



GUIDANCE ON WORK AREA 1: DATA, MONITORING, REPORTING AND ASSESSMENT

Wood Energy

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FORESTS



**40th Joint UNECE/FAO Working Party on Forest Statistics,
Economics and Management**

22-23 March 2018, Geneva





- Success stories
 - Team of Specialists meeting
 - Wood energy publication
 - More heat with less wood
 - Joint wood energy enquiry – detailed data 2015
- Challenges
 - How to present results and data in the future?
- Way ahead
 - JWEE2017
 - Capacity building

Success stories

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- Fourth Meeting of the UNECE/FAO Team of Specialists on Wood Energy (17 - 19 May 2017), United States, North Carolina, Durham



Success stories

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- Fourth Meeting of the UNECE/FAO Team of Specialists on Wood Energy (17 - 19 May 2017), United States, North Carolina, Durham
- Publication on wood energy

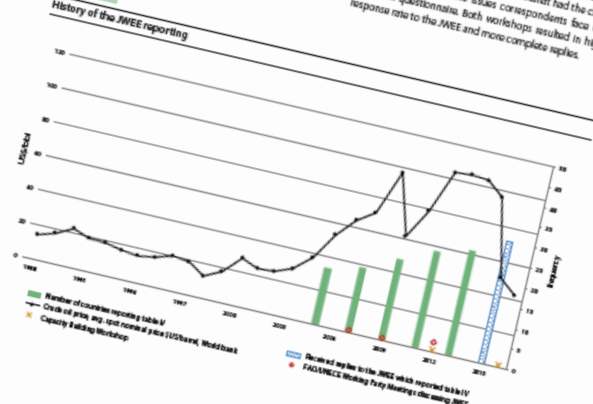
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FIGURE 1.A. Forest and wood use in EU in 2010



FIGURE 2.3. History of the JWE reporting



Chapter 1

THE MULTIPLE FUNCTIONS OF WOOD ENERGY

Long-term harmful damage to society. Alternatively, wood fuel can be harvested and processed to generate useful products and services. The proper forest management can lead to the use and recovery of a fine, beauty industry.

Figure 1.2. Direct and lower carbon forest of wood biomass and wood fuels.

Renewable wood energy can be carbon neutral or carbon negative. It is produced from wood, which is a natural resource that can be harvested and processed to generate useful products and services. The proper forest management can lead to the use and recovery of a fine, beauty industry.

1.2.1 Environmental Quality

Wood can be a renewable source of energy. As it is the primary energy source, it is a natural resource that can be harvested and processed to generate useful products and services. The proper forest management can lead to the use and recovery of a fine, beauty industry.

Highlights*

- The JWE is a unique tool with detailed information on the sources and users of wood energy in countries
- It enforces data consistency between the forest sector and the energy sector
- It improves communication between the forest and energy sectors
- Fully compatible with other international questionnaires and databases
- Provides a structure and broadens the view on the role of wood energy in member states
- Provides evidence that in ECE member States, most wood energy is from indirect use of wood fibres
- The use of wood energy continues to increase
- Households consume significantly more wood energy than previously calculated

Chapter 2

WOOD ENERGY DATA: THE JOINT WOOD ENERGY ENQUIRY

Success stories

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- Fourth Meeting of the UNECE/FAO Team of Specialists on Wood Energy (17 - 19 May 2017), United States, North Carolina, Durham
- Main topic discussed: Chapters of the publication on wood energy
- **More heat with less wood**

Success stories

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	Road Safety at EuroBasket 2011 - José Calderón	5.9K views • 6 years ago	1:01
	UNECE - for a stronger and greener economy	5.2K views • 4 years ago	3:00
	What is Statistics?	5K views • 5 years ago	3:41
	2017 Global Road Safety Film Festival Grand prix	4.4K views • 1 year ago	3:16

8

Success stories

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- Fourth Meeting of the UNECE/FAO Team of Specialists on Wood Energy (17 - 19 May 2017), United States, North Carolina, Durham
- Main topic discussed: Chapters of the publication on wood energy
- More heat with less wood
- **Joint wood energy enquiry – detailed data 2015**



