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XVII International WoodEMA 2024 Scientific Conference

GREEN DEAL INITIATIVES, SUSTAINABLE MANAGEMENT, MARKET DEMANDS, AND NEW PRODUCTION PERSPECTIVES IN THE FORESTRY-BASED SECTOR

Sofia, 15-17 May 2024

Impacts of the green transition on the forest-based sector in the Czech Republic

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Presentation outline

- Introductory notes
- Green transition
- Methodology
- Results and Impacts
- Conclusion
- References

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Introductory notes ... on the current situation in the Czech forest-based sector

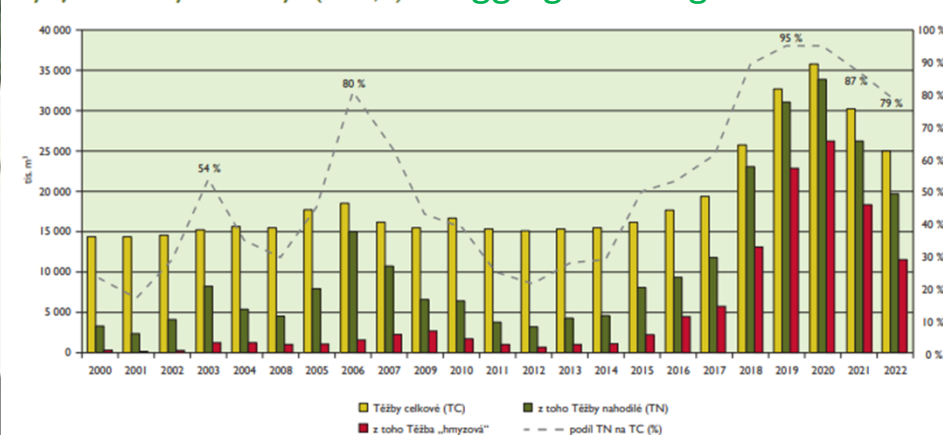
- Forest area: 2 617 628 hectares (37,1 % of the country area)

Ownership	%	church	Forest cooperatives	Municipal	Other private	Legal persons	state
Czech Republic		4,6	1,2	17,2	19	3,4	54,6

- Logging (2019 – 95 % salvage fellings
2022 – 50 % salvage fellings)
- Number of people employed: 13 603
- CZ NACE 16:

Avg. Number of people employed	27 950
Average wage	31 047 (CZK)

Graf 3.5.1 Vývoj těžeb celkových a nahodilých (tis. m³, %) Logging – salvage and total



Pramen: ČSÚ

Introductory notes ... challenges in the Czech forest-based sector

- Covid pandemic + recovery (*National recovery plan*)
- Funding + financial sources + priorities
- **Strategies + legislation**
- Societal demand and perception of the forest-based sector
 - Forests and forestry
 - Ecosystem services + Payments for ecosystem services (PES)
 - Gender
 - Carbon (sequestration, credits)
 - Products made from wood, ...
- Communication
- Challenges with higher impact than before (e.g., forest fires)
- Small-scale areas protection (Soutok, Křivoklát)

Tabulka 3.5.5.2 Forest fires
Lesní požáry (eAgri, 2023)

Rok	2018	2019	2020	2021	2022
Škoda způsobená lesními požáry (mil. Kč)	15	17,4	18,6	8,02	49,46
Uchráněné hodnoty (mil. Kč)	271,1	319,5	256,7	164,9	298,2
Počet požárů	2 033	1 963	2 081	1 517	2 473
Rozloha lesních požárů (ha)	492	519,9	484,4	410,99	1 715,25
Zraněno a usmrceno osob	35+0	31+0	21+2	15+0	63+0

Poznámka: Údaje uvedené v tabulce jsou počínaje rokem 2010 vztaženy pouze k požárům v lese (škody na porostu a dřevní hmotě), v předchozím období byly vztaženy k celé oblasti lesnictví (porosty, stavby, stroje a zařízení). Na hodnotách za rok 2022 má významný podíl požár v Národním parku České Švýcarsko, který zasáhl plochu 1 060 ha.

Pramen: MV – GR HZS ČR

Green transition

- Green economy = alternative to current economic model with strategical emphasis on improvement of human well-being and building social equity whole reducing environmental risks (UNEP, 2024)
- Green economy principles: well-being, justice, planetary boundaries, efficiency + sufficiency, the good-governance (Green Economy Coalition, 2020)
- Green jobs: jobs that help to improve efficiency in energy and raw materials, limit GHG emissions, minimize waste and pollution, protect, and restore ecosystems and supports adaptation to climate change (ILO, 2016)
- *Circular (bioeconomy)*
- *Sustainability*

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Methodology

- content analysis applied to documents (forest-based sector direct relevance, national-level, in-force document, public availability of the document) similar to Palátová (2023)
 - Key words: forestry, wood, bioeconomy, circular economy, green economy, carbon
- => Research and Innovation Strategy for Smart Specialisation, National Recovery Plan, National Action Plan for Adaptation to Climate Change
 - *Concept of the State Forestry Policy until 2035 (from 2020)*
 - *Strategy of the Ministry of Agriculture of the Czech Republic with a view to 2030 (from 2016)*
- Project QL24020204 - Impacts of territorial nature protection on the management of forest owners and the wood-processing sector

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Results

- Territorial protection
- Selected strategies (Czechia)
 - RIS3
 - National Recovery Plan
 - National Action Plan on Climate Change Adaptation

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Territorial protection (1/2) ... current and (future)

