



Food and Agriculture
Organization of the
United Nations

Global Forest Resources Assessment 2020

Report

Latvia

Rome, 2020



FAO has been monitoring the world's forests at 5 to 10 year intervals since 1946. The Global Forest Resources Assessments (FRA) are now produced every five years in an attempt to provide a consistent approach to describing the world's forests and how they are changing. The FRA is a country-driven process and the assessments are based on reports prepared by officially nominated National Correspondents. If a report is not available, the FRA Secretariat prepares a desk study using earlier reports, existing information and/or remote sensing based analysis.

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Introduction

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Introductory text

It can be said with ample certainty that Latvia is a land of forests and timber is the country’s green gold. Nearly every resident of Latvia is involved with the forest, forestry and forest products in one way or another. For some people, the forest is a major source of revenues, others see it as a place to spend free time, a place to go hunting or, on the contrary, a place that must be watched with full respect from the sidelines so as to see environmental processes in the woods. Some people pick mushrooms and berries in the forest, while others visit it to breathe in fresh air and to find new and creative ideas.

The forest has deep roots in our cultural traditions, it offers ways of spending one’s free time, and it allows people to earn money. Timber has been used for centuries in construction and the manufacturing of furniture and various household objects. Since the restoration of Latvia’s independence, moreover, the forestry sector has become one of the most important sectors in the country’s economy. The forest is one of the most important resources for the development of rural regions.

The success of Latvia’s forest sector has everything to do with the fact that all of these seemingly diverse interests have been successfully harmonised. Compromise has been achieved so as to ensure sustainable forest management. Latvia’s official forest policy speaks to the agreement reached in terms of its principles and goals among members of the public, environmental activists and representatives of the wood processing industry.

The forest covers 3.403 million hectares of land in Latvia, or 55% of the country’s territory. Latvia is the fourth highest forest cover among all EU countries.

Wood in Latvia is the main resource and in comparison for example with oil, that sooner or later will run low, wood is renewable. Taking a good care of it and using with consideration we will not exhaust it but on contrary – increase this treasure. Wood processing industry is the second largest producing industry in Latvia.

The most important producers of official forestry statistics, in Latvia are the State Forest Service, the National Forest Inventory, State Land Service and Central Statistical Bureau. The main data source for estimates of forest resource parameters since 2008 is National Forest Inventory. This work has been done since 2003 by the Latvian State Forest Research Institute “Silava”.

The other important producer of official forestry statistics is the State Forest Service

Forest inventories that are conducted at the level of forest districts make it possible to plan and implement forest management plans in each specific area. It shall be a duty of a forest owners or lawful possessors to perform, in the forests of their ownership or lawful possession, the first time forest inventory and to submit these materials to the State Forest Service as well as at least once in 20 years and in other cases required by regulatory enactments perform repeated forest inventory.

1 Forest extent, characteristics and changes

1a Extent of forest and other wooded land

National data

Data sources

1990	References	Information of Forest resources prepared by The State Forest Service (Source - National Forest register)
	Methods used	Registers/questionnaires, National Forest Inventory
	Additional comments	

2000	References	Information of Forest resources prepared by The State Forest Service (Source - National Forest register)
	Methods used	Registers/questionnaires
	Additional comments	

2008	References	Information of Forest resources from National Forest Inventory
	Methods used	National Forest Inventory
	Additional comments	

2013	References	Information of Forest resources from National Forest Inventory
	Methods used	National Forest Inventory
	Additional comments	

Classifications and definitions

1990	National class	Definition
	Forest	A forest is an ecosystem in all stages of its development, dominated by trees the height of which at the particular location may reach at least seven metres and the present or potential projection of the crown of which is at least 20 per cent of the area occupied by the forest stand;
	Gaps	Small open areas in forest land with characteristic plant cover.
	Bushland	Land, which is evenly overgrown with wooden plants, which does not have trunk normally (such as osiers, buckthorns, woodbines, guelder-roses, spindletrees, currants, hazels, junipers, rowan-trees, bird-cherries etc.)

	Forest infrastructure	built or installed objects in the forest for the purpose of forest management and protection, as well as for recreation
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2000	National class	Definition
	Forest	A forest is an ecosystem in all stages of its development, dominated by trees the height of which at the particular location may reach at least seven metres and the present or potential projection of the crown of which is at least 20 per cent of the area occupied by the forest stand;
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2008	National class	Definition
	Forest	A forest is an ecosystem in all stages of its development, dominated by trees the height of which at the particular location may reach at least five metres and the present or potential projection of the crown of which is at least 20 per cent of the area occupied by the forest stand;
	Gaps	Small open areas in forest land with characteristic plant cover.
	Bushland	Land, which is evenly overgrown with wooden plants, which does not have trunk normally (such as osiers, buckthorns, woodbines, guelder-roses, spindletrees, currants, hazels, junipers, rowan-trees, bird-cherries etc.)
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	Forest	A forest is an ecosystem in all stages of its development, dominated by trees the height of which at the particular location may reach at least five metres and the present or potential projection of the crown of which is at least 20 per cent of the area occupied by the forest stand;
	Gaps	Small open areas in forest land with characteristic plant cover.
	Bushland	Land, which is evenly overgrown with wooden plants, which does not have trunk normally (such as osiers, buckthorns, woodbines, guelder-roses, spindletrees, currants, hazels, junipers, rowan-trees, bird-cherries etc.)
	Forest infrastructure	built or installed objects in the forest for the purpose of forest management and protection, as well as for recreation

Original data and reclassification

1990	Classifications and definitions	FRA classes
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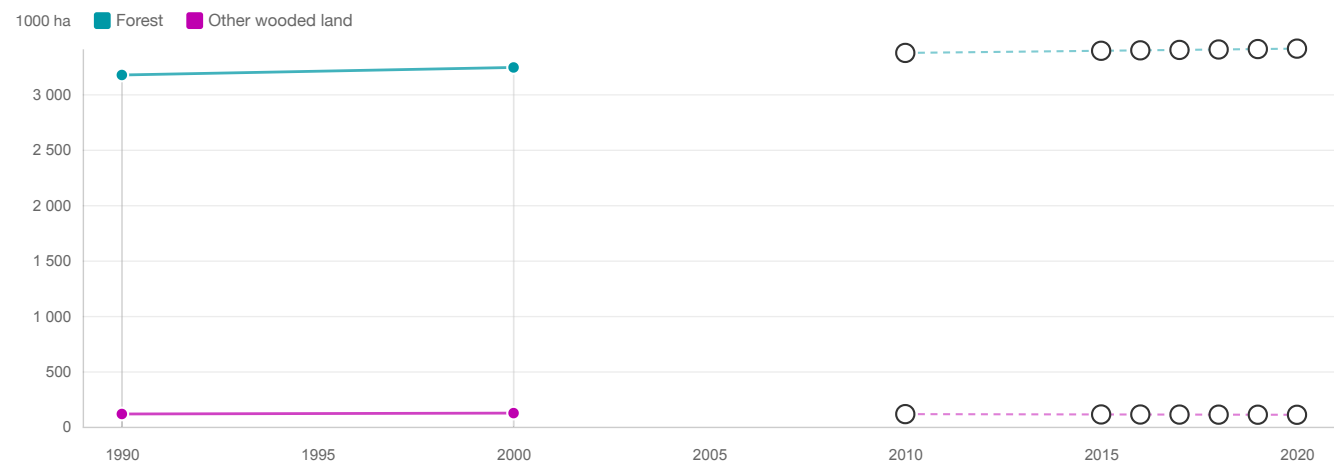
	Class	Area (1000 ha)	Forest	Other wooded land	Other land
	Forest	2 994.00	100.00 %	0.00 %	0.00 %
	Gaps	29.00	100.00 %	0.00 %	0.00 %
	Bushland	115.00	0.00 %	100.00 %	0.00 %
	Forest infrastructure	150.00	100.00 %	0.00 %	0.00 %
	Total	3 288.00	3 173.00	115.00	0.00