Wood energy consumption in the ECE region

Final results from JWEE 2015

Sebastian Glasenapp



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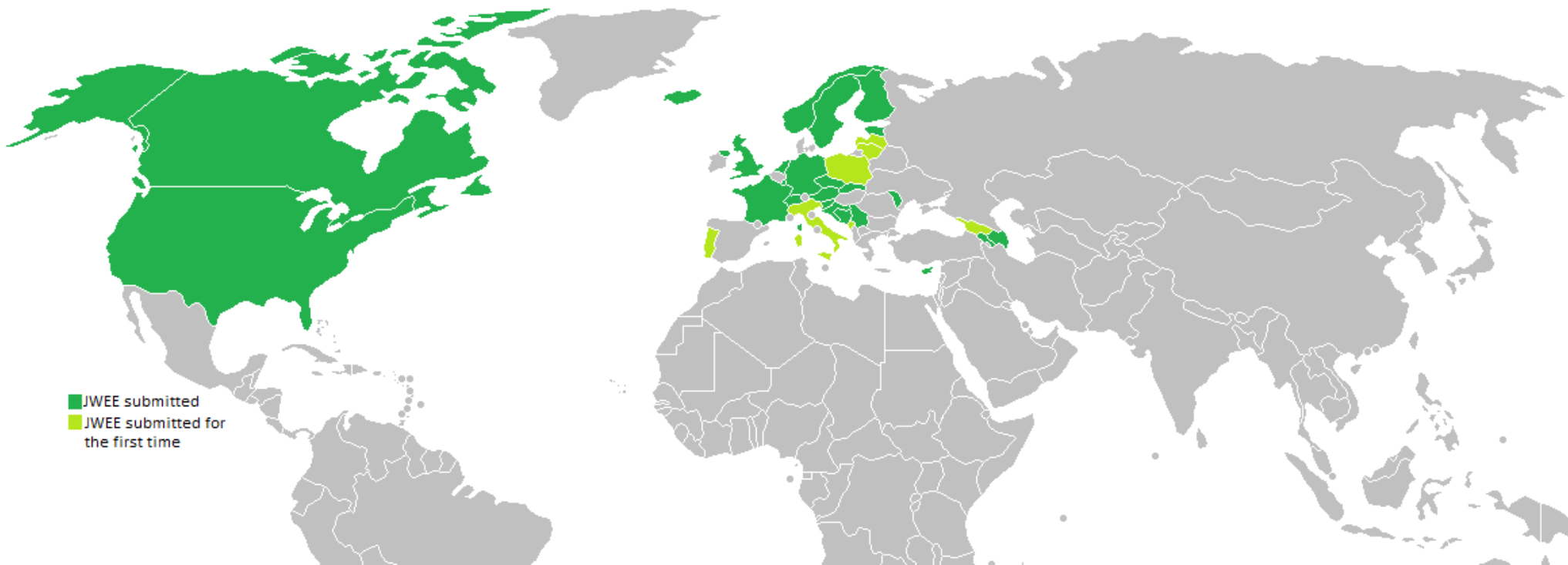
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Coverage of the JWEE 2015 reporting

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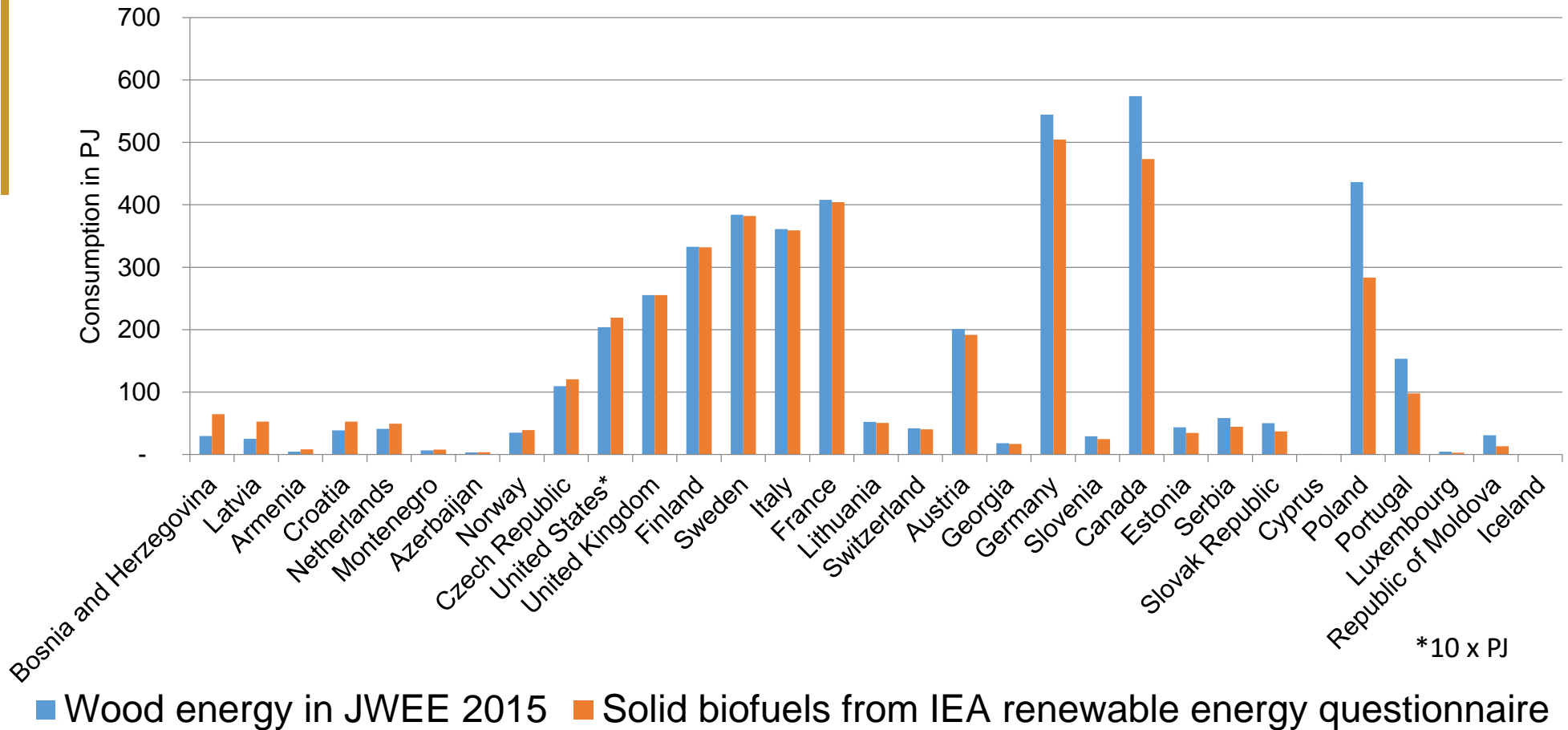


