

Association „PEFC Latvijas Padome”

Approved
18.08.2015.

PEFC Forest Management Standard for Latvia

Riga
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Aim of the PEFC Forest Management Standard for Latvia

The PEFC Forest Management Standard for Latvia (hereinafter Standard) specifies the framework and requirements for the sustainability assessment of forest management and confirms the conformity of management practices with the PEFC certifications system' requirements.

Standard sets no minimum levels or limitations for forest management practices and sustainability criteria and indicators.

Following the Standard's criteria and indicators the forest owner, legal possessor or forest manager determines and confirms compliance with the Standard. The conformity assessment is done by an independent Certification Body accredited as provided by the PEFC regulations.

Scope of Standard

Standard is applicable in the whole territory of Latvia for all forest types, forest holdings and tree plantings regardless of the form of ownership and holding size

Forest certification according to the Standard is done on a voluntary basis (only after a voluntary initiative of the forest owner, legal possessor or manager).

The sustainability criteria and indicators specified by the Standard are used as a basis for sustainable forest management certification, which is performed by an independent Certification Body, accredited following the PEFC regulations.

Standard is applicable for all lands which are counted as forestland, i. e. land comprising forest, land under forest infrastructure facilities, including gaps, overflowing clearings and bogs inside and contiguous to forest as well as the lands under forest tree nurseries and tree plantings.

Forest holding is the basic unit for PEFC certification (hereinafter Certification) following this Standard

The forest owner, legal possessor or forest manager may divide the holding into individual management units, applying Certification on a per-unit basis or certifying a part of the management units. Single cadastre units in the forest holding cannot be divided. Individual management units are explicitly shown on the maps and are identifiable out in the field. In case the forest owner, legal possessor or forest manager chooses to exclude some units from Certification and certify a part of the holding, this fact ought to be accounted for in forest resource sales in order to meet the requirements of the chain-of-custody certification. ,

The Standard requirements can be implemented and Certification carried out as:

- Certification of individual forest holdings
- Forest owner group certification.

Certification individual forest holdings

Individual certification is more suitable in cases the owner, legal possessor or manager of large forest holdings finds it more convenient to refrain from group certification. . The forest holding size is not the lead indicator for choosing the certification method while individual certification maybe financially more expensive for a single forest owner.

The forest owner, legal possessor or manager submits certification application to the Certification Body. The PEFC Forest Management/Chain-of-Custody Certificate is issued directly to the forest owner, legal possessor or manager.

Forest owner group certification

The forest owners, legal possessors or managers can jointly apply for certification as a group. In group certification all members of the group decide to achieve and ensure conformity with the Standard. There ought to be an undisputable group leader and clearly defined responsibilities between the group leader and all the group members in ensuring the certification requirements. Group leader is responsible for:

- maintaining conformity to the Standard of all group members and their forest management practices;
- keeping up to date the list of group members and the certified forest holdings;
- ensuring group certification and Standard requirement observance in certified forest holdings of all group members .

In group certification there should be approved procedure for admitting new members and informing the group of the same, including the procedures for internal audit, maintaining certification requirements according to the Standard and implementing relevant corrective and preventive actions.

The PEFC Forest Management/Chain-of-Custody Certificate is issued to the group leader. Group leader issues attestations of participation (with reference to the group certificate) to each group member.

Certification is carried out following an agreement concluded in writing between the forest owner and the Certification Body/umbrella organization (in case of group certification). The effective period of the agreement is between one to five years.

Legal basis of Standard

This Standard is developed and approved by the Association “PEFC Latvijas Padome” (PEFC Latvian Council, hereinafter Council)). The Council, supported by the majority (following the forest area) of Latvian forest owners, legal possessors or forest managers, is a national steering body recognized by the PEFC Council.

Standard has been developed following the PEFC International requirements and procedures. The PEFC International requirements and procedures are adapted to the Latvia conditions.

Standard has been developed in accordance with:

1. International Conventions:

- 1.1. ILO Konvencija Nr. 29 „Piespiedu darba konvencija”, pieņemta 1930. gadā, Ženēvā (Latvijā spēkā no 02.06.2007). /Forced Labor/
- 1.2. Konvencija Nr. 87 „Par asociāciju Brīvību un tiesību aizsardzību, apvienojoties organizācijās”, pieņemta 1948. gadā, Ženēvā (Latvijā spēkā no 27.01.1993.). /Freedom of Associations and Protection of the Right to Organize/
- 1.3. Konvencija Nr. 98 „Par tiesībām uz apvienošanas organizācijās un kolektīvo līgumu slēgšanu” , pieņemta 1949. gadā, Ženēvā (Latvijā spēkā no 27.01.1993.). /Right to Organize and Collective Bargaining/
- 1.4. Konvencija Nr. 100 „Konvencija par vienlīdzīgu atlīdzību” , pieņemta 1951. gadā, Ženēvā (Latvijā spēkā no 27.01.1993.). /Equal Remuneration/