2000	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Forest	Other wooded land	Other land
	Forest	3 113.00	100.00 %	0.00 %	0.00 %
	Gaps	20.00	100.00 %	0.00 %	0.00 %
	Bushland	123.00	0.00 %	100.00 %	0.00 %
	Forest infrastructure	108.00	100.00 %	%	%
	Total	3 364.00	3 241.00	123.00	0.00

2008	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Forest	Other wooded land	Other land
	Forest	3 241.15	100.00 %	0.00 %	0.00 %
	Gaps	36.65	100.00 %	0.00 %	0.00 %
	Bushland	115.00	0.00 %	100.00 %	0.00 %
	Forest infrastructure	86.59	100.00 %	%	%
	Total	3 479.39	3 364.39	115.00	0.00

2013	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Forest	Other wooded land	Other land
	Forest	3 260.84	100.00 %	0.00 %	0.00 %
	Gaps	33.10	100.00 %	0.00 %	0.00 %

	Bushland	112.00	0.00 %	100.00 %	0.00 %
	Forest infrastructure	89.77	100.00 %	%	%
	Total	3 495.71	3 383.71	112.00	0.00



FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest (a)	3 173.00	3 241.00	3 372.12	3 391.44	3 395.31	3 399.18	3 403.05	3 406.92	3 410.79
Other wooded land (a)	115.00	123.00	113.80	110.80	110.20	109.60	109.00	108.40	107.80
Other land (c-a-b)	2 930.00	2 854.00	2 732.08	2 715.76	2 712.49	2 709.22	2 705.95	2 702.68	2 699.41
Total land area (c)	6 218.00	6 218.00	6 218.00	6 218.00	6 218.00	6 218.00	6 218.00	6 218.00	6 218.00

The FAOSTAT land area figure for the year 2015 is used for all reference years

Climatic domain	% of forest area 2015	Override value
Boreal	0.00	
Temperate	100.00	
Sub-tropical	0.00	
Tropical	0.00	

Comments

National forest inventory data is collected in a five-year cycle and the first cycle was started in 2004 and finished in 2008. Second cycle was finished in 2013. At the end of the second cycle a mistake was found in the first cycle data, that has been corected. Therefore, data 2010 and 2015 are different from the FRA 2015 report.

1b Forest characteristics

National data

Data sources

1990	References	Information of Forest resources prepared by The State Forest Service (Source - National Forest register)
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2000	References	Information of Forest resources prepared by The State Forest Service (Source - National Forest register)
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	Methods used	National Forest Inventory
	Additional comments	

2013	References	Information of Forest resources from National Forest Inventory
	Methods used	National Forest Inventory
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Classifications and definitions

1990	National class	Definition
	Forest	A forest is an ecosystem in all stages of its development, dominated by trees the height of which at the particular location may reach at least seven metres and the present or potential projection of the crown of which is at least 20 per cent of the area occupied by the forest stand;
	Gaps	Small open areas in forest land with characteristic plant cover.
	Bushland	Land, which is evenly overgrown with wooden plants, which does not have trunk normally (such as osiers, buckthorns, woodbines, guelder-roses, spindletrees, currants, hazels, junipers, rowan-trees, bird-cherries etc.)
	Forest infrastructure	built or installed objects in the forest for the purpose of forest management and protection, as well as for recreation

2000	National class	Definition
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	Forest infrastructure	built or installed objects in the forest for the purpose of forest management and protection, as well as for recreation

Original data and reclassification

1990	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Naturally regenerating forest	Plantation forest	Other planted forest
	Forest	2 994.00	90.00 %	0.00 %	10.00 %

	Gaps	29.00	100.00 %	0.00 %	0.00 %
	Forest infrastructure	150.00	90.00 %	0.00 %	10.00 %
	Total	3 173.00	2 858.60	0.00	314.40

2000	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Naturally regenerating forest	Plantation forest	Other planted forest
	Forest	3 113.00	90.00 %	0.00 %	10.00 %
	Gaps	20.00	100.00 %	0.00 %	0.00 %
	Forest infrastructure	108.00	90.00 %	0.00 %	10.00 %
	Total	3 241.00	2 918.90	0.00	322.10

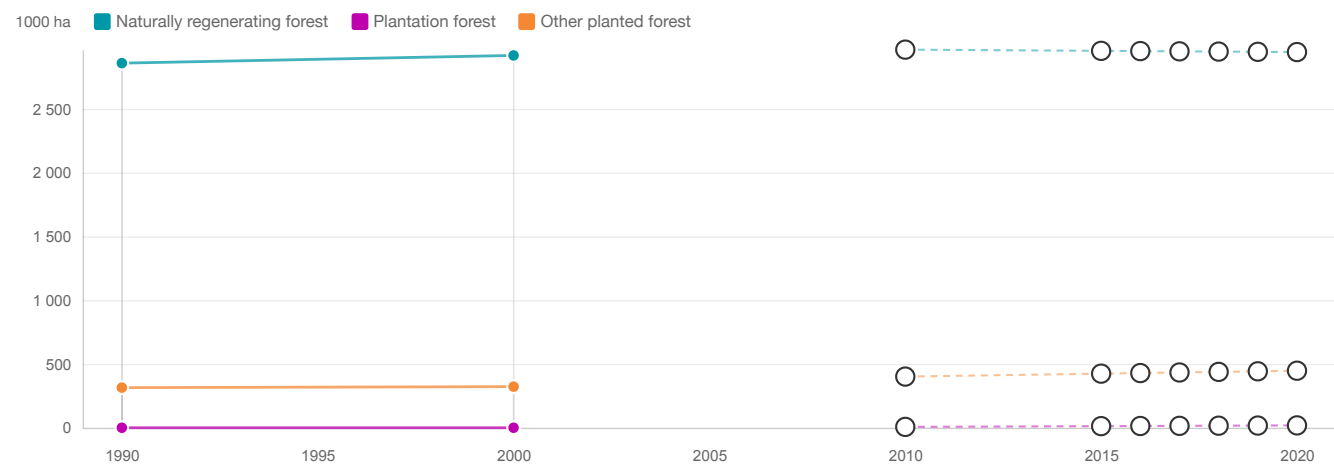
2008	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Naturally regenerating forest	Plantation forest	Other planted forest
	Forest	3 241.15	90.45 %	0.13 %	9.42 %
	Gaps	36.65	100.00 %	0.00 %	0.00 %
	Forest infrastructure	86.59	90.00 %	0.00 %	10.00 %
	Total	3 364.39	3 046.20	4.21	313.98

Plantation forest	Area (1000 ha)	...of which introduced
Forest	4.21	0.00 %
Total	4.21	0.00

2013	Classifications and definitions		FRA classes		
	Class	Area (1000 ha)	Naturally regenerating forest	Plantation forest	Other planted forest
	Forest	3 260.84	89.72 %	0.31 %	9.97 %
	Gaps	33.10	100.00 %	0.00 %	0.00 %
	Forest infrastructure	89.77	90.00 %	0.00 %	10.00 %
	Total	3 383.71	3 039.52	10.11	334.08

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Plantation forest	Area (1000 ha)	...of which introduced
Forest	10.11	0.00 %
Total	10.11	0.00



FRA categories	Forest area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest (a)	2 858.60	2 918.90	2 964.46	2 954.90	2 952.99	2 951.08	2 949.17	2 947.26	2 945.35
Planted forest (b)	314.40	322.10	407.66	436.54	442.32	448.10	453.88	459.66	465.44
Plantation forest	0.00	0.00	6.57	12.47	13.65	14.83	16.01	17.19	18.37
...of which introduced species			0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other planted forest	314.40	322.10	401.09	424.07	428.67	433.27	437.87	442.47	447.07
Total (a+b)	3 173.00	3 241.00	3 372.12	3 391.44	3 395.31	3 399.18	3 403.05	3 406.92	3 410.79
Total forest area	3 173.00	3 241.00	3 372.12	3 391.44	3 395.31	3 399.18	3 403.05	3 406.92	3 410.79

Comments

National forest inventory data is collected in a five-year cycle and the first cycle was started in 2004 and finished in 2008. Second cycle was finished in 2013. At the end of the second cycle a mistake was found in the first cycle data, that has been corrected. Therefore, data in 2010 and 2015 are different from the FRA 2015 report.