31 member states reported wood energy consumption in table IV

Comparison to energy statistics

JWEE 2015 and IEA solid biofuels

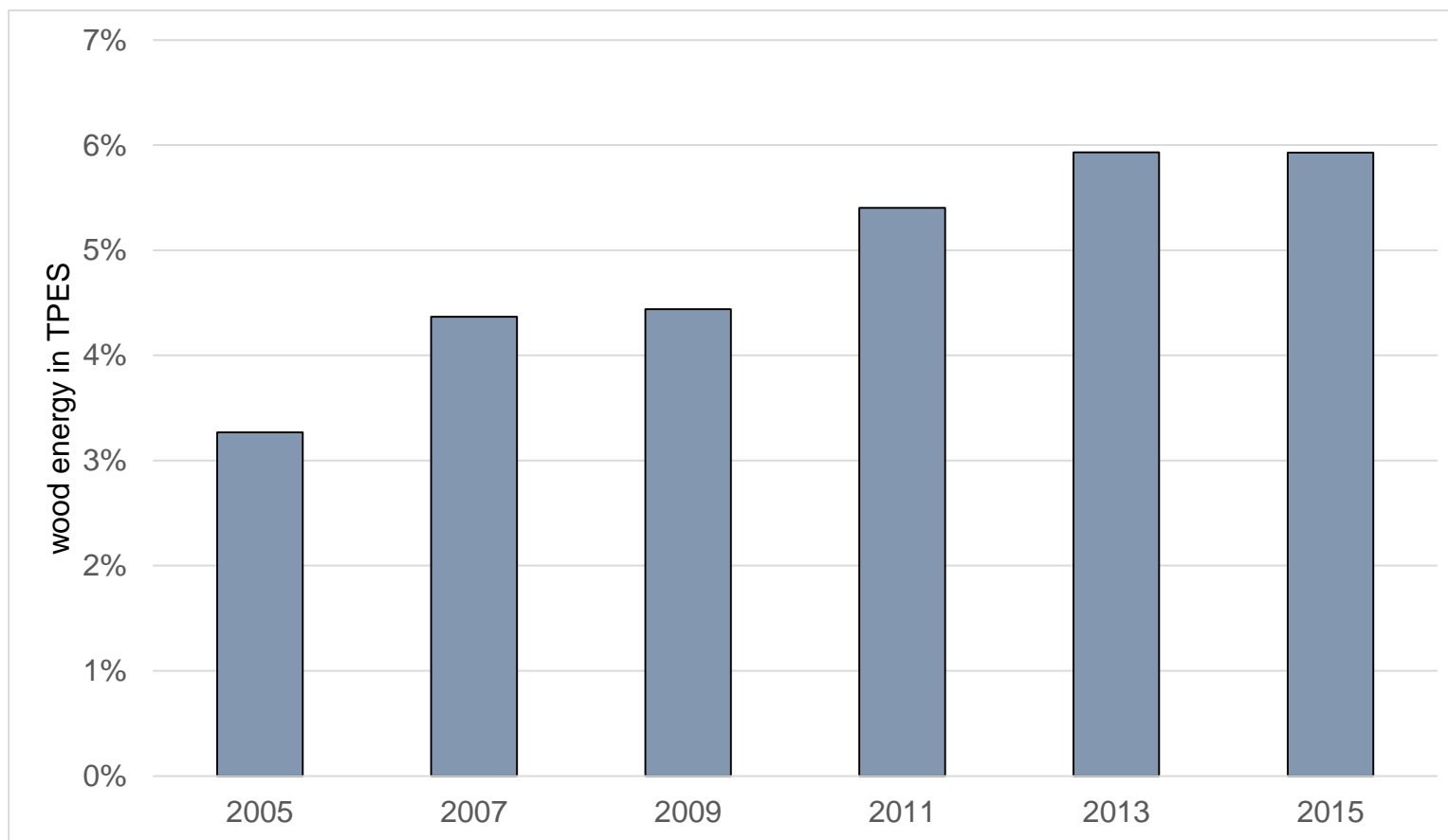
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Wood energy in Total Primary Energy Supply

