Sustainable management of forests in the Czech Republic and its consequences for wood availability and supply

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Outlines

- Basic principles of the forestry policy and forest law in the Czech Republic
- Forest management planning
- Forest certification
- Information on forests
- Basic facts of the Czech forests (forest cover, tree species composition, growing stock volume, increments and removals)
- Current policies and their potential influence on wood availability
  - Use of forest biomass for energy generation
  - Role of forestry in climate change mitigation
  - Restrictions of forest management for the reasons of nature protection
Basic principles of the Czech forestry policy

Forestry policy
• main international sources
  • MCPFE
  • EU Forestry Strategy
  • EU Forest Action Plan
• main political document at the national level is the National Forest Programme

National Forest Programme for the period until 2013
• the NFP’s most important principles are:
  • sustainable forest management
  • administrative interventions of the state reduced to an inevitable minimum
  • motivation incentives of the government forest policy to support public interests
  • increasing responsibility of forest owners for their properties
  • a differentiated approach to forests according to the category, size and type of ownership
Forest act – some of its principles

- State forest enterprise Forests of the Czech Republic x forest state administration
- Land designated for the fulfilment of forest functions
- Classification of forests
- General use of the forest (by general public, prohibition of certain activities)
- **Forest management planning** (regional plans of forest development, forest management plans, forest management guidelines,)
- **Forest Inventory**
- Reforestation, tending, protection, harvesting, reclamation and torrent control
- Professional (licensed) forest manager
Forest management planning

- **100 % of forests covered by forest management plans or their equivalents**
- **Forest management plans** (> 50 ha) - an instrument of the forest owner, usually processed for the period of **10 years**.
  - Binding provisions:
    - maximum aggregate volume of felled timber
    - minimum share of soil-improving and reinforcing species for stand regeneration
    - minimum area of tending activities in stands of under 40 years of age (state and municipal forests)
  - Approved by forest state administration body (+binding position of nature protection administrative body).

- **Forest management guidelines** (< 50 ha) - to learn the state of forests and to execute the state administration, usually processed for a period of **10 years**, processing commissioned by a state forest administration body.
Forest certification

- guaranty that the forest management complies with the criteria of SFM
- **PEFC** and **FSC** certification schemes
- total area certified with **PEFC**: 1,824,118 ha = 69 % of forest land area
- total area certified with **FSC**: 52,387 ha = 2 % of forest land area
Getting information on the Czech forests

History
• „forest inventories“ – from the period between the World Wars
  – low quality, often based on estimates
• Forest Inventory 1950, Forest Inventory 1960, Forest Inventory 1970
  – main objective to renew the forest management plans (but spaced 10 years apart)
• from 1979 - Comprehensive Forest Management Plans
• 1998 – replaced by Information on the Status of Forests
  – yearly basis, summarised data of individual forest management plans
• until 2004 all the inventories based on summarised data of forest management plans & forest management guidelines

National Forest Inventory
• forest – integral component of the environment, taking into account its ecosystem relations (323 variables)
  – state of forests (forest area, tree species composition, share of age classes, healthy status, growing stock volumes, biomass volumes, deadwood volumes, carbon stocks, damage to forests caused by various agents etc.
• first NFI cycle carried out from 2001 to 2004, second cycle has been started in 2011
Tree species composition

- Spruce: 52.2%
- Pine: 16.9%
- Larch: 3.9%
- Oak: 6.8%
- Beech: 7.2%
- Other coniferous: 1.2%
- Other broadleaved: 10.8%

Unstocked area: 1%

Source: Forest Management Institute
Growing stock volume

Source: Forest Management Institute
Total annual fellings

Source: Forest Management Institute
Comparison of total annual fellings and total increments

Source: Forest Management Institute
Prediction of total annual fellings and total current increments

Source: Forest Management Institute
Current policies and their potential influence on wood availability

• **Use of forest biomass for energy generation**
  – Limited availability of forest harvesting residues (800 000 m³/year)
  – No support to fast growing tree species on agricultural lands
  – High proportion of utilization of total increment of wood in forests (90% of TMI)
  – Low potential for mobilization of additional wood
  → Higher competition for traditional wood sources (especially of pulpwood)

• **Mitigation of and adaptation to climate change**
  – Mitigation measures – either support to accumulation of carbon in forests or in harvested wood products (HWP)
  – Reference levels for carbon accounting within Kyoto protocol (an artificial restriction to utilizing the increment of wood in forests) (~ 3 864 Gg CO₂ eq. ~ 4,3 mill. m³ of TCI)
  – Adaptation – changes in tree species composition – lower supply of softwood (spruce)

• **Restrictions of forest management for environmental purposes**
  – Current ideas to integrate environmental goals into forest management planning (with the support under rural development regulation)
  – Increasing attempts by nature protection administration to influence preparation of forest management plans
Current policies and their potential influence on wood availability

- 3864 Gg CO₂ eq.
Thank you for your attention.

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