- 1.5. Konvencija Nr. 105 „Konvencija par piespiedu darba atcelšanu” , pieņemta 1957. gadā, Ženēvā. /Abolition of Forced Labour/
- 1.6. Konvencija Nr. 111 „Konvencija par diskrimināciju nodarbinātībā un profesijā”, pieņemta 1958. gadā, Ženēvā. /Discrimination (Employment and Occupation/
- 1.7. Konvencija Nr. 182 „Bērnu darba ļaunāko formu konvenciju” , pieņemta 1999. gadā, Ženēvā (Latvijā spēkā no 02.06.2007.). /Worst Forms of Child Labour/
- 1.8. Konvencija Nr. 138 „Minimālā vecuma konvencija” , pieņemta 1973. gadā, (Latvijā spēkā no 02.06.2006.). /Minimum Age/
- 1.9. Ramsāres 1971. gada Konvencija par starptautiskas nozīmes mitrājiem, īpaši kā ūdensputnu dzīves vidi (Latvijā spēkā no 25.11.1995.). /Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat/
- 1.10. CITES (Vašingtonas) 1973. gada Konvencija par starptautisko tirdzniecību ar apdraudētajām savvaļas dzīvnieku un augu sugām (Latvijā spēkā no 12.05.1997.). /Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) Washington/
- 1.11. Helsinku 1974.gada un 1992. gada Konvencija par Baltijas jūras reģiona jūras vides aizsardzību (Latvijā spēkā no 12.05.1994.). /Convention on the Protection of Marine Environment of the Baltic Sea Area/
- 1.12. ANO 1992. gada Vispārējā Konvencija par klimata pārmaiņām Kioto protokols (Latvijā spēkā no 16.03.2005.). /The United Nations Framework Convention on Climate Change/
- 1.13. Riodežaneiro 1992. gada 5. jūnija Konvencija par bioloģisko daudzveidību (Latvijā spēkā no 13.03.1996.). /Convention on Biological Diversity, Rio de Janeiro/
- 1.14. 1951.gada Starptautiskā augu aizsardzības konvencija (Latvijā spēkā no 05.06.2003.). /International Plant Protection Convention/
- 1.15. Stokholmas 1998.gada Konvencija par noturīgajiem organiskajiem piesārņotājiem (Latvijā spēkā no 22.05.2001.). /Stockholm Covention on Persistent Organic Pollutants/

2. Legislation:

- 2.1. 24.02.2000. Meža likums /Law on Forests/
- 2.2. 14.10.1998. Likums „Par ietekmes uz vidi novērtējumu” /Law on Environmental Impact Assessment/
- 2.3. 02.11.2006. Likums „Vides aizsardzības likums” / Environmental Protection Law/
- 2.4. 02.03.1993. Likums „Par īpaši aizsargājamām dabas teritorijām” /The Law on Specially Protected Nature Areas/
- 2.5. 16.03.2000. Sugu un biotopu aizsardzības likums /The Law on species and habitat protection/
- 2.6. 05.02.1997. Aizsargjoslu likums /The Law on the Protection Belts/
- 2.7. 17.12.1998. Augu aizsardzības likums /Plant Protection Law/
- 2.8. 20.06.2002. Darba likums /Labour Law/
- 2.9. 08.07.2003. Medību likums /The Hunting Law/
- 2.10. 11.12.1997. Likums „Par Ziemeļvidzemes biosfēras rezervātu” /The Law on North Vidzeme Biosphere Reserve/
- 2.11. 30.04.2009. Likums "Gaujas nacionālā parka likums" /The Law on Gauja National Park/
- 2.12. 16.03.2000. Likums "Slīteres nacionālā parka likums" /The Law on Slitere National Park/
- 2.13. 02.11.2006. Likums "Rāznas nacionālā parka likums" /The Law on Razna National Park/

