average price of procured fuel (RSD / unit) | Total cost of the fuel for household (RSD) |
|-----|---|---------------------|-------------------------------------|---|--|
| | | | 1 | 2 | 3 |
| 1. | One meter log woods | Sm ³ | | | |
| 2. | Split log woods (33 cm) | Sm ³ | | | |
| 3. | Chopped log woods | Sm ³ | | | |
| 4. | Sawmill slabs | Sm ³ | | | |
| 5. | Wood briquettes | t | | | |
| 6. | Wood pellets | t | | | |
| 7. | Other wood fuels (e.g. Wood chips, sawdust). Specify: | Sm ³ | | | |
| 8. | Charcoal | t | | | |
| 9. | Electrical energy (for heating) | kWh | | | |
| 10. | Fuel oil | l | | | |
| 11. | Mazut | t | | | |
| 12. | Fuel gas (for heating) | | | | |
| 13. | Other (specify): | | | | |

Remark 1. Circle all combinations of fuel which was used during the heating season.
 Remark 2. For gas fuels put in unit which is used by examinee also as other data from colons 1-3.
 Remark 3. For other types of fuel fill in type of used fuel, unit and other informations from 1-3 colons.
 Remark 4. If you get an answer from examinee about briquette consumption in kg, please, calculate them in tons.
 Relation is 1 ton = 1000 kilograms. The same remark is for the wood briquettes.

4.2. Where from you procure the fuel?

(Please circle the appropriate answer)

1. from my own forest
2. all at once from the same supplier at the beginning of heating season
3. all at once from the same supplier at the end of heating season
4. from time to time during the heating season from the same supplier
5. from time to time during the heating season from different suppliers

4.3. What is the reason for a such way of procurement? (fill in one or more reasons)

4.4. How many months/weeks before heating season do you procure firewood?

(Please circle the appropriate answer)

1. 2-3 weeks before the season and occasionally during the heating season
 2. up to 1 month
 3. up to 2-3 months
 4. up to 4-6 months
 5. immediately at the end of the previous season (e.g. April, May)
 6. up to 1 year in advance
 7. more than 1 year in advance
 8. other (specify frequency of purchase if it is periodic) _____
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4.5. Do you check the quantity of wood fuel when you purchase it and how?

1. Don't check at all
 2. Approximately check
 3. Check with meter the length of chopped log woods and the way of stacking the firewood
 4. Check wood logs length, dimension of stack and way of sorting in the stack
 5. other (specify)
-

4.6. Where and how do you storage firewood and other types of wood fuels?

(Please circle the appropriate answer)

1. in the wood shed
 2. in the house`s/building`s basement
 3. in front of the house/building, out door
 4. partly on the balcony, partly in front of the house/building
 5. other (specify)
-

4.7. In your opinion, what kind of firewood is the best to use?

(Please circle the appropriate answer)

1. dry (seasoned for 12 months or longer)
 2. raw, slower burning
 3. air dried 2-3 weeks after the logging
 4. air dried 2-3 months after the logging
 5. air dried over 6 months
 6. other (specify)
-
-

4.8. What is the source of fuel supply for your household? (specify quantity)

| No | Fuel type | Source of supply | | | | | | | | | | | | |
|-----|---|------------------|--------------------|-------------|-----------------|--------------------------------------|--|--|------------------------|-----------------|-----------------------|----------------------------|-------------------------|---|
| | | Measure unit | Other | | | | | | | | | | | |
| | | | From my own forest | From dealer | From fuel depot | From a friend who has his own forest | Wood from meadows, fields, village enclosure, pasture, from own orchards and others source | From state forests (forest estates management, national parks) | From trees near rivers | From city parks | Directly from sawmill | Directly from gas stations | Directly from vineyards | Directly from wood briquettes manufacturers |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | |
| 1. | One meter log woods | Sm3 | | | | | | | | | | | | |
| 2. | Split log woods (33 cm) | Sm3 | | | | | | | | | | | | |
| 3. | Chopped log woods | Sm3 | | | | | | | | | | | | |
| 4. | Sawmill slabs | Sm3 | | | | | | | | | | | | |
| 5. | wood briquettes | t | | | | | | | | | | | | |
| 6. | wood pellets | t | | | | | | | | | | | | |
| 7. | Other wood fuels (e.g. Wood chips, sawdust). Specify: | Sm3 | | | | | | | | | | | | |
| 8. | Charcoal | t | | | | | | | | | | | | |
| 9. | Electrical energy | kwh | | | | | | | | | | | | |
| 10. | Fuel oil | l | | | | | | | | | | | | |
| 11. | Mazut | t | | | | | | | | | | | | |
| 12. | Fuel gas | | | | | | | | | | | | | |
| 13. | Other (specify):..... | | | | | | | | | | | | | |

