

INFORMATION ON FORESTS AND FORESTRY IN THE CZECH REPUBLIC BY **2015**



MINISTRY OF AGRICULTURE
OF THE CZECH REPUBLIC

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ON FORESTS AND FORESTRY
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I GENERAL MACROECONOMIC CONDITIONS IN THE CZECH REPUBLIC AND FORESTRY POSITION IN NATIONAL ECONOMY

I.1 General Macroeconomic Conditions of the National Economy

In the year 2015, the Czech Republic recorded a year-on-year growth in GDP by 4.3% at constant prices. The real GDP growth in the Czech Republic in 2015 was higher than both in the euro area¹ (1.6%) and the entire EU 28 (1.9%).

As stated by Eurostat, the Czech Republic reached 85% of the average GDP volume index per capita in the purchasing parity of the EU 28 in the year 2014.



Macroeconomic indicators of national economic development

Indicator	Unit	2014	2015
GDP in current prices	CZK billion	4 261.1	4 472.3
	year-on-year index	104.5	105.0
GDP in constant prices 2005 (adjusted for season variations)	year-on-year index	102.0	104.3
Relative GDP per capita ¹⁾	EU 28 = 100	85	
Average monthly earnings (nominal) ²⁾	CZK	25 607	26 467
	year-on-year index	102.3	103.4
Average inflation rate	%	0.4	0.3
Mean interest rates on bank credits ³⁾	%	3.00	2.77
Trade balance	CZK billion	238.9	210.7
Current account of balance of payments	CZK billion	26.1	41.4
Balance of the state budget	CZK billion	-77.8	-62.8
Consolidated gross debt in the sector of state institutions ⁴⁾	CZK billion	1 819.1	1 836.2
Deficit in the sector of state institutions ⁴⁾	% GDP	-1.95	-0.42
Debt in the sector of state institutions ⁴⁾	% GDP	42.69	41.06
Unemployment rate (mean) ⁵⁾	%	6.1	5.0
Parity (mean) – CZK/€	CZK	27.533	27.283
– CZK/\$	CZK	20.746	24.600

Notes:

¹⁾ Purchasing power parity, preliminary data

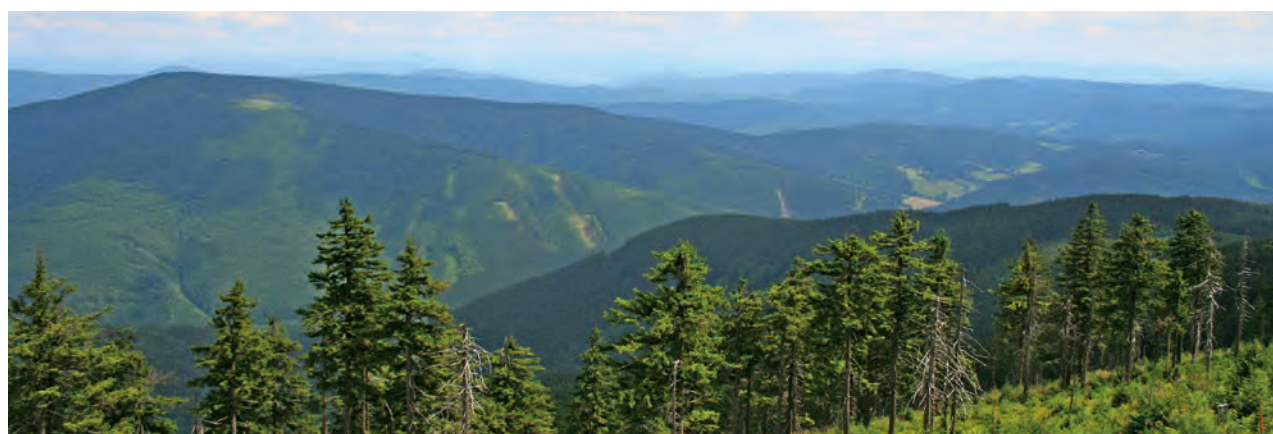
²⁾ Average monthly gross nominal earnings on a full-time equivalent number of employees in the national economy.

³⁾ Interest rates on CZK-denominated loans – situations of trades, 12-month average.

⁴⁾ Balance in the sector of state institutions (ESA 2010).

⁵⁾ Share of unemployed persons in total labour force by Eurostat and ILO.

Source: Czech Statistical Office, ČNB, Eurostat



¹⁾ Nineteen EU Member States formed the euro area in 2015 – Belgium, Finland, France, Ireland, Italy, Luxemburg, Germany, the Netherlands, Portugal, Austria, Spain, Greece, Slovenia, Cyprus, Malta, Slovakia, Estonia, Lithuania and Latvia.