- 2.14. 30.05.2001. Likums "Ķemeru nacionālā parka likums" /The Law on Kemeru National Park/
- 2.15. 26.01.2006. Mēslošanas līdzekļu aprites likums /Law On Circulation of Fertilisers/
- 2.16. 02.05.2012. MK noteikumi Nr. 308 "Meža atjaunošanas, meža ieaudzēšanas un plantāciju meža noteikumi" /Forest Regeneration Regulations/
- 2.17. 18.12.2012. MK noteikumi Nr. 935 „Noteikumi par koku ciršanu mežā” /Regulation on Tree Felling in Forest/
- 2.18. 18.12.2012. MK noteikumi Nr. 936 „Dabas aizsardzības noteikumi meža apsaimniekošanā” /Nature Protection Regulation in Forest management/
- 2.19. 07.02.2012. MK noteikumi Nr. 98 „Noteikumi par meža apsaimniekošanu iežogotā meža platībā, kas izveidota dzīvnieku turēšanai nebrīvē” /Regulation on Forest Management in Fenced Forest Territory For Animals/
- 2.20. 18.12.2012. MK noteikumi Nr. 889 „Noteikumi par atmežošanas kompensācijas noteikšanas kritērijiem, aprēķināšanas un atlīdzināšanas kārtību”
- 2.21. 18.12.2012. MK noteikumi Nr. 947 „Noteikumi par meža aizsardzības pasākumiem un ārkārtējās situācijas izsludināšanu mežā” /Regulation on Forest Protection and Announcement of Emergency Situation in Forest/
- 2.22. 28.08.2007. MK noteikumi Nr. 371 "Meža inventarizācijas un Meža valsts reģistra informācijas aprites noteikumi" /Regulation Forest inventory and Circulation of State Forest Register Information/
- 2.23. 02.04.2013. MK noteikumi Nr. 177 „Ģenētisko resursu mežaudžu izveidošanas un apsaimniekošanas kārtība” /Regulations For Establishment and management of Genetic Resource Forest Stands/
- 2.24. 26.03.2013. MK noteikumi Nr. 159 „Noteikumi par meža reproduktīvo materiālu” /Regulations on Forest Reproductive Material/
- 2.25. 04.02.2014. MK noteikumi Nr. 67 „Noteikumi par meža apsaimniekošanas plānu” /Regulations for Forest Management Plan/
- 2.26. 16.03.2010. MK noteikumi Nr. 264 "Īpaši aizsargājamo dabas teritoriju vispārējie aizsardzības un izmantošanas noteikumi" /Regulations on the General Protection and Use of Specially Protected Nature Territories/
- 2.27. 05.12.2000. MK noteikumi Nr. 421 "Noteikumi par īpaši aizsargājamo biotopu veidu sarakstu" /Regulations for the List of Specially Protected Habitats/
- 2.28. 18.12.2012. MK noteikumi Nr. 940 "Noteikumi par mikroliegumu izveidošanas un apsaimniekošanas kārtību, to aizsardzību, kā arī mikroliegumu un to buferzonu noteikšanu" /Regulations for Microreserve Establishment, Protection and Management/
- 2.29. 23.12.2003. MK noteikumi Nr.760 "Medību noteikumi" /Hunting Regulations/
- 2.30. 02.05.2012. MK noteikumi Nr. 310 „Darba aizsardzības prasības mežsaimniecībā” /Health Protection Regulations in Forestry/
- 2.31. 04.08.1998. MK noteikumi Nr.284 "Ūdenstilpju un ūdensteču aizsargjoslu noteikšanas metodika" /Regulations on Protection belt establishment Methodology for Water Courses/

Terms and definitions

For the purpose of this Standard, the terms and definitions are given in Annex 1..

Public input and accessibility of the Standard

Standard is a public document and may be freely distributed among all interested parties, provided that no amendments are made in it. The official version of the Standard is publicly available for download and/or printout on www.pefc.lv.

Standard is subject for consultation and comments from all interested parties. The parties who have comments regarding this Standard or have suggestions for improving it are requested to send them in writing to the Association „PEFC Latvijas Padome” Republikas laukums 2, Riga LV – 1010, or by e-mail to info@pefc.lv. Based on the comments and/or suggestions from the interested parties the Council may amend the document in accordance with the Standard’s review procedures.

The Standard is approved by the Council on August 18, 2015 and is subject to revision at least once in five years. Standard is re-endorsed by the PEFC Council on **xx.xx**, 2016.

PEFC Forest Management Standard for Latvia Text

Operational level guidelines define the objectives and general principles of forest management, which voluntarily practiced by the forest owners, legal possessors or forest managers would ensure sustainable forest management.

The operational level guidelines are included in the Standard correspond to the six criteria of Helsinki, Resolution H1 and Lisbon Resolution (L2) of the Ministerial Conference for the Protection of Forests in Europe (MCPFE): Pan-European Criteria, Indicators and Operational Level Guidelines for Sustainable Forest Management including Annex 1: Pan-European Criteria and Indicators for Sustainable Forest Management and Annex 2: Pan-European Operational Level Guidelines for Sustainable Forest Management.

Descriptive indicators provide measurable parameters and complement operational level guidelines which are necessary for an independent assessment by a third party for identifying compliance of forest management practices with the PEFC forest management certification requirements. The descriptive indicators are supposed to indicate the **changes** in the indicator values and dynamics of development at least for a 5-year period before Certification and expected changes for the next 5 years.

