Wood energy and sustainable mobilisation of wood

Roland Beck
DG Agriculture and Rural Development
European Commission
Problem of mobilisation of wood

- Background:
  - concerns on competitiveness of the EU forest sector
  - new demand created by renewable energy policy

- EU Forest action Plan – Key Action 4
  - calls for the promotion of the use of forest biomass for energy generation

- Work programme for the FAP 2007-2011:
  - improve mobilisation and efficient use of wood and wood residues, including low-value timber
  -> Standing Forestry Committee decided to set up a Working Group

- Report of the EP 1996: …promote the use of small dimension wood for industry and energy…
Main topics addressed

- Review of the use and the potential of forest biomass
- Mapping good practices regards mobilisation
- Challenges for increased mobilisation
- Analysis of the influence of forest ownership on wood mobilisation
- Possibilities to increase the supply of wood
- Recommendations for the MS, the Commission, regions and stakeholders
Availability of wood for energy in the EU

Potential - several studies:

- physical potential 212 – 315 million cbm
- mobilisable potential 100 – 190 million cbm

- Precise estimation not possible, but clear potential in
  - forest residues,
  - complementary fellings
  - precommercial thinnings
  - small scale private forests
Availability of wood for energy in the EU

- Strong increase in wood demand forecasted
- Growing competition between energy and raw material uses
- Synergies in mobilising wood for energy and raw materials
- Already higher direct use for energy than assumed
- Data shortcomings
Challenges for mobilisation of wood

- Environmental sustainability
  - Biodiversity
  - Site fertility; soil erosion and compaction
  - Water protection; nutrient leakage
  - Forest health and restoration
- Competitiveness of forest-based industries
  - Security of supply; fair competition
  - Co-operation between market partners
- Efficiency and economic viability of wood mobilisation
  - Costs; harvesting technology
  - Transaction costs
  - Work force
  - Need for innovation
- Forest owner motivation and organisation
Approaches to wood mobilisation: Experiences from Member States

- General policy initiatives: *Energy policies, strategic planning exercises*
- Support schemes for heat from biomass
- Support for biomass supply: *Rural development programmes*
- Capacity building, information: *Role of public forest services*
- Establishment of forest owner groupings
- Pilot projects and evaluation
- Increase of wood biomass supply potential for energy
- Wood mobilisation efforts from public forests

- Ongoing effort; measures directed to high-risk areas
8 focus areas for action

- Mostly related to wood mobilisation as general effort
- Addressed to MS, regions, SFC, COM, stakeholders, industry

- improve data on supply and use of wood
- develop national / regional wood mobilisation strategies
- increase the potential for wood supply
- ensure sustainability of forest biomass
- develop and maintain efficient wood supply chains and markets
- strengthen forest owner motivation, organisation and awareness
- enhance support, incentives and coordination efforts
- promote research and technological development in forest production, harvesting technologies and wood utilisation
Different regional conditions and needs

- Northern EU
  - motivate forest owners
  - innovative technologies

- Central & western EU
  - improve forest owner groupings & co-operation
  - motivation of forest owners
  - maintain markets

- Southern EU
  - establish fuel markets
  - initiate forest owner groupings & co-operation

- Eastern EU and EU-12
  - promote use and markets for low value timber
  - raise awareness of private forest owners

Working group report available on the europa forestry website:
Follow up activities

- **Opinion of the Standing Forestry Committee - February 2009**
  
  Stresses the need for
  - development of wood mobilisation strategies,
  - efforts in mobilising wood from high risk areas,
  - establishing and enhancing forest owner groupings,
  - conducting national and regional awareness campaigns

- **Directive on Renewable Energy**
  
  - Commission report on sustainability criteria for biomass – February 2010; Renewable Energy Action Plans June 2010

- **Studies**
  
  - Prospects for market supply from fragmented forest structures
  - Real potentials for changes in growth and use of EU forests (EU-Wood)
  - Different IEE projects
Follow up activities

- Grenoble workshop June 2009: Strategies for increased mobilisation of wood
  - Jointly organised by UNECE, Forest Europe, France, stakeholder groups
  - Building on efforts of UNECE, EU, stakeholder groups
  - Discussing successful mobilisation examples
  - Deciding to compile a good practice guidance

- Good practice guidance on sustainable mobilisation of wood
  - in print: main brochure plus leaflet
  - to support the formulation of REAPs
  - 8 mobilisation areas for action, 24 measures and examples from 13 Countries
1. Introduction
2. Wood resources and their mobilisation potential
3. General principles to be applied in wood mobilisation efforts
4. Overview of wood mobilisation measures
5. Sustainable mobilisation of wood: good practices
   A. Land tenure, management, coordination and planning
   B. Infrastructures and logistics
   C. Market and marketing: organisation and transparency
   D. Improved recovery channels
   E. Education, training and skills
   F. Sources of and mechanisms for financing
   G. Legal and fiscal measures
   H. Silvicultural measures
6. Concluding remarks
Good practice guidance on the sustainable mobilisation of wood in Europe

March 2010
5. Sustainable mobilisation of wood: good practices

A. Land tenure, management, co-ordination and planning

A.1 Improve the organisation of forest owners

**Description**
The voluntary formation of forest owner groupings is seen as the major instrument to increase mobilisation of wood from underutilised, small-scale, private forests. Well functioning forest owner associations provide a variety of services to their members, e.g. owners of small and fragmented holdings can profit from scale effects such as improved efficiency, decreased costs and increased profitability. Owners can also profit from enhanced co-operation with forest Industries, energy suppliers and public authorities.

**Applicability**
Applicable in regions with a high proportion of small, private forest holdings.

**Main challenges**
The low profitability of forestry particularly in small holdings is a considerable challenge. In addition, the forest management goals of owners are diverse and many owners do not act in a market-driven way. Customised approaches are needed to motivate each owner. However, this requires a considerable amount of effort.

**Main actors**
Lead: forest owners associations; others: public forest services
Good practice example:

Name: Enhanced economic co-operation of forest owners

Location: Estonia, Lääne-Viru County

Description:

**Situation:** Estonian private forest is characterised by a large number of owners having small forest holdings. Sustainable and profitable harvesting activities are not always common practice and the low level in organisation constitutes a considerable challenge for wood supply.

**Approach:** A project was initiated to establish joint selling procedures and sales contracts of forest owners. Accredited advisors inform forest owners on different management options, on economic opportunities and on support for the establishment of joint timber marketing procedures.

**Results:** Sales of timber cutting rights from private forests by forest owners’ co-operatives in the form of public auctions have begun. Joint sales of roundwood to the industry and of logging residues for bio-energy production have been established, and the establishment of an exemplary “bio-energy village” has been started. Private owners profit from better supervision of logging operations and higher prices through the mobilisation of larger volumes. 6,000 m$^2$ of roundwood were sold in one year through the local forest owners’ association. In the Jõgeva region, forest owners have formed a private limited company to produce wood-based heat for the local community.

**Lessons learned:** Initial wood mobilisation needs extensive consultation of forest owners. Furthermore, the start of such a project should fit with the market needs. The development of joint sales activities can be complex.

**Contact point:**

Jaanus Aun  
Member of the Board, Foundation Private Forest Centre  
Address: Tartu mnt 63, 10115 Tallinn, Estonia  
Phone: +372 683 6056  
E-mail: jaanus.aun@eramets.ee