in JWEE 12 countries

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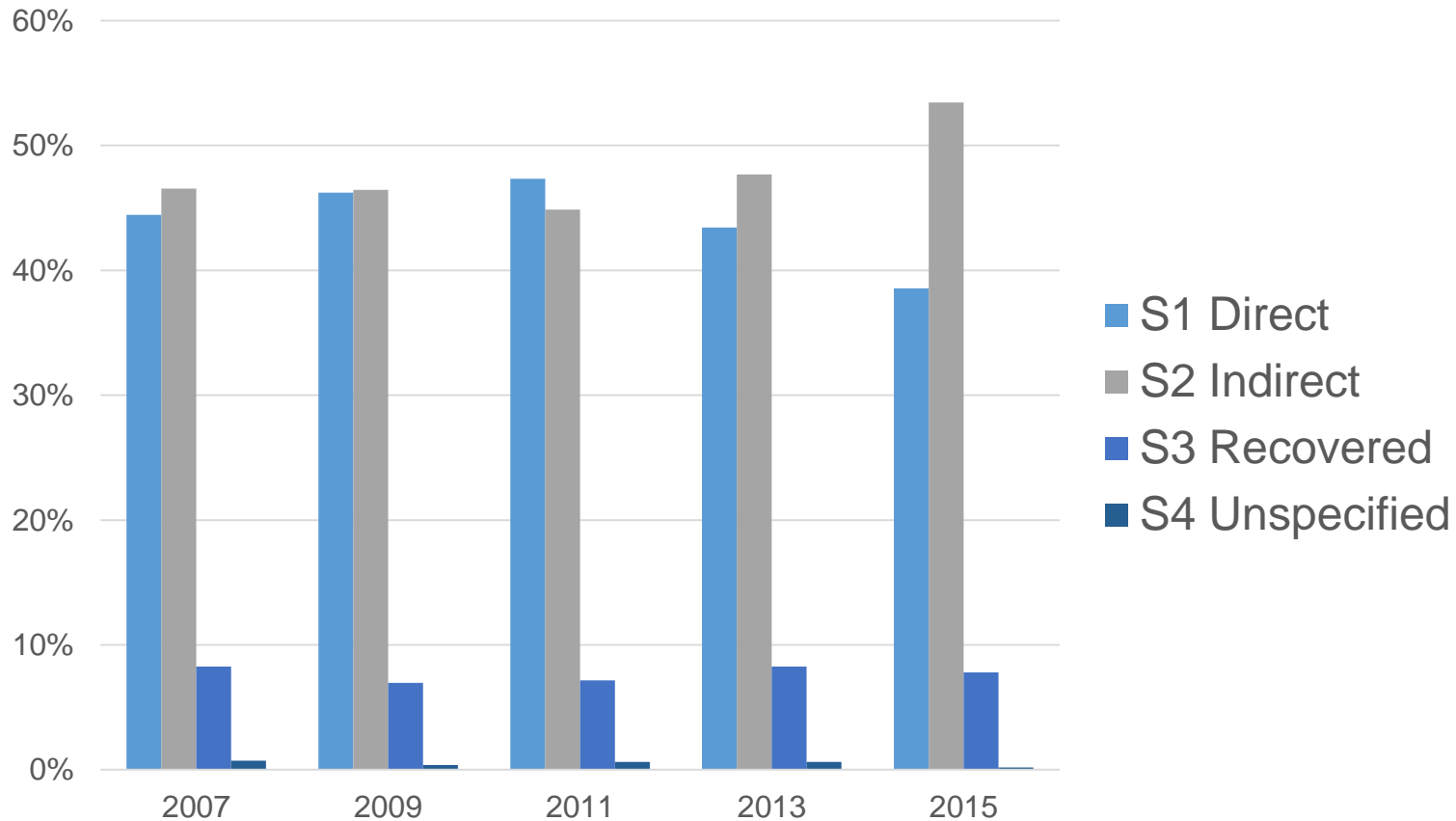


JWEE 12: Austria, Cyprus, Finland, France, Germany, Ireland, Luxembourg, Serbia, Slovenia, Sweden, Switzerland and the United Kingdom