Share of agriculture¹⁾, forestry²⁾, fishery³⁾ and food industry⁴⁾ on the GVA in basic prices (%)

Year	Agriculture	Forestry	Fishery	Food industry
Current prices				
2009	1.30	0.51	0.014	2.48
2010	1.08	0.59	0.013	2.33
2011	1.65	0.74	0.020	2.31
2012	1.84	0.77	0.017	2.26
2013	1.89	0.79	0.015	2.23
2014	1.91	0.78	0.015	2.21
2015	1.68	0.69	0.015	2.19
Constant prices of 2010				
2009	1.41	0.63	0.013	2.32
2010	1.08	0.59	0.013	2.33
2011	1.07	0.62	0.020	2.44
2012	1.12	0.63	0.017	2.32
2013	1.09	0.63	0.015	2.20
2014	1.15	0.61	0.014	2.25
2015	1.14	0.56	0.014	2.36

Notes:

¹⁾ CZ-NACE 01 Crop and animal production, hunting and related activities.

²⁾ CZ-NACE 02 Forestry and logging

³⁾ CZ-NACE 03 Fishing and aquaculture.

⁴⁾ CZ-NACE 10+11+12 Manufacture of food products, beverages and tobacco products.

Source: Czech Statistical Office, quarterly accounts results; revised data



1.2 Forest Ownership Structure

Most forest land is owned by the state and is predominantly managed by Lesy České Republiky. Private entities and municipalities represent other major forest owners, while the remaining forms of ownership are rather marginal and statistically less significant. More substantial modifications in the ownership structure are to come in the following years as a result of restitution of forest property to Churches.



Forest ownership structure in the Czech Republic 2015

Ownership		Area of forest stands	
		(ha)	%
State forests		1 528 740	58.69
of which	LČR, s. p.	1 282 673	49.25
	Vojenské lesy a statky ČR, s. p. (military forests)	123 589	4.74
	Ministry of the Environment (National Parks)	95 611	3.67
	Regional forests (secondary schools and other)	1 649	0.06
	Other	23 926	0.92
	Ministry of the Environment (Nature Conservation Agency of the Czech Republic)	1 293	0.05
Legal persons		78 503	3.01
Municipal forests		441 733	16.96
Forests owned by Churches and other religious entities		22 771	0.87
Forest cooperatives and associations		30 738	1.18
Forests owned by individuals		502 140	19.28
Other forests (not listed elsewhere)		4	0.00
Total		2 604 629	100.00

Source: FMI





2. FOREST SECTOR OVERVIEW

2.1 Forest Reproductive Material

Recognised Sources of Forest Reproductive Material

The central records of recognised sources of forest reproductive material in the Czech Republic are managed by the Forest Management Institute (hereinafter referred to as the "FMI"), an authorised person, which keeps the so-called Register of Recognised Sources of Reproductive Material. For each approved unit, the Institute registers the tree species, category of reproductive material, type of source, registration number, location, altitude or altitudinal zone, area, origin, and in case of tested reproductive material also information whether the organism is genetically modified or not.

The Register of Recognised Sources of Reproductive Material is a web application named ERMA2, with its public section accessible through the web portal of the Ministry of Agriculture www.eagri.cz.

Sources of identified reproductive material

As at 31 December 2015, the registered reduced tree area (i.e. the tree area fully useable for standing volume production) amounted to 71 957.05 ha of source type "stand" in total 7 748 recognised units. Total 480 recognised units of type "seed source" were registered.

Sources of selected reproductive material

As at 31 December 2015, the registered reduced tree area was 74 043.66 ha of source type "stand" in 7 039 recognised units. Approved stands of phenotype category "A" covered 8 727.66 ha, while the phenotype category "B" represented an area of 65 316 ha.

Sources of qualified reproductive material

Parent trees / clones

As at 31 December 2015, the Register of Recognised Sources of Reproductive Material recorded total 8 679 clones, namely 5 880 clones of conifers and 2 799 clones of broadleaves. The Register comprises clones of total 37 tree species, i.e. 10 conifers and 27 broadleaves.

Seed orchards

At 31 December 2015, the Register of Recognised Sources of Reproductive Material listed total 134 recognised seed orchards of total 316.44 ha, which are established for 10 conifer and 13 broadleaf tree species.

Clone mixtures

Total 25 recognised clone mixtures for 5 tree species were registered in the Czech Republic in 2015, covering an overall area of 18.11 ha.

Sources of tested reproductive material

The first source of reproductive material was recognised as "tested" in 2005, which was a mixture of poplar clones, sections Aigeiros and Tacamahaca established and managed

by the Forestry and Game Management Research Institute (hereinafter referred to as the "FGMRI") – Research Station Kunovice. This source of tested reproductive material may be utilised in any part of the country with respect to the natural climatic conditions. All the currently existing recognised sources of tested reproductive material of cultivated poplars originate from this source. No source of tested reproductive material of any tree species significant for forestry has been approved yet.

Forest Nursery Practice

Licences

The basic prerequisite for handling with FRM is a respective licence. As at 31 December 2015, the central register of seed suppliers of the Ministry of Agriculture listed total 596 licence holders, namely 312 individuals and 284 legal persons.