The descriptive indicators comprise also requirements for the documentation which is to be prepared for the forest owners, legal possessors or forest managers.

CRITERION 1. Maintenance and appropriate enhancement of forest resources and their contribution to global carbon cycles

1.1. Operational level guidelines :

- 1.1.1. Forest management planning aims to maintain and/or increase the forest area, and in a system of multiple-goal management preserves and within limits possible enhances the quality of economic, ecological (including soil and water) and social (including cultural) values of forest resources.
- 1.1.2. There is a forest resources database with the related cartographic material. Information on forest management activities carried out and/or changes in the value of forest resources are recorded in the database.
- 1.1.3. Forest management plans, appropriate to the scope and intensity of forest management, are elaborated and periodically updated. Forest management plans shall include relevant descriptive indicators, mentioned in this standard. The forest management plan or its summary is publicly available.
- 1.1.4. Monitoring of the forest resources' economic, ecological and social values and evaluation of their management is done on a regular basis. The results of monitoring are reflected in forest management plans and fed back into the planning process.
- 1.1.5. Forest management practices safeguard the quantity and quality of forest resources, within limits possible enhancing them in the short and long term perspective. The harvest volume of and the growth rates are balanced out for a long term perspective. In forest management preference is given to the technologies and techniques that minimize direct or indirect damages to the remaining forest, soils and water resources.
- 1.1.6. Appropriate forest management practices (ecologically assessed, economically, silviculturally and scientifically justified for a long-term perspective forest

regeneration of high quality, thinning regimes, forest infrastructure maintenance and development) are taken to keep the volume of wood resources on a level that is economically, ecologically and socially desirable, evaluating the possibility to rehabilitate degraded forest ecosystems.

1.2. Descriptive indicators:

1.2.1. Forest and forestland management	
<ol style="list-style-type: none"> 1. Total forest area managed (ha), changes. 2. Forest and forestland area (ha), changes. 3. Forest area by forest site types (% or ha). 4. Forest area by tree species (% or ha) and age classes (% or ha). 5. Harvested and regenerated forest area by tree species and regeneration method (artificial/natural) (ha), changes. 6. Established forest/plantation forest/tree plantings area (ha), changes. 	<ol style="list-style-type: none"> 7. Availability of documents which confirm the property/management rights. 8. Forest management is carried out in accordance with all legislation applicable to forest management issues, territorial development (land-use) plans, forest management plans and other forest owner, legal possessor or forest manager internal documents. 9. Evaluation of the potential for increasing the forest/plantation forest area in agricultural lands. 10. if there are conversion of forests to other types of land use, conversion: <ul style="list-style-type: none"> • shall be done according with the legislation, territorial development (land-use, forest management plans and other forest owner, legal possessor or forest manager internal documents, • shall be done according to the impact assessment (makes a contribution to social, economical and environmental (e.g. conversed territory is compensated with forest planting in agriculture lands, establishing the new nature protection territories etc.) benefits), • does not have negative impacts on ecologically significant forest areas, sites containing rare and/or protected species and special historically or culturally significant forest areas, • entails a very limited portion of the forest management unit, with relevant justification.
1.2.2. Growing stock / standing volume	
<ol style="list-style-type: none"> 1. Total growing stock (m³), changes. 2. Average standing volume by tree species and age or diameter classes (m³/ha), changes. 	<ol style="list-style-type: none"> 3. Ensuring sustainable forest management, at the same managing forests for standing volume growth and/or quality improvement of forest stands (e. g. tending, pruning).

	4. Existence and capacity of institutional framework to undertake and develop regular assessment of forest resources, if necessary involving research or other competent organizations.
1.2.3. Carbon cycle	
1. Average carbon storage in forest stands (determined according to Latvia's national greenhouse gas emission inventory methodology) (t C). Methodology is available for download on www.pefc.lv .	2. Participation in awareness raising or educational activities about multiple uses of wood resources, including bioenergy. 3. Within limits possible supporting various research activities about forest products life cycle extension and/or recycling.

CRITERION 2. Maintenance of forest ecosystem health and vitality

2.1. Operational level guidelines:

- 2.1.1. Forest management planning and forest management aims to increase forest ecosystem health and vitality and rehabilitate degraded forests (including, if appropriate, reconstruction of unproductive stands).
- 2.1.2. To ensure forest health and vitality biological measures are planned and implemented within economic feasibility limits.
- 2.1.3. Identification of high risk factors (e. g. potential damage of various forest pests, pathogenic fungi, wildlife, forest fires, extreme meteorological and climatic factors, including damage caused by negative impact of forestry hardware or technologies) for enhancing forest ecosystem health and vitality, appropriate system to monitor and reduce these risks is in place.
- 2.1.4. To avoid or reduce the damages from identified risk factors to forest stands and forest infrastructure objects appropriate activities are planned and implemented within limits possible
- 2.1.5. Adequate genetic, species and structural diversity is encouraged and/or maintained to enhance the stability, vitality and resistance capacity of forests to adverse environmental factors, including strengthening of natural regulation mechanisms.
- 2.1.6. Appropriate techniques and technologies are used in forest management to avoid or minimize the damage of retention trees, soil and/or water reservoirs or watercourses. Appropriate forest regeneration material of adequate provenance regions is used in forest regeneration.
- 2.1.7. The spillage of oil or fuel in forest operations (as leakage from machinery or storage reservoirs) or an indiscriminate waste disposal on forest lands and/or waters is strictly avoided.
- 2.1.8. The pesticide and herbicide application in forest management is minimized, promoting within limits possible the use in pest control of silvicultural alternatives, environmentally friendly and other biological measures
- 2.1.9. The use of plant protection agents and/or fertilizers in forests or forest lands in every case is justified and in accordance with producer instructions. Only in Latvia registered plant protection agents shall be used in forest management. Before the use of chemicals alternative (non-chemical) methods for achieving the desired result are assessed and environmental impact (soils, waters) assessment is done.
- 2.1.10. WHO Type 1A and 1B pesticides shall be prohibited in forest management, except where no other viable alternative is available and emergency situation in

forest is announced by State Forest Service and if there is permission issued by the State Plant Protection Service.

2.1.11. Pesticides, such as chlorinated hydrocarbons whose derivatives remain biologically active and accumulate in the food chain beyond their intended use and any pesticides banned by international agreement shall be prohibited.

2.1.12. Lighting of residues (branches, stumps) should be avoided. Before lighting of residues alternative methods for achieving the desired result are assessed.

2.2. Descriptive indicators:

2.2.1. Hazards of biotic risk factors	
<ol style="list-style-type: none"> 1. Forest area covered by pest control activities (e. g. spruce bark beetle <i>Ips typographus</i>, large pine weevil <i>Hylobius abietis</i>, European pine sawfly <i>Neodiprion sertifer</i>) (ha), in past 5 years. 2. Volume harvested as a result of pest damages (m³ and/or ha), in past 5 years 3. Forest areas where management activities for protection against fungal diseases are carried out (ha), in past 5 years. 4. Volume harvested as a result of fungi damages (m³ and/or ha), in past 5 years. 5. Forest stands where management activities for protection against wildlife damage are carried out (ha), in past 5 years. 6. Volume harvested as a result of wildlife damage (m³ and/or ha), in past 5 years. 7. Other forest damages (m³ and/or ha), in past 5 years. 	<ol style="list-style-type: none"> 8. Use of the national research and/or monitoring data on forest health and vitality in forest management planning and forestry practices. 9. Procedures are in place for identifying, controlling and eliminating the damages caused by biotic risk factors.
2.2.2. Hazards of abiotic risk factors	
<ol style="list-style-type: none"> 1. Forest area affected by fire (ha), in past 5 years. 2. Forest area and harvest volumes in salvage operations as a result of wind and/or snow damages (ha and/or m³), in past 5 years. 3. Other forest damages (m³ and/or ha), in past 5 years. 	<ol style="list-style-type: none"> 4. Procedures are in place for identifying, controlling and eliminating the damages caused by abiotic risk factors.
2.2.3. Use of plant protection agents and/or fertilizers	
<ol style="list-style-type: none"> 1. Forestland area where plant protection agents and/or fertilizers are used (ha), changes for last 5 years. 2. Name of the plant protection agent and its effective substance and the amount used (kg, l), changes in the past 5 years. 	<ol style="list-style-type: none"> 3. Procedures are in place for using and inventorying the stock of plant protection agents and/or fertilizers, using the health protection equipment and training of personnel dealing with the said substances.

CRITERION 3. Maintenance and stimulation of forest productive functions (woodland non-wood)

3.1. Operational level guidelines:

- 3.1.1. Forest management planning and forest management aims to maintain and ensure a long-term availability of a wide range of forests products and social benefits while diversifying the forestry production and intensifying the social functions inherent to forest.
- 3.1.2. Forest management planning aims to achieve a stable economic efficiency of forest management, evaluating the potential for developing novel and marketable forest products and services and promoting the related economic activities.
- 3.1.3. In forest management planning different uses and functions of managed forest areas are taken into account, offering the potentially widest range of forest products and services.
- 3.1.4. Timber harvesting and forest regeneration is appropriately timed and carried out by using adequate forestry hardware and technologies without impairing the productive capacity of the respective site.
- 3.1.5. Wood and non-wood products are utilized on a sustained yield basis with due account for nutrient takeoff and the processes of forest natural regeneration.
- 3.1.6. Adequate infrastructure like forest roads and bridges, are planned, established and maintained to ensure efficient delivery of forest products and services with minimum negative impacts on the environment.

