

Prof. Dr Branko Glavonjić

**How to obtain the data for the JWEE
in a country in the Western Balkans?
An example from Serbia**

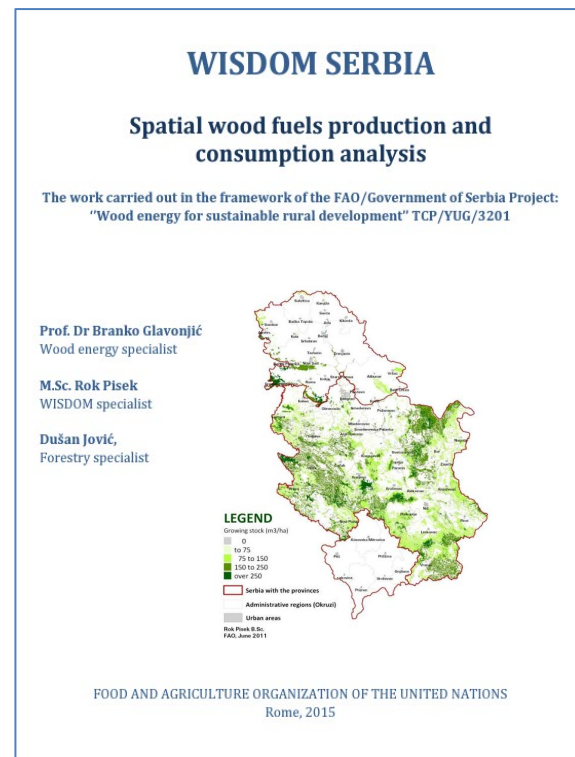
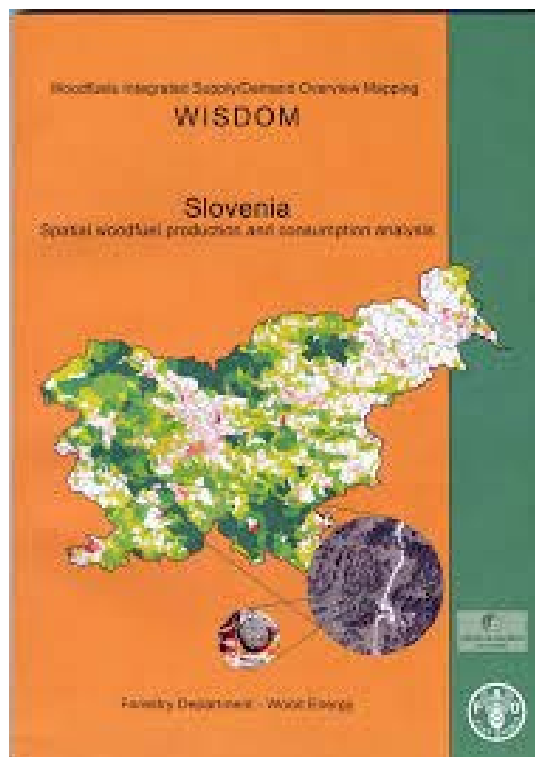
JOINT WOOD ENERGY ENQUIRY 2021 *TRAINING WEBINARS* , Module 2, April 20th, 2023



CONTENT

- » Wood energy statistics in Western Balkans: a brief overview of the development in the last twenty years
- » **How we obtain the data for the JWEE in Serbia**
- » The main characteristics of the methodology: empirical survey data
- » The main users of wood energy statistics in Serbia

WISDOM Projects in the Western Balkans

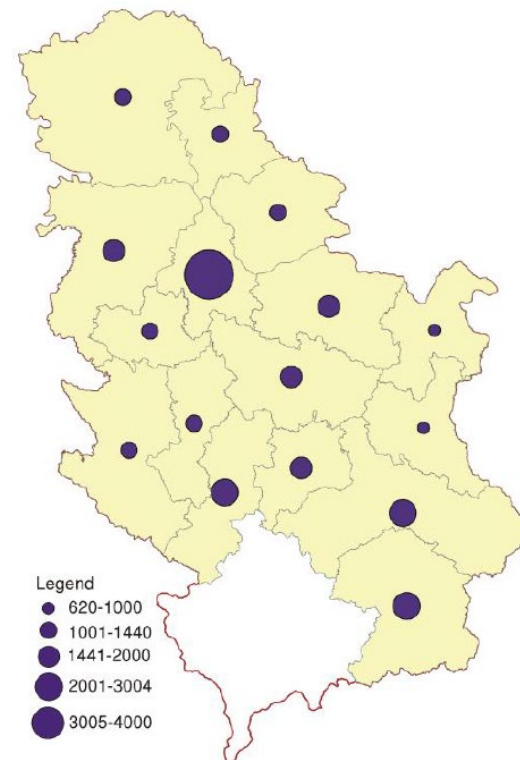
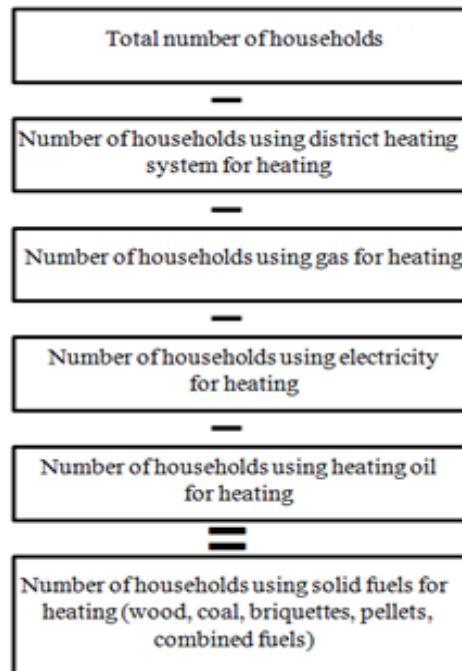


Key findings: production and consumption of fuelwood have been several times higher than registered !

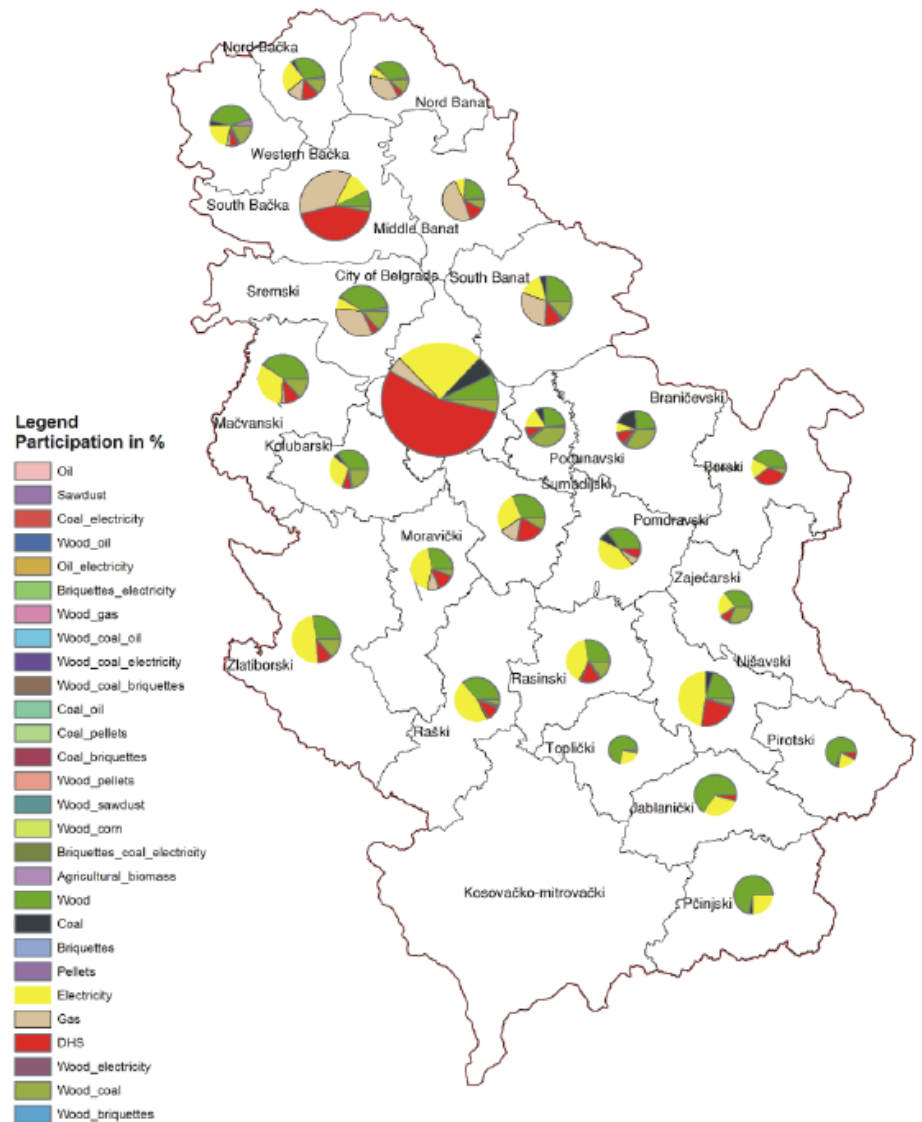
Supported by FAO and UNECE Timber section!