Remark 1. Fill in information for all sources of fuel supply for a particular household.

Remark 2. Measure unit sm3= stacked m3

Remark 3. If you get an answer from examinee about briquette’s consumption in kg, please, calculate them in tons. Relation is 1 ton = 1000 kilograms. The same remark is for the wood briquettes.

Remark 4. If it is used solid and liquid fuel combination than input data in measure units. For example 1. Chopped log woods 10 sm3 from retailer and Fuel oil 200 liters from gas station.

4.9. Is it possible (for you) to always obtain the needed quantity and same quality of fuel from the same source or same trader? (fill in)

4.10. What is the purpose of firewood utilization in your household and utilization of other wood fuels (briquettes, pellets and others)?

(Circle as many statements as particular household answered)

1. Only for heating
2. For heating and cooking
3. For heating and hot water
4. For heating, hot water and cooking
5. For brandy distillation
6. For meat drying
7. other (specify):

5. HEATING SYSTEMS

5.1. What kind of device (system) are you using for your household heating and what is its age range?

(Circle as many devices, systems as particular household answered)

| No | Type of device | Device's age range (circle one of offered answers) | | | | |
|-----|--|--|--------|---------|---------------|----------------|
| | | 1 | 2 | 3 | 4 | 5 |
| 1. | Wood and charcoal stove "Smederevac" | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 2. | Wood and charcoal stove "Alfa plam Vranje" | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 3. | Wood and charcoal stove _____ | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 4. | Wood and charcoal stove for central heating Alfa plam Vranje | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 5. | Wood and charcoal stove for central heating Milan Blagojević Smederevo | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 6. | Wood and charcoal stove for central heating others _____ | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 7. | Wood furnace _____ | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 8. | Wood and charcoal furnace for central heating _____ | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 9. | Pellet furnace _____ | 1. 0-2 | | 2. 3-5 | 3. 6 and more | |
| 10. | Solid fuel boiler (charcoal, wood, briquette) | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 11. | Pellet boiler _____ | 1. 0-2 | | 2. 3-5 | 3. 6 and more | |
| 12. | Tile stove | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |

| | | | | | | |
|-----|------------------------|-------|--------|---------|----------|----------------|
| 13. | TA stove_____ | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 14. | Electric boiler _____ | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 15. | Air conditioner | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 16. | Fuel oil furnace | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 17. | Heater | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 18. | Fireplace | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 19. | Gas fuel appliance | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |
| 20. | Other (specify): _____ | 1.0-5 | 2.6-10 | 3.11-15 | 4. 16-20 | 5. 21 and more |

5.2. Are you interested in replacement of your stove/furnace with new one and more efficient device?

1. no, I have already done it
2. no, I am satisfied with this one
3. I am planning to do that in next year
4. I am planning to do that in next 5 years
5. I would do it immediately if the government gave some incentives

5.3. What are the major reasons why you haven't replaced heating appliance with more efficient one?

1. I wasn't aware that there are new efficient devices
2. We don't have enough money for replacement
3. We are satisfied with current one and we don't have any reason to buy another
4. Our neighbors and friend are using the same type and they are satisfied
5. Other_____

The end of the survey

Control date

Signature of the surveyor:

Signature of controller

Signature of interviewee:
