Development of wood biomass production chains - case of Slovenia

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Some facts about wood biomass

- 30% of apartments are using wood for heating
- More than 1,300,000 m³/y is used for energy production
- Fast developing market (also with pellets)
- Only limited number of CHP pants and DHS
- With use of wood biomass we are saving 5% of total CO2 emissions
Potentials of wood biomass

Total non-timber allowable cut

Potentials: 1,500,000 m³:
Forests + non-forest land + wood wastes (WISDOM approach)

TCP/FAO Project: 2004-2006

Non-Forest productivity
Producers of wood biomass (2004)

- 31 registered producers
- Year production: 13,500 m³ firewood, 80,456 loose m³ wooden chips, 35,000 t pellets in 2,373 t briquettes (10 % of biomass used in SLO).

Structure of wood biomass use

- 47.4% Biomass systems
- 31.1% Comp. for internal use
- 20.5% Comp. for seling (export)
- 1.0% Households
- 0.0%
Wood chipers (2004-2006)

Source: M. Dolenšek (Chaimber of agriculture and forestry od RS and SFI, 2008)
More than 150 registered producers
A catalogue is in the process of preparation
Modern boilers (2002-2007)

No. of applications for subsidies – Ministry for environment of RS

- Extension network “LesEnSvet”
- Biomass road, biomass sites
- Web page
- Education and training material
- Events
LesEnSvet – network of advisors for wood biomass

- 40 advisors from Slovenian forestry service, Chamber of Agriculture and forestry, Energy advisory network
- Ensure knowledge transfer to end users
- Establishment of network in the beginning of 2004
- Work of advisors in 2004-2005:
  - more than 400 consultations
  - more than 100 interviews for TV, Radio, newspapers
  - 76 presentations and lectures for public
  - 68 workshops
  - more than 20 projects

We have a network of educated – independent experts all around Slovenia – working on local level
LesEnDemo

- 16 demonstrations of modern technologies
- Around 9,000 visitors in p. 2004 - 2008

We introduced modern technologies to rural population

- They are open to all,
- No fee,
- On Sundays
- Local media coverage
Biomass road

- Presentation of the best practice of WB use in Slovenia
- People can visit the site and discuss about the practical experiences with the owner
Energijska vrednost (Q) je količina energije na enoto mase ali prostornine, ki se sprosti pri popolnem zgorevanju. Vsako gorivo ima določeno energijsko vrednost. Les je naraven material zato so njegove lastnosti zelo variabilne. Energijska vrednost lesa je odvisna od drevesne vrste, vsebnosti vode ter ohranjenosti lesa.

Izberite uporabljano (prvo) gorivo, izpolnite količino v rumenem polju in izberite nadomestno (drugo) gorivo in kliknite na gumb "Izračunaj".

Izbor uporabljanega goriva:
- Kurilno olje
- Lesni sekanci povprečje (20 W)

Porabljena letna količina uporabljanega goriva 2500

Izbor drugega goriva
- Lesni sekanci povprečje (20 W)

Porabljena količina drugega goriva 30.31

Energetska vrednost (kWh)

24250 kWh

9.7 kWh
Slovenian wood biomass action plan (2007 - 2013)

Use of wood biomass should increase for 770 G W till 2013 – (grow for 17%)

Special emphasis is given on promotion of wood biomass in public sector

Active participation of forest owners and farmers on biofuel and bioenergy market is stressed out.
Challenges?

- Adaptation of Biomass action plan
- Harmonization of legislation according to Eu RES legislation
- Stable system of subsidies
- Stimulation of energy contracting model - covering the whole production chain - from forests to energy
- Promotion of wood biomass in public sector
- Diversification of wood biomass sources (Forests, plantations, wood processing industry, wastes)
- Implementation of standards and technical specification
- Quality assurance and security of supply
Thank you for your attention