Serbia 2010: New methodological approach

Production = Consumption + Export - Import



Serbia 2010: 28 different fuels combination






WISDOM project in other WB Countries supported by FAO

MONTENEGRO - LUXEMBOURG
DEVELOPMENT COOPERATION

Food and Agriculture Organization of the United Nations

Woodfuel Integrated Supply and Demand Overview Mapping (WISDOM) for Montenegro

GCP/MNE/001/LUX

September 2013

Technical assistance for using wood energy to improve sustainable economic rural development and meet the 2020 renewable energy targets for the Western Balkans

“Woodfuel Integrated Supply and Demand Overview Mapping” WISDOM BiH: GIS background and maps, integration model

Rok PISEK, M.Sc.
International Consultant
Dr. Vladimir Stupar
National Consultant

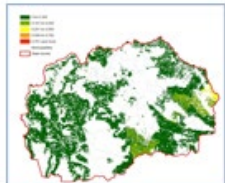
Final National Seminar
Sarajevo

FAO – Forestry Department – Wood energy

WISDOM MACEDONIA

Spatial wood fuels production and consumption analysis

Prof. dr. Zdravko Trajčevski
Prof. dr. Branko Glevonjić
M.Sc. Rok Pisek
Prof. dr. Nikola Nikolov
Prof. dr. Miroslavka Stojanovska
Prof. dr. Paško Trajčevski
Prof. dr. Ljupčo Nestorovski
Prof. dr. Ivan Miloševski



Based on:
the work carried out in the framework of the FAO Project: “Technical assistance for using wood energy to improve sustainable economic rural development and meet the 2020 renewable energy targets for the Western Balkans” TCP/RER/3502.

WISDOM results
Albania



Legend

- State border
- Administrative units
- CLC code
- 310: Broad-leaved forest
- 312: Coniferous forest
- 313: Mixed forest
- 501: Natural grasslands
- 502: Mires and heathlands
- 503: Shrublands/scrub vegetation
- 504: Transitional woodland/shrub



Statistical Office of the Republic of Serbia



Energy consumption in households in the Republic of Serbia

Supported by: Energy Community Secretariat (ECS)