3.2. Descriptive indicators:

3.2.1. Wood production	
<ol style="list-style-type: none"> 1. Harvest volume by tree species over past 10 years (m³). 2. Planned harvest volume by tree species in next 10 years (m³) 3. Changes in growing stock over past 10 years (m³/ha) and planned in next 10 years (m³/ha). 4. Annual harvest volume by tree species : <ol style="list-style-type: none"> 4.1. Main felling t (m³, ha), changes; 4.2. Commercial thinning (m³, ha), changes; 4.3. Sanitary and other cuttings (m³, ha), in past 5 years. 5. Removed residues (branches, stumps) (m³, ha), changes. 6. Pre-commercial thinning (ha), changes. 	<ol style="list-style-type: none"> 7. In forest management planning and forest management the latest research results and practical experience regarding silvicultural methods for improving stands growth are taken into consideration. 8. Basic provisions for long-term investments in forest management are worked out. 9. Employee training system about sustainable forest management is in place.
3.2.2. Non-wood products	
<ol style="list-style-type: none"> 1. Total amount of sold non-wood products (e. g. berries, mushrooms, game animals etc.), changes. 	<ol style="list-style-type: none"> 2. The approach and/or requirements for commercial non-wood products management are developed and implemented in practice.

CRITERION 4. Maintenance, conservation and appropriate enhancement of biological diversity in forest ecosystems

4.1. Operational level guidelines:

- 4.1.1. Forest management planning and forest management aims to maintain, conserve and enhance forest biodiversity on the genetic, species and ecosystem level and, if appropriate, on the landscape level.
- 4.1.2. Terrestrial inventory and mapping of forest resources includes ecologically significant forest areas like protection belts along cities, water bodies and watercourses, sites containing rare and/or protected species, which are included in the list of protected species and habitats in Latvia.
- 4.1.3. Natural forest regeneration is preferred and promoted in forest sites and areas, where it ensures timely and qualitative forest regeneration.
- 4.1.4. In artificial forest regeneration only certified reproductive material of indigenous tree species of the appropriate provenance region and suitable for the particular forest site is used. Genetically modified trees shall not be used in forest regeneration.
- 4.1.5. As to forest regeneration by introduced tree species used are only the species whose impact on the growth and distribution of indigenous species is assessed with the procedures for mitigating or excluding negative impacts and the related monitoring in place
- 4.1.6. In forest management the creation of all-age multispecies stands is promoted, thus reducing the negative impact of external factors.
- 4.1.7. Forest infrastructure (roads and drainage systems) are planned, constructed and maintained in a way that minimizes the negative impact and on ecologically significant forest areas as genetic resource forests and the like.
- 4.1.8. In forest operations retained are undergrowth, standing and fallen dead trees, aged trees, trees with hollows, and trees of rare species (juniper, crab tree), evaluating also their impact on the health, vitality and stability of the future crop stand, including labor safety considerations in forestry.
- 4.1.9. In forest operations care is taken of watercourses like ditches or brooks, taking the necessary measures to restore them as much as possible close to natural condition.

4.2. Descriptive indicators:

4.2.1. Protective, rare and representative forest ecosystems	
<ol style="list-style-type: none"> 1. Protected forest areas by protection categories (without management activities, with restricted management activities) (ha, %), in past 5 years int. al.: <ol style="list-style-type: none"> 1.1. Forests in national parks (ha), 1.2. Forests in strict nature reserves (ha), 1.3. Forests in reserved areas (ha) 1.4. Forests in nature parks (ha), 1.5. Forests in protected landscape areas (ha), 1.6. Forests in biosphere reserves (ha), 1.7. Forests in nature monuments (ha), 1.8. Forests in micro-reserves and their buffers zones (ha), 1.9. Including (1.1. – 1.8) forests in <i>Natura 2000</i> territories (ha), 1.10. Forests in water and bog protection zones (ha), 1.11. Forests in green zones around cities (ha). 	<ol style="list-style-type: none"> 2. Information on identified protected species and habitats is available. 3. Increasing level of knowledge on forest biodiversity and/or threatened species. 4. In case the respective holding comprises no protection categories under 4.2.1.1 measures are taken to promote forest biodiversity (e. g. retaining old-growth stands well beyond the cutting age). 5. Ensuring protection of protective, rare and representative forest ecosystems
4.2.2. Biological diversity in production forests	
<ol style="list-style-type: none"> 1. Proportion of annual area of natural regeneration in relation to the total area regenerated (%), changes. 2. Area of homogenous spruce stands (over 90% of species composition) older then 40 years (ha), changes. 3. Area of stands regenerated/established by introduced tree species (ha), changes. 4. Genetic resource stands by tree species in the forest holding (ha), in past 5 years. 5. Area of forest stands significantly exceeding the accepted age of exploitation by tree species (ha), changes. 	<ol style="list-style-type: none"> 6. Maintaining records regarding the sources of origin of forest reproductive material. 7. Ensuring preservation of standing and fallen deadwood in forests.

