

**INFORMATION
ON FORESTS
AND FORESTRY
IN THE CZECH REPUBLIC BY
2011**



MINISTRY OF AGRICULTURE
OF THE CZECH REPUBLIC

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Foreword by the Minister

Dear Readers,

You have in your hands the Information on Forests and Forestry in the Czech Republic by 2011, which has been published annually by the Ministry of Agriculture since 1995.

The increasing volume of information provided by these reports over time enables us to evaluate developments in the condition of forests, forest management and the sector as a whole. Results can be compared at an international level and can be used to describe the methods used by the Czech Republic to apply the conclusions of the pan-European ministerial process for the protection of forests in Europe and the European Union Forestry Strategy.

The main objective of forestry and forest management is to cater to the public interest i.e. the long-term and balanced use of all forest functions and the promotion of principles of sustainable and multifunctional forest management aimed at ensuring that forests continue to provide benefits for future generations.

The report provides information on the framework macroeconomics conditions for forest management in the Czech Republic, conceptual activity in the area of forests, the actual results of forest management, the main factors of production, economics, the market for raw timber and related activities. It also provides data on positive and negative phenomena that have had an impact in the recent past.

The surface area occupied by forests in the Czech Republic continues to show a slight increase, most of which is due to active Government policies in the form of continued afforestation of unused agricultural land. The share of this artificial forest regeneration taken by deciduous trees has declined by 2% year-on-year, but the overall composition of tree species is gradually improving, returning forests to their natural form.

2011 can also be described as a relatively favourable period from the perspective of forest protection, particularly in comparison with previous years, when the immediate aftermath of natural disasters and the consequent outbreak of insect infestations had to be dealt with. However, the main damage factors were similar, the

dominant abiotic disturbance was windthrow and the biotic factors primarily concerned damage caused by bark beetle infestations of spruce stands. The fact that the situation has improved is due both to the early and effective implementation of defensive measures and favourable weather events. The volume of random felling amounted to 3.8 million m³, which was a third lower in comparison with 2010. Total random felling represented around 20–25% of felling overall, which is a reasonable proportion.

A total of 15.38 million m³ of raw timber was felled in Czech forests. The level of tree felling did not exceed overall average growth, which means that it is sustainable over the long term. Total supplies of wood from the forests are increasing.

I am convinced that the Information on Czech Forestry by 2011 will become a useful source of information not only for the professional forestry community, but also for the general public, who will appreciate receiving objective information on our forests, which represent one of the most important components of the environment.

Petr B e n d l
Minister of Agriculture





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I GENERAL MACROECONOMICS CONDITIONS IN THE CZECH REPUBLIC AND FOREST POLICY

I.1 General Macroeconomic Conditions of the National Economy

In 2011, the gross domestic product (GDP) in the Czech Republic continued to grow slightly. The year-on-year increase was by 1.7% at constant prices. It was lower than in 2010 and slowed down throughout the year. Despite the fact, the GDP growth in the Czech Republic was still slightly higher both compared to the EU 27 and the euro area.

As calculated from the Eurostat preliminary data, in 2011, the Czech Republic reached on average 78% of GDP volume index per capita in the purchasing power parity for the EU 27. Converted at the current exchange rate, the ratio is 58%.

Supplies only contributed to the overall economic growth at constant prices adjusted for season variations through the positive development in foreign trade, where export experienced a year-on-year increase by 11% and import by 7%. In contrast, formation of the gross capital markedly decreased (by 1.6%) and the household final consumption was gradually weakened, by 0.7% in total.

As to the demand, the gross value added (GVA) at constant prices adjusted for season variations grew by 1.5%, manufacturing industry contributing most significantly with its year-on-year increase by 9.8%. Agriculture, forestry and fishery showed a rise by 6.5%. The trade balance of the Czech Republic in 2011 saw positive figures again and formed the greatest surplus in the history of the country, i.e. CZK 94 billion, which represents a year-on-year increase by CZK 40 billion. This balance was acquired under a year-on-year increase in both exports and imports by CZK 274 billion and CZK 234 billion respectively.



Macroeconomic indicators of national economic¹⁾ development

National economy	Unit	2010	2011
GDP in current prices	CZK billion	3 775.2	3 809.3
	year-on-year index	101.0	100.9
GDP in constant prices 2005 (not adjusted for season variations)	year-on-year index	102.7	101.7
	EU 27 = 100	80	78
Relative GDP per capita ²⁾	EU 15 = 100	73	73
	CZK	23 797	24 319
Average monthly earnings (nominal) ³⁾	year-on-year index	101.9	102.2
	%	1.5	1.9
Average inflation rate	%	1.5	1.9
Mean interest rates on bank credits ⁴⁾	%	4.1	3.9
Trade balance	CZK billion	53.8	94.0
Current account of balance of payments	CZK billion	-146.6	-109.1
Balance of the state budget	CZK billion	-156.4	-142.8
Consolidated gross debt in the sector of state institutions ⁵⁾	CZK billion	1 436.4	1 567.8
Deficit in the sector of state institutions ⁵⁾	% GDP	4.8	3.1
Debt in the sector of state institutions ⁵⁾	% GDP	38.1	41.2
Unemployment rate (mean) ⁶⁾	%	7.3	6.7
Parity (mean) CZK/€	CZK	25.3	24.6
- CZK/\$	CZK	19.1	17.7

Notes:

- ¹⁾ Data Published by 2nd April 2012.
- ²⁾ Purchasing power parity, preliminary data for 2011 (Eurostat).
- ³⁾ Average monthly gross nominal wages on full-time equivalent number of employees in the national economy.
- ⁴⁾ Interest rates - situations of trades, 12 month averages.
- ⁵⁾ Balance in the state institutions sector.
- ⁶⁾ Unemployed persons number share on total labor force by Eurostat and ILO.

Source: Czech Statistical Office, Czech National Bank, Eurostat

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

Year	Agriculture	Forestry	Fishery	Food industry
<i>Current prices</i>				
2005	1.76	0.77	0.022	3.02
2006	1.63	0.80	0.018	2.73
2007	1.66	0.71	0.014	2.45
2008	1.66	0.63	0.012	2.38
2009	1.33	0.56	0.015	2.79
2010	1.09	0.57	0.017	2.45
2011	1.39	0.65	0.018	2.48
<i>Constant prices of 2005</i>				
2005	1.76	0.77	0.022	3.02
2006	1.47	0.74	0.022	2.95
2007	1.02	0.62	0.016	2.52
2008	1.02	0.69	0.015	2.38
2009	1.32	0.64	0.017	2.67
2010	0.96	0.52	0.022	2.58
2011	1.04	0.51	0.022	2.68

Notes:

¹⁾ Including game management and related activities.

²⁾ Including related activities.

³⁾ Including fish culture and related activities.

⁴⁾ Production of food and beverages, and tobacco products.

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

1.2 Forest Ownership Structure

Forest ownership structure

Ownership		Area of forest stands	
		(ha)	%
State forests		1 557 321	60
of which	Forests of the Czech Republic, State Enterprise	1 307 846	50.38
	Military Forests and Farms, State Enterprise	124 399	4.79
	Ministry of the Environment (National Parks)	94 930	3.66
	Regional forests (secondary schools and other)	3 793	0.15
	Other	22 290	0.86
	Ministry of the Environment (Nature Conservation Agency of the Czech Republic)	1 196	0.05
	Originally state forests*	2 868	0.11
Legal persons		73 228	2.82
Communal and municipal forests		431 661	16.63
Forests owned by church and other religious entities		1 470	0.06
Forest cooperatives and associations		30 722	1.18
Forest owned by individuals		501 529	19.32
Other forests (not listed elsewhere)		4	0.00
Total		2 595 936	100.00

Note:

* original large FMPs owned by state – validity from 1981–1996, partly from 1997; private owners and municipalities manage their forests under an abstract from FMP and will have new FMPs upon their renewal.