Type of energy	Space heating	
	Main	Additional
Electricity	14.6	16.7
Coal	4.6	4.5
Wood fuels	48.0	1.3
Firewood	45.6	1.2
Pellets	2.3	0.1
Other wood fuels	0.1	0
Other biomass	1.0	1.7
LFO	0.1	0.0
Gas	10.1	0.8
LPG	0.5	0.1
Natural gas	10.0	0.7
Central heating	20.7	0.0
Solar energy	0.0	0.0
Geothermal energy	0.1	0.0
Solid waste	0.0	0.5

Households by energy source used for space heating (%)

First-ever On-line Forest Product Statistics Capacity Building Workshop: Western Balkan and CIS-Region

9-11 February 2021

On-line Forest Product Statistics Capacity Building Workshop: Western Balkan and CIS-Region



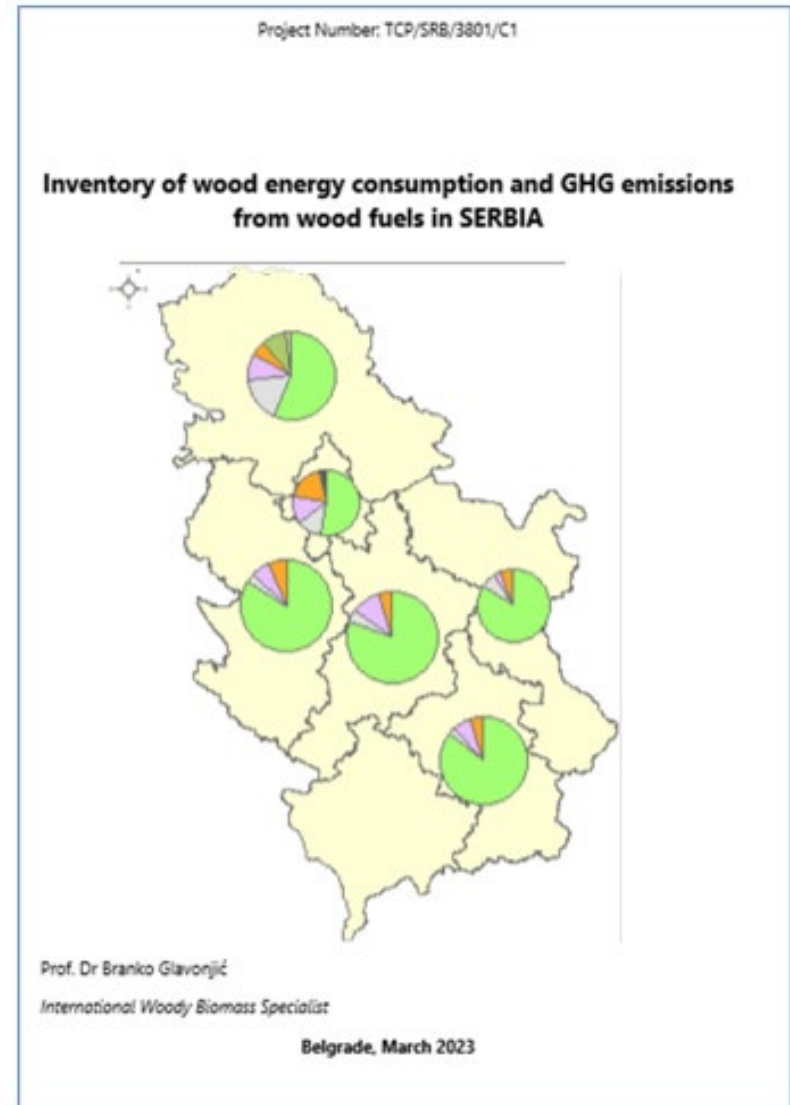
©FAO

Maintaining and improving the quality of forest product statistics is more important than ever for enabling data-based policy decisions. Data submitted by countries via the Joint Forest Sector Questionnaire (JFSQ) form the basis for the information at UNECE and FAO and are used globally to analyze developments in forest products production and trade. To support continuous improvement in data quality and quantity and to encourage the exchange of information within and between countries, FAO and UNECE hosted the first-ever on-line forest product statistics capacity building workshop on 9-11 February 2021. The workshop was attended by 22 participants representing 14 countries from the western Balkans and former Soviet Union and included guest presentations from Germany, Poland, and the USA. The agenda and copies of all presentations, as well as useful links, are available [here](#).