Sources of wood energy

in JWEE 12 countries

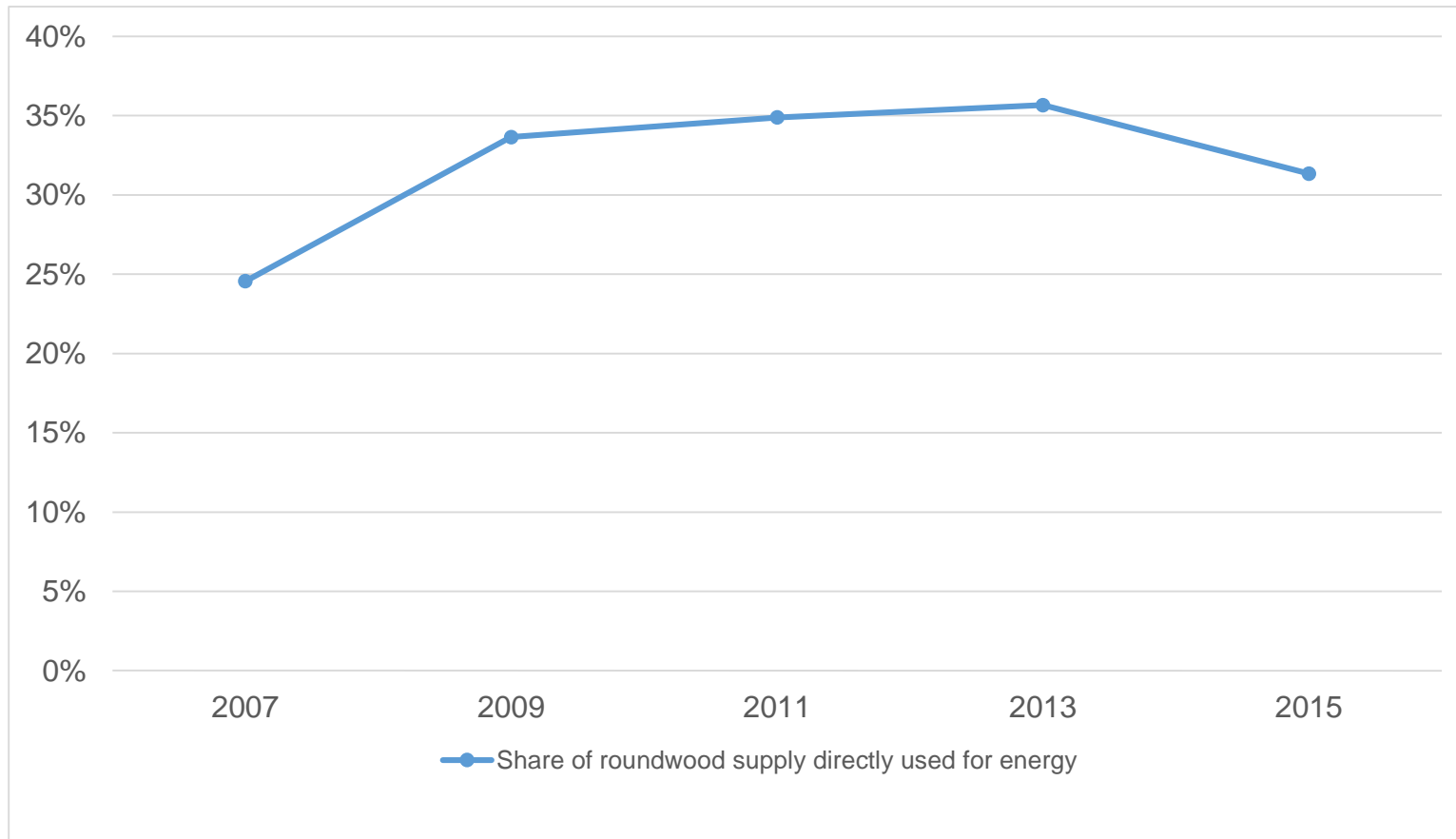
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JWEE 12: Austria, Cyprus, Finland, France, Germany, Ireland, Luxembourg, Serbia, Slovenia, Sweden, Switzerland and the United Kingdom

Share of roundwood supply directly used for energy

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JWEE 12: Austria, Cyprus, Finland, France, Germany, Ireland, Luxembourg, Serbia, Slovenia, Sweden, Switzerland and the United Kingdom