1c Primary forest and special forest categories

National Data

Data sources + type of data source eg NFI, etc

Information of Forest resources prepared by The State Forest Service

(Source - National Forest register)

National classification and definitions

Primary forest- Naturally regenerated forest of native species where there are no clearly visible indications of human activities and the ecological processes are not significantly disturbed.

Include:

Strict and regulatory regime zone of nature reserves - Territories untouched by human activities or nearly natural, where unhindered development of natural processes is ensured, in order to protect and study rare and typical ecosystems and their parts. In the zone of strict regime all natural resources are completely excluded from economic and other activities.

Strict and regulatory regime zone of national parks- National parks are broad areas which are characterised by outstanding nature formations of national significance, landscapes and cultural heritage landscapes untouched by human activities or nearly natural, a diversity of habitats, abundance of cultural and historical monuments, and peculiarities of cultural environment. In the zone of strict and regulatory regime all natural resources are completely excluded from economic and other activities.

expert estimation - Primary forest area in the period of 1990 to 2000 has not changed.

Original data

hectares	2000	2010	2015	2017
Strict regime zone of nature reserves	1402	2833	398	306
Regulatory regime zone of nature reserves	10552	5556	8303	8530
Strict and regulatory regime zone of national parks	3271	6529	6493	8140
Total (primary forest) Area of gaps and infrastructure not included	15226	14919	15195	16976
	2000	2010	2015	2017
Temporarily unstocked and/or recently regenerated area (ha)	84122	147570	151364	140449

Analysis and processing of national data

Estimation and forecasting

The data from the year 2017 is also used for the year 2020 data. Experts don't predict the changes of Primary forest area from 2017 to 2020.

Temporarily unstocked and/or recently regenerated area for year 1990 and 2020 - Experts assumptions

Reclassification into FRA 2020 categories

FRA 2020 categories	National class
Primary forest	Strict and regulatory regime zone of nature reserves and national parks

FRA categories	Area (1000 ha)				
	1990	2000	2010	2015	2020
Primary forest	15.23	15.23	14.92	15.20	16.98
Temporarily unstocked and/or recently regenerated	60.00	84.12	147.57	151.36	140.50
Bamboos	0.00	0.00	0.00	0.00	0.00
Mangroves	0.00	0.00	0.00	0.00	0.00
Rubber wood	0.00	0.00	0.00	0.00	0.00

Comments

Primary forest data changes for year 2010, 2015 are not related to transition to other category. It is explained by zoning changes in nature reserves and national parks and also more precise information is has been obtained.

1d Annual forest expansion, deforestation and net change

National Data

Data sources + type of data source eg NFI, etc

Information of Forest resources prepared by The State Forest Service

(Source - National Forest register)

National classification and definitions

FRA 2020 definitions have been used

Original data

Deforestation	hectares/year											average for the year								
	1990-2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010									
	n.a	n.a	n.a	483	336	359	497	423	426	404	271	400								
Deforestation	hectares/year																			
	2011	2012	2013	2014	2015	average for the year		2016	2017	average for the year										
	345	310	132	325	439	310		307	420	363										
Aforestation	hectares/year										average for the year	hectares/year					average for the year	hectares/year		average for the year
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010		2011	2012	2013	2014	2015		2016	2017	
	469	405	948	1 788	1 804	2 008	1 917	1 215	2 277	1 598	1443	3 542	2 739	1163	1078	n.a	2130	1834	2069	1952

Analysis and processing of national data

Estimation and forecasting

FRA 2020 definitions and categories have been used

Reclassification into FRA 2020 categories

FRA 2020 definitions and categories have been used

FRA categories	Area (1000 ha/year)			
	1990-2000	2000-2010	2010-2015	2015-2020
Forest expansion (a)	6.80	13.51	4.17	4.23
...of which afforestation	0.00	1.44	2.13	1.95
...of which natural expansion	6.80	12.07	2.04	2.28
Deforestation (b)	0.00	0.40	0.31	0.36
Forest area net change (a-b)	6.80	13.11	3.86	3.87

Comments

1e Annual reforestation

National Data

Data sources + type of data source eg NFI, etc

Information of Forest resources prepared by The State Forest Service

(Source - National Forest register)

National classification and definitions

FRA 2020 definitions and categories have been used

Original data

Reforestation	hectares/year										average for the year
	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
	6813	5899	5805	5253	5855	6120	6800	7412	8800	8609	6736
Reforestation	hectares/year										average for the year
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	
	8005	8774	10408	11972	11676	10999	11451	11211	10574	10811	10588
Reforestation	hectares/year										
	2011	2012	2013	2014	2015	average for the year	2016	2017	average for the year		
	12908	13290	13444	12872	13697	13242	12598	12975	12786		

Analysis and processing of national data

Estimation and forecasting

FRA 2020 definitions and categories have been used

Reclassification into FRA 2020 categories

FRA 2020 definitions and categories have been used

FRA categories	Area (1000 ha/year)			
	1990-2000	2000-2010	2010-2015	2015-2020
Reforestation	6.74	10.59	13.24	12.79

Comments

1f Other land with tree cover

National Data

Data sources + type of data source eg NFI, etc

Tree orchards - Land use balance prepared by State Land Service

National classification and definitions

Orchards

Original data

	1990	2000	2010	2015
Orchards	21	29	29	29
urban parks, alleys and gardens	3	3,3	5	6,7

Urban parks, alleys and gardens - expert assumption based on data from National forest inventory.

Analysis and processing of national data

Estimation and forecasting

Expert evaluation - in the period between 2015, and 2020 years of data will not change significantly

Reclassification into FRA 2020 categories

FRA 2020 definitions and categories have been used

FRA categories	Area (1000 ha)				
	1990	2000	2010	2015	2020
Palms (a)	0.00	0.00	0.00	0.00	0.00
Tree orchards (b)	21.00	29.00	29.00	29.00	29.00
Agroforestry (c)	0.00	0.00	0.00	0.00	0.00
Trees in urban settings (d)	3.00	3.30	5.00	6.70	6.70
Other (specify in comments) (e)	0.00	0.00	0.00	0.00	0.00
Total (a+b+c+d+e)	24.00	32.30	34.00	35.70	35.70
Other land area	2 930.00	2 854.00	2 732.08	2 715.76	2 699.41

Comments

2 Forest growing stock, biomass and carbon

2a Growing stock

National Data

Data sources + type of data source eg NFI, etc

Information of Forest resources from National Forest Inventory - growing stock on forest since 2004, growing stock on other wooded land.

Information of Forest resources prepared by The State Forest Service - growing stock on forest, 1990, 2000

National classification and definitions

FRA 2020 definitions and categories have been used

Original data

	1990	2000	2008	2013				
Growing stock on forest	442	537	633,42	649,63				
Naturally regenerating forest			572,91	583,7				
Planted forest			60,51	65,93				
					1990, 2000	2010	2015	
Growing stock on other wooded land per hectare 16,95 m³					16,95	22,8	22,8	

Analysis and processing of national data

Estimation and forecasting

There are used linear extrapolation for year 2010, 2015-2020

Growing stock proportion between naturally regenerating forest and planted forest 1990 and 2000- expert estimation.