Based on the data submitted to the authorised entity (FMI) by licence holders entitled to marketing the forest reproductive material, there were total 269 suppliers owning at least one production plant operating in the sector of forest nursery practice in 2015.

Area of forest nurseries

On the date of 31 December 2015, the total area of forest nurseries marketing FRM amounted to 2 113.11 ha, the actual production area covering 1 557.65 ha. In addition to open production areas, the records listed 4.20 ha of glass greenhouses, 21.20 ha of plastic greenhouses and 11.43 ha of hotbeds.

The National Programme of Conservation and Reproduction of Forest Tree Species Gene Pool

On 1 July 2014, the Ministry of Agriculture launched the National Programme of Conservation and Reproduction of Forest Tree Species Gene Pool for the period 2014–2018 (hereinafter referred to as the "National Programme").

The National Programme lays down the conditions and practice in conservation and reproduction of the gene pool of forest tree species native to the Czech Republic and complements the legal and organisational framework indispensable for efficient and sustainable use of the gene sources of forest tree species in conformity with the needs of forestry and the principles of sustainable forest management. As part of the national wealth, the forest tree species gene pool is of high importance for the future of all forests in the territory of the Czech Republic, whether we consider its crucial influence on the future yields or the climate change and the adaptability and ecological stability of forest stands (ecosystems).

The FMI is responsible for coordination of the National Programme, which shall promote the existence and management of genetic bases, existence and management of sources of qualified reproductive material (family parent tree, ortet or clone, seed orchard and clone mixture) and selected reproductive material. Another significant measure towards conservation and reproduction of the forest tree

species gene pool involves support to establish and operate the National Bank of Seeds and Explants of forest tree species. Under the decision of the Ministry of Agriculture the responsibility to operate this Bank was delegated to the FGMRI.

2.2 Forest Regeneration and Reforestation

Against the preceding year, the area of regenerated forest stands noted a slight decline to 23 546 ha. In long terms, the share of broadleaves in artificial regeneration may be considered stable. The year 2015 recorded use of 38.5% of broadleaves in total artificial regeneration.



Forest regeneration (ha)

Method of regeneration	2000	2010	2012	2013	2014	2015
Artificial	21 867	21 859	19 903	19 920	20 203	18 797
of which Replanting	4 371	3 087	3 751	4 327	4 634	5 246
Natural	3 422	5 127	5 561	6 112	5 726	4 749
Total	25 309	26 986	25 464	26 032	25 929	23 546

Source: Czech Statistical Office





2.3 Timber Harvest

The raw timber harvested in the Czech Republic in 2015 totalled 16.16 million m³. Compared to 2014, this was

0.68 million m³ more. Salvage cutting in 2015 substantially contributed to that volume with its share of 50.4% and totalled 8.2 million m³, which rather worsened the conditions for forest management planning.

Total annual timber harvest

Harvest	Unit	2000	2010	2012	2013	2014	2015
Conifers	million m ³	12.85	15.07	13.06	13.23	13.47	14.38
Broadleaves		1.59	1.67	2.01	2.10	2.00	1.78
Total		14.44	16.74	15.06	15.33	15.48	16.16
Per capita	m ³	1.41	1.59	1.43	1.46	1.47	1.53
Per 1 ha of forest		5.48	6.30	5.66	5.76	5.80	6.06

Note: Volumes are given in m³ under bark, minimum top diameter 7 cm.

Source: Czech Statistical Office



2.4 Certification of Sustainable Forest Management

Overview of certified forests in the Czech Republic

Ownership	PEFC	FSC
	Area of certified forests (ha)	
State forests	1 449 780	35 116
Individuals	80 063	4
Legal entities	66 105	10 228
Municipal forests	183 695	4 573
Total	1 779 643	49 921

Source: FMI



3. MAJOR INDICATORS IN TIMBER PRODUCTION

3.1 Changes in Forest Land Area

The total area of forest land in the Czech Republic has been constantly increasing. This is partly thanks to afforestation of new land, which exceeds the extent of transformation of forest land for other purposes, and partly thanks to the improvements as to the precision of data from the Land Register. In 2015, the forest land area increased in year-on-year terms by 2 016 ha.



Changes in forest land area (ha)

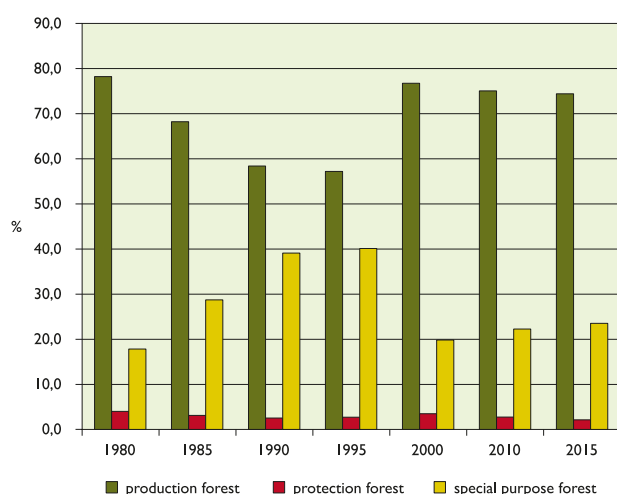
Year	2010	2011	2012	2013	2014	2015
Forest land area	2 657 376	2 659 837	2 661 889	2 663 731	2 666 376	2 668 392

Source: Czech Office for Surveying, Mapping and Cadastre

3.2 Forest Categories by Their Functions

Individual categories of forests are distinguished by their prevailing functions. A slight but persistent increment in the category of special purpose forests may be observed. Among other factors, this is caused by increasing demands of the society on non-wood forest functions. The total area of protection forests decreased again against 2014 by 11 887 ha. Taking into account the relatively stable natural conditions, it may be assumed that the existing potential to designate new protection forests is being utilised more efficiently.

Development of forest categories



Source: FMI

3.3 Species Composition of Forests

The total area of main coniferous species, particularly spruce, further declined. In contrast, the share of broadleaves, particularly beech, has been augmenting.

When assessing the species biodiversity of national forests, the overall proportion of individual tree species is the major



indicator, along with the distribution of forest stand mixtures within individual units of spatial arrangement of forests. The proportion between individual tree species within a unit has been continuously increasing in favour of mixed forest stands and forest stands with prevailing broadleaves, which

was also the case in the year 2015. This increasing trend is a result of foresters' permanent efforts to acquire an optimum species composition of forests, a practice that enjoys a long-term support under a goal-oriented national subsidy policy.

Tree species composition of total timber land (ha and %)

Species	Year					
	2000	2010	2012	2013	2014	2015
	Timber land in ha and %					
Norway spruce	1 397 012	1 347 239	1 334 417	1 327 398	1 319 733	1 315 487
	54.1	51.9	51.4	51.1	50.7	50.6
Fir	23 138	25 869	26 859	27 509	28 251	28 699
	0.9	1.0	1.0	1.1	1.1	1.1
Pine	453 159	436 308	432 915	431 721	429 636	428 030
	17.6	16.8	16.7	16.6	16.5	16.5
Larch	97 170	100 761	100 956	100 917	100 749	100 283
	3.8	3.9	3.9	3.9	3.9	3.9
Other conifers	4 586	6 352	6 941	7 048	7 755	7 846
	0.2	0.2	0.3	0.3	0.3	0.3
Total conifers	1 975 065	1 916 529	1 902 088	1 894 593	1 886 124	1 880 344
	76.5	73.9	73.2	72.9	72.5	72.3
Oak	163 761	178 466	182 327	184 180	184 441	185 044
	6.3	6.9	7.0	7.1	7.1	7.1
Beech	154 791	189 998	198 652	202 638	207 595	211 835
	6.0	7.3	7.7	7.8	8.0	8.2
Birch	74 560	72 264	71 026	71 628	71 779	71 796
	2.9	2.8	2.7	2.8	2.8	2.8
Other broadleaves	183 696	209 559	213 145	215 602	219 363	219 207
	7.1	8.1	8.2	8.3	8.4	8.4
Total broadleaves	576 808	650 287	665 151	674 048	683 178	687 882
	22.3	25.1	25.6	25.9	26.3	26.5
Total excl. unstocked areas	2 551 873	2 566 816	2 567 239	2 568 641	2 569 302	2 568 227
	98.8	98.9	98.9	98.8	98.7	98.8

Source: FMI



3.4 Growing Stock and Increments

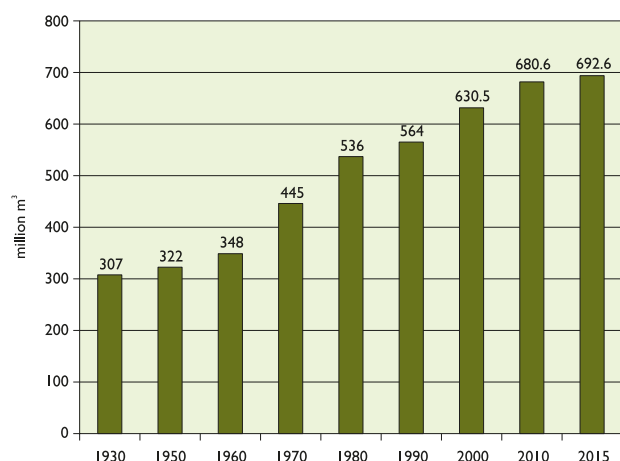
Compared to 1930, the total growing stock in Czech forests more than doubled. The factors contributing to the fact are a higher increment and more precise determination using new methods and instruments implemented in the 60's and 70's of the 20th century.

The total growing stock in Czech forests continued to extend also in the year 2015. This was thanks to a slight increase in stand stocking, an increase in the percentage of older stands. However, not all the stock is equally accessible for felling. The volume of felled timber in protection and special purpose forests is limited by fulfilment of protective functions or by special purpose management. In most cases, no felling operations may be carried out in forests with an increased protection regime, in nature reserves, and in first zones of national parks. The average growing stock per ha of forest land (i.e. growing stock on timber land including clear-cuts) is 259.6 m³.



Growing stock volume (million m³)

Year	1930	1950	1960	1970	1980	1990	2000	2010	2015
million m ³	307	322	348	445	536	564	630.5	680.6	692.6



Note: Volume in m³ u. b., min. top diameter of 7 cm.

Source: FMI

Total mean and total current annual increments

Increment	Year						
	1950*	1970	1980	1990	2000	2010	2015
	million m ³ u.b. annually						
Total mean	9.0	13.5	16.0	16.3	16.8	17.7	17.8
Total current	9.2	14.8	17.1	17.0	19.8	21.2	21.8
Increment	m ³ u. b. per ha of timber land annually						
	1950*	1970	1980	1990	2000	2010	2015
	million m ³ u.b. annually						
Total mean	3.7	5.3	6.2	6.3	6.5	6.8	7.0
Total current	3.8	5.8	6.7	6.6	7.7	8.2	8.5

Note: * Including forests under 10 ha of size, forests not intended for wood supply and afforested non-forest land.

Source: FMI





4. FORESTRY SECTOR ECONOMY

4.1 Economic Situation of Forest Owners

The economic situation of forest owners involved in forest management and other forest-based activities was satisfactory again in 2015. After recovering from a serious recession with unfavourable economic results in 2006–2009 and it is improvement in 2010–2014. The economic situation of forest owners noted positive trend.

Forests owned by the state repeatedly generate the highest profit (including granted contributions and subsidies). In 2015, this was CZK 4 918/ha, followed by private forests (CZK 2 643/ha). Municipal forests recorded the lowest profit (CZK 1 888/ha). The considerable improvement in the economic situation of forest owners was mainly induced by favourable average prices of decisive timber assortments (in the Czech Republic and mainly abroad).

Average prime costs of selected operations (CZK/unit)

Operation	Unit	2012	2013	2014	2015
Forest regeneration	ha	66 221	66 469	66 747	74 524
Tending of young plantations	ha	9 051	8 881	8 650	8 631
Juvenile thinning	ha	8 493	8 882	9 083	9 500
Forest protection	ha	103	102	131	122
Total silviculture	ha of forest	1 820	1 797	1 949	1 881
Felling	m ³	193	191	195	191
Skidding	m ³	229	222	228	243
Hauling	m ³	174	172	156	157
Road repairs and maintenance	ha of forest	737	856	762	747

Source: Ministry of Agriculture

Profit of forest owners only from forest activities (excl. subsidies for forests management) (CZK/ha)

Profit before taxation	2012	2013	2014	2015
State forests	4 119	3 822	5 910	5 014
Municipal forests	2 523	2 881	3 310	3 982
Private forests	3 371	4 008	3 899	3 925
Average	3 698	3 724	4 984	4 546

Source: Ministry of Agriculture

Profit of forest owners only from forest activities (including subsidies for forests management) (CZK/ha)

Profit before taxation	2012	2013	2014	2015
State forests	4 209	3 955	5 989	5 069
Municipal forests	2 937	3 300	3 814	4 317
Private forests	3 702	4 276	4 122	4 142
Average	3 895	3 933	5 166	4 692

Source: Ministry of Agriculture

4.2 Social Aspects in the Forest Sector

Labour Market in Forestry

Number of employees in forestry

	2012	2013	2014	2015
Total forest sector	13 792	13 339	13 320	13 125
of which				
State	4 967	4 997	5 129	5 044
Private	6 823	6 317	6 011	6 285
Municipal	2 002	2 025	1 985	1 991

Source: Czech statistical office

Average Earnings in Forestry

Compared to the preceding year, the average monthly earnings of individuals working in the forest-based sector rose by 1.4% only and thus lag behind those in industry (by 1.6%) and in the national economy (by 1.8%).

In absolute numbers, the average earnings of individuals in forestry and forest-based activities, in both entrepreneurial and non-entrepreneurial entities, still lag behind the average earnings in industry (by CZK 1 651) and in the national economy (by CZK 660).

The highest average earnings in forestry are recorded in the public sector, where they surpass the average of the private sector by CZK 6 253 and of the sector of municipal forests by CZK 6 300.

Average monthly earnings (CZK)

	2012	2013	2014	2015	2015/2014
	CZK				%
Forestry	23 037	23 628	24 559	24 900	101.4
of which					
State forests	27 696	28 048	28 981	28 716	99.1
Private forests	20 385	20 968	21 735	22 463	103.3
Municipal forests	20 518	21 021	22 276	22 416	100.6
Industry	24 908	25 104	25 805	26 551	103.0
National economy total	24 272	24 246	24 838	25 560	103.2

