

Sustainable forestry in Estonia: Forest Development Program 2030

Estonian Forest Development Program

Latvian University of Life Sciences and Technologies

Kalev Jõgiste

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Estonian Forest: Sustainable Management

General goal

Forestry takes into consideration climate change and biodiversity

Subchapter 1

Forest sector is competitive in economic terms

Subchapter 2

Forestry is participatory and considers social and cultural values

Subchapter 3



Forest regeneration management and policy in the Nordic–Baltic region since 1900

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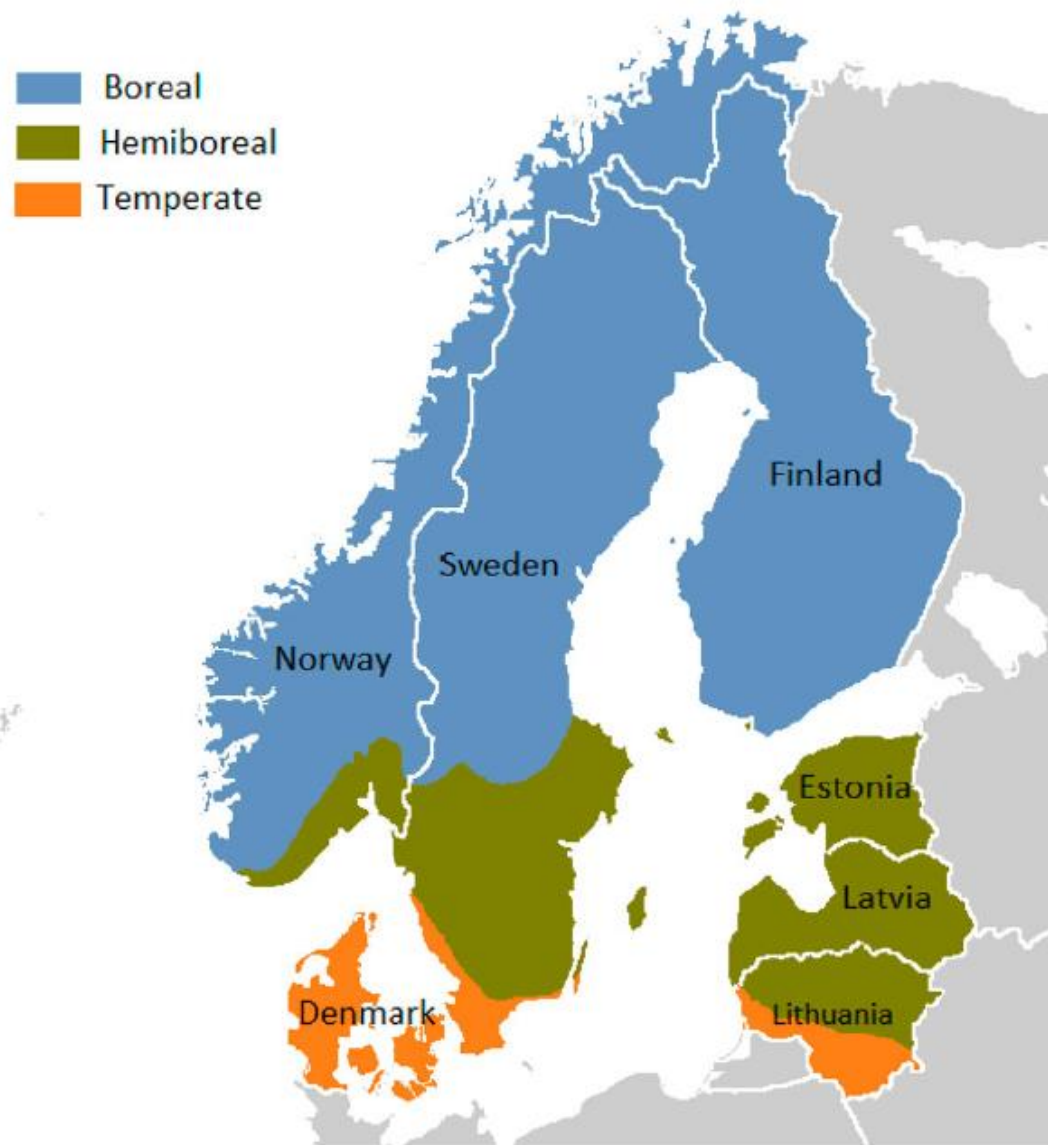