Source: Forest Management Institute



1.3 National Forest Programme II



In 2008, the Government of the Czech Republic approved the National Forest Programme II (NFP II) for the year 2013. The document was drawn up by a number of experts from various institutions and associations, including non-governmental environmental organisations and initiatives.

The individual objectives and measures shall be implemented in the respective policies. The Governmental Decree recommends taking the aims of the National Forest Programme II into consideration within the implementation of regional mid-term policies.

The implementation of NFP II is a joint task of the Ministry of Agriculture and the Ministry of the Environment in cooperation with other sectors and regions concerned.

The Coordination Board of the National Forest Programme II is responsible for the initiation and management of the implementation process. Assisted by Expert Groups, the Coordination Board draws up and submits to the ministries proposals for measures and individual steps to implement NFP II.

Key actions:

- KAI – Enhance the competitiveness and economic viability of SFM

- KA2 – Encourage research and technological development to enhance the competitiveness of the forest sector
- KA3 – Enhance valuation and marketing of non-wood goods and services
- KA4 – Promote the use of forest biomass for energy generation
- KA5 – Foster cooperation between forest owners
- KA6 – Mitigate the impacts of the climate change and extreme weather effects
- KA7 – Conservation and enhancement of biodiversity in forests
- KA8 – Develop forest monitoring
- KA9 – Enhance the health status and protection of forests
- KA10 – Reduce the impacts of old and current environmental load
- KA11 – Reach optimal balance between the forest and game
- KA12 – Support improvement of the social situation of workers in forest management
- KA13 – Enhance contribution of forest and forestry to rural development
- KA14 – Improve the weak position of forestry in public administration
- KA15 – Improve public awareness of the real state of the forests and needs of forestry
- KA16 – Address the institutional relation of the state to forests and forestry
- KA17 – State-owned forests

The Forest Management Institute in Brandýs nad Labem (<http://www.uhul.cz/nlp>) is held responsible for the organisation and technical coordination of activities relating to the aims and measures under NFP II.





2. FOREST SECTOR OVERVIEW

2.1 Recognised Sources of Forest Reproductive Material

Recognised sources of forest reproductive material in the Czech Republic (i.e. approved according to legislation in force) are centrally administered by the Forest Management Institute Brandýs nad Labem, an authorised entity that keeps the Register of Recognised Sources of Reproductive Material (ERMA application at www.uhul.cz).

Sources of identified reproductive material

As at 15 December 2011, the registered reduced tree area (i.e. the tree area fully useable for standing volume production) amounted to 69 859.12 ha of sources type "stand" in 6 570 recognised units. Total 375 recognised units of type "seed source" were registered. In comparison to the year 2010, the number of sources of type "stand" stood still while the number of sources type "seed source" grew by 20.6%.

Sources of selected reproductive material

As at 15 December 2011, the registered reduced tree area amounted to 82 057.06 ha of sources type "stand" in 8 009 recognised units. Stands of phenotype category A covered 10 169.81 ha, i.e. a drop by 531.07 ha (5.0%) against 2010. The area of stands of recognised phenotype category B was 71 887.25 ha, i.e. a decline by 4 577.10 ha (6.0%) against the preceding year.

Sources of qualified reproductive material

Parent trees / clones

As at 15 December 2011, the Register of Recognised Sources of Reproductive Material listed total 9 349 clones. Conifers amounted to 6 209 plants, i.e. 66.4%, and broadleaves to 3 140 plants, i.e. 33.6%. Clones are registered for total 32 tree species, namely 10 coniferous and 22 broadleaf species. The total number of clones in the database declined by 21 against 2010, i.e. by 0.2%. The number of coniferous clones was reduced by 2, while the number of broadleaved clones dropped by 19.

Seed orchards

As at 15 December 2011, the Register of Recognised Sources of Reproductive Material listed total 141 approved seed orchards on total 326.34 ha. Seed orchards are established to produce seeds of 9 coniferous and 13 broadleaf tree species. Conifers involve 82.06% of the total area on 59.71 ha. The authorised entity newly registered four

seed orchards in its database but no seed orchard was recognised in 2011.

Clone mixtures

Total 29 approved clone mixtures for 6 tree species on 23.08 ha of land were registered in the Czech Republic in 2011. The tree species were the Wych Elm (1 clone mixture), European Aspen (1), Norway Spruce (18), Black Poplar (5), improved poplars (2), and the White Willow (2). No clone mixture was recognised or registered by the authorised entity in 2011.

2.2 Forest Nursery Practice

Licences

The basic prerequisite for handling with forest reproductive material (hereinafter referred to as "FRM") is a respective licence. As at 31 December 2011, the central register of seed suppliers of the Ministry of Agriculture listed total 620 licence holders, namely 328 individuals and 292 legal persons. Compared to 2010, the number of such licensees dropped by 48.

Area of forest nurseries

On the date of 31 December 2011, the total area of forest nurseries marketing FRM amounted to 1 595.32 ha, the actual production area covering 1 303.71 ha. In addition to outdoor production areas, the records listed 2.67 ha of glass greenhouses, 16.06 ha of plastic greenhouses and 9.312 ha of hotbeds.

2.3 Forest Regeneration and Reforestation

The area of regenerated forest stands was slightly reduced against the year 2010 and amounted to 26 830 ha. Compared to the previous years, the area of regenerated forests was larger in consequence of more intensive logging in 2010.

The share of broadleaves in artificial regeneration reached 38.6%, which represented a decline by 2% compared with the preceding year. Increasing by 2%, the share of spruce was 44%, while the share of pine and oak practically remained at their constant levels, i.e. 10% and 11% respectively. The share of beech in artificial regeneration noted a decrease by 2% amounting to 21%.

Forest regeneration (ha)

Method of regeneration	2000	2002	2004	2009	2010	2011
Artificial	21 867	18 120	19 042	20 900	21 859	21 755
of which: replanting	4 371	3 212	2 766	3 011	3 087	3 712
Natural	3 422	3 940	4 802	4 563	5 127	5 075
Total	25 309	22 060	23 844	25 463	26 986	26 830

Source: Czech Statistical Office



Artificial regeneration by tree species (ha)

Artificial regeneration		2000	2002	2004	2009	2010	2011
		ha					
Total *		21 867	18 120	19 042	20 900	21 859	21 755
of which	planting	21 486	17 676	18 733	20 782	21 686	21 570
	sawing	381	444	309	118	173	185
of which	spruce	9 479	7 941	8 495	9 162	9 171	9 687
	fir	895	923	1 032	1 314	1 274	1 188
	pine	2 597	2 267	2 361	1 947	2 171	2 128
	larch	739	417	327	234	206	196
	other conifers	200	182	124	138	145	164
	total conifers	13 910	11 730	12 339	12 795	12 967	13 363
	oak	2 428	1 780	1 965	2 473	2 607	2 494
	beech	3 386	3 143	3 406	4 316	4 899	4 485
	lime	397	264	237	218	264	261
	poplar, aspen	46	61	50	22	33	29
	other broadleaves	1 700	1 142	1 045	1 076	1 089	1 123
	total broadleaves	7 957	6 390	6 703	8 105	8 892	8 392
	% broadleaves	36.4	35.3	35.2	38.8	40.7	38.6

Note: including underplanting. Source: Czech Statistical Office



2.4 Cleaning and Thinning

Cleaning and thinning (1 000 ha)

Year	Cleaning	Thinning	Total
2000	47.7	115.5	163.2
2001	49.7	131.1	180.8
2002	34.9	103.2	138.1
2003	41.2	79.3	120.5
2004	43.4	91.1	134.5
2005	40.7	92.3	133.0
2006	39.7	83.7	123.4
2007	37.8	53.4	91.2
2008	42.8	66.7	109.5
2009	40.6	85.2	125.8
2010	43.6	85.7	129.3
2011	47.5	101.6	149.1

Source: Czech Statistical Office, Forest Management Institute

2.5 Timber Harvest

The raw timber harvest in the Czech Republic totalled 15.38 million m³ in 2011. Compared to the year 2010, this represents a reduction by 1.36 million m³. Approximately an equal volume of timber was felled in 2009. The priority was given to salvage cutting (3.81 million m³) and supply of timber to wood-processing industries.