National class	Million m³								
	2008 Ic	2010	2013 Ilc	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	572,91	577,23	583,70	588,02	590,17	592,33	594,49	596,65	598,81
Planted forest	60,51	62,67	65,93	68,10	69,18	70,27	71,35	72,43	73,52
Forest	633,42	639,90	649,63	656,11	659,36	662,60	665,84	669,08	672,32

Reclassification into FRA 2020 categories

FRA 2020 definitions and categories have been used

FRA categories	Growing stock m³/ha (over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	139.23	165.47	194.72	199.00	199.86	200.72	201.58	202.44	203.31
Planted forest	139.95	167.65	153.73	156.00	156.40	156.82	157.20	157.57	157.96
...of which plantation forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
...of which other planted forest	139.95	167.65	156.25	160.59	161.38	162.19	162.95	163.69	164.45
Forest	139.30	165.69	189.76	193.46	194.20	194.93	195.66	196.39	197.12
Other wooded land	16.95	16.95	22.80	22.80	22.80	22.80	22.80	22.80	22.80

FRA categories	Total growing stock (million m³ over bark)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Naturally regenerating forest	398.00	483.00	577.23	588.02	590.17	592.33	594.49	596.65	598.81
Planted forest	44.00	54.00	62.67	68.10	69.18	70.27	71.35	72.43	73.52
...of which plantation forest	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
...of which other planted forest	44.00	54.00	62.67	68.10	69.18	70.27	71.35	72.43	73.52
Forest	442.00	537.00	639.90	656.11	659.36	662.60	665.84	669.08	672.32
Other wooded land	1.95	2.08	2.59	2.53	2.51	2.50	2.49	2.47	2.46

Comments

National forest inventory data is collected in a five-year cycle and the first cycle was started in 2004 and finished in 2008. Second cycle was finished in 2013. At the end of the second cycle a mistake was found in the first cycle data, that has been corrected. Therefore, data in 2010 and 2015 are different from the FRA 2015 report.

2b Growing stock composition

National Data

Data sources + type of data source eg NFI, etc

Information of Forest resources from National Forest Inventory - growing stock on forest since 2004, growing stock on other wooded land.

Information of Forest resources prepared by The State Forest Service - growing stock on forest, 1990, 2000

National classification and definitions

FRA 2020 definitions and categories have been used

Original data

Common name	1990	2000	2008	2013
Scots pine	179,01	232,4	223,11	222,77
Silver birch	106,96	152,1	151,74	153,74
Norway spruce	87,52	87,8	116,91	123,68
Grey alder	20,33	25,8	36,02	35,92
Aspen	26,96	19,2	56,25	61,11
Common alder	15,47	13,3	33,84	37,86
European ash	2,65	3,3	4,67	4,63
Common oak	1,77	2	3,12	3,08
remaining	1,33	1,1	7,76	6,84
Total	442	537	633,42	649,63

Analysis and processing of national data

Estimation and forecasting

Using a linear extrapolation.

Common name	1990	2000	2008	2010	2013	2015	2020
Scots pine	179.01	232.40	223.11	222.97	222,77	222.63	222.29
Silver birch	106.96	152.10	151.74	152.54	153,74	154.54	156.54
Norway spruce	87.52	87.80	116.91	119.62	123,68	126.39	133.16
Aspen	26.96	19.20	56.25	58.19	61,11	63.05	67.91
Common alder	15.47	13.30	33.84	35.45	37,86	39.47	43.49
Grey alder	20.33	25.80	36.02	35.98	35,92	35.88	35.78
European ash	2.65	3.30	4.67	4.65	4,63	4.61	4.57
Common oak	1.77	2.00	3.12	3.10	3,08	3.06	3.02
remaining	1.33	1.10	7.76	7.39	6,84	6.47	5.55

Total	442.00	537.00	633,42	639.90	649,63	656.11	672.32
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Reclassification into FRA 2020 categories

According to expert estimates, based on the data of the State Forest Register, the introduced tree species occupy approximately 1.4 thousand hectares with a stock of about 0.25 million m³, therefore they are not collected separately and are included in the category native tree species in the remaining section

FRA categories	Scientific name	Common name	Growing stock in forest (million m³ over bark)				
			1990	2000	2010	2015	2020
Native tree species							
#1 Ranked in terms of volume	Pinus sylvestris	Scots pine	179.01	232.40	222.97	222.63	222.29
#2 Ranked in terms of volume	Betula pendula and Betula pubescens	Silver birch and Downy birch	106.96	152.10	152.54	154.54	156.54
#3 Ranked in terms of volume	Picea abies	Norway spruce	87.52	87.80	119.62	126.39	133.16
#4 Ranked in terms of volume	Populus tremula	Aspen	26.96	19.20	58.19	63.05	67.91
#5 Ranked in terms of volume	Alnus glutinosa	Common alder	15.47	13.30	35.45	39.47	43.49
#6 Ranked in terms of volume	Alnus incana	Grey alder	20.33	25.80	35.98	35.88	35.78
#7 Ranked in terms of volume	Fraxinus excelsior	European ash	2.65	3.30	4.65	4.61	4.57
#8 Ranked in terms of volume	Quercus robur	Common oak	1.77	2.00	3.10	3.06	3.02
#9 Ranked in terms of volume							
#10 Ranked in terms of volume							
Remaining native tree species			1.33	1.10	7.40	6.48	5.56
Total volume of native tree species			442.00	537.00	639.90	656.11	672.32
Introduced tree species							
#1 Ranked in terms of volume							
#2 Ranked in terms of volume							
#3 Ranked in terms of volume							
#4 Ranked in terms of volume							

FRA categories	Scientific name	Common name	Growing stock in forest (million m³ over bark)				
			1990	2000	2010	2015	2020
Native tree species							
#5 Ranked in terms of volume							
Remaining introduced tree species							
Total volume of introduced tree species			–	–	–	–	–
Total growing stock			442.00	537.00	639.90	656.11	672.32

Comments

National forest inventory data is collected in a five-year cycle and the first cycle was started in 2004 and finished in 2008. Second cycle was finished in 2013. At the end of the second cycle a mistake was found in the first cycle data, that has been corected. Therefore, data in 2010 and 2015 are different from the FRA 2015 report.

In Latvia we have a very insignificant portion of forest stands of introduced species. These areas are not managed and registered as plantations. Basically these are located in forests of scientific research, old, unmanaged rural parks that are currently managed as forests.The concept of “introduced” species in Latvia refers to “introduced from another country”. They have been introduced more than 250 years ago. According to expert estimates, based on the data of the State Forest Register, the introduced tree species occupy approximately 1.7 thousand hectares with a stock of about 0.25 million m3, therefore they are not collected separately and are included in the category native tree species in the remaining section

2c Biomass stock

National Data

Data sources + type of data source eg NFI, etc

References to sources of information	Variable(s)	Year(s)
Information of Forest resources from National Forest Inventory	Dead wood	2008, 2013
Data from table 2a	Growing stock	1990, 2000, 2010, 2015-2020
LATVIA’S NATIONAL INVENTORY REPORT submitted under United Nations Convention on Climate Change	factors for converting growing stock to biomass	

National classification and definitions

National class	Definition
Dead wood	All non-living woody biomass not contained in the litter, either standing, lying on the ground, or in the soil. Dead wood includes wood lying on the surface, dead roots, and stumps larger than or equal to 10 cm in diameter.