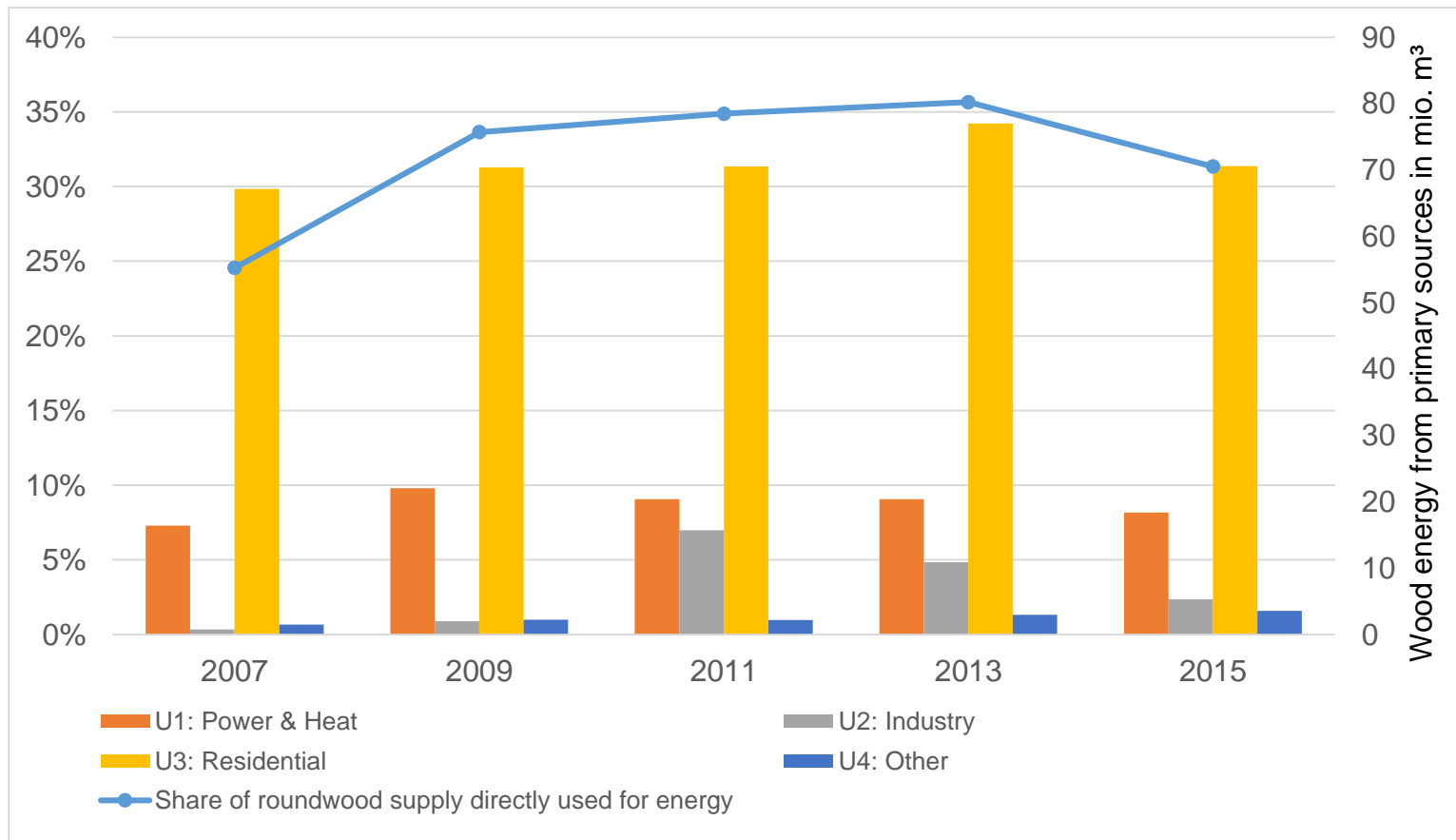
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Food and Agriculture Organization
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Share of roundwood supply directly used for energy

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JWEE 12: Austria, Cyprus, Finland, France, Germany, Ireland, Luxembourg, Serbia, Slovenia, Sweden, Switzerland and the United Kingdom