CRITERION 5. Maintenance and appropriate enhancement of protective functions in forest management (notably soil and water)

5.1. Operational level guidelines:

- 5.1.1. Forest management planning and forest management aims to maintain and enhance forest protective functions, such as protection from soil erosion and maintaining the quality of water resources.

- 5.1.2. The forest management on wet soils is done in proper weather condition, by using appropriate silvicultural methods and technologies, within limits possible avoiding the soil damages and water pollution.
- 5.1.3. Planning, construction or maintenance of forest infrastructure (drainage systems, roads and bridges) is carried out in a manner that minimizes soil introduction into watercourses, preserving the natural level and functionality of watercourses.

5.2. Descriptive indicators:

5.2.1. Soil erosion and damages	
1. Forest area on wetlands, where management activities are planned and performed (ha), changes.	2. In planning forest operations on wetlands the potential environmental impact is assessed and the required measures for mitigating it are envisaged.
5.2.2. Water protection in forests	
1. Forest areas next to water bodies or water courses are protected and/or managed primarily for water quality protection (ha), changes.	2. In planning forest operations next to water bodies and bogs the potential environmental impact is assessed and the required measures for mitigating it are envisaged.

CRITERION 6. Maintenance of other socio-economic functions and conditions

6.1. Operational level guidelines:

- 6.1.1. Forest management planning and forest management aims to evaluate the multiple socio-economic functions of forests, especially regarding the local employment and regional development.
- 6.1.2. The property, land tenure and/or resource utilization rights are clearly defined and accordingly documented.
- 6.1.3. In forest management the public rights to free access to forests are respected with no groundless restrictions for uncommercial utilization of non-wood resources.
- 6.1.4. Forest areas of special historical or cultural significance are protected or managed in a way that ensures proper maintenance and protection of that heritage.
- 6.1.5. For achieving sustainable forest management, in forest management planning and management shall be evaluated the potential for using the long-term justified scientific results and best silvicultural practice.
- 6.1.6. The personnel and contractors involved in forest, plantation forest and tree plantings management are well-informed and accordingly trained about forest management sustainability criteria and indicators specified in this standard. In training and awareness raising campaigns the staff is instructed on labor safety and the measures are taken to ensure safe work environment.
- 6.1.7. In forest management planning and practical forestry evaluated is a potential for making, by landscaping and species diversification, the respective area attractive for tourism and recreation while avoiding the risks for forest ecosystem stability, health and vitality.
- 6.1.8. Reasonable measures should be taken in forest management to ensure adequate protection of forest territories from illegal or unauthorized activities (illegal logging, constructions etc.)

6.2. Descriptive indicators:

6.2.1. Forest economic functions	
1. Income and expenses compared (LVL), changes.	2. To increase the value of forest, evaluated with a view to long-term perspective is the potential for implementing research results in forest management.
6.2.2. Forest recreational functions	
1. Total number of recreational objects with improved amenities as tourist trails, foot-bridges, etc., changes 2. Number of recreational sites with a potential to cater for a large number of visitors (more than 30 persons), changes	3. Existing system for maintaining the recreational sites. 4. Inorganic waste resulting from forest operations and other activities are regularly collected for recycling.
6.2.3. Forest social functions	
1. Total number of persons employed (number), changes. 2. Number of accidents in forest operations in last 5 years.	3. Existence of the system of health protection and labor safety. 4. Employee vocational training system is in place. 5. Awareness raising and education of general public in forest and environment matters is within possibilities promoted. 6. Existing system for possible impact assessment and possible negative impact reduction to local community, according with the scale of planned activity, when planning the forest management works in populated territories or by the side. 7. Immediate action to prevent the damage is taken, when illegal or unauthorized activities are identified.
6.2.4. Forest cultural and historical functions	
1. Number of sites of cultural and historical significance changes.	2. Existence of procedures for managing cultural and historical sites.
6.2.5.	
	1. The information exchange with local people, interest groups and/or NGOs are documented and kept for the last 5 years. 2. The complains and/or proposals for improving forest management practices and/or planning, submitted by general public, interest groups and NGOs, are duly considered and responded constructively. Complains and disputes resolution process shall be in compliance with legislation.

