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Food and Agriculture
Organization of the
United Nations

Cross-cutting and inter-sectoral cooperation to integrate renewable energy into energy systems

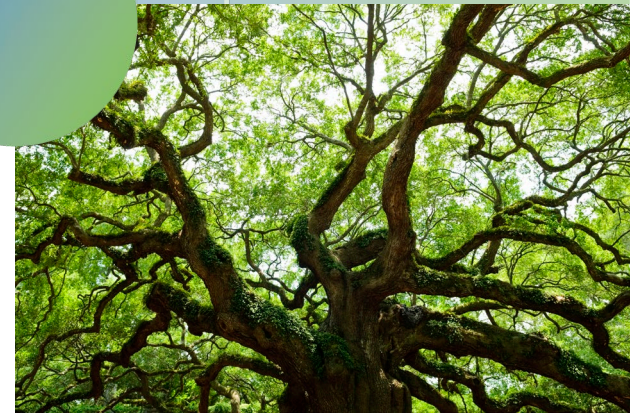
Wood energy

UNCEC/FAO Forestry and Timber Section

UNECE Group of Experts on Renewable Energy

Tenth session

11-12 September 2023



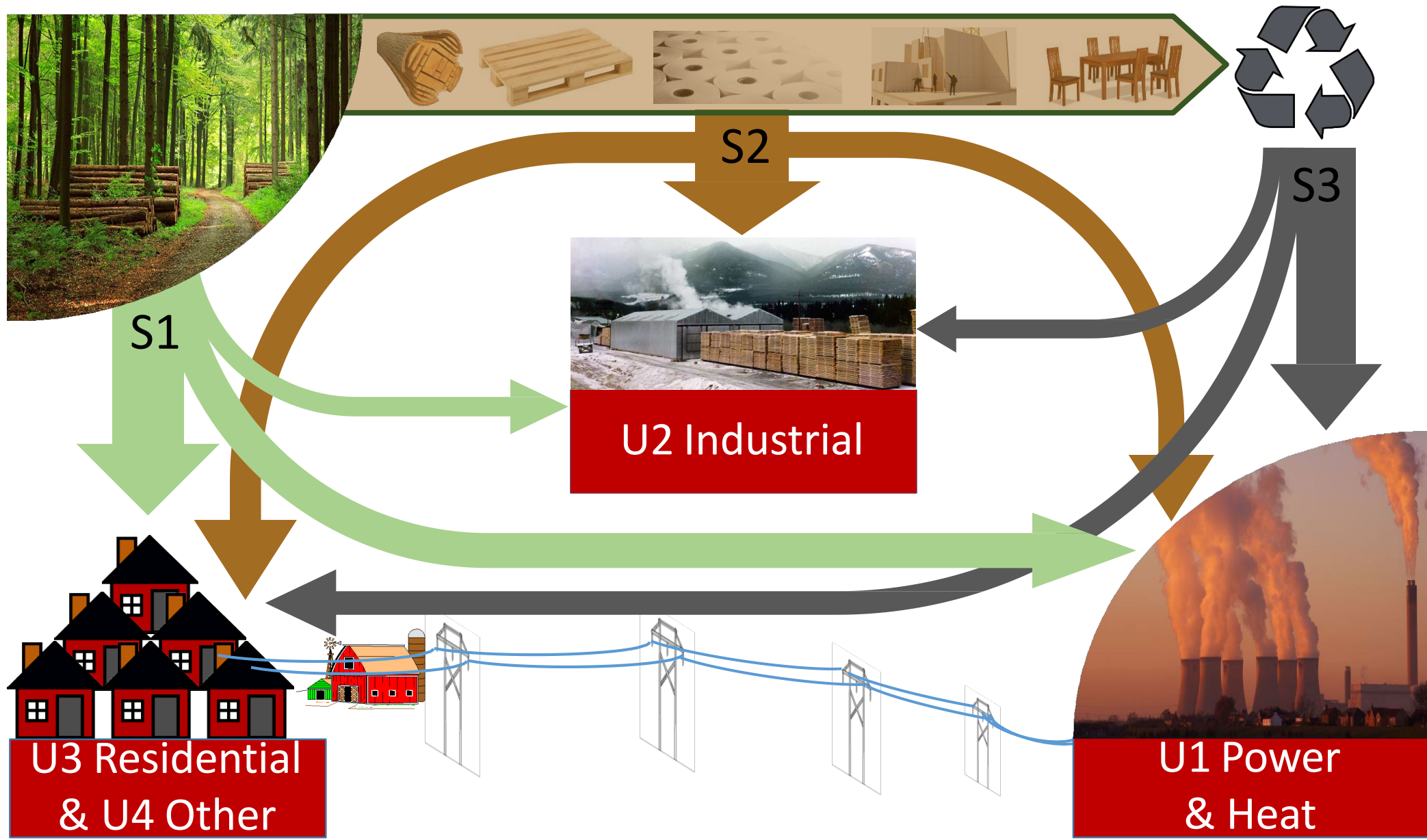
UNECE/FAO Forestry and Timber Section

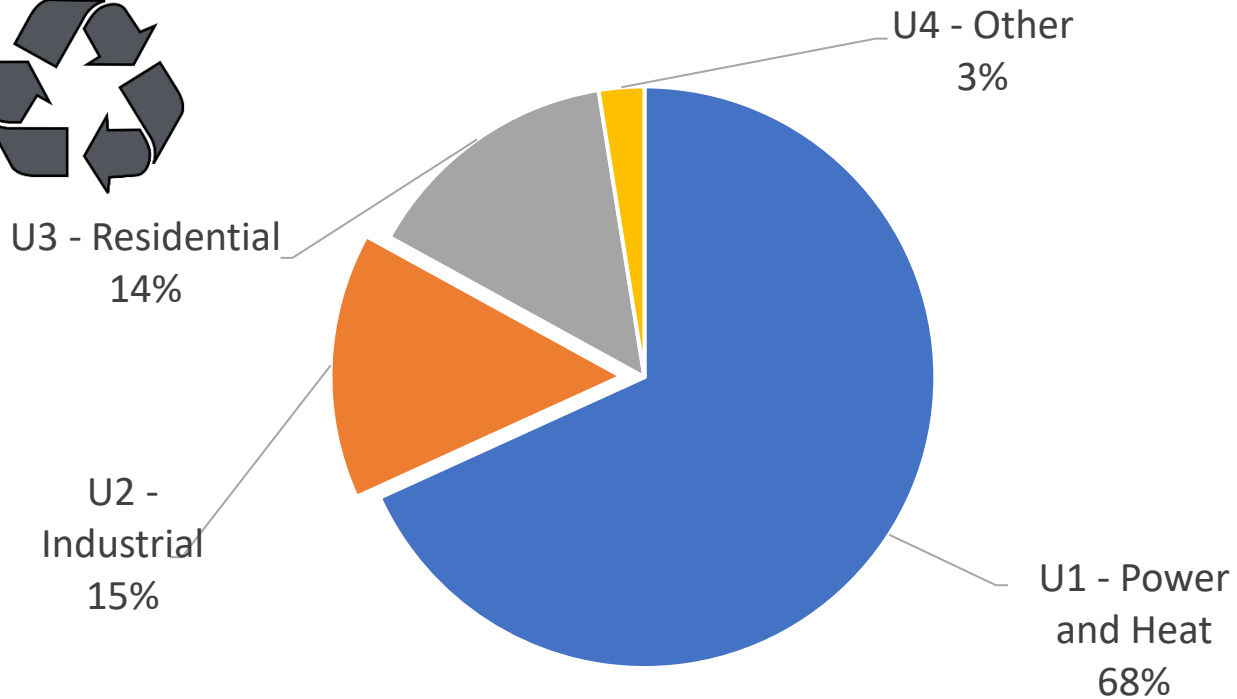
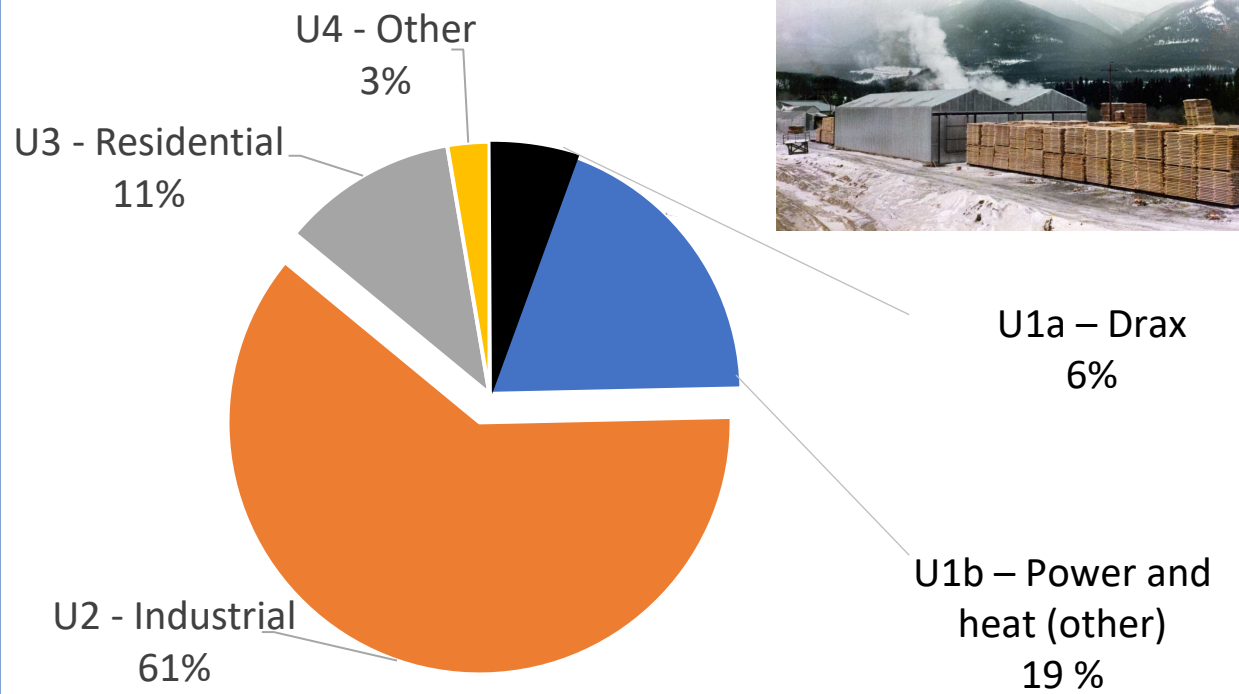
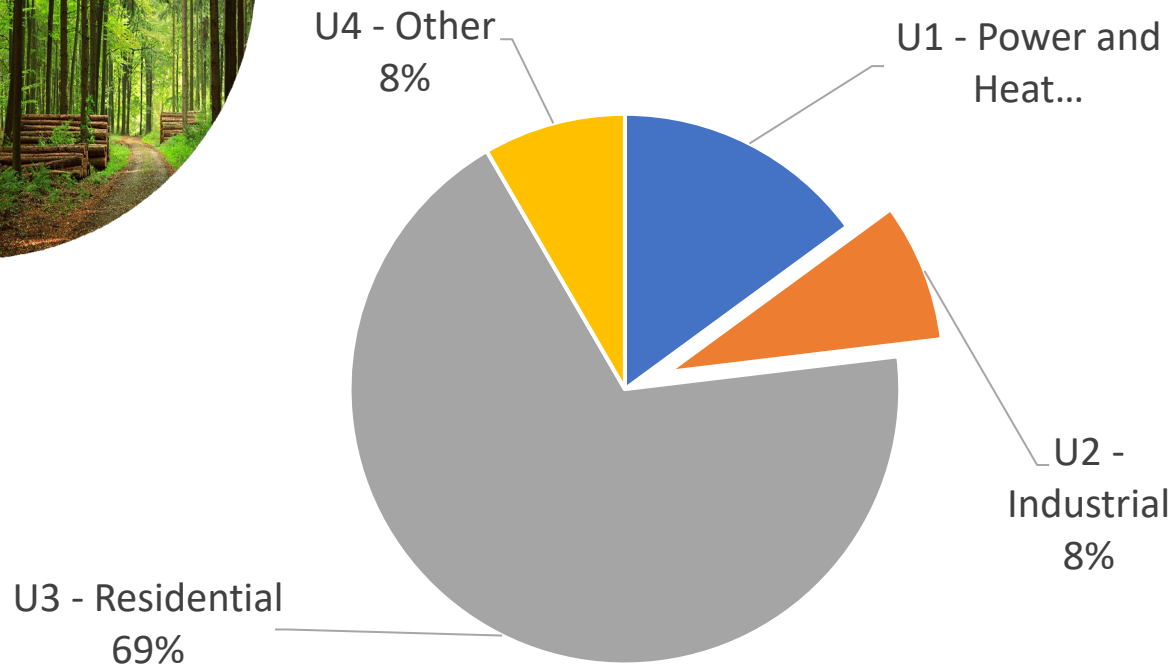
Work Areas:

1. Data, monitoring and assessment;
2. Policy dialogue and advice
3. Communication and outreach
4. Capacity building



Sources and User of wood for energy





- 2005
- 2007
- 2009
- 2011
- 2013
- 2015
- 2017
- 2019
- 2021

Joint Wood Energy Enquiry

Analyzing wood energy trends

Past

Current

Future

JWEE :

- Press release
- Fact sheet
- Country profiles
- Flatfile

Annual production and trade:

- FPAMR – annual market assessment
- Forecast data - wood fuel production y & $y+1$ (available in November)
- Country market statements

Outlook Studies:

- Forest Sector Outlook 2010-2030 & 2020-2040
- High wood energy scenario
- Possible interaction with other policy targets (biodiversity, climate change, wood construction, etc.)

Past

Current

Future

Forest products and residues form an increasing part consumed in the UNECE region, says UN

Climate Change > Circular Economy > Climate Change > Sustainable Development >

2021

Energy has been the leading source of renewable energy in the UNECE region for more than a decade, accounting for 35.4% of renewable energy supply for 31 countries, according to the latest results from the UNECE/FAO Joint Wood Energy Enquiry (JWEE). For Austria, Cyprus, Finland, France, Germany, Ireland, Luxembourg, Serbia, Slovenia, Sweden, Switzerland and the United Kingdom, which consistently reported to JWEE over the last 10 years, total wood energy consumption increased by 10 million m³ in 2017.

While wood removals from forests and other wooded areas are the largest source of wood energy, this trend is showing signs of change as wood fibres used for energy generation in the 31 countries are increasingly sourced from indirect sources, mainly by-products and residues from sawmills, sawdust, chips, or black liquor and processed wood-based products. In some countries, wood energy also accounts for a significant portion of wood from forests and other wooded areas used for energy purposes in these countries.

Some countries with both a strong forest industry (e.g. Austria, Cyprus) rely mainly (60% or more) on wood supply from forests and other wooded areas. Finland, Sweden and Canada have large shares of the total wood supply, reflecting the relative importance of the pulp and paper industry in these countries.

Wood pellets have soared in popularity across the UNECE region in the past decade, with consumption consistently provided data for the past decade, increasing from 16.2 kg consumed per capita in 2011 to 20.1 kg in 2017. In countries such as Belarus, Bosnia and Herzegovina, Ireland, the Netherlands, Serbia, Slovak Republic and the United Kingdom, on average, over 75% of the wood fuel is used for energy.

Food and Agriculture Organization of the United Nations **UNECE**

Forest Products Annual Market Review 2021-2022



UNITED NATIONS Geneva, 2022

Wood energy on the rise in Europe

SDGs > Climate Change > Forestry > Sustainable Development >

04 November 2022

For many people in economically well-developed countries of the UNECE region a wood stove or fireplace used to be a cosy way to heat a room in the cold season. This winter, however, the role of wood energy may dramatically change for many people out of sheer necessity.

A large part of the UNECE region is increasingly exposed to highly volatile prices of heating oil, natural gas and coal, forcing vulnerable groups of the population to switch back from gas and electricity for heating and cooking and heavily polluting wood stoves.

This vulnerability exposes the urgent need for a faster transition to sustainable energy sources, concluded participants of the 80th session of the Committee of Experts on the State of the Forest Industry (COFFI), which is taking place from 2 to 4 November 2022 in Geneva. The session focused on the challenges of wood energy production, storage, transport, and use. Wood can be a climate friendly alternative with minimal emissions.

UNECE region dominates global trade in wood energy

COFFI highlighted that while the consumption of key wood-based products (wood-based panels and sawn wood) now faced sharp declines due to the impact of the COVID-19 pandemic, the wood energy markets (pellets and traditional fuelwood) are on the rise.

Countries in the European Union (EU) burned about 23.1 million tonnes of wood energy in 2021. It is expected that their consumption in 2022 will reach more than 25 million tonnes, an increase even more in the future due to soaring fossil fuel prices and the impact of the COVID-19 pandemic on individual households.

The UNECE region dominates the global trade in wood energy products, with the region's major exporters (United Kingdom and Canada) and importers (United Kingdom). Some 10.6 million tonnes of wood energy products were traded in 2021, with the United Kingdom—as the biggest importer of wood pellets in the world—being the biggest single consumer, a power plant which imported and burned 1.1 million tonnes of wood pellets in 2021.



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FOREST SECTOR OUTLOOK STUDY 2020-2040



UNITED NATIONS Geneva

Analyzing wood energy trends



Current

Natural gas supply security and availability in Europe

- Record demand for fuelwood in second half of 2022 and early 2023
- Export ban of fuelwood from various countries (Serbia, Bosnia and Herzegovina, Ukraine, etc.)
- Pulp and paper recycling in central Europe depends on natural gas – shifting to biomass will take time
- Boosting log prices for beech sawlogs (few months in 2022)

Trade restrictions for any commodity under HS 44 (including pellets) by the EU on imports from the Russian Federation and Belarus:

- alternative sources for the +2 million tonnes of wood pellets



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Thank you!

UNCEC/FAO Forestry and Timber Section

Website:

www.unece.org/forests/wood-energy

Contact:

florian.steierer@un.org

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