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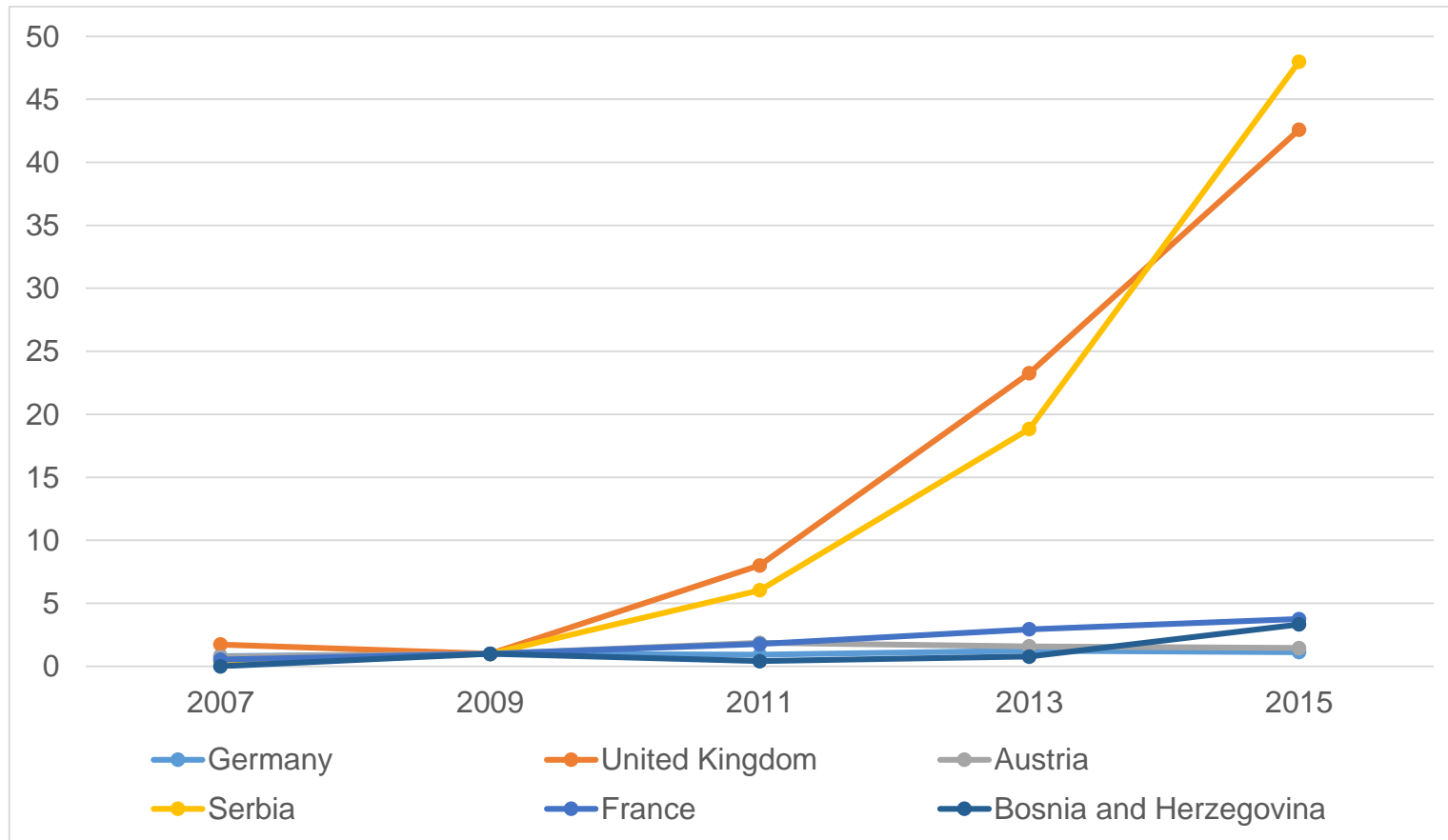


Food and Agriculture Organization
of the United Nations

Wood pellet consumption per capita

Index 2009 = 1

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Joint Wood Energy Enquiry

Introduction

The UNECE/FAO Forestry and Timber Section, with the encouragement of the Joint ECE/FAO Working Party on Forest Statistics, and in collaboration with the International Energy Agency (IEA), the Food and Agriculture Organization (FAO) and the European Commission (EC) decided in June 2006 to develop and launch a "Joint Wood Energy Enquiry".

Wood energy data are often scattered or lost within renewable energy statistics, making it difficult to assess and evaluate the real role of wood as a renewable source of energy.

The Enquiry aims at improving knowledge and understanding of wood energy consumption and tries to shed light on the potential and future perspective of wood energy in the region.

It collects data of both sources and uses of wood and promotes cooperation between the energy and forest sectors, providing a comprehensive framework on the role of wood energy in Member States.



2015 Joint Wood Energy Enquiry

Questionnaire [ENG](#) [RUS](#)

A manual is available [here](#)

2013 Joint Wood Energy Enquiry

According to the [results of the enquiry](#) (40MB):

Situation in 2013

Overall wood energy accounts for 3.5% of the total primary energy supply (+0.2 compared to 2011) and 38.2% of the renewable energy supply (-0.2) in 26 UNECE region countries in 2013, continuing its role as the leading source of renewable energy. Around 47% of all mobilized woody biomass supply (+7.0) is

<http://www.unece.org/forests/jwee.html>

Main trends 2007-2013

JWEE Country Profiles

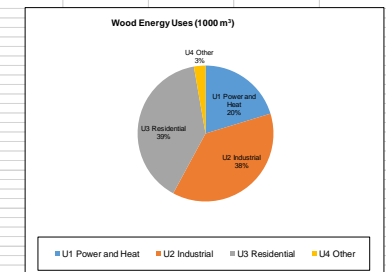
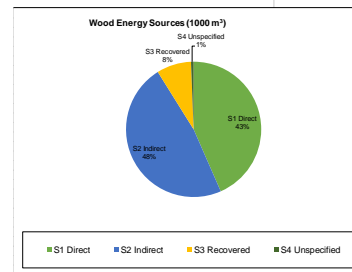
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2013

