

**State Research Programme**  
**“Research and Sustainable Use of Local Resources for  
the Development of Latvia 2023-2025”**

**Project No. VPP-ZM-VRIIILA-2024/2-0002**  
**“Innovation in Forest Management and Value Chain for  
Latvia's Growth: New Forest Services, Products and  
Technologies (Forest4LV)”**

**WP1 “Forestry Data”**

**Annotation**  
**“Recommendations for More Nature-Friendly Pine  
Forest Management Techniques”**

**Salaspils, 2025**

The recommendation file consists of 51 page, including 1 title page, 1 content page, 1 introduction page and 14 reference pages.

The document presents detailed guidance for applying closer-to-nature forest management approaches specifically in pine (*Pinus sylvestris*) stands. It has been developed under the framework of the Forest4LV research initiative, which aims to advance innovative and sustainable forest management practices, supporting multifunctional forestry in Latvia and aligning national practice with emerging European strategies for biodiversity and climate resilience.

The document begins with an overview of the European Commission's "Guidelines on Closer-to-Nature Forest Management", elaborating on their purpose and relevance to sustainable forest governance across the EU. These guidelines advocate adaptive, biodiversity-friendly practices that balance ecological functions with socio-economic forest values. The publication interprets these guidelines for the context of Latvian forests, emphasizing the need for flexible, region-specific adaptation of nature-oriented management principles.

A substantial portion of the text is dedicated to the conceptual framework for nature-oriented forest management in pine ecosystems. It explains ecological characteristics of tree species, categorization of forest types based on natural disturbance regimes, and a classification of forest management systems that promote structural complexity and long-term ecosystem health. Practical recommendations are organized according to forest types and management objectives, integrating normative requirements and environmental constraints into actionable guidance.

The core of the publication consists of practical recommendations for pine forests, including normative frameworks, biodiversity protection strategies, and tools from the "EU toolbox" for nature friendly forestry. These recommendations address how to integrate biodiversity considerations into routine forest operations while maintaining productivity and economic viability. The document also addresses methods for evaluating the impacts of nature-oriented interventions using forest inventory data, which supports evidence-based decision-making and adaptive management.

In summary, this guide provides an evidence-based, context-sensitive synthesis of European and Latvian forest management knowledge. It is intended for forest managers, policymakers, researchers, and practitioners who seek to enhance ecological outcomes, resilience to climate change, and multifunctionality in managed forests. The recommendations balance scientific rigor with practical applicability, fostering a transition toward more sustainable forestry that respects both environmental and economic objectives.

### Topics Covered (Highlights)

- European policy context and guidelines for closer-to-nature forest management.
- Conceptual framework for nature-oriented approaches in pine forests.
- Classification and comparison of forest management systems.
- Practical, site-adapted recommendations and normative considerations for pine stands.
- Tools for impact evaluation and adaptive practice using inventory and monitoring data.

## Intended Audience

- National and regional forest managers and planners
- Forestry policy designers and regulators
- Researchers and educators in sustainable forest science
- Stakeholders involved in implementation of biodiversity-oriented forest practices
- Participants in EU-level sustainable forestry initiatives and certification schemes