Source: Czech statistical office

4.3 State Budget Funds for the Forest Sector

Government Financial Obligations Subject to the Forest Act

In 2015, the state allocated total CZK 202.5 million under the obligations determined by the Forest Act. The amount of CZK 9.9 million was granted as part payment to cover the increased costs of planting the minimum number of soil improving and stabilising tree species on the total area of 1 946 ha of regenerated forest stands. CZK 155.5 million

was paid to cover the activities of licensed forest managers who manage forests of up to 50 ha in case these did not contract their own licensed forest manager. The allocated amount corresponds the work of licensed forest managers on total 408 451 ha of forests. The state reimburses the costs of forest management guidelines to forest owners who own a total forest area of up to 50 ha and do not have a forest management plan drawn up for their property. The overall amount allocated for such forest owners reached CZK 10.6 million and provided for management guidelines for total 27 889 ha of forest land. The data stated above apply to forest management guidelines valid from 1 January 2016 with the funds allocated in 2015. An amount of CZK 26.5 million was granted to support measures relating to soil improvement and torrent control carried out upon a decision of a state forest administration body in the public interest. Such measures were adopted to control torrents of 4 km in length, and to build or repair water reservoirs of total water retention capacity of 20 thousand m³. No measures involving forest soil improvement through water regime control were taken in 2015. The data regarding the above-mentioned measures relate to actions completed in 2015 and supported from the state budget in the preceding years.

Government financial obligations subject to the Forest Act (CZK million)

Activities	2012	2013	2014	2015
	Allocated			
Soil-improving and stabilising species	12.3	11.3	12.4	9.9
Licensed forest managers	156.5	155.2	155.1	155.5
Forest management guidelines	20.6	17.6	11.9	10.6
Soil improvement and torrent control	34.8	28.0	24.5	26.5
Total	224.2	212.1	203.9	202.5

Source: Ministry of Agriculture

State Services Supporting Forest Management

The state provides services free of charge to help forest owners improve the standards of forest management and ensure forest protection against damaging agents. Within its consulting services, the state mainly supplies forest owners with up-to-date information concerning preventive protection of their forests and potential protective measures against damaging agents.

State services supporting forest management (CZK million)

Type of service	2012	2013	2014	2015
Aerial liming and fertilisation	0.0	0.0	0.0	66.8
Aerial fire control services	27.7	1.2	1.2	3.5
Large-scale measures in forest protection	0.7	0.0	0.0	0.1
Consultancy	21.6	19.5	7.5	28.8
Other services	0.1	0.8	4.9	0.7
Total	50.1	21.5	13.6	99.9

Source: Ministry of Agriculture

Subsidies from State Budget

Support in form of subsidies granted for forest management and selected game management activities is provided from the state budget under the Government Decree No. 30/2014 Coll., on determining binding rules for granting subsidies to forest management and selected game management activities (hereinafter referred to as the "Government Decree"). Such subsidies are granted to forest owners (or persons having the rights and obligations of a forest owner as established by the Forest Act), and to users of hunting grounds, owners of hunting dogs or owners of breeding stations of hunting birds of prey.



Subsidies for forest management and selected game management activities granted from the budget of the Ministry of Agriculture by their purpose and ownership category (CZK million)

Purpose of subsidy	Ownership category	2012	2013	2014	2015
Regeneration of forests affected by air pollution	Municipal	7.3	4.3	9.9	12.8
	State	0.0	0.0	0.0	0.0
	Other	1.4	0.9	8.1	10.5
	Total	8.7	5.2	18	23.4
Regeneration, establishment and tending of stands	Municipal	68.8	43.0	59.0	49.2
	State	0.2	0.4	0.4	0.0
	Other	118.5	91.7	93.1	82.0
	Total	187.5	135.1	152.5	131.2
Green and environmentally friendly technologies	Municipal	4.3	3.7	2.9	3.9
	State	0.05	0.07	0.0	0.0
	Other	13.0	14.6	8.7	16.9
	Total	17.3	18.4	11.6	20.8
Subsidies to users of hunting grounds	Municipal	0.0	0.0	0.0	0.0
	State	0.8	0.8	0.6	0.6
	Other	10.0	9.7	8.3	8.9
	Total	10.8	10.5	8.9	9.5
Elaboration of forest management plans	Municipal	10.2	6.7	9.8	9.9
	State	0.0	0.0	0.0	0.0
	Other	15.2	8.7	8.5	17.1
	Total	25.4	15.4	18.3	26.9
Other forest management	Municipal	0.0	0.0	0.0	0.0
	State	1.4	1.7	1.8	0.0
	Other	0.2	0.2	0.1	0.0
	Total	1.6	1.9	1.9	0.0
Breeding and training of national hunting dog breeds and hunting birds of prey	Municipal	0.0	0.0	0.0	0.0
	State	0.0	0.0	0.0	0.0
	Other	2.1	1.9	2.1	2.1
	Total	2.1	1.9	2.1	2.1
Total subsidies	Municipal	90.4	57.8	81.6	75.8
	State	2.5	3.0	2.8	0.6
	Other	160.6	127.6	129.0	137.5
	Total	253.5	188.4	213.4	214.0

Source: Ministry of Agriculture





5. TIMBER MARKET

5.1 Domestic Timber Market

The total timber supplies experienced a year-on-year rise by 687 thousand m³ amounting to 16 163 thousand m³, while softwood supplies represented 14 385 thousand m³ and hardwood supplies totalled 1 778 thousand m³.