* Year selection only affects the "Wood Energy Sources and Uses"

	2015	2013	2011	2009	2007	2005
Total Population	257,408,201					
Rural Population (% of total)	25.4%					
Woody Biomass Supply						
Roundedwood removals from forest and outside forest (1000m3)	253,894	291,523	295,496	271,960	330,979	288,979
Roundedwood supply from forest and outside forest including net trade (1000m3)	312,087	311,994	312,919	287,235	349,949	303,846
Total calculated domestic supply of woody biomass (1000m3)	346,488	350,460	318,307	478,813	496,349	
Energy Resources						
Total primary energy supply (TPES Abn)	910,644	944,887	938,048	948,279	957,326	1,021,172
Share of renewables (RES) in TPES	13.6%	12.0%	10.8%	9.2%	9.7%	7.2%
Total wood energy supply, volume basis (1000 m3)	253,895	296,139	293,895	250,080	333,091	305,839
Total wood energy supply, energy basis (Terae)	53,981	58,043	50,878	46,007	43,547	
Wood Energy Intensity						
Average wood energy consumption (m3/capita)	0.207	0.190	0.201	0.182	0.177	0.161
Fuelwood consumption per rural inhabitant (m3/inhabitant)	1.07	1.09	1.13	1.02	1.03	0.90
Per capita consumption per inhabitant (kg/capita)	48.94	38.79	26.21	19.28	18.20	
Role of Wood Energy in Forest Sector						
Share of net annual increment directly used for energy (%)	20.4%	21.3%	17.8%	10.3%	12.3%	17.3%
Share of Roundwood supply directly used for energy purposes (%)	31.3%	30.7%	34.9%	33.6%	24.6%	22.6%
Share of calculated domestic consumption of woody biomass used for energy purposes (%)	46.0%	46.0%	44.3%	43.7%	38.9%	
Role of Wood Energy in Energy Sector						
Share of energy biomass in RES (%)	8.3%	8.9%	8.4%	4.4%	4.4%	3.3%
Share of woody biomass in RES (%)	43.6%	49.4%	51.1%	44.6%	50.1%	45.4%
Share of wood energy generated from black liquor, energy basis (%)	17.3%	17.0%	16.7%	17.2%	21.2%	
Impwood fuel as share of wood energy, volume basis (%)	10.2%	7.9%	8.6%	3.6%	2.2%	
Analysis 2007-14 CPFS						
Wood Energy Sources and Uses in 2013 (1000 m3)	U1 Power and Heat	U2 Industrial	U3 Residential	U4 Other	Sum	%
S1 Direct	20,324.0	16,903.0	16,088.4	2,888.2	111,238.8	43.4%
S2 Indirect	23,646.1	75,301.3	18,102.6	4,070.4	122,143.2	47.7%
S3 Recovered	7,841.0	9,938.4	3,373.0	20.7	21,173.2	8.3%
S4 Unspecified	69.7	181.6	1,308.8	10.0	1,560.4	0.6%
Sum	51,880.7	98,351.3	36,803.8	7,001.2		
%	20.3%	37.6%	38.4%	2.8%		

Disclaimer: Data comparisons between reference years are only indicative, due to changes in national and international statistical methodologies.





Thank you!



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Challenges

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How to present results and data in the future?

Today:

Excel-based database - download entire database – 40Mb!

Future:

Threefold approach:

- Aggregated data on indicators for quick overview
- Interactive database (e.g. UNECE statistics)
- Downloadable flat file for analytical work

Way ahead

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- JWEE2017:
 - Ready to be rolled out without changes (structure)
 - Prefilling of data needed
 - Launch of data collection in autumn 2018
 - Preliminary results available for the 41st session

Capacity building event?

2012 @ Paris

2016 @ Budapest (with IRENA)

...

The Working Party is invited to:

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(Secretariat paper 4a Paragraph 72)

- a. [provide guidance] How to further improve the update of JWEE data in energy and forestry statistics and reporting (Joint Forest Sector Questionnaire/FAO statistics, Forest Resources Assessment, State of Europe's Forests, Group of Experts on Renewable Energy, Environmental Performance Reviews, etc.);
- b. Provide guidance on any other aspects or the Joint Section's work on wood energy.

ToS report:

- There seems to be a downward trend in the number of Countries represented in the ToS. The ToS kindly asks WP members to encourage participation and nominate participants to ensure adequate representation for the most important source of renewable energy in the UNECE region.



Thank you!



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