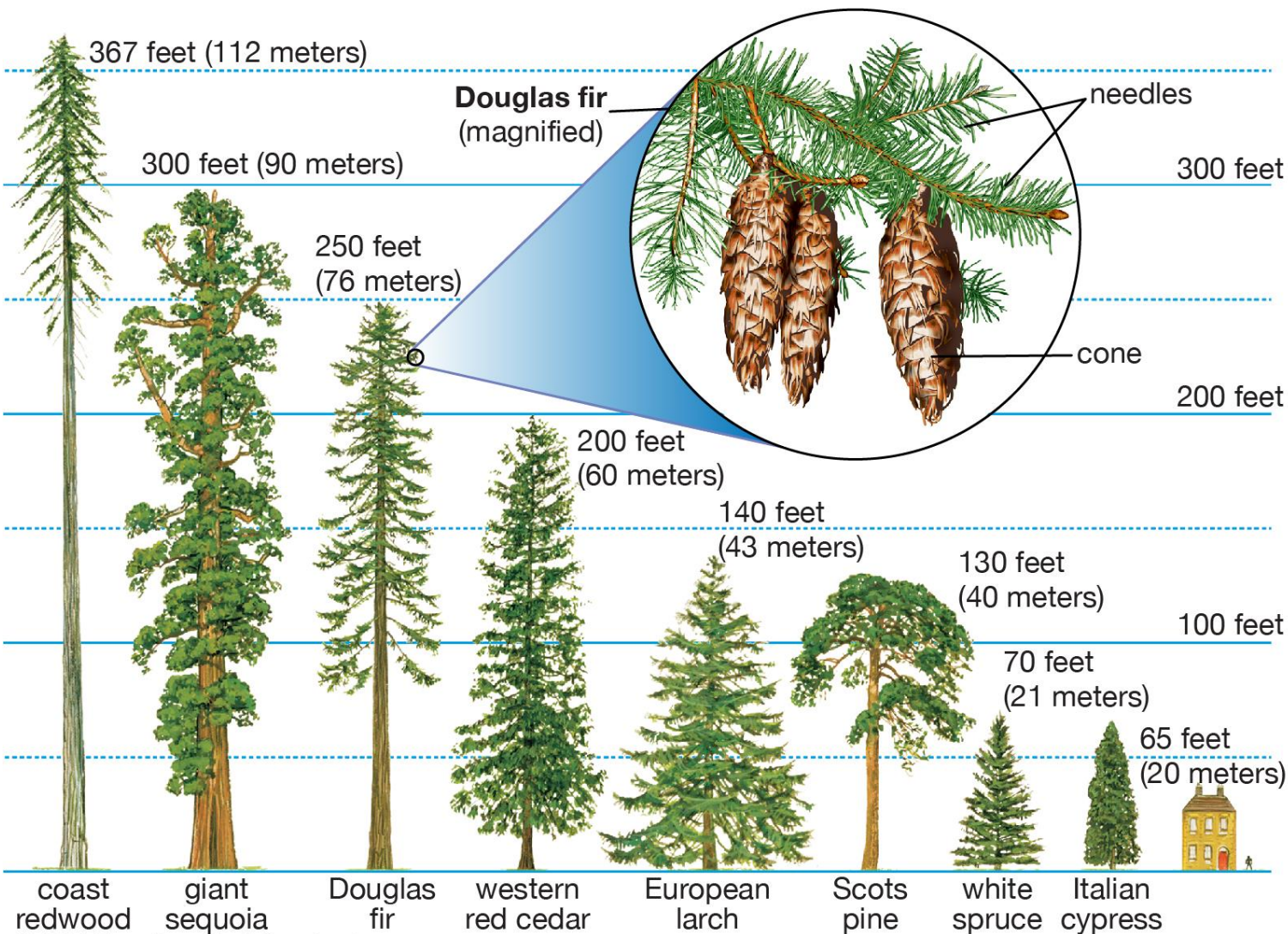
Figure 1. Vegetation zones of Nordic–Baltic region (according to Ahti et al. 1968).