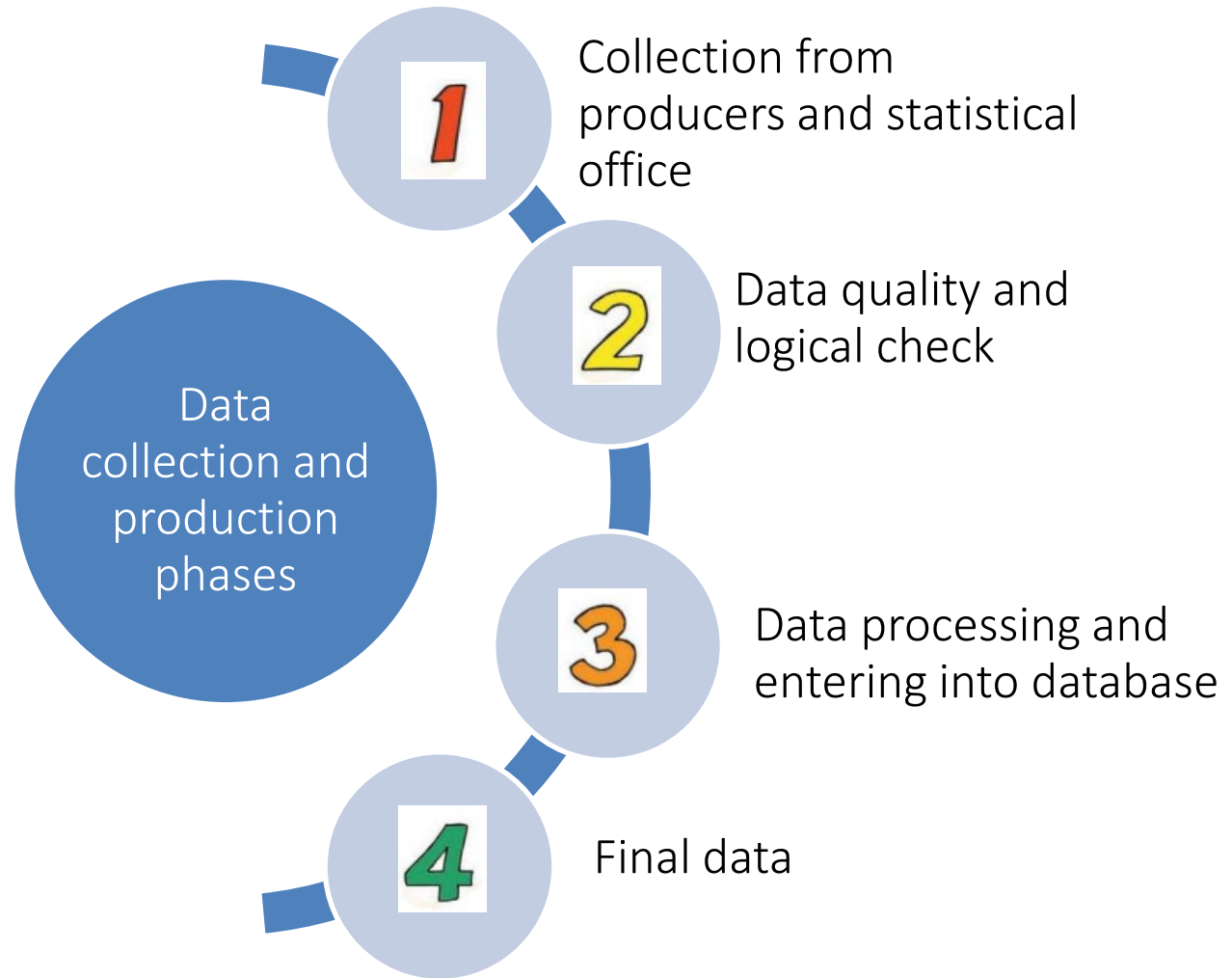
The agenda was designed in response to an early survey of invited countries which asked participants about topics that should be prioritized to most efficiently improve their own national level statistics for production and trade of forest products. Because an on-line workshop provided a rare opportunity to bring in guest speakers on almost any topic, the survey also asked countries what additional topics would be valuable. New topics most frequently requested by respondents included statistical principles for survey design, trends in forest product statistics, and innovations in data management. These topics were reflected in the final agenda. Read more [here](#).