The proportion between planned and salvage cutting was relatively more favourable than in the preceding year. The volumes of salvage cutting in 2011 got to their minimum of the past decade and formed approximately 25% of the total felling. The conditions for planned forest management were thus more favourable than during several preceding years.

Comparing the volumes of logged timber in individual species, the volume of harvested broadleaves increased, reaching approximately 13%. The proportion of harvested hardwood and softwood is mainly given by the structure of available reserves in mature stands and by the demand on the timber market.

Total annual timber harvest

Harvest	Unit	2000	2002	2004	2006	2008	2009	2010	2011
Conifers	million m ³	12.85	13.01	13.92	16.12	14.88	14.05	15.07	13.34
Broadleaves		1.59	1.53	1.68	1.56	1.31	1.46	1.67	2.04
Total		14.44	14.54	15.6	17.68	16.19	15.5	16.74	15.38
Per capita	m ³	1.41	1.43	1.53	1.72	1.55	1.48	1.59	1.47
Per 1 ha of forest		5.48	5.5	5.9	6.67	6.10	5.84	6.30	5.78

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

Source: Czech Statistical Office



2.6 Forest Protection

From the point of view of forest protection, the year 2011 may be generally considered as rather positive, particularly when compared to the preceding years characterised by indispensable salvage cutting due to natural disasters and subsequent pest outbreak. The main damaging factors remained the same as in the year 2011. Abiotic factors were dominated by wind and snow break while outbreaks of woodborers on spruce stands prevailed among biotic factors. The weather was generally more balanced and extreme weather effects (late frost, summer storms, spells of drought) were mostly recorded at regional levels and were not comparable to those of 2007, 2008 and partly 2009, which had had an impact over the entire country area. In 2011, the overall volume of salvage cutting amounted to approximately 3.8 million m³, i.e. a drop by a third if compared to 6.3 million m³ of timber harvested this way in the year 2010. The overall salvage cutting thus brought positive figures, reaching about 20–25% of the total timber harvest in the country.

Against 2010, the overall damage caused by abiotic factors was considerably lower, namely by 40%, and the damage caused by biotic factors noted a decline by approximately 20%. The damage caused by drought as an abiotic factor noted a slight year-on-year increase. Biotic factors prevailingly occurred at low scales (mainly as to leaf-eating insects and most fungal pathogens) and the situation regarding woodborers on spruce (particularly bark beetle) was still being stabilised. Nevertheless, the chronic problems relating to excessive stocks of hoofed game persisted.



Salvage cutting by reason (million m³)

Year	Reason				
	Abiotic	Air pollution	Insects	Other	Total
million m ³					
2000	2.39	0.08	0.32	0.5	3.29
2001	1.49	0.06	0.23	0.6	2.38
2002	3.38	0.03	0.29	0.51	4.21
2003	6.12	0.06	1.26	0.76	8.2
2004	2.76	0.04	1.27	1.3	5.37
2005	2.3	0.04	0.98	1.21	4.54
2006	5.97	0.03	1.14	0.89	8.03
2007	12.65	0.04	1.56	0.64	14.89
2008	7.6	0.04	2.31	0.8	10.75
2009	3.25	0.03	2.62	0.73	6.63
2010	4.07	0.03	1.79	0.57	6.46
2011	2.17	0.02	1.05	0.57	3.81

Source: Forestry and Game Management Research Institute, Czech Statistical Office

2.7 Forest Certification

Overview of certified forests

Ownership	PEFC	FSC
	Area of certified forests (ha)	
State forests	1 530 584	35 649
Individuals	76 557	4
Legal entities	57 847	10 492
Municipal forests	191 393	4 041
Total	1 856 381	50 186

Source: Forest Management Institute



2.8 Non-market Forest Products and Forest Visitors

Visits to forests accessible to the public in 1994–2011

Year	Number of visits	
	per capita	per 1 ha*
1994	25.3	105.7
1996	17.3	72.0
1998	19.4	80.7
2000	22.6	94.1
2002	19.6	81.5
2004	16.2	68.0
2006	18.8	79.3
2008	13.5	56.9
2010	20.3	85.3
2011	23.1	98.5
2004	16.2	68.0
2005	20.4	85.9
2006	18.8	79.3
2007	18.9	79.6
2008	13.5	56.9

Note: * forest land accessible to the public (mostly excl. military forests and some other areas).

Source: Czech University of Life Sciences Prague

Total volumes of forest fruits and mushrooms picked by visitors in 1994–2011 (million kg)

Year	Forest fruits						
	Mushrooms	Blueberries	Raspberries	Blackberries	Cranberries	Elderberries	Total
1994	23.6	11.3	4.2	2.7	0.7	3.9	46.4
1995	29.7	15.0	5.8	2.8	1.3	3.9	58.5
1996	18.4	9.4	3.1	1.8	0.7	1.5	34.9
1997	17.8	8.7	4.0	1.7	0.9	2.2	35.3
1998	17.7	10.3	4.9	2.3	0.6	2.6	38.4
1999	20.2	13.0	3.5	2.3	1.2	3.2	43.4
2000	23.8	8.7	4.1	2.7	0.7	1.8	41.8
2001	23.4	8.9	3.7	2.3	0.7	1.4	40.4
2002	21.2	10.9	3.6	2.1	0.9	2.1	40.8
2003	13.5	6.5	2.6	2.0	0.4	1.4	26.4
2004	13.7	6.1	2.1	1.5	1.8	1.4	26.6
2005	19.5	7.6	2.6	1.3	0.8	1.3	33.1
2006	26.0	9.4	2.9	1.5	1.0	1.3	42.1
2007	29.8	10.0	2.6	2.0	0.7	1.8	46.9
2008	15.2	4.6	1.1	0.6	0.5	0.9	22.9
2009	16.2	7.5	1.0	0.9	0.5	1.3	27.4
2010	24.7	9.4	2.1	1.8	0.3	0.7	39.0
2011	29.6	8.9	2.1	2.3	1.1	2.3	46.3
Average	21.3	9.2	3.1	1.9	0.8	1.9	38.4

Source: Czech University of Life Sciences Prague



3. MAJOR INDICATORS IN TIMBER PRODUCTION

3.1 Changes in Forest Land Area

Changes in forest land area (ha)

Year	2001	2003	2005	2007	2009	2011	2011
Forest land area	2 638 917	2 644 168	2 647 416	2 651 209	2 655 212	2 659 837	2 659 837

Source: Czech Office for Surveying, mapping and cadastre, Forest Management Institute

3.2 Forest Categories by Forest Function

Individual categories of forests are distinguished by their prevailing functions. This classification is currently stabilised. In the long term, the category of special purpose forests is slightly increasing at the expense of production forests.