Original data

year	grooving stock m3/ha	WD (basic wood density)	BEF (Biomass expansion factor)	AGB (t/ha)	R (root-shoot ratio)	BGB (t/ha)	Dead wood m3/ ha	Converting factor	Dead wood biomass (t/ha)
1990	139,23	0,5	1,3	90,50	0,32	28,96	5,36	0,6	3,21
2000	165,69	0,5	1,3	107,70	0,32	34,46	5,55	0,6	3,33
2010	189,76	0,5	1,3	123,34	0,32	39,47	18,9	0,6	11,34
2015	193,43	0,5	1,3	125,73	0,32	40,23	20,75	0,6	12,45
2016	194,2	0,5	1,3	126,23	0,32	40,39	19,99	0,6	12
2017	194,93	0,5	1,3	126,70	0,32	40,55	19,24	0,6	11,55
2018	195,66	0,5	1,3	127,18	0,32	40,70	18,49	0,6	11,1
2019	196,39	0,5	1,3	127,65	0,32	40,85	17,75	0,6	10,65
2020	197,12	0,5	1,3	128,13	0,32	41,00	17	0,6	10,2

Analysis and processing of national data

Estimation and forecasting

FRA 2020 definitions and categories have been used

Reclassification into FRA 2020 categories

FRA 2020 definitions and categories have been used

FRA categories	Forest biomass (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass	90.50	107.70	123.34	125.73	126.23	126.70	127.18	127.65	128.13
Below-ground biomass	28.96	34.46	39.47	40.23	40.39	40.55	40.70	40.85	41.00
Dead wood	3.21	3.33	11.34	12.45	12.00	11.55	11.10	10.65	10.20

Comments

2d Carbon stock

National Data

Data sources + type of data source eg NFI, etc

References to sources of information	Variable(s)
Data from table 2c	Biomass stock
LATVIA’S NATIONAL INVENTORY REPORT Submitted under United Nations Convention on Climate Change	Biomass stock converting factor to carbon stock
LATVIA’S NATIONAL INVENTORY REPORT Submitted under United Nations Convention on Climate Change	Average carbon stock in litter found in the BioSoil plots (tonnes C ha-1)
LATVIA’S NATIONAL INVENTORY REPORT Submitted under United Nations Convention on Climate Change	soil organic carbon stock in mineral soil (tonnes C ha-1)
Data from table 1a	Forest area,

National classification and definitions

FRA 2020 definitions are used

Original data

Soil carbon t/ha	181,71	176,99	168,77	168,18	168,29	168,33	168,46	168,433	168,5
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Average carbon stock in litter is 12.14 tonnes C ha⁻¹ according to the BioSoil project forest soil inventory data.

Year	AGB (t/ha)	Converting factor	Carbon in above-ground biomass	BGB (t/ha)	Converting factor	Carbon in below-ground biomass	Dead wood biomass (tonnes/ha)	Converting factor	Carbon in dead wood
1990	90,50	0,5	45,25	28,96	0,5	14,48	3,21	0,5	1,61
2000	107,70	0,5	53,85	34,46	0,5	17,23	3,33	0,5	1,67
2008	122,38	0,5	61,19	39,16	0,5	19,58	9,99	0,5	4,99
2010	123,34	0,5	61,67	39,47	0,5	19,74	11,34	0,5	5,67
2013	124,79	0,5	62,40	39,93	0,5	19,97	13,35	0,5	6,68
2015	125,73	0,5	62,86	40,23	0,5	20,12	12,45	0,5	6,22
2016	126,23	0,5	63,12	40,39	0,5	20,20	12,00	0,5	6,00
2017	126,70	0,5	63,35	40,55	0,5	20,27	11,55	0,5	5,77
2018	127,18	0,5	63,59	40,70	0,5	20,35	11,10	0,5	5,55
2019	127,65	0,5	63,83	40,85	0,5	20,42	10,65	0,5	5,32
2020	128,13	0,5	64,06	41,00	0,5	20,50	10,20	0,5	5,10

Analysis and processing of national data

Estimation and forecasting

FRA 2020 definitions and categories have been used

Reclassification into FRA 2020 categories

FRA 2020 definitions and categories have been used

FRA categories	Forest carbon (tonnes/ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Carbon in above-ground biomass	45.25	53.85	61.67	62.86	63.12	63.35	63.59	63.83	64.06
Carbon in below-ground biomass	14.48	17.23	19.74	20.12	20.20	20.27	20.35	20.42	20.50
Carbon in dead wood	1.61	1.67	5.67	6.22	6.00	5.77	5.55	5.32	5.10
Carbon in litter	12.14	12.14	12.14	12.14	12.14	12.14	12.14	12.14	12.14
Soil carbon	181.70	176.99	168.77	168.17	168.29	168.33	168.46	168.43	168.50

Soil depth (cm) used for soil carbon estimates	30.00
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Comments

3 Forest designation and management

3a Designated management objective

National Data

Data sources + type of data source eg NFI, etc

Forest area by types of protected territories - Information of Forest resources prepared by The State Forest Service (State Forest Register)

National classification and definitions

National class	Definition
Strict nature reserves	Strict nature reserves are territories untouched by human activities or nearly natural, in which territories unhindered development of natural processes shall be ensured in order to protect and study rare or typical ecosystems and parts thereof.
National parks	National parks are broad areas which are characterised by outstanding nature formations of national significance, landscapes and cultural heritage landscapes untouched by human activities or nearly natural, a diversity of biotopes, abundance of cultural and historical monuments, and peculiarities of cultural environment.
Nature reserves	Nature reserves are nature territories little transformed or transformed in varying degrees by human activities, which territories include habitats of specially protected wild plant and animal species, and specially protected biotopes.
North Vidzeme Biosphere Reserve	Biosphere reserves are broad territories in which landscapes and ecosystems of international significance are located. The goal of establishing biosphere reserves is to ensure the preservation of natural diversity and to promote sustainable social and economic development of the territory.
Nature parks	Nature parks are territories that represent the natural, cultural and historical values of a particular area, and that are suitable for recreation, education and the instruction of society.
Protected landscape areas	Protected landscape areas are territories remarkable for original and diverse landscapes and special beauty. The goals of such territories are to protect and preserve the cultural environment and landscapes characteristic of Latvia in all their diversity, as well as to ensure the preservation of environment appropriate for recreation of society and for tourism, and use of environment friendly management methods.
Protected dendrological plantations	Nature monuments are separate, isolated natural formations: protected trees, dendrological plantings, avenues, geological and geomorphological nature monuments and other natural rarities having scientific, cultural and historical, aesthetic or ecological value.
Protected geological and geomorphological nature monuments	Nature monuments are separate, isolated natural formations: protected trees, dendrological plantings, avenues, geological and geomorphological nature monuments and other natural rarities having scientific, cultural and historical, aesthetic or ecological value.
Micro-reserves	Micro Reserve – a territory that is determined in order to ensure protection of Specially Protected Species or Habitats outside Specially Protected Nature Territories, as well as within the Specially Protected Nature Territories, if protection is not ensured by any of the functional zones
Buffer zones around micro-reserves	Areas where restrictions on economic activity are prescribed in order to reduce the impact of intensive economic activities on the micro-reserves of specially protected bird species
Protection zones of coastal dunes along the Baltic Sea and Bay of Riga	A protection zone of coastal dunes the width of which depends on the width of dune zone, but not less than 300 metres in the direction of land, counting from the place where the natural land vegetation begins.
Restricted economic activity zone along the Baltic sea and Bay of Riga	A restricted economic activity zone up to a width of 5 kilometres is determined taking into account natural circumstances, in order to decrease the negative effects of pollution in the Baltic Sea, to preserve the protective functions of the forest, to eliminate the development of erosion processes, to protect the coastal landscapes, to ensure preservation and protection of coastal natural resources, including resources necessary for leisure and tourism and other territories important for society, and balanced and the continuous utilisation of them.
Surface water body protection zones	Surface water body protection zones are determined for reservoirs, water courses and artificial water bodies, in order to decrease the negative effects of pollution to water ecosystems, to eliminate the development of erosion processes, and to restrict economic activity in the flood zones, as well as to preserve the characteristic landscape of the area..
Protection zones along wetlands	Protection zones along wetlands are determined in order to preserve biological diversity and to stabilise the regime of humidity in the zone of contiguity (transition) of the forest and marsh.
Protection zones surrounding urban territories	Protection zones surrounding urban territories are determined to ensure appropriate conditions for recreation and improvement of health for urban population, as well as to decrease or compensate the negative effects of cities to environment.