Inventory of wood energy consumption and GHG emissions from wood fuels in SERBIA

- Supported by FAO

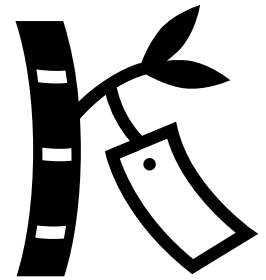


How we obtain the data for the JWEE in Serbia?



Strengths of data collecting process for Serbia

- Professional and trained staff
- Trustable relationship with producers and traders, individual institutions
- Production data is collected directly from producers
- Trade data are collected directly from official statistics



Professional and trained staff



- Small Statistical Team
- Well trained !
- Work on wood energy issues for over ten years



Cooperation with FAO



Support of Data Analytics:
Production and Trade of Forest
Products, 2022.



Network and data sources



Phase 1: Data collection process

- Methodology based on UNECE / FAO reporting principles
- Innovations are carried out continuously, whenever some anomalies are noticed in the data collection process

The image displays five distinct survey forms, each titled 'THE 2011 ANNUAL SURVEY OF WOOD FUELS CONSUMPTION IN [Sector]'. The sectors are Bakeries, Grill Houses, Restaurants, Car Repair Shops, and Primary Wood Processing. Each form includes a header with the survey title and logo, followed by identification data (Name of facility, Registration number, Municipality, Address, Telephone, Fax, Website). A '2. TYPES OF FUEL' section contains a table for recording fuel types and their quantities. The table columns include 'Order number', 'Type of fuel', 'Quantity', and 'Unit'. The fuel types listed are: 1. Firedwood by the cubic metre, 2. Chipped firewood, 3. Small logs, 4. Sawmill residues, 5. Wood chips, 6. Wood pellets, 7. Other wood fuels (e.g., woodchips, sawdust, shavings, etc.), 8. Coal, 9. Electric energy, 10. Fuel oil, 11. Heavy fuel oil, 12. Fuel gases, and 13. Other (please specify). The forms also include a '3. TYPES OF FUEL' section with a table for recording fuel types and their quantities, and a '4. TYPES OF FUEL' section with a table for recording fuel types and their quantities. The forms are numbered from 1 to 5, corresponding to the sectors mentioned above.

Phase 1: Questionnaire_example 1

Form: O-2

Wood pellets producers

PRODUCTION OF WOOD PELLETS AND CONSUMPTION OF WOODY BIOMASS IN 2023

Name of producer:
Name and surname of the person surveyed:
Date:
Phone:
web:
email:

	WOOD PELLETS PRODUCTION (tonnes)	WOODY BIOMASS CONSUMPTION				
		Long meter roundwood (m ³)	Fuelwood (m ³)	Slabs (m ³)	Sawdust (tonnes)	Wood chips (tonnes)
QUANTITY						
Purchase prices in EUR/unit of measure						

Date: _____

Signature: _____

Phase 1: Questionnaire_example 2

Form: O-5

District heating systems

**CONSUMPTION OF WOOD FUELS FOR HEATING IN THE MUNICIPALITY
_____ IN THE 2022/2023 HEATING SEASON**

Name of the heating plant:
Name and surname of the person surveyed:
Date:
Phone:
web:
email:

	WOOD FUELS CONSUMPTION					
	Fuelwood (m ³)	Slabs (m ³)	Sawdust (tonnes)	Wood chips (tonnes)	Wood briquettes (tonnes)	Wood pellets (tonnes)
QUANTITY						
Purchase prices in EUR/unit of measure						
Supplier						

Date: _____

Signature: _____

Phase 2: Data quality and logical check

➤ Logical control



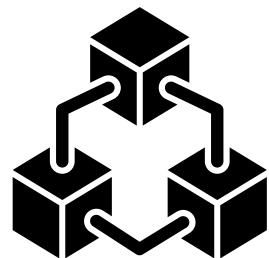
➤ Cross-sectoral analyses



➤ Following trends from previous years



➤ Data corrections when necessary



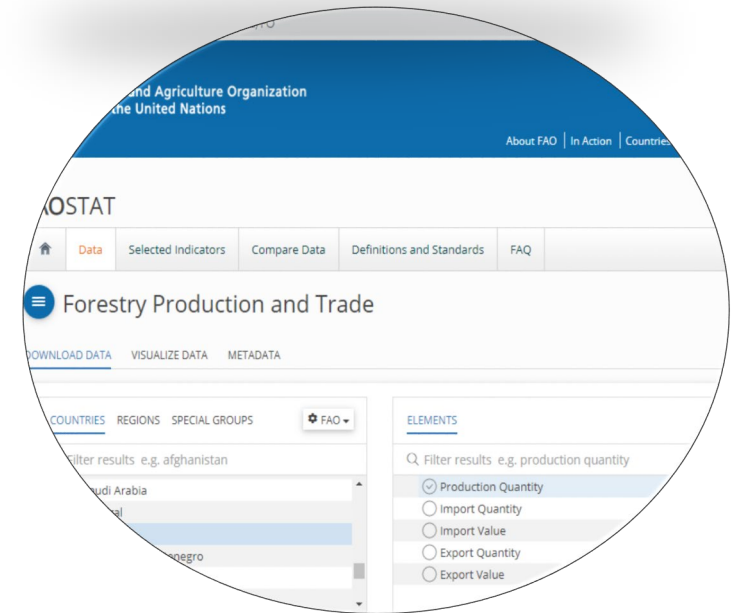
Phase 3: Entering data into database and data processing