Climate change impact activity

- Planning the management activities considers the prognosed climate change impact. The focus is set on forest health, productivity, species composition and carbon sequestration capacity. Mitigation of climate change by forest management activities is underlined.
- Promoting the silvicultural technique to increase the proportion of mixed-stands. Planned species composition takes into consideration disturbance risks. Experimental study to investigate the possibilities to grow introduced tree species is initiated. The analysis to estimate impact of introduced tree species to biodiversity is conducted.

Forestry takes into consideration climate change and biodiversity



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Invasive species!?

<https://www.britannica.com/plant/conifer>

Forestry takes into consideration climate change and biodiversity



Condition of forest biodiversity activity

- Private forest owner are approached to provide information on multifunctional forest management. Sustainable methods which help to advance biodiversity are introduced.
- Methods of retention forestry are promoted: valuable biological legacy components are kept after timber harvest. Retention is focused on trees or tree groups having biodiversity and/or representing tree mixture in the stand. Research is conducted to study dead wood volume and downed dead wood importance in the forest ecosystem.

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PERSPECTIVE

Retention as an integrated biodiversity conservation approach for continuous-cover forestry in Europe

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Forestry takes into consideration climate change and biodiversity

Uneven-aged forestry



Even-aged forestry



Habitat tree



Downed coarse wood



Dead standing tree



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Forestry competitiveness activity

- To increase the economic value and carbon sequestration of forest stands, the potential productivity of the growth site is matched with most suited tree species for particular site.
- To ensure the diverse species composition, higher productivity, high timber quality, and good health of forest, the support and motivation are provided for private forest owners. This is important when best possible silviculture is planned in the light of climate change.

*Forest sector is
competitive in economic
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Added value of wood industry activity

- To enhance the added value of wood processing industry the development programs are launched. Scientific approach to increase the added value is employed. The innovative methods are analysed for ecosystem services. Research and technological development measures are implemented.



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Forest-based Sector Technology Platform

<https://www.forestplatform.org/>

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<https://balticloghouses.ee/eesti-puit-ja-vaarindatud-puit-on-hinnas/>

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Social and cultural affairs activity

- Cultural, recreational and health values of the forest are taken into consideration. The importance of planning of recreational forests and nature (hiking) trails is emphasized. Nature tourism is promoted.
- Collaboration of forest sector with cultural institutions is encouraged. The awareness of general public about nature values is supported by special programs. Knowledge about cultural heritage linked to forest is included in educational planning.

*Forestry is participatory
and considers social and
cultural values*



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Participatory planning activity

- Local communities are invited to planning activities of forest management. General public of the residential areas is informed on logging of forest areas. Citizens have possibilities to participate in planning forestry activities.
- The restraints to management are applied whenever it is justified.



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Evaluating the effectiveness of retention forestry to enhance biodiversity in production forests of Central Europe using an interdisciplinary, multi-scale approach

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CONCLUSIONS

- There is a need for the planning to provide a general view of the forestry activities. Such a plan ensures the most effective way of utilizing all ecosystem services. The forest protection and utilization must be analysed to find a balanced approach. The compensation for owners of protected areas needs legislation solutions.
- It is important to ensure the good forest health, productivity, diversity and resilience. That requires a careful planning of forest actions including logging. More efficient ecosystem service solutions must be forwarded.
- Best knowledge and innovation must be employed to guarantee the continuation of forest as a living environment and natural resource.



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