Timber supplies (1 000 m³)

Supplied assortments (excl. imports)		2013	2014	2015
Roundwood ^{*)}		8 645	8 548	8 964
of which	Softwood	7 925	8 468	7 955
	Hardwood	720	496	593
Pulpwood ^{xx)}		4 504	4 817	4 863
of which	Softwood	4 037	4 403	4 351
	Hardwood	467	460	466
Fuelwood		2 182	2 111	2 336
of which	Softwood	1 267	1 514	1 166
	Hardwood	915	822	945
Total timber supplies		15 331	15 476	16 163
of which	Softwood	13 229	14 385	13 472
	Hardwood	2 102	1 778	2 004

Note: ^{*)} Including pole and mine timber.

^{xx)} Including groundwood.

The volumes of logging residues and chips of approximately 1.8 million m³ in 2013, 1.8 million m³ in 2014 and 2.0 million m³ in 2015 (qualified estimate) are not included in the total supplies of roundwood.

Source: Czech Statistical Office, Ministry of Agriculture



Timber exports and imports in the Czech Republic (1 000 m³)

Assortment		Exports	Imports
Softwood roundwood and pulp		4 242	1 980
of which	Spruce	3 644	1 568
	Pine	305	392
	Other	293	20
Hardwood roundwood and pulp		288	349
of which	Oak	11	74
	Beech	152	68
	Poplar	33	4
	Birch	6	10
	Other	86	193
Industrial roundwood		4 530	2 329
Charcoal		2	20
Fuelwood		161	19
Chips, particles		375	374
Sawdust, Wood Waste, Residues		236	266
Wood pellets and other agglomerates		1 204	297
Total		6 508	3 305

Source: Czech Statistical Office, Ministry of Agriculture

5.2 Timber Export and Import

Timber exports and imports in the Czech Republic

	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports
	CZK million			1 000 m ³			Average price CZK/m ³	
Total	11 200	5 069	6 131	6 508	3 305	3 203	1 721	1 534
of which								
EU-27	11 077	4 418	6 659	6 421	2 816	3 605	1 725	1 569
Germany	4 890	631	4 259	2 735	504	2 231	1 788	1 252
Austria	5 341	178	5 163	2 965	175	2 787	1 801	1 017
Slovakia	155	1 930	-1 775	141	1 102	-961	1 099	1 751
Poland	33	1 503	-1 470	23	837	-814	1 435	1 796

Source: Czech Statistical Office, Ministry of Agriculture



6. OTHER FOREST-BASED ACTIVITIES AND SECTORS

6.1 Game Management

In 2015, the country registered 5 804 hunting grounds under game management with their total area of 6 879 559 ha. These comprised 203 game preserves of total 48 262 ha and 238 pheasantries of total 97 086 ha. An average area of a hunting ground was 1 185 ha, of a game preserve 238 ha, and of a pheasantry 329 ha.



Hunting of main game species (pcs)

Game species	2011	2012	2013	2014	2015
Red Deer	20 961	23 120	23 593	23 378	23 990
Fallow Deer	13 305	14 742	16 570	16 848	19 033
Mouflon	8 398	9 378	9 446	9 313	9 688
Roe Deer	113 915	108 616	105 686	100 395	99 861
Wild Boar	109 563	185 381	152 468	169 483	186 148
Duck	277 390	268 485	256 375	262 381	255 195
Pheasant	524 674	518 208	459 412	479 659	465 907
Hare	47 739	56 310	37 694	39 956	36 515

Source: Ministry of Agriculture, Ministry of the Environment, Czech Statistical Office

Spring stocks of main game species (pcs)

Game species	2011	2012	2013	2014	2015
Red Deer	30 838	31 818	26 618	27 666	28 223
Fallow Deer	26 611	27 745	27 774	28 598	31 099
Mouflon	21 294	21 318	19 435	20 076	20 471
Roe Deer	302 206	305 052	290 661	288 656	291 241
Wild Boar	59 295	64 848	59 175	59 517	60 966

Source: Ministry of Agriculture, Ministry of the Environment, Czech Statistical Office

6.2 Timber Processing Industry

The total log breakdown in the Czech Republic reached the volume of 6.900 million m³ of softwood and hardwood roundwood, which was used to produce 3.920 million m³ of softwood sawn wood and 0.230 million m³ of hardwood sawn wood.

The total production of softwood and hardwood sawn wood increased against the preceding year by 289 thousand m³. Export of softwood and hardwood sawn wood experienced a year-on-year increase by 239 thousand m³ while imports fell by 21 thousand m³. The domestic consumption of sawn wood thus partly improved, namely by 29 thousand m³, which is a result of a revival in the Czech building industry.