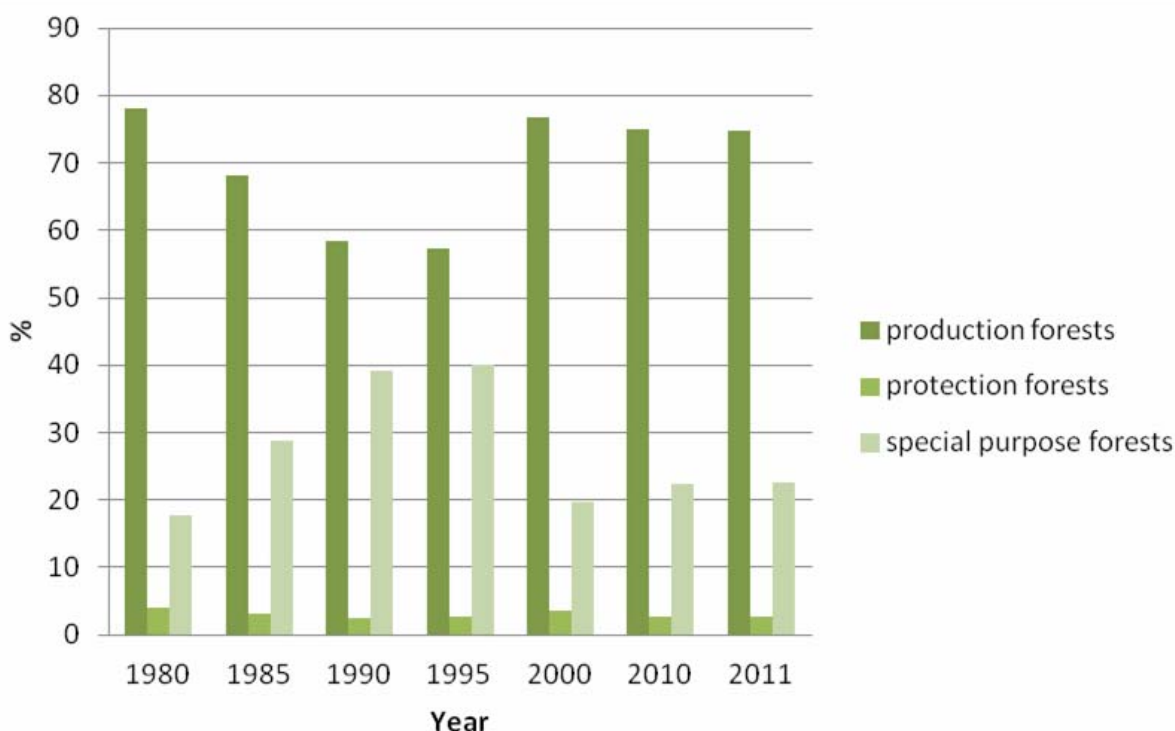


Forest categories (ha)

Forest categories	Production forests	Protection forests	Special purpose forests	Total
	1 938 972	70 527	586 437	2 595 936

Source: Forest Management Institute

Forest categories (%)



Source: Forest Management Institute



3.3 Species Composition of Forests

The total area of coniferous species has been constantly decreasing. For example, the area of spruce dropped by 55 591 ha against 2000. In contrast, the share of broadleaves, mainly oak and beech, has been growing thanks to the foresters' efforts to reach an optimum species composition of forests. These efforts enjoy long-term support under a goal-oriented national subsidy policy.



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

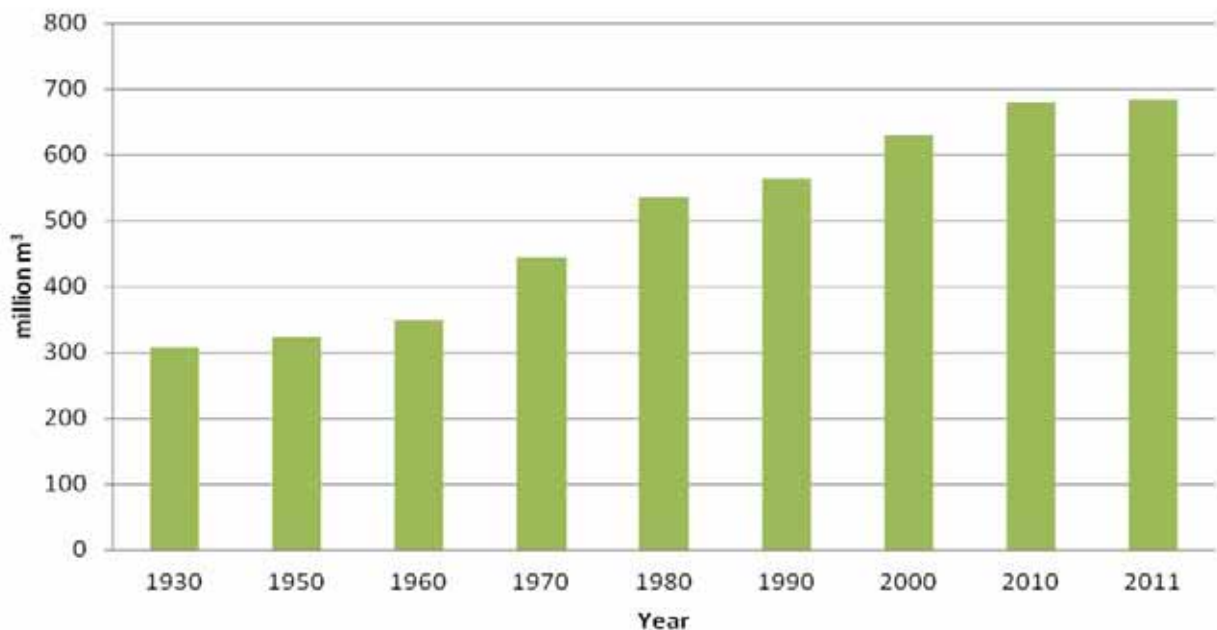
Species	Year				
	2000	2004	2008	2010	2011
	Timber land in ha and %				
Norway Spruce	1 397 012	1 381 407	1 362 205	1 347 239	1 341 421
	54.1	53.3	52.4	51.9	51.7
Fir	23 138	23 534	24 658	25 869	26 448
	0.9	0.9	1.0	1.0	1.0
Pine	453 159	447 013	440 188	436 308	434 202
	17.6	17.3	17.0	16.8	16.7
Larch	97 170	99 707	100 326	100 761	100 817
	3.8	3.9	3.9	3.9	3.9
Other conifers	4 586	5 617	5 964	6 352	6 581
	0.2	0.2	0.2	0.2	0.3
Total conifers	1 975 065	1 957 278	1 933 341	1 916 529	1 909 468
	76.5	75.5	74.4	73.9	73.6
Oak	163 761	169 150	175 495	178 466	180 597
	6.3	6.5	6.8	6.9	7.0
Beech	154 791	168 212	182 048	189 998	194 257
	6.0	6.5	7.0	7.3	7.5
Birch	74 560	74 447	73 764	72 264	71 169
	2.9	2.9	2.8	2.8	2.7
Other broadleaves	183 696	195 173	205 991	209 559	211 325
	7.1	7.5	7.9	8.1	8.1
Total broadleaves	576 808	606 983	637 299	650 287	657 348
	22.3	23.4	24.5	25.1	25.3
Total without unstocked areas	2 551 873	2 564 261	2 570 640	2 566 816	2 566 816
	98.8	99.0	99.0	98.9	98.9

Source: Forest Management Institute

3.4 Growing Stock and Increments

Growing stock volume (million m³)

Growing stock volume									
Year	1930	1950	1960	1970	1980	1990	2000	2010	2011
million m ³	307	322	348	445	536	564	630.5	680.6	683.0



Source: Forest Management Institute

Total mean and total current annual increment

Increment	Year						
	1950*	1970	1980	1990	2000	2010	2011
	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	21.4
	m ³ u. b. per ha of the timber area annually						
Total mean	3.7	5.3	6.2	6.3	6.5	6.8	6.8
Total current	3.8	5.8	6.7	6.6	7.7	8.2	8.3

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

Source: Forest Management Institute



4 ECONOMY IN THE FOREST SECTOR

4.1 Economic Situation of Forest Owners

The economic situation of forest owners of all categories involved in forest management and other forest-based activities noted a further pronounced improvement following the positive trend from 2010 and recovering from a serious recession of the economic results in 2006–2009. Forests owned by the state generated the highest profit (including granted contributions and subsidies) (CZK 3 714/ha), followed by private forests (CZK 2 026/ha). Municipal forests recorded the lowest profit (CZK 1 281/ha). The considerable improvement in the economic situation of forest owners was mainly induced by the demand for raw timber, which remained constant despite the sharp growth of prices of decisive timber assortments.

Average prime costs of selected operations (CZK/unit)

Operation	Unit	2008	2009	2010	2011
Forest regeneration	ha	71 850	72 986	68 854	77 825
Tending of young plantations	ha	8 654	9 331	9 036	9 173
Juvenile thinning	ha	7 536	8 353	7 798	8 401
Forest protection	ha	149	154	131	90
Total silviculture	ha of forest	1 745	1 867	1 836	1 822
Felling	m ³	258	267	267	202
Skidding	m ³	225	248	232	230
Hauling	m ³	154	175	149	181
Road repairs and maintenance	ha of forest	654	530	575	731

Source: Ministry of Agriculture

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

Profit before taxation	2008	2009	2010	2011
State forests	412	481	2 127	3 572
Municipal forests	-152	-228	450	539
Private forests	518	772	1 521	1 594
Average	348	439	1 717	2 615

Source: Ministry of Agriculture

The economic result (profit before taxation) per one ha of forest land noted the highest year-on-year increase in the category of state forests (by CZK 1 403), followed by municipal forests (by CZK 230); private forests recorded the lowest growth (by CZK 52). The state enterprise Lesy České republiky a.s. (also referred to as Forest of the Czech Republic, state enterprise) played the crucial role in the economy of state forests generating historically the highest profit before taxation of CZK 5 275 million, i.e. a year-on-year increase by CZK 2 115 million. Financial contributions for forest management provided from the budgets of individual regions, reimbursement of certain mandatory costs from the state budget (under the Forest Act) and financial means allocated from the EU funds constituted again a significant support for forest owners (tenants).



Profit of forest owners (incl. subsidies for forests management) (CZK/ha)

Profit before taxation	2008	2009	2010	2011
State forests	520	561	2 311	3 714
Municipal forests	612	480	1 051	1 281
Private forests	1 077	1 395	1 974	2 026
Average	667	748	2 031	2 922

Source: Ministry of Agriculture

4.2 Social Aspects in the Forest Sector

4.2.1 Labour Market in Forestry

Number of employees in forestry

		2008	2009	2010	2011
Total forest sector		17 959	16 041	15 150	14 138
of which	<i>state</i>	5 850	5 574	5 130	4 937
	<i>private</i>	9 924	8 406	8 015	7 162
	<i>municipal</i>	2 185	2 061	2 005	2 039

Source: Ministry of Agriculture

4.2.2 Average Earnings in Forestry

Compared to the preceding year, the average monthly earnings of individuals working in the forest-based sector rose by 5.1% and thus surpassed those in industry (3.3%) and in the national economy (2.1%). Nevertheless, 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 1 791) and in the national economy (by CZK 1 342). The highest average earnings in forestry are recorded in the public sector, where they surpass the average of the private sector by CZK 6 370 and the sector of municipal forests by CZK 6 691.

Average monthly earnings (CZK)

		2008	2009	2010	2011	2010/2011
		CZK				%
Forestry		18 970	19 856	21 074	22 154	105.1
of which	<i>state forests</i>	22 361	23 462	24 923	26 346	105.7
	<i>private forests</i>	17 164	17 632	18 873	19 976	105.8
	<i>municipal forests</i>	18 093	19 179	20 020	19 655	98.2
Industry		21 675	22 417	23 187	23 945	103.3
National economy total		21 958	22 637	23 004	23 496	102.1

Source: Ministry of Agriculture

4.3 State Budget Funds for the Forest Sector

4.3.1 Government Financial Obligations Subject to the Forest Act

Through its very existence forestry does not only bring benefits to forest owners but also to other citizens by providing non-wood and social functions, such as soil protection, climatic, hygienic, recreational or hydrologic functions, or flood control. Support of these functions usually exceeds the common expenses of forest management. Despite these functions still not being definable in financial terms, the state has an interest to maintain and develop them since they are beneficial to all society. The state declared its intent by adopting legally binding

regulations laying down in which cases forest owners have the right to financial support for operations and measures that shall be covered by the state. In 2011, the state allocated total CZK 236.4 million under the obligations determined by the Forest Act.

The total amount of CZK 14.7 million was granted as part payment to cover the increased costs of planting the minimum number of soil improving and stabilising tree species in 2011. These funds were used to sustain forest regeneration on 2 655 ha where the share of soil improving and stabilising tree species ranges from 5 to 30%. Thus, approximately 15 thousand ha of mixed forest stands were supported.

The state paid to forest owners managing up to 50 ha of forests total CZK 157.2 million to cover the expenses of licensed forest managers on total 412 860 ha of forests.

The state also reimburses the costs of forest management guidelines for forest owners who own a total forest area up to 50 ha and do not have a forest management plan elaborated for their property. The total area of such property was 56 649 ha with the total costs reaching CZK 26.5 million.

The amount of CZK 38.0 million was allocated to finance measures relating to soil improvement and torrent control in forests in the public interest. Such measures involved 9km of torrents, repairs and construction of water reservoirs of total water retention capacity of 20 thousand m³. Forest soil improvement through water regime control was not covered from the state budget in 2011. The technical units only involve actions finished in 2011 and supported from the state budget in the preceding years.

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

Activities	2009	2010	2011
	Allocated		
<i>Soil-improving and stabilising species</i>	12.9	11.3	14.7
<i>Licensed forest managers</i>	160.1	163.1	157.2
<i>Forest management guidelines</i>	23.4	20.8	26.5
<i>Soil improvement and torrent control</i>	42.8	47.4	38.0
Total	239.2	242.6	236.4

Source: Ministry of Agriculture





4.3.2 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 provides forest owners with up-to-date information concerning preventive protection of their forests and potential protective measures against damaging agents.

With the aim to protect forests against fire, aerial fire control service was provided for forest owners as principal service on total 2.4 million ha of forest land – i.e. 91% of all forests in the country (excl. forests under responsibility of the Ministry of Defence and Ministry of the Environment). The amount invested in the mentioned service totalled CZK 27.66 million.

Reconnaissance flights were undertaken within forest protection measures to determine the health condition of Czech forests, particularly regarding infestation of forest stands by the bark beetle. The total costs of large-scale measures and reconnaissance flights amounted to CZK 0.7 million. No large-scale measures to control biotic damaging agents were necessary, which was not the case of the preceding years.

In contrast to the past, the measures did not involve any aerial liming or soil improvement by liquid fertilisers in polluted areas of the Krušné hory Mts., Jizerské hory Mts., and Orlické hory Mts. (under Government Decree No. 22/2004). The only measure adopted in this respect was verification of applied product Vermaktiv Stimul in the forests of forest district Klášterec nad Ohří, which was intended for aerial improvement of the polluted area and required investment of CZK 1.7 million.

VÚLHM, v.v.i. (also referred to as the 'Forestry and Game Management Research Institute' or 'FGMRI') continued providing expert and consulting services to forest owners upon request and free of charge in the fields of forest protection, forest seed management, nursery management, artificial regeneration and reforestation, including quality assessment of planting material, planting of fast growing species, regeneration and tending of forest stands, game management and protection of forests against game damage, adapting management technologies for the White Red Deer, and in the sector of biotechnologies and preservation of gene pool of forest tree species. Free of charge, it also issued opinions of the Forest Protection Service required for granting subsidies (restoring forestry potential). As a continuous process, more information was further collected from research to be applied in practice in both forest and game management. The Ministry of Agriculture paid the Institute for the above-mentioned services a total amount of CZK 34.6 million.

Professional workshops organised within consulting and educational activities and mainly designed for forest owners and their licensed forest managers contributed to a better standard in forest management. The Ministry of Agriculture paid the respective associations and organisations total CZK

1.1 million for the provision of these services. Payments for other services totalled CZK 8.8 million. These constituted taking soil samples and assimilatory organs to determine the conditions of forest soils and forest stand nutrition in specified nature forest areas, subsequent analyses and assessment of previous samples, assessment of samples from 'Permanent Sample Plots', and evaluation of efficiency of forest liming and fertilisation.