**Reference:** http://www.eramets.ee
<table>
<thead>
<tr>
<th>Mobilisation area</th>
<th>Measure</th>
<th>Ref.</th>
<th>Page</th>
<th>Good practice example</th>
<th>Time scale (years)</th>
<th>Potential scale</th>
<th>Ease of Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land tenure, management, coordination and planning</td>
<td>Improve the organisation of forest owners</td>
<td>A.1</td>
<td>20</td>
<td>Enhanced economic co-operation of forest owners (Estonia)</td>
<td>3</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Enhance co-operation between forest management units</td>
<td>A.2</td>
<td>22</td>
<td>EWH Management GmbH (Germany)</td>
<td>1-2</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Consolidation of land management units</td>
<td>A.3</td>
<td>24</td>
<td>Land swapping in Galicia (Spain)</td>
<td>5-10</td>
<td>+++</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>Utilise woody biomass outside the forest</td>
<td>A.4</td>
<td>26</td>
<td>Profitable landscape management (Netherlands)</td>
<td>1</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td>Infrastructures and logistics</td>
<td>Raise axle weight limits, when appropriate</td>
<td>B.1</td>
<td>28</td>
<td>Decree on roundwood transport (France)</td>
<td>1</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Improve accessibility to the forest, in particular in mountain areas</td>
<td>B.2</td>
<td>30</td>
<td>Mapping of logging units with GIS (France)</td>
<td>3-5</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Optimise transport distances</td>
<td>B.3</td>
<td>32</td>
<td>NavLog (Germany)</td>
<td>3-5</td>
<td>+++</td>
<td>++</td>
</tr>
<tr>
<td></td>
<td>Improve technology and transport systems of new energy-wood assortments</td>
<td>B.4</td>
<td>34</td>
<td>NWHP (Finland, Iceland, Scotland), CHP Vienna Simmering (Austria)</td>
<td>2-3</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Market and marketing; organisation and transparency</td>
<td>Establish public-private partnerships to develop markets jointly</td>
<td>C.1</td>
<td>38</td>
<td>Integrated approach In the Navarra region (Spain)</td>
<td>2-3</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Improve market transparency</td>
<td>C.2</td>
<td>40</td>
<td>Virtual marketplace (Germany)</td>
<td>&lt; 1</td>
<td>++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Establish long-term partnerships</td>
<td>C.3</td>
<td>42</td>
<td>“Wald-Wrd-Mobil” (Germany)</td>
<td>2</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Facilitate access to basic information on forest ownership</td>
<td>C.4</td>
<td>44</td>
<td>Access to the Land Register (Sweden)</td>
<td>1-2</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Mobilisation area</td>
<td>Measure</td>
<td>Ref.</td>
<td>Page</td>
<td>Good practice example</td>
<td>Time scale (years)</td>
<td>Potential scale</td>
<td>Ease of implementation</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td>------</td>
<td>------</td>
<td>---------------------------------------------------</td>
<td>--------------------</td>
<td>-------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td>Market and marketing; organisation and transparency</td>
<td>Establish sustainable wood-energy supply chains</td>
<td>C.5</td>
<td>46</td>
<td>Wood-energy supply chain (Spain), Biomass Trading Centre (Austria)</td>
<td>2-3</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>(continued)</td>
<td>Improve the Information about sustainable forestry</td>
<td>C.6</td>
<td>50</td>
<td>Wood promotion campaign &quot;Holz 21&quot; (Switzerland)</td>
<td>1-2</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Improved recovery channels</td>
<td>Carry out Inventories on and utilise sources of post-consumer wood</td>
<td>D.1</td>
<td>52</td>
<td>Improved collection and recycling of post-consumer wood (Italy)</td>
<td>2-3</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Standardise classification of post-consumer wood and contamination limits</td>
<td>D.2</td>
<td>54</td>
<td>Guidebook on wood biotreatments (France)</td>
<td>1-2</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Education, training &amp; skills</td>
<td>Provide relevant information and training</td>
<td>E.1</td>
<td>56</td>
<td>Training of contractors and operators (France)</td>
<td>1</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Provide adequate working conditions and remuneration</td>
<td>E.2</td>
<td>58</td>
<td>Krafsamlings skog (Sweden)</td>
<td>3-5</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Sources of and mechanisms for finance</td>
<td>Supporting Investment</td>
<td>F.1</td>
<td>60</td>
<td>Investment support for small sawmills (France)</td>
<td>1</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Providing grants and Incentives</td>
<td>F.2</td>
<td>62</td>
<td>Biomass Support Scheme (Scotland)</td>
<td>1</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Legal and fiscal measures</td>
<td>Stimulate wood mobilisation through fiscal measures</td>
<td>G.1</td>
<td>64</td>
<td>Tax reduction for active forest owners (France)</td>
<td>1</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Prevent further fragmentation of holdings</td>
<td>G.2</td>
<td>66</td>
<td>Adjusting inheritance tax regulations (Belgium)</td>
<td>1</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td>Silvicultural measures</td>
<td>Enhance silvicultural management</td>
<td>H.1</td>
<td>68</td>
<td>Genetic Improvement, Intensive forestry (Sweden), Pre-commercial thinning (Finland)</td>
<td>3-5</td>
<td>+++</td>
<td>+++</td>
</tr>
<tr>
<td></td>
<td>Improve existing certification programmes</td>
<td>H.2</td>
<td>72</td>
<td>National certification programme (Ireland)</td>
<td>3-5</td>
<td>+++</td>
<td>+++</td>
</tr>
</tbody>
</table>

Table 4: Overview of wood mobilisation measures (evaluation figures are estimated and exclusively refer to case studies)
Thank you for your attention