The Slovak National Market Report 2017

Market Report 2017
Slovak Republic

1. General economic trends affecting the forest and forest industries sector (brief description)

The area of forest holdings in Slovakia reached 2,016,729 ha in 2016 of which forest crop land represented 1,944,123 ha. The forest cover was 41.1%. In terms of tree species composition, broadleaved species (62.5%) outnumbered coniferous species (37.5%). The most abundant tree species included beech (33.5%), spruce (23.1%), English and sessile oaks (10.6%) and pine (6.8%). The growing stock totalled 480.65 million m^3 of timber inside bark which was an increase of 2.53 million m^3 compared to 2015. The average stock was 248 m^3/ha of forest crop land.

The volume of felling reached 9.32 million m^3 in 2016. It was 0.8% more than in 2015 (9.25 million m^3), but 1% less than in 2014 (9.42 million m^3). The volume of incidental felling was 4.69 million m^3 which represented 50.3% of the total felling. As for the tree species, conifers accounted for 55.2% of the felled timber of which 85% derived from incidental felling. The enterprises of the Forests of the Slovak Republic, s.e. felled 4.88 million m^3 (52.4%) of timber; the remaining volume being felled in non-state forests. The total area of regenerated forest reached 18,060 ha in 2016 of which natural processes accounted for 7,133 ha, or 39.5%. Compared to 2015, the area of naturally regenerated forest increased by 4%.

Weed control measures were employed on almost 44,000 ha while preventive measures against game were implemented on 38,600 ha. Cleaning operations were performed on 30,729 ha. Compared to 2015, the volume of cleaning, weed control and anti-game measures marginally decreased, but the positive trend observed in previous years remained largely unchanged.

In 2016, total domestic timber supply reached 8,867,500 m^3 (including own consumption). Compared to 2015, supplies of timber to domestic market increased by 256,500 m^3. The increase was chiefly owing to a larger supply of softwood (505,000 m^3), whilst hardwood supplies fell by 249,000 m^3. Proceeds from timber represent the most important source of earnings and revenue in the forest sector. In 2016, earnings from trading timber reached €433.15 million which represented 85.2% of the total sectoral earnings and revenue.

The 2016 economic result came to €44.76 million which almost equalled the 2015 result (€44.8 million), but it represented a €7.2 million fall compared to 2014. Economic result was negatively impacted by falling average timber prices. Since 2012, average prices have been steadily decreasing to reach €46.74 in 2016, a fall of €1.6 compared to 2012.

In 2016, the sector contributed taxes to the national and municipal budgets totalling €52.87 million. The highest share of paid taxes was attributed to value added tax (€29.5 million), which represented 55.9% of all taxes paid, and income tax which contributed 26.5% (€14 million).

In 2016, the state owned 772,232 ha of forest crop land (39.7%), of which state forest enterprises managed 1,032,447 ha (53.1%). Ownership rights related to forest holdings have yet to be fully restored. In the majority of cases, forest holdings of individual owners and those in shared ownership with unclear forest borders are those pending restoration of lawful ownership rights.

Basic national and sectoral macro-economic indicators, including the overview of most important forest sector indicators in 2016 are given in Tables 1-1 and 1-2.

The value of gross domestic product (GDP) of forest sector given in current prices of 2016 came to €0.27 billion, representing a 3.6% decrease from the previous year. Sectoral GDP constituted 0.33% of national GDP. Investments into forest estate and production operations totalled €61 million, representing a 56.4% increase from the previous year. At a national level, the percentage of sectoral investment grew from 0.21 to 0.37% of national investment.

The sectoral workforce remained largely unchanged. In the near future, economic growth is predicted to follow the trend set in the previous year and thus