State services supporting forest management (CZK million)

Type of service	2008	2009	2010	2011
Aerial liming and fertilisation	44	19	17	2
Aerial fire control services	25	1	28	28
Large-scale measures in forest protection	1	2	1	1
Consultancy	21	33	35	36
Other services	6	6	7	8
Total	97	61	88	75

Source: Ministry of Agriculture



4.3.2.1 Subsidies from the State Budget

Support of forest management in form of subsidies from the state budget was provided under Annex 9 of Act No. 487/2009 Coll., on the state budget of the Czech Republic for the year 2011.

Subsidies for forest management granted from the budget of the Ministry of Agriculture and the budgets of individual regions by their purpose and ownership category (CZK million).

Purpose of subsidy	Ownership category	2008	2009	2010	2011
Regeneration of forests affected by air pollution	<i>municipal</i>	8.9	0.8	8.5	8.5
	<i>state</i>	0	0.0	0	0
	<i>other</i>	2.2	0.4	2.4	2.1
	<i>total</i>	11.1	1.2	10.9	10.5
Reforestation, establishment of stands and their tending	<i>municipal</i>	97.5	77.0	73.3	76.5
	<i>state</i>	0.3	0.5	0.1	0.5
	<i>other</i>	172.1	150.0	129.0	132.4
	<i>total</i>	270.0	228.0	202.4	209.5
Grouping of owners of small-size forests	<i>other</i>	1.3	1.4	1.4	0
	<i>total</i>	1.3	1.4	1.4	0
Green and environmentally friendly technologies	<i>municipal</i>	11.3	8.1	6.2	4.9
	<i>state</i>	0.1	0.1	0.01	0.08
	<i>other</i>	24.8	21.3	14.7	12.5
	<i>total</i>	36.2	29.5	20.9	17.4
Support of endangered wildlife species	<i>municipal</i>	0.0	0.1	0.0	0.01
	<i>state</i>	0.8	0.6	0.6	0.7
	<i>other</i>	11.2	9.4	9.6	8.9
	<i>total</i>	12.0	10.1	10.2	9.5
Elaboration of forest management plans	<i>municipal</i>	7.6	6.3	11.0	8.5
	<i>state</i>	33.0	52.6	30.0	0
	<i>other</i>	14.3	14.2	11.3	12.9
	<i>total</i>	54.9	73.1	52.3	21.4
Other forest management	<i>municipal</i>	0.1	0.0	0.01	0.06
	<i>state</i>	1.7	1.5	1.7	1.7
	<i>other</i>	0.2	0.2	0.2	0.5
	<i>total</i>	2.0	1.7	1.9	2.2
Breeding and training of national hunting dog breeds and hunting birds of prey	<i>municipal</i>	0	0.0	0	0
	<i>state</i>	0	0.0	0	0
	<i>other</i>	2.1	1.9	2.1	2.3
	<i>total</i>	2.1	1.9	2.1	2.3
Total subsidies	<i>municipal</i>	125.4	92.3	98.9	98.5
	<i>state</i>	35.9	55.4	32.5	2.9
	<i>other</i>	228.3	199.0	171.1	171.6
	<i>total</i>	389.6	346.9	302.5	272.9

Source: Ministry of Agriculture



4.4 Aids Co-financed by the EU under the Rural Development Programme of the Czech Republic for 2007–2013

The year 2011 was the fifth year allowing applications for the financial support from the European Agricultural Fund for Rural Development 2007–2013 under the Rural Development Programme of the Czech Republic for 2007–2013 (hereinafter referred to as the 'RDP'). The RDP is based on the National Strategic Plan of Rural Development drawn up in accordance with Council Regulation (EC) No. 1698/2005 and its associated secondary legislation. The document mainly focuses on forestry in Axis I – Improving the competitiveness of agriculture and forestry, which involves measure I.1.2. Investment in forests (year 2011 – 14th round of applications), and Axis II - Improving the environment and landscape. Axis II continued in 2011 to be open for applications for measure II.2.1 – Afforestation of agricultural land (see Chapter 6.6), entities could file their applications for the fourth time under measure II.2.2 – Payments within Natura 2000 forest areas, for the third time under measure II.2.3 – Forest-environment payments, and applications were being received under measure II.2.4 Restoring forestry potential after disasters and promoting social functions of forests (year 2011 – 13th round of applications).

Axis I of the RDP contains **measure I.1.2. Investment in forests**, which is further divided into submeasures I.1.2.1. Forestry machinery, I.1.2.2. Technical utilities of business establishments, and submeasure I.1.2.3 Forestry infrastructure. The strategic objective of the mentioned measure is to enhance the competitiveness of forestry, to support the development of dynamic businesses in the forest sector, to reach higher efficiency of forest enterprises, to restructure the forest sector, and to improve the protection of the environment related to forests. The supported actions should bring solutions to such challenges as low investments in the forest sector, obsolete and technically unsuitable equipment of forest enterprises, and other problems related to the existing insufficient infrastructure in forestry.

- **Submeasure I.1.2.1 Forestry machinery** – total 492 projects worth CZK 127 136 292 were approved in 2011.
- **Submeasure I.1.2.2 Technical utilities of business establishments** – total 35 projects worth CZK 58 510 389 were approved in 2011.
- **Submeasure I.1.2.3 Forestry infrastructure** – total 92 projects worth CZK 244 903 935 were approved in 2011.

For the fourth year in 2011, applications could be submitted under **measure II.2.2 – Payments within Natura 2000 in forests, which consists of a single submeasure II.2.2.1 Conservation of a forest management group from previous production cycle** – 5 applications to register 199 ha were submitted and total 20 applications for subsidies were filed involving 1 306 ha and amounting to CZK 2 million. In 2011, a total amount of CZK 1.9 million was paid based on 16 applications from the preceding years that involved 1 233 ha of land.

For the third time in 2011, applications for registering areas and for subsidies could be submitted under **measure II.2.3 – Forest-environment payments**, which consists of a single **submeasure II.2.3.1 Improving the species composition of forests** – ten applications were submitted to register

103 ha and 47 applications were filed for subsidies of CZK 4.4 million to support 3 133 ha (the exact amount will be known based on classification of applications from 2011 to corresponding classes and rates). In 2011, total CZK 4.2 million was paid based on 56 applications submitted in the preceding years for 4 293 ha.

For the fourth time in 2011, applications could be submitted within the Rural Development Programme for **measure II. 2. 4 Restoring forestry potential after disasters and promoting social functions of forests**, which comprises 2 submeasures: II.2.4.1 **Restoring forestry potential after disasters and introducing prevention actions** and **II.2.4.2 Non-productive investments in forests** – total 128 projects were registered applying for CZK 178 648 915 and total 106 projects worth CZK 153 782 467 were approved. Payments will be made in the course of the following years depending on applications submitted for reimbursement.

- **Submeasure II.2.4.1 – objective a) Restoring forestry potential after disasters** – total 48 projects worth CZK 30 427 160 were approved in 2011.
- **Submeasure II.2.4.1 – objective b) Introducing prevention actions in forests and mitigation of flood damage** – total 39 projects worth CZK 109 159 226 were approved in 2011.
- **Submeasure II.2.4.2 Non-productive investments in forests** – total 19 projects worth CZK 14 196 081 were approved in 2011.

4.5 Aids for Afforestation of Agricultural Land

Support of afforestation enjoys a long tradition in the Czech Republic. Until 2003, subsidies for afforestation were provided only from the national financial sources. Since 2004, afforestation has been mainly supported from the European financial sources, first from the Horizontal Rural Development Plan of the Czech Republic for 2004–2006 (HRDP) and since 2007 from the Rural Development Programme of the Czech Republic for 2007–2013.

The Rural Development Programme of the Czech Republic for 2007–2013 involves measure II.2.1 – Afforestation of agricultural land, which consists of a single submeasure II.2.1.1 First afforestation of agricultural land. Government Decree No. 239/2007 Coll., on laying down conditions for granting subsidies for agricultural land afforestation, as amended, is the implementing national legal regulation.