Terms and definitions

Biological diversity	Diversity of the forms of living organisms in different environments. Biological diversity is analyzed on the genetic, species, and ecosystem level. Sometimes the fourth level is identified – the level of ecological processes.
Chain of custody	Movement of forest products from the place of origin to the end user.
Chemicals	Fertilizers and chemical plant protection agents used in forest management.
Ecosystem	Functionally interrelated complex of plants, animals, and microorganisms and the environment they occupy.
Environmental impact	Changes in the environment directly or indirectly caused by management activities
Forest	Ecosystem in all its development stages dominated by trees the height of which in the particular forest site is at least 7 m and the present or potential tree crown cover accounts for at least 20 % of the stand area. The land categories not considered as forest: <ul style="list-style-type: none"> • Individual detached clumps of trees of the area less than 0.1ha • Tree rows of natural or artificial origin of the width less than 20 m • Orchards, parks, graveyards, and forest tree seed orchards
Forest damage	Partial or complete loss of stand growth potential caused by forest pests, diseases, wildlife, human activities, wind, snow, forest fires, etc.
Forest inventory	Obtaining and documenting information, which describes forest.
Forest land	Land comprising forest, land under forest infrastructure facilities, as well as gaps, overflowing clearings, and bogs inside and contiguous to forest.
Forest management	Management and utilization of forestlands to derive economic, social, and ecological benefits from it.
Forest management plan	A document specifying the forest management goals and management activities for the particular forest property/holding. Fully corresponds to the forest management plan.
Forest non-wood products	Products of biological origin other than wood, which are derived from forests, except subsoil resources.
Forest owner	Person who has a land title to the respective forest area, accordingly registered in the Land Registry.

Forest plantations	Stands established in non-forest lands by seeding, planting, or using the methods of natural regeneration. As provided by law, similar areas are registered as plantations for cultivating specific wood and/or non-wood crops, harvested at the technical maturity of the respective product.
Forest regeneration	Forest seeding and planting as well as stimulating natural regeneration in forestlands.
Forest stand	Forest characterized by uniform site conditions, tree species composition and age.
Indigenous species	Species native in the given area. The following tree species are considered indigenous for Latvia: Scots pine <i>Pinus sylvestris</i> L. Norway spruce <i>Picea abies</i> (L.) Karsten Common birch <i>Betula pendula</i> Roth. Hairy birch <i>Betula pubescens</i> Ehrh. Common alder <i>Alnus glutinosa</i> (L.) Gaertn. Grey alder <i>Alnus incana</i> (L.) Moench Small-leaved lime <i>Tilia cordata</i> Mill. Norway maple <i>Acer platanoides</i> L. Pedunculate oak <i>Qercus robur</i> L. Ash <i>Fraxinus excelsior</i> L. Aspen <i>Populus tremula</i> L. Beech <i>Fagus sylvatica</i> L.
Interest groups	Groups of legal persons and/or individuals representing their interests in a definite field of activities.
Introduced species	Introduced species, which are not local or endemic for respective territories.
Landscape	In mental outlook existing complex of geomorphologic structure of interacting ecosystems, which has resulted from reciprocating biotic and abiotic factors and human impacts
Local communities	Persons who permanently reside or possess real estate in the territory of the respective local municipality.
Main felling	Harvesting of the final tree crop in a single or a series of cuts.
Monitoring	System of permanent observations to assess the impact of certain processes or activities and make forecasts.
Rare, protected and endangered species	Species included in Annex 1 “Specially protected animal, flowering plant, bryophyte, lichen, and fungi species, for which microreserves are established”, and in Annex 2 “Bird species, for which microreserves are established in the breeding and mating sites” of the Cabinet of Ministers Regulations No. 45 of 30.01.2001 “Regulations for Establishing, Protecting, and Managing Microreserves”.
Recreation	Leisure time or other activities in the forest not related to forest product extraction for profit.
Reforestation	Forest seeding and planting as well as stimulating natural regeneration in agricultural lands.
Separate territorial unit	Territory which have separate forest management plan.

Soil erosion	Wearing away of top layer of soil by water or wind, which results in bedrock exposure.
Sustainable forest management	Management and use of forests and forestlands in away and at a rate that maintains their biological diversity, productivity, regeneration capacity, vitality, and their potential to fulfill now and in the future relevant ecological, economic, and social functions at local, national, and global level.
Tree plantings	Long-term plantings - “permanent crops” (excluding decorative trees, orchards, nurseries), established with specific aims and regular spacing on agriculture fields with a maximum rotation period of 15 years, after which the current crop will be re-established or the land will be used for cultivation of other agriculture crops