- Entering data into the database
- Conversion factors
- Linking the cells

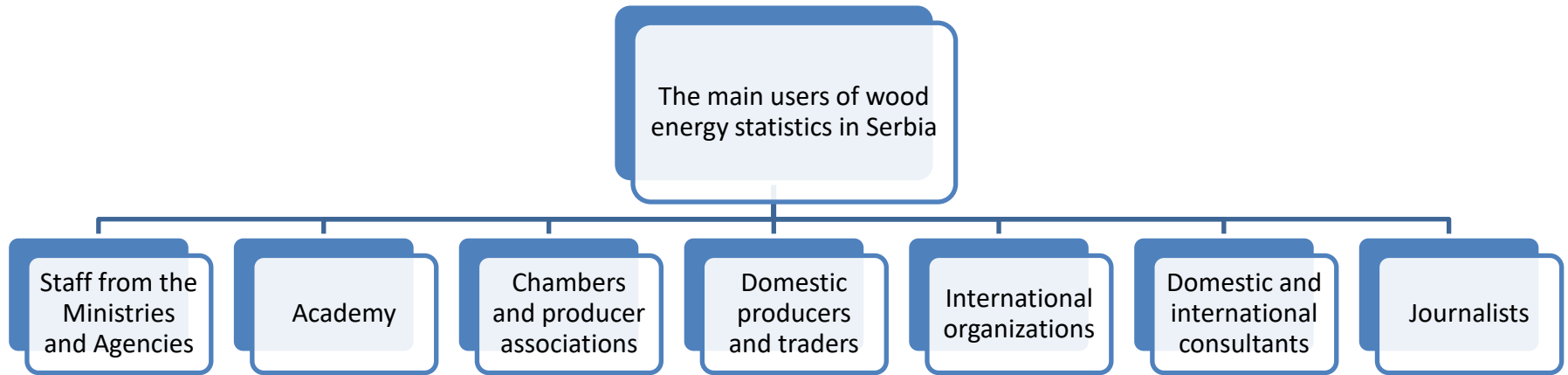
Factors applied for conversion									
* please adjust conversion factors where necessary									
			Original Unit [1 000]	conversion factor (tdm or t) Table I and II to IV	Unit	conversion factor (m³) Table IV	Unit	conversion factor (GJ) Overview	Unit
Primary solid biomass	Woody Biomass from Forests	Industrial Roundwood (C & NC)	m³	0,42	tdm / m³	2,40	m³ / tdm	20,21	GJ / tdm
		Fuelwood (C & NC)	m³	0,42	tdm / m³	2,40	m³ / tdm	20,21	GJ / tdm
	Woody Biomass Outside Forests	Industrial Roundwood (C & NC)	m³	0,42	tdm / m³	2,40	m³ / tdm	20,21	GJ / tdm
		Fuelwood (C & NC)	m³	0,42	tdm / m³	2,40	m³ / tdm	20,21	GJ / tdm
	Unspecified primary solid biomass			m³	0,42	tdm / m³	2,40	m³ / tdm	20,21
Forest based Industry	Solid co-products (C & NC)	Chips and particles	m³	0,42	tdm / m³	2,40	m³ / tdm	20,21	GJ / tdm
		Wood residues	m³	0,42	tdm / m³	2,40	m³ / tdm	20,21	GJ / tdm
		Bark	m³	0,47	tdm / m³	2,13	m³ / tdm	19,84	GJ / tdm
		Unspecified solid co-products	m³	0,42	tdm / m³	2,40	m³ / tdm	20,21	GJ / tdm
	Liquid co-products (C & NC)	Black liquor (without crude tall oil)	t	0,80	tdm / t	1,56	m³ / tdm	13,89	GJ / tdm
		Crude tall oil	t	1,00	t / t	4,38	m³ / t	36,90	GJ / t
		Unspecified liquid co-products	t			1,56	m³ / tdm	13,89	GJ / t

System of distribution and use of wood energy data

The data are provided to UNECE through its questionnaires, and are publicly available in UNECE and FAO web databases.



The main users of wood energy statistics in Serbia



Journalists as users of wood energy statistics

← → ↻ [rts.rs/lat/vesti/drustvo/5068423/drva-grejanje-pelet-cene-drvo.html](https://www.rts.rs/lat/vesti/drustvo/5068423/drva-grejanje-pelet-cene-drvo.html)

PTC

VESTI

RAT U UKRAJINI

OKO

SPORT

MAGAZIN

TV

RADIO

EMISIJE

RTS

Ostalo ▾

Peleta ima, kupaca gotovo i da nema – profesor Glavonjić objašnjava zašto cene ipak ne padaju

Na zalihama ima i peleta i drva, kupci su retki, ali cene ne padaju. Profesor Šumarskog fakulteta u Beogradu Branko Glavonjić rekao je za RTS da postoji nekoliko razloga zbog kojih tržište u Srbiji ne reaguje. Pojeftinjenje peleta moguće u martu, ističe Glavonjić.

DRUŠTVO

Pokloni za bebe rođene na Uskrs u porodilištima na KiM



Otkrivanje adrese i nedostatak kapaciteta – imaju li sigurne kuće snagu da zaštite žene od nasilnika



Pojačan saobraćaj posle praznika, gužve na "Milošu Velikom"



Ova godina biće upamćena i po rekordnim cenama i do sada nezabeležnoj potražnji ogrevnog drveta i peleta.

Разговор Ружице Врањковић са Бранком Главоњићем



<https://www.rts.rs/lat/vesti/drustvo/5068423/drva-grejanje-pelet-cene-drvo.html>

Thank you for your attention !



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