The forenamed support gives space to diversification in production, which reinforces the economic and social dimensions of sustainability of agriculture and rural areas and reduces the share of arable land while there is no risk that unmanaged agricultural land will grow in size. The mentioned submeasure offers potential support to owners or tenants of agricultural land determined for afforestation.

Total 1878 applications for subsidies of CZK 42.5 million were submitted in 2011 (including obligations arising from the Horizontal Rural Development Plan). An amount of CZK 76.3 million was paid in 2011 based on 2710 applications from the preceding years (including obligations arising from the Horizontal Rural Development Plan).

4.6 Timber Market

4.6.1 Domestic Timber Market

The total timber supply experienced a year-on-year decline by 1 355 thousand m³ amounting to 15 381 thousand m³, softwood supply representing 13 340 thousand m³ and hardwood supply 2 041 thousand m³.

Softwood supplies dropped against 2010 by 1 726 thousand m³ while hardwood supplies grew by 371 thousand m³. The overall timber harvest and subsequent supplies were affected by stagnating and declining production in the entire wood processing industry in the country. Following the passed crisis in the forest-based sector and its subsequent revival in the past year, the domestic consumption of timber noted another year-on-year decrease, mainly in softwood roundwood. Due to the increased prices on the Czech market, the domestic wood processing

plants show of timber noted another year-on-year decrease, mainly in softwood roundwood. Due to the increased prices on the Czech market, the domestic wood processing plants showed more interest to import cheaper raw timber from other countries (namely Poland and Slovakia) to increase their efficiency and competitiveness. Nevertheless, forest owners and entrepreneurial entities succeeded in exporting higher volumes of particularly softwood roundwood and pulpwood (mainly to Austria and Germany). Despite the favourable trend in prices of raw timber, most of the forest owners decided to reduce the volumes of logging and subsequent supplies of timber, considering the difficulties related to sales for demanded prices. The sales of raw timber primarily served to secure funds indispensable for administration and forest management operations.

Timber supplies (I 000 m³)

Supplied assortments (excl. imports)		2009	2010	2011
Roundwood ^{x)}		8 852	9 427	8 838
of which	softwood	8 332	8 982	8 014
	hardwood	520	445	824
Pulpwood ^{xx)}		4 917	5 344	4 629
of which	softwood	4 556	4 747	4 277
	hardwood	361	597	352
Fuelwood		1 733	1 965	1 914
of which	softwood	1 159	1 337	1 049
	hardwood	574	628	865
Total timber supplies		15 502	16 736	15 381
of which	softwood	14 047	15 066	13 340
	hardwood	1 455	1 670	2 041

Note: x) including pole and mine timber
xx) including groundwood

The volumes of logging residues and chips of approximately 1.1 million m³ in 2010 and 1.7 million m³ in 2011 are not included in the total supplies of roundwood.

Source: Czech Statistical Office, Ministry of Agriculture



4.6.2 Timber Export and Import

Timber exports showed a year-on-year improvement by 1 408 thousand m³ to the total volume of 6 772 thousand m³ thanks to an increase in exports of softwood roundwood (by 1 442 thousand m³) and hardwood roundwood (by 302 thousand m³), while exports of softwood pulpwood noted a decline (by 540 thousand m³).

Against the preceding year, imports of timber rose by 802 thousand m³ and totalled 3 418 thousand m³, with the highest increase recorded in softwood roundwood (by 884 thousand m³).

The active balance of the foreign timber trade noted a year-on-year increase by CZK 233 million reaching the value of CZK 4 438 million. Total 99.2% of all export was directed to the countries of the EU-27, principally to Austria (56.5%) and Germany (36.7%). The EU-27 also represented the principal importer constituting 85.9% of all timber imports, which mostly originated from Slovakia (44.2%), Poland (26.9%) and Germany (14.8%).

Compared to 2010, there was an overall increase in timber exports (by 1 408 thousand m³) along with a rise of their value (by CZK 692 million). Equally, the total timber imports and their value noted an increase (by 802 thousand m³ and CZK 459 million respectively). The demand for timber obviously has a positive effect on the growth of its average price both in the Czech Republic and in foreign countries.



As the domestic consumption of mainly softwood roundwood and pulpwood declined, significant volumes of this material were still exported to foreign countries (38.7% of produced softwood roundwood and 36.6% of domestic timber harvest). In contrast, domestic sawmills and pulp mills in certain regions of the Czech Republic had to face insufficient supplies of softwood roundwood and pulpwood and were forced to import – mainly from Slovakia, Poland and Germany.

Timber exports and imports in the Czech Republic

	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports
	CZK million			1000 m ³			Average price CZK/m ³	
<i>Total</i>	8 248	3 810	4 438	6 772	3 418	3 304	1 218	1 115
	<i>of which</i>							
<i>EU - 27</i>	8 179	3 271	4 908	6 685	2 898	3 787	1 223	1 129
<i>Germany</i>	3 023	563	2 460	2 464	355	2 109	1 227	1 586
<i>Austria</i>	4 661	139	4 522	3 001	143	2 858	1 553	972
<i>Slovakia</i>	157	1445	-1 288	128	1513	-1 385	1227	955

Source: Czech Statistical Office, Ministry of Agriculture

Annual volumes of timber exports and imports (CZK million)

Trade balance	2009			2010			2011		
	Exports	Imports	Balance	Exports	Imports	Balance	Exports	Imports	Balance
<i>Total</i>	6 202	2 406	3 796	7 556	3 351	4 205	8 248	3 810	4 438
<i>of which the EU</i>	6 186	2 208	3 978	7 530	2 862	4 668	8 179	3 271	4 908

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		4 664	2 757
of which	spruce	4 115	2 325
	pine	441	423
	other	108	9
Hardwood roundwood and pulp		461	136
of which	oak	28	15
	beech	366	86
	poplar	6	8
	birch	15	9
	others	46	18
Industrial roundwood		5 125	2 893
Charcoal		2	15
Fuelwood		1 112	46
Chips, particles		361	156
Sawdust		1 020	175
Wood waste		172	133
Total		6 772	3 418

Source: Czech Statistical Office, Ministry of Agriculture



5 RELATED ACTIVITIES AND SECTORS

5.1 Game Management

In 2011, total 5 750 hunting grounds in the Czech Republic were managed on the area of 6 868 908 ha of land. Of these, there were 192 game preserves and 291 pheasantries on total 46 375 ha and 96 910 ha respectively. An average area of a hunting ground was 1 369 ha, of a game preserve 242 ha, and of a pheasantry 333 ha.



Spring stocks of main game species (number of animals)

Game species	2007	2008	2009	2010	2011
Red Deer	28 977	29 266	29 895	30 865	30 838
Fallow Deer	23 964	25 067	25 701	26 415	26 611
Mouflon	20 510	20 182	20 738	21 196	21 294
Roe Deer	310 920	318 252	317 596	312 321	302 206
Wild Boar	56 986	57 770	57 981	60 500	59 295

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

Hunting of main game species (number of animals)

Game species	2007	2008	2009	2010	2011
Red Deer	20 217	21 415	21 527	21 820	20 961
Fallow Deer	11 395	13 394	13 309	14 209	13 305
Mouflon	8 320	9 304	9 118	9 368	8 398
Roe Deer	108 992	127 213	131 875	120 206	113 915
Wild Boar	121 192	138 854	121 821	144 305	109 563
Duck	328 225	315 773	286 024	272 422	277 390
Pheasant	664 251	598 176	530 444	528 878	524 674
Hare	115 065	105 745	84 111	62 848	47 739

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

Under its subsidy policy, the Ministry of Agriculture continued to support certain game management activities and paid in this respect a total amount of CZK 11.98 million. Most of the granted financial resources were used to improve the living conditions of game, i.e. 53.60% to establish and maintain feeding grounds, 6.89% to purchase and install concrete holes and fox traps, 7.69% to produce and install nest boxes for water birds, and 2.0% for hunt tests of dogs (Cesky Fousek, Cesky Terrier). Amounts of 0.06–4.42% of the total funds were allocated to other activities. The mentioned support puts emphasis on enhancing the living conditions of game and on control of populations of predators.