Log breakdown and sawn wood production (1 000 m³)

	2013	2014	2015
Log breakdown	6 700	6 400	6900
Sawn wood production	4 037	3 861	4150

Source: Ministry of Agriculture



Market with timber products (I 000 m³)

Product	Year	Production	Import	Export	Consumption
Softwood roundwood ^{x)}	2013	7 925	1 146	2 797	6 274
	2014	7 955	1 044	3 058	5 941
	2015	8 468	980	2 948	6 500
Hardwood roundwood ^{x)}	2013	720	108	234	594
	2014	593	149	156	586
	2015	496	152	183	465
Softwood sawn wood	2013	3 760	399	3 225	934
	2014	3 610	569	3 075	1 104
	2015	3 920	534	3 323	1 131
Hardwood sawn wood	2013	277	180	243	214
	2014	251	177	224	204
	2015	230	191	215	206
Particle boards	2013	1 032	638	1 335	335
	2014	1 036	690	1 342	384
	2015	1 040	743	1 390	393
Plywood	2013	180	78	119	139
	2014	181	82	124	139
	2015	180	88	124	144
Fibreboards	2013	41	235	91	185
	2014	41	236	91	186
	2015	44	222	93	173
Softwood pulpwood ^{xx)}	2013	4 037	1 020	1 189	3 868
	2014	4 351	1 014	1 543	3 822
	2015	4 403	1 000	1 294	4 109
Hardwood pulpwood	2013	467	168	72	563
	2014	466	232	174	524
	2015	460	197	105	552

Note: ^{x)} Including pole and mine timber.

^{xx)} Including groundwood.

Source: Ministry of Agriculture



6.3 Pulp and Paper Industry

The consumption of softwood timber for pulp production reached 3 669 thousand m³, i.e. 2 229 thousand m³ of softwood pulp and 1 440 thousand m³ of softwood chips and particles.

The pulp and paper industry produced total 435 thousand tons of pulp in 2015, chemical pulp representing 431 thousand tons. Pulp production thus generally remained at the level of 2013 (decline by mere 4 thousand tons) but still dropped by total 247 thousand tons (36%) against 2012.

The production of paper, paperboard, and cardboard under CEPI classification used in pulp and paper industry noted an increment by 36 thousand tons compared to 2014 amounting to total 740 thousand tons, which means an increase by 4.9%.

Consumption of wood for pulp production (1 000 m³)

Timber assortment	Consumption		
	2013	2014	2015
Chips and particles	1 203	1 358	1 440
Pulpwood	2 374	2 439	2 229
Total	3 577	3 797	3 669

Source: Association of the Czech Pulp and Paper Industry

Pulp, paper, paperboard, and cardboard production (1 000 t)

Product	2013	2014	2015
Mechanical pulp	0	0	0
Chemical pulp	445	442	431
Pulp of other fibres	4	3	4
Total	449	445	435
Paper, paperboard, and cardboard	609	704	740

Source: Association of the Czech Pulp and Paper Industry, Czech Statistical Office





7. ABBREVIATIONS

CEPI	Confederation of European Paper Industries
CZK	Czech koruna (currency)
ČNB	Czech National Bank
ESA	European System of Accounts
EU	European Union
FGMRI	Forestry and Game Management Research Institute
FMI	Forest Management Institute
FRM	Forest Reproductive Material
FSC CR	Forest Stewardship Council – Czech Republic
GDP	Gross Domestic Product
GVA	Gross Value Added
LČR, s. p.	Forests of the Czech Republic, State Enterprise
ILO	International Labour Organization
PEFC CR	Programme for the Endorsement of Forest Certification Schemes – Czech Republic



8. CONTACTS TO SELECTED FORESTRY ORGANISATIONS IN THE CZECH REPUBLIC

Ministry of Agriculture

Těšnov 17,
117 05 Praha 1
info@mze.cz
www.eagri.cz

Ministry of the Environment

Vršovická 1442/65,
100 10 Praha 10
info@mzp.cz
www.mzp.cz

Czech University of Life Sciences Prague

Faculty of Forestry and Wood Sciences
Kamýcká 1176,
165 21 Praha 6 – Suchbátov
http://www.fld.czu.cz/

Mendel University in Brno

Faculty of Forestry and Wood Technology
Zemědělská 3,
613 00 Brno
www.ldf.mendelu.cz/

Forest Management Institute

Nábřeží 1326
250 01 Brandýs nad Labem
podatelna@uhul.cz
www.uhul.cz

Forestry and Game Management Research Institute

156 04 Praha 5 – Zbraslav
admin@vulhm.cz
www.vulhm.cz

The Association of Municipal and Private Forest Owners in the Czech Republic

K Silu 1980
393 01 Pelhřimov
info@svol.cz
www.svol.cz

Lesy České republiky, s.p. (Forests of the Czech Republic, State Enterprise)

Přemyslova 1106/19
500 08 Hradec Králové
lesy-cr@lesy-cr.cz
www.lesy-cr.cz

Vojenské lesy a statky ČR, s. p. (Military Forests and Farms, State Enterprise)

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