- Current - the specific protection of the territory is applied on an area of almost 3 million hectares: 1) large-area (national parks/4 and protected landscape areas/26; 2) small-area (national nature reserves, national natural monuments, nature reserves, nature sanctuaries), and 3) NATURA 2000 system with 41 bird areas and 1112 sites of European importance (AOPK, 2024).
- Forest owner might be compensated for restrictions in specially protected areas (NATURA 2000, commemorative trees, protected plants, animals and minerals; for measures within territorial systems of ecological stability and on the basis of decisions of state nature protection authorities, binding opinions and agreements and is paid from the state budget)/Ministry of Environment + compensations coming from European sources - Ministry of Agriculture does not provide mandated payments related to nature protection, but provides subsidy instruments at the European level (agri-environmental and forest-environmental payments provided under the Common Agricultural Policy and Rural Development Policy).
- Forests (production Forests; protection Forests – e.g., location with unfavourable habitats, mountain forests, windbreaks, special purpose Forests – e.g., suburban, spa, research and education – also where the „other interest“ is more important than production function/ecosystem services)
- Future protection
 - Chráněná krajinná oblast Soutok/Protected landscape area Soutok
 - Národní park Křivoklátsko/National park Křivoklát (16% of the most valuable area of the current protected national landscape Křivoklát)



Territorial protection (2/2) ... project QL24020204

- Research need of the Ministry of Agriculture of the Czech Republic
- Why is it needed?
 - lacking the impact of restrictions on forest owners in terms of units + financial terms + macroeconomic impacts + impacts on the following sectors (esp. wood-working industry)

Impacts of territorial nature protection on the management of forest owners and the wood-processing sector (QL24020204)

- National-level project funded by the National Agency for Agricultural Research (Ministry of Agriculture)
- Duration: 3/2024-12/2026
- Main investigator: FLD CZU Prague (R. Dudík) – 5 faculty departments involved
- Budget: >10 mio CZK (cca. 413 Thous. EUR)
- Project aim to:
 - Differentiate the territorial protection and related restrictions for FO
 - Quantify the impacts of territorial protection of FOs (by volume + in financial terms)
 - Proposal of legislative and conceptual measures
 - *Create scenarios for future development of territorial protection in Czechia + evaluation of these scenarios*
- Outputs:
 - Methodology – calculation of impacts on FO
 - Legislative changes (administration of the legislation)
 - 3 scientific papers (2 Jimp, 1 Scopus)
 - 3 workshops (including relevant key stakeholders + wood-processing industry)
 - 4 „other“ – communication strategy + project reports



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RIS 3 strategy

- 2021 – 2027, Ministry of Industry and Trade
- The implementation of the national RIS3 strategy is one of the conditions for getting the EU funding
- „a resilient economy based on knowledge and innovation“
- climate change, ecosystem degradation and environmental protection are among key topics
- Green Technologies, Bioeconomy and Sustainable Food Resources domain



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National Recovery Plan

- 2021 – 2026, updated in 2023, Ministry of Industry and Trade (NextGeneration EU)
- *Bioenergy, biomass*
- *Forests resilient to climate change*
- *Water retention*
 - *Nature protection and adaptation to climate change (linkage to climate change adaptation strategy – Forest industry, biodiversity and ecosystem services/ES)*
 - *Strategic goal 2: ecological stability and provision of ES, prevention soil degradation and increasing natural water regime (game management, forest management regimes, best practices for forest owners, biomass, ...)*

100 biggest beneficiaries (4/2024):

- (1) railway infrastructure, labour market, medicine, water „issues“, universities
- (4) Lesy ČR, s.p./Forests of the Czech Republic, state enterprise - 38 378 463 €
- (61) Arcibiskupské lesy a statky Olomouc s.r.o. (church Forests)
- (68) Lesní družstvo ve Štokách (forest cooperative)
- (71) Lesy města Brna, a.s. (municipal Forests)

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National Action Plan – Climate Change Adaptation Strategy

- 2015 - *Climate change adaptation strategy in the Czech Republic*
- 2017 (2017-2020), 2021 – 1st update for the period until 2025
- Ministry of Environment
- Strategic objective 2: ecological stability and the provision of ecosystem services of forests, with an emphasis on preventing land degradation and strengthening the natural water regime (management practices, game status, gene pool, water retention in the landscape, etc.)
- Cross-cutting measures include payment for ecosystem services, green budgeting, conservation, ecosystem services and awareness raising

Priloha č. 1: Ministerstvo životního prostředí
Národní akční plán adaptace na
změnu klimatu

Implementační dokument Strategie přizpůsobení se změně klimatu
v podmínkách ČR

1. aktualizace pro období 2021 - 2025

Implications for the forest-based sector

- Pressure on joint activities (inter-sectoral cooperation, mutual strategies)
- Alignment of European and national strategies
- „strong topics“ coming to the front: e.g., circularity, bioeconomy, biodiversity, waste management, smart cities, digitalization, AI, ...
 - Acceptance or adaptation?
- Monitoring activities needed
- Changes in curricula, changes in demand for (specific) knowledge
- Communication + explanation of forest-related activities needed
- Role of key stakeholders...and forest owners?
- Forest owners
 - Forest management regimes changes (connected to societal demand + perception changes)
 - Less/more tasks and legal issues
 - Financial possibilities (funding and subsidies?)
 - Consequences of payments for ecosystem services

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Conclusion

- "Greening" is among key topics in contemporary economies, including Czech Republic
- „Greening“ can be found in many documents, such as RIS3, National Recovery Plan, National Action Plan for Adaptation to Climate Change
 - Multidisciplinarity and joint actions needed!
- The territorial protection impacts various actors in forestry and in economy because it influences more than just a forest sector
- That is why projects and cooperation among relevant stakeholders (incl. „Quadruple helix“) is needed

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