Forests within the administrative territories of cities	Forests within the administrative territories of cities
Specially protected forest areas	Specially protected forest areas for protection of specially protected species, habitats with biological importance and objects with cultural and historic importance.

Original data

National class	Forest area*, ha				
	1990	2000	2010	2015	2017
Strict nature reserves	38700	19155	9202	8724	8864
National parks	51600	50284	102206	103842	102100
Nature reserves	87600	61766	99331	106497	107059
Nature parks	15000	28436	63177	63512	63416
Protected landscape areas	55100	54451	78766	82881	84492
Protected dendrological plantations	0	0	698	877	795
Protected geological and geomorphological nature monuments	0	0	1460	2660	2278
Micro-reserves	0	0	36566	39172	41360
Buffer zones around micro-reserves	0	0	33849	37923	44999
Protected belt of dunes along the Baltic Sea and Bay of Riga	0	5124	8499	9087	9980
Belt of limited economic activity along the Baltic sea	44400	57122	67394	68408	74186
Protected zones along waters	0	0	89212	121518	126511
Protected zones along wetlands	0	0	30252	37128	36396
Protected zone surrounding urban territories	72200		26309	21831	19877
Forests within the administrative territories of cities		46766	14519	16081	17637
Specially protected forest areas and Specially protected Habitats of spaces	196300	222316	16776	12539	10256
Scientific research forest	23753	23753	28937	28937	28937
*- area of gaps and infrastructure not included.					

Analysis and processing of national data

Estimation and forecasting

Calibration factor (Forest area according to FRA categories / Forest area according to national categories)	1,124	1,122	1,038	1,037	1,037
Conservation of biodiversity, ha	444 300	436 408	472 281	495 753	502 015
Conservation of biodiversity (calibrated), ha	499 393	489 650	490 228	514 096	520 589
Protection of soil and water, ha	44 400	62 246	165 105	199 013	210 677

Protection of soil and water (calibrated), ha	49 906	69 840	171 378	206 377	218 472
Social services , ha	95 953	70 519	69 765	66 849	66 451
Social services (calibrated), ha	107 851	79 122	72 416	69 322	68 910

Reclassification into FRA 2020 categories

National class	FRA 2020 Categories, Primary designated function
Strict nature reserves	Conservation of biodiversity
National parks	Conservation of biodiversity
Nature parks	Conservation of biodiversity
Nature reserves	Conservation of biodiversity
Anti-erosion forests	Protection of soil and water
Suburban parks	Social services
Protected landscape areas	Conservation of biodiversity
Suburban forests	Social services
Forests for environment protection	Conservation of biodiversity
Specially protected forest areas	Conservation of biodiversity
North Vidzeme Biosphere Reserve (Nature reserve zone)	Conservation of biodiversity
Protected dendrological plantations	Conservation of biodiversity
Protected geological and geomorphological nature monuments	Conservation of biodiversity
Micro-reserves	Conservation of biodiversity
Buffer zones around micro-reserves	Conservation of biodiversity
Protected belt of dunes along the Baltic Sea and Bay of Riga	Protection of soil and water
Belt of limited economic activity along the Baltic sea	Protection of soil and water
Protected zones along waters	Protection of soil and water
Protected zones along wetlands	Conservation of biodiversity
Protected zone surrounding urban territories	Social services
Forests within the administrative territories of cities	Social services
Specially protected Habitats of spaces	Conservation of biodiversity
Scientific research forest	Social services
Remaining area.	Production

Primary designated management objective

FRA 2020 categories	Forest area (1000 ha)				
	1990	2000	2010	2015	2020
Production (a)	2 514.76	2 601.23	2 638.09	2 601.64	2 602.82
Protection of soil and water (b)	51.00	71.00	171.38	206.38	218.47
Conservation of biodiversity (c)	499.39	489.65	490.23	514.10	520.59
Social Services (d)	107.85	79.12	72.42	69.32	68.91
Multiple use (e)	0.00	0.00	0.00	0.00	0.00
Other (specify in comments) (f)	0.00	0.00	0.00	0.00	0.00
None/unknown (g)	0.00	0.00	0.00	0.00	0.00
Total forest area	3 173.00	3 241.00	3 372.12	3 391.44	3 410.79

Total area with designated management objective

FRA 2020 categories	Forest area (1000 ha)				
	1990	2000	2010	2015	2020
Production	2 515.85	2 602.39	2 638.09	2 601.64	2 602.82
Protection of soil and water	51.00	71.00	171.38	206.38	218.47
Conservation of biodiversity	499.39	489.65	490.23	514.10	520.59
Social Services	107.85	79.12	72.42	69.32	68.91
Other (specify in comments)	0.00	0.00	0.00	0.00	0.00

Comments

National forest inventory data is collected in a five-year cycle and the first cycle was started in 2004 and finished in 2008. Second cycle was finished in 2013. At the end of the second cycle a mistake was found in the first cycle data, that has been corected. Therefore, data in 2010 and 2015 are different from the FRA 2015 report.

3b Forest area within protected areas and forest area with long-term management plans

National Data

Data sources + type of data source eg NFI, etc

Forest area by types of protected territories, Forest area with long-term forest management plan - Information of Forest resources prepared by The State Forest Service (State Forest Register)

National classification and definitions

Definitions are included in table 3a

Forest area with long-term forest management plan - There is a mandatory requirement for forest owners in Latvia to carry out their forest inventory for forest management planning, which can be treated as equal to a forest management plan, only without economic activities to be carried out and the time of their implementation. However, the permissible economic activities and, in certain cases, the implementation of them are set out by laws and regulations. There are forest areas indicated in the table where forest inventory has been carried out. Besides, a greatest part of forest owners have elaborated forest management plans for economic activity.

Original data

National class		Forest area*, ha				
		1990	2000	2010	2015	2017
Specially Protected Nature Territories	Strict nature reserves	19155	19155	9202	8724	8865
	National parks	64431	64431	102206	103842	101817
	Nature reserves	87600	64004	99331	106497	107059
	Nature parks	15000	28439	63177	63512	63416
	Protected landscape areas	55200	54451	78766	82881	84492
	Municipality level Nature reserves and Nature parks	0	0	1017	1009	1009
	Protected dendrological plantations	0	0	698	877	795
	Protected geological and geomorphological nature monuments	0	0	1460	2660	2278
Protected Nature Territories for conservation of biodiversity	Micro-reserves	0	0	36566	39172	41360
	Buffer zones around micro-reserves	0	0	33849	37923	44999
	Protected zones along wetlands	0	0	30252	37128	36396
	Specially protected forest areas and Specially protected Habitats of spaces	196300	222316	16776	12539	10256
Protected Territories for recreation and improvement of health for urban population	Protected zone surrounding urban territories	244000	46766	26309	21831	19877
	Forests within the administrative territories of cities			14519	16081	17637
Total		681686	499662	514126	534674	540256

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Protected Territories in Natura 2000 in Latvia		
Protected Territories	Number	of which Natura 2000
Strict nature reserves	4	4
National parks	4	4

Nature reserves	261	239
Nature parks	42	37
Protected landscape areas	9	9
Protected geological and geomorphological nature monuments	206	9
Micro-reserves	~2430*	24
Total <i>Natura 2000</i> territories		333

Analysis and processing of national data

Estimation and forecasting

	1990	2000	2010	2015	2017
Calibration factor (Forest area according to FRA categories / Forest area according to national categories)	1,142	1,122	1,038	1,037	1,037
Forest area within protected areas	681686	499662	514126	534676	540255
Calibrated forest area	777822	560051	533307	554202	559933

Experts also doesn't predict the growth of forest area within protected areas between 2017 to 2020

