UNECE/FAO Workshop on modern wood energy systems in Central and Eastern Europe

- Timisoara 16 September 2008

Wood Energy markets and trade in Europe – an overview

Presented by
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Outline

- UNECE/FAO Timber Section
- Role of wood energy in Europe
- International bioenergy trade
- Current efforts on wood energy
UNECE/FAO Timber Section

Role of wood energy in Europe

International bioenergy trade

Current efforts on wood energy
UNECE in brief

United Nations Economic Commission for Europe

• **One of the five** United Nations regional commissions

• **56 member States** (North America, pan-Europe, Russia, Central Asia)

• Forum for developing tools for **economic cooperation**

• Regional framework for the elaboration and **harmonization** of conventions, norms and standards

• **Provides technical assistance** to the countries in the region with transition and / or less developed economies.
UNECE Programmes

- Economic Cooperation and Integration
- Environmental Policy
- Housing and Land Management
- Statistics
- Sustainable Energy
- Timber and Forestry
- Trade
- Transport
UNECE/FAO Timber Section

Joint Programme of the UN Food and Agricultural Organization (FAO), European Forestry Commission

Focus on 5 areas of work:

- Markets and Statistics
- Assessment of forest resource and sustainable forest management
- Market outlook studies for the forest sector
- Social and cultural aspects of forestry
- Policy and cross-sectoral issues

...and wood energy as a cross-cutting issue
Activities on wood energy

Recent work:

2007: Wood resources availability and demands - Implications of renewable energy policies in the EU/EFTA region

Current work:

2008: Joint Wood Energy Enquiry 2008
2008: Potential wood supply in Europe
2008: 2nd Joint Wood Energy Enquiry

The way forward:

2008/2009: Empirical research on wood supply & use
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Role of wood energy in Europe

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Current efforts on wood energy
The role of wood energy…

⇒ In the energy sector

⇒ In the forest sector
Gross inland energy consumption (EU27)

- 6.5% renewables
- 17.4% coal, peat & lignite
- 14.4% nuclear
- 24.5% natural gas
- 37.2% crude oil

Renewable Energy Sources 2005 (EU 27)

Wood: Nº 1 Renewable energy

Source: Eurostat (modified)
Sources of wood energy (2005)


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User of wood energy (2005)

Europe

North America

Wood removals 2005 from forest and woody biomass outside forests

- For energy use: 71%
- For material use: 29%

Wood co-products, residues & recovered wood

- For energy use: 38%
- For material use: 62%

Total supply

- For energy use: 42%
- For material use: 58%

Source: UNECE / Hamburg University (2007)
Energy use vs. material use today – and tomorrow?


Source: UNECE / Hamburg University (2007)
Energy use vs. material use today – and tomorrow?
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Current efforts on wood energy
International Bioenergy Trade

Source: Smeets et al, 2004
European Biomass Trade

BIOMASS TRADE IN EUROPE

Pellets - Cross border trade in CEE (2005)

Transport costs

INDEX 100/100

INDEX 15/100

INDEX 1/100
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The way forward:

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First results will be presented during the European Forest Week 22. October 2008, Rome.
The JWEE – Structure

Direct:
Logging residues, thinnings, clearings, short rotation coppice etc.

Indirect:
Residues, enhanced/densified processed wood (pellets, charcoal, biofuels), etc.

Recovered:
Post consumer recycled wood products (often contaminated), construction, demolition, waste etc.
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Diagram:
- National household surveys
- Energy Data
- Timber and Forestry Data
- Waste management
Cooperation between energy and forestry statistics
Beyond trade statistics’ definitions (e.g. pellets / recov. wood)
Responses from 14 countries cover most important markets in Europe (e.g. 63 % removals) and North America.

Results:
- Detailed information on sources and user of wood energy
- Wood energy is important for forest and energy sector (representing 80% energy from solid biomass)
- Fuelwood removals from forests are already significantly higher (up to 10x more) - impact on future potentials !!!
Conclusions:

- Wood energy № 1 renewable energy source in EU
- Energy use of wood fibres will increase in future
- Higher demand will trigger higher prices (energy content?)
- EU energy policies might increase wood fibres import
- Global trade of processed wood fuels will increase
- Highest market potentials for wood pellets and briquettes
- Urgent need for improved data quality on wood energy
Vă mulțumesc pentru atenție!
Thank you for your attention!

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