5.2 Timber Processing Industry

The timber processing industry processes almost exclusively domestic renewable material – raw timber, mostly softwood and hardwood roundwood. After the revival of the market with sawn timber in the preceding year, the production of timber slumped again. The demand for sawn timber abroad persisted while its domestic consumption slackened. The leading sawmills and other wood processing enterprises highly depend on export, which thus amounted to 3 084 thousand m³ of the total production of 4 153 thousand m³ of softwood sawn timber. To satisfy the domestic consumption of 1 810 thousand m³, total 741 thousand m³ were imported from other countries.

The total log breakdown in the Czech Republic reached the volume of 7.0 million m³ of softwood and hardwood roundwood, which was used to produce 4.153 million m³ of softwood sawn wood and 0.301 million m³ of hardwood sawn wood. The total production of softwood and hardwood hence dropped against the preceding year by 290 thousand m³. Export of softwood and hardwood sawn wood experienced a decline by 87 thousand m³ while sawn wood imports noted only a slight decrease by 5 thousand m³. The domestic consumption of sawn wood was thus 208 thousand m³ lower. The production of particle boards, plywood, and fibreboards also decreased against 2010, namely by 33 thousand m³, 23 thousand m³, and 4 thousand m³ respectively.

Log breakdown and sawn wood production (1 000 m³)

	2009	2010	2011
Log breakdown	6 700	8 000	7 000
Sawn wood production	4 048	4 744	4 454

Source: Ministry of Agriculture



Market with timber products (1 000 m³)

Product	Year	Production	Import	Export	Consumption
Softwood roundwood ^{x)}	2009	8 332	416	2 514	6 234
	2010	8 982	786	1 658	8 110
	2011	8 014	1 670	3 100	6 584
Hardwood roundwood ^{x)}	2009	520	122	82	560
	2010	445	193	85	553
	2011	824	114	387	551
Softwood sawn wood	2009	3 800	558	2 743	1 615
	2010	4 492	700	3 166	2 026
	2011	4 153	741	3 084	1 810
Hardwood sawn wood	2009	248	409	292	365
	2010	252	335	245	342
	2011	301	289	240	350
Particle boards	2009	928	288	1 042	174
	2010	1 085	473	1 285	273
	2011	1 052	476	1 339	189
Plywood	2009	175	70	141	104
	2010	204	48	36	216
	2011	181	65	128	118
Fibreboards	2009	44	223	82	185
	2010	46	205	87	164
	2011	42	217	97	162
Softwood pulpwood ^{xx)}	2009	4 556	1 000	1 600	3 956
	2010	4 747	1 100	2 104	3 743
	2011	4 277	1 087	1 564	3 800
Hardwood pulpwood	2009	361	20	65	316
	2010	597	21	94	524
	2011	352	22	74	300

Note: ^{x)} including pole and mine timber

^{xx)} including groundwood

Source: Ministry of Agriculture





5.3 Pulp and Paper Industry

The consumption of softwood timber for pulp production reached 3 576 thousand m³, namely 2 479 thousand m³ of softwood pulp and 1 097 thousand m³ of softwood chips and particles.

Pulp and paper industry produced total 704 thousand tons of pulp in 2011, wood pulp representing 700 thousand tons. Compared to 2010 (total 722 thousand tons of pulp), there was an overall drop in production by 18 thousand tons.

The production of paper, paperboard, and cardboard under CEPI classification used in pulp and paper industry noted a decrease by 32 thousand tons compared to 2010 and amounted to total 737 thousand tons.

Consumption of wood for pulp production (1 000 m³)

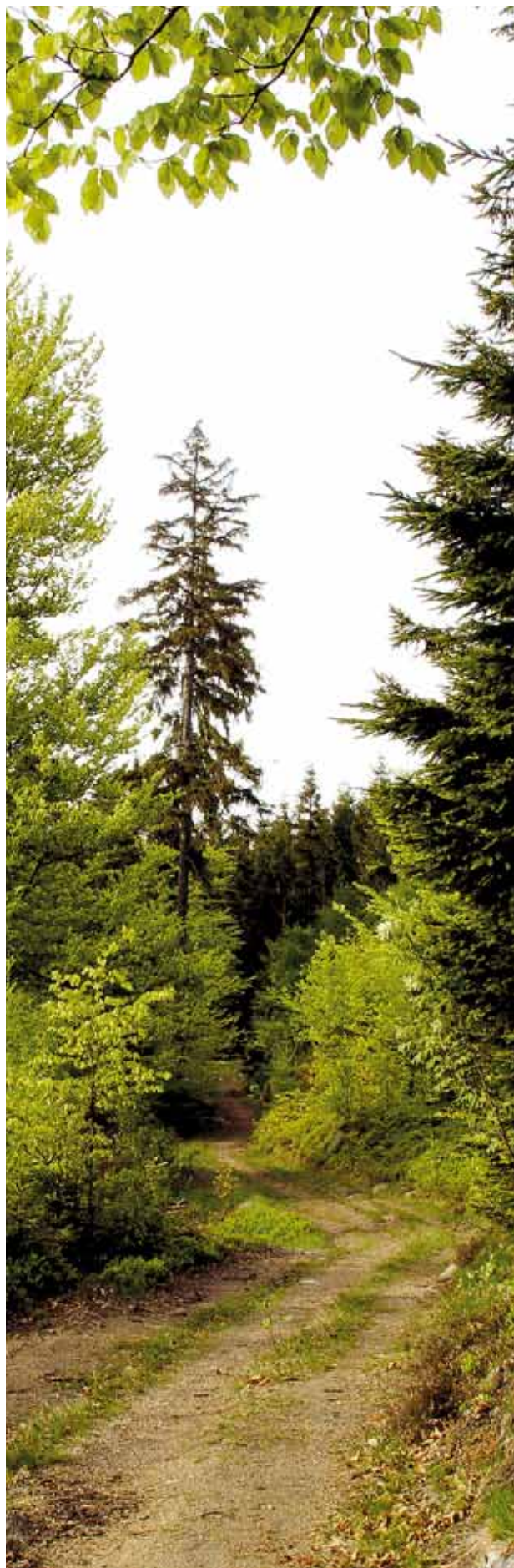
Timber assortment	Consumption		
	2009	2010	2011
<i>Chips and particles</i>	1 055	1 220	1 097
<i>Pulpwood</i>	2 270	1 980	2 479
<i>Total</i>	3 325	3 200	3 576

Source: Association of Pulp and Paper Industry

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

Product	2009	2010	2011
<i>Mechanical pulp</i>	27	13	3
<i>Chemical pulp</i>	701	705	697
<i>Pulp of other fibres</i>	4	4	4
<i>Total</i>	732	722	704
<i>Paper, paperboard and cardboard</i>	805	769	737

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



6 ABBREVIATIONS

CEPI	<i>Confederation of European Paper Industries</i>
CZK	<i>Czech crown (currency)</i>
EU	<i>European Union</i>
FMP	<i>Forest Management Plan</i>
FSC CR	<i>Forest Stewardship Council - Czech Republic</i>
GDP	<i>Gross Domestic Product</i>
ILO	<i>International Labour Organization</i>
NFP	<i>National Forest Programme</i>
PEFC CR	<i>Programme for the Endorsement of Forest Certification Schemes – Czech Republic</i>
SFM	<i>Sustainable Forest Management</i>

7 CONTACTS TO SELECTED FORESTRY ORGANISATIONS IN THE CZECH REPUBLIC

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info@mze.cz
www.eagri.cz

Ministry of the Environment

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

Czech University of Life Sciences Prague

Faculty of Forestry and Wood Sciences
Kamýcká 1176
165 21 Praha 6 - Suchbát
www.fld.czu.cz/en

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

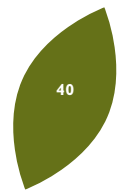
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Forests of the Czech Republic, State Enterprise

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