Reclassification into FRA 2020 categories

FRA 2020 definitions and categories have been used

FRA categories	Area (1000 ha)								
	1990	2000	2010	2015	2016	2017	2018	2019	2020
Forest area within protected areas	777.82	560.05	533.31	544.20	552.43	559.93	559.93	559.93	559.93
Forest area with long-term forest management plan	3 173.00	3 241.00	3 372.12	3 391.44	3 395.31	3 399.18	3 403.05	3 406.92	3 410.79
...of which in protected areas	777.82	560.02	533.31	544.20	552.43	559.93	559.93	559.93	559.93

Comments

4 Forest ownership and management rights

4a Forest ownership

National Data

Data sources + type of data source eg NFI, etc

References to sources of information	Variable(s)	Year(s)
The Land Fund of the Republic of Latvia Prepared by Ministry of Agriculture Department of the organization of the use of land (As of November 1, 1990)	Forest ownership structure	1990
Land use balance prepared by The State Forest Service	Forest ownership categories	2000
National Real Estate Cadastre from State Land Service	Forest ownership categories	2010, 2015

National classification and definitions

National class	Definition
1990	
Land of forestry enterprises	Land of forestry enterprises, organizations and institutions
Land of agricultural enterprises	Land of agricultural enterprises and soviet collective farms (kolkhozs)
Land of farms	Land of farms
Land of state reserve	Land of state reserve is all land not allocated to land users in permanent use or long-term lease
Land of urban territories	Land of urban territories
Land of industry, transport	Land allocated to industrial enterprises, transport enterprises, resorts in permanent use or long-term lease
2000 - 2015	
Land owned or used by physical entity	Land owned by individuals and families.
Land owned or used by legal entity	Land owned by private corporations, co-operatives, companies and other business entities
Land owned or used by local governments	Land owned or used by local governments
Land owned or used by State or state institutions	Land owned or used by State or state institutions
Joint ownership land	Real estates formed by undivided shares which are owned by owners with different owner status (physical persons, legal persons, local governments or state and state institutions)
Free land	Land without renewed property rights during land reform, not transferred in ownership for payment or not transferred in permanent use to physical or legal persons, local governments or state institutions

Original data

National class	Percentage of forest area			
	1990			
Land of forestry enterprises	62,4			
Land of agricultural enterprises	34			
Land of farms	1			
Land state reserve	0,3			

Land of urban territories	0,7			
Land of industry, transport	1,6			
	2000	2005	2010	2015
Land owned or used by physical entity	42,99	41,41	37,37	33,94
Land owned or used by legal entity	2,17	4,47	10,22	14,49
Land owned or used by local governments	4,03	3,3	2,1	2,06
Land owned or used by State or state institutions	49,93	50,72	50,15	49,28
Joint ownership land	0,01	0,05	0,1	0,12
Free land	0,87	0,05	0,06	0,11

Analysis and processing of national data

Estimation and forecasting

Not needed.

Reclassification into FRA 2020 categories

FRA 2020 category	National category, 1990	National category, 2000, 2010, 2015
Public ownership	Land of forestry enterprises	Land owned or used by local governments
	Land of agricultural enterprises	Land owned or used by State or state institutions
	Land of urban territories	
	Land of industry, transport	
Private ownership owned by individuals		Land owned or used by physical entity
Private ownership owned by private business entities and institutions	Land of farms	Land owned or used by legal entity
Other types of ownership	Land state reserve	Joint ownership land
		Free land

FRA categories	Forest area (1000 ha)			
	1990	2000	2010	2015
Private ownership (a)	32.00	1 463.00	1 604.79	1 642.47
...of which owned by individuals	0.00	1 393.00	1 260.16	1 151.05
...of which owned by private business entities and institutions	32.00	70.00	344.63	491.42
...of which owned by local, tribal and indigenous communities	0.00	0.00	0.00	0.00
Public ownership (b)	3 132.00	1 749.00	1 761.93	1 741.17
Unknown/other (specify in comments) (c)	9.00	29.00	5.40	7.80
Total forest area	3 173.00	3 241.00	3 372.12	3 391.44

Comments

National forest inventory data is collected in a five-year cycle and the first cycle was started in 2004 and finished in 2008. Second cycle was finished in 2013. At the end of the second cycle a mistake was found in the first cycle data, that has been corrected. Therefore, data in 2010 is different from the FRA 2015 report.

4b Holder of management rights of public forests

National Data

Data sources + type of data source eg NFI, etc

Table 4a

National classification and definitions

Table 4a

Original data

ALL publicly owned forests are managed by state or local government institutions.

Analysis and processing of national data

Estimation and forecasting

Table 4a

Reclassification into FRA 2020 categories

Table 4a

FRA categories	Forest area (1000 ha)			
	1990	2000	2010	2015
Public Administration (a)	3 132.00	1 749.00	1 761.93	1 741.17
Individuals (b)	0.00	0.00	0.00	0.00
Private business entities and institutions (c)	0.00	0.00	0.00	0.00
Local, tribal and indigenous communities (d)	0.00	0.00	0.00	0.00
Unknown/other (specify in comments) (e)	0.00	0.00	0.00	0.00
Total public ownership	3 132.00	1 749.00	1 761.93	1 741.17

Comments

5 Forest disturbances

5a Disturbances

National Data

Data sources + type of data source eg NFI, etc

References to sources of information	Variable(s)	Year(s)
Information of Forest resources prepared by The State Forest Service	Destroed forest stands by disturbance factors	2000-2017

National classification and definitions

FRA 2020 definitions have been used

Damaged by water	The disturbance by water includes mostly areas which are covered with water because of action of beavers
Damaged by other abiotic factors	other damages include, for example, frost, drought, mechanical damages

Original data

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Damaged by animals	216	343	245	263	196	32	81	87	42	24	55	130	39	51	49	59	45	52
Damaged by insects	432	348	375	430	576	128	157	718	354	256	369	436	109	106	111	68	112	61
Damaged by diseases	113	69	47	89	86	53	41	62	32	48	277	102	43	47	59	187	108	63
Damaged by snow, wind	695	1 411	1 562	473	225	18 661	1 306	983	1 333	249	3 946	2 546	471	712	726	559	609	603
Damaged by water	304	176	225	177	269	186	255	171	121	118	167	270	112	305	350	313	204	222
Damaged by other abiotic factors	120	126	46	54	53	24	22	11	7	5	32	8	17	164	218	46	38	53
Total other damaged	640	645	515	494	518	242	358	269	169	148	253	408	168	520	617	418	287	327

Analysis and processing of national data

Estimation and forecasting

not necessary

Reclassification into FRA 2020 categories

National class	Damaged by insects	Damaged by diseases	Damaged by animals	Damaged by snow, wind	Damaged by water	Damaged by other abiotic factors
FRA 2010 categories	Insects	Diseases	Other	Severe weather events	Other	Other

FRA categories	Area (1000 ha)																	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Insects (a)	0.43	0.35	0.38	0.43	0.58	0.13	0.16	0.72	0.35	0.26	0.37	0.44	0.11	0.11	0.11	0.07	0.11	0.06
Diseases (b)	0.11	0.07	0.05	0.09	0.09	0.05	0.04	0.06	0.03	0.05	0.28	0.10	0.04	0.05	0.06	0.19	0.11	0.06
Severe weather events (c)	0.70	1.41	1.56	0.47	0.23	18.66	1.31	0.98	1.33	0.25	3.95	2.55	0.47	0.71	0.73	0.56	0.61	0.61
Other (specify in comments) (d)	0.64	0.65	0.52	0.49	0.52	0.24	0.36	0.27	0.17	0.15	0.25	0.41	0.17	0.52	0.62	0.42	0.29	0.33
Total (a+b+c+d)	1.88	2.48	2.51	1.48	1.42	19.08	1.87	2.03	1.88	0.71	4.85	3.50	0.79	1.39	1.52	1.24	1.12	1.06
Total forest area	3 241.00	–	–	–	–	–	–	–	3 364.39	–	3 372.12	–	–	3 383.71	–	3 391.44	3 395.31	3 399.18

Comments

5b Area affected by fire

National Data

Data sources + type of data source eg NFI, etc

National statistics on forest fires obtained by The State Forest Service.

National classification and definitions

The State Forest Service deletes and lists both fires in forests and swamps. There were not individually isolated fires in the marshes. According to experts, forest fires constitute 88-90% of the total number of fires.

Original data

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total land area affected by fire (ha)	1341	329	2364	559	485	120	3790	331	364	646	104	115	90	217	591	540	467	265
of which on forest (ha)	582	267	2229	444	427	114	3387	272	311	590	90	86	68	170	276	315	311	173

Analysis and processing of national data

Estimation and forecasting

not necessary

Reclassification into FRA 2020 categories

not necessary

FRA categories	Area (1000 ha)																	
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total land area affected by fire	1.34	0.33	2.36	0.56	0.49	0.12	3.79	0.33	0.36	0.65	0.10	0.12	0.09	0.22	0.59	0.54	0.47	0.27
...of which on forest	0.58	0.27	2.23	0.44	0.43	0.11	3.39	0.27	0.31	0.59	0.09	0.09	0.07	0.17	0.28	0.32	0.31	0.17

Comments

5c Degraded forest

Does your country monitor area of degraded forest		No
If "yes"	What is the national definition of "Degraded forest"?	
	Describe the monitoring process and results	

Comments

6 Forest policy and legislation

6a Policies, Legislation and national platform for stakeholder participation in forest policy

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

-

Original data

-

Indicate the existence of	Boolean (Yes/No)	
	National	Sub-national
Policies supporting SFM	Yes	No
Legislations and regulations supporting SFM	Yes	No
Platform that promotes or allows for stakeholder participation in forest policy development	Yes	Yes
Traceability system(s) for wood products	Yes	No

Comments

6b Area of permanent forest estate

National Data

Data sources + type of data source eg NFI, etc

Table 1a

National classification and definitions

In Latvia a forest area shall be deforested if it is necessary for construction, extraction of mineral resources, development of land to be used in agriculture, restoration of specially protected biotopes, ensuring of protection and inviolability of the land territory of the State, or prevention of a threat to national security on military sites and their protection zones, and if an administrative act has been issued by the competent authority to a person which gives such person the right to carry out the relevant activities, and the person has compensated the State for the expenses related to the elimination of the negative consequences caused by deforestation. So all forest area are reported as the permanent forest estate.

Original data

Table 1a

FRA 2020 categories	Forest area (1000 ha)					
	Applicable?	1990	2000	2010	2015	2020
Area of permanent forest estate	Yes	3 173.00	3 241.00	3 372.12	3 391.44	3 410.79

Comments

7 Employment, education and NWFP

7a Employment in forestry and logging

National Data

Data sources + type of data source eg NFI, etc

References to sources of information	Variable(s)	Year(s)
National statistics on employment	Employment	1990, 2000, 2010, 2015

National classification and definitions

FRA 2020 definitions are used

Original data

Years		Full-time equivalents (1000 FTE)													
		1990	2000	2004	2005	2006	3 years average	2009	2010	2011	3 years average	2014	2015	2016	3 years average
Employment in forestry and logging Nace 02		15,00	19,00	33,00	34,60	29,80	32,47	14,60	20,60	19,90	18,40	17,90	18,70	14,72	17,13
By gender	male	n.a.	n.a.	30,10	32,00	26,80	29,63	13,00	17,80	17,40	16,07	15,70	16,30	12,50	14,83
	female	n.a.	n.a.	2,90	2,50	3,00	2,80	1,60	2,80	2,60	2,33	2,20	2,50	2,20	2,30

FRA 2020 categories	Full-time equivalents (1000 FTE)											
	1990			2000			2010			2015		
	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male
Employment in forestry and logging	15.00			19.00			18.40	2.33	16.07	17.13	2.30	14.83
...of which silviculture and other forestry activities												
...of which logging												
...of which gathering of non wood forest products												
...of which support services to forestry												

Comments

7b Graduation of students in forest-related education

National Data

Data sources + type of data source eg NFI, etc

-

National classification and definitions

-

Original data

-

FRA 2020 categories	Number of graduated students											
	1990			2000			2010			2015		
	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male
Doctoral degree												
Master's degree												
Bachelor's degree												
Technician certificate / diploma												
Total												

Comments

7c Non wood forest products removals and value 2015

National Data

Data sources + type of data source eg NFI, etc

References to sources of information	Variable(s)	Year(s)	Additional comments
Study “Evaluation of Contribution of Nonwood Product and Services to the Economy of Latvia”	NWFP quantity and value	2010	more recent information is not available

National classification and definitions

FRA 2020 definitions are used

Original data

Rank	Name of product	Key species	Unit	NWFP removals 2010		NWFP category
				Quantity	Value (1000 local currency)	
1 st	Mushrooms		tones	21 544	35979	1.
2 nd	Birchen juice	<i>Betula pendula</i>	tones	23609	15792	1.
3 rd	Berries		tones	6106	11938	1.
4 th	Game products		tones	2774	4497	12.
5 th	Christmas trees	<i>Picea abies</i>	1000 ed.	655	3136	6.
6 th	Wild honey		tones	142	554	11.
7 th	Hides, skins		1000 ed.	13	46	10.
8 th						
9 th						
10 th						
All other plant products						
All other animal products						
TOTAL					71 942	

	Name of NWFP product	Key species	Quantity	Unit	Value (1000 local currency)	NWFP category
#1	Mushrooms		21 544	tones	35 979	1 Food
#2	Birchen juice	Betula pendula	23 609	tones	15 792	1 Food
#3	Berries		6 106	tones	11 938	1 Food
#4	Game products		2 774	tones	4 497	12 Wild meat
#5	Christmas trees	Picea abies	655	1000 ed.	3 136	6 Ornamental plants
#6	Wild honey		142	tones	554	11 Wild honey and bee wax
#7	Hides, skins		13	1000 ed.	46	10 Hides skins and trophies
#8						
#9						
#10						
All other plant products						
All other animal products						
Total					71 942	

Name of currency	LVL
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Comments

8 Sustainable Development Goal 15

8a Sustainable Development Goal 15

SDG Indicator 15.1.1 Forest area as proportion of total land area 2015

Indicator	Percent							
	2000	2010	2015	2016	2017	2018	2019	2020
Forest area as proportion of total land area 2015	52.12	54.23	54.54	54.60	54.67	54.73	54.79	54.85

Name of agency responsible	Ministry of Agriculture
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SDG Indicator 15.2.1 Progress towards sustainable forest management

Sub-Indicator 1	Percent						
	2000-2010	2010-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Forest area annual net change rate	0.40	0.11	0.11	0.11	0.11	0.11	0.11

Name of agency responsible	Ministry of Agriculture
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Sub-Indicator 2	Forest biomass (tonnes/ha)							
	2000	2010	2015	2016	2017	2018	2019	2020
Above-ground biomass stock in forest	107.70	123.34	125.73	126.23	126.70	127.18	127.65	128.13

Name of agency responsible	Ministry of Agriculture
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Sub-Indicator 3	Percent (2015 forest area baseline)							
	2000	2010	2015	2016	2017	2018	2019	2020
Proportion of forest area located within legally established protected areas	16.51	15.73	16.05	16.29	16.51	16.51	16.51	16.51

Name of agency responsible	Ministry of Agriculture
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Sub-Indicator 4	Percent (2015 forest area baseline)							
	2000	2010	2015	2016	2017	2018	2019	2020
Proportion of forest area under long-term forest management plan	95.56	99.43	100.00	100.00	100.00	100.00	100.00	100.00

Name of agency responsible	Ministry of Agriculture
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Sub-Indicator 5	Forest area (1000 ha)							
	2000	2010	2015	2016	2017	2018	2019	2020
Forest area under independently verified forest management certification schemes	0.00	1 622.59	1 798.67	2 541.22	1 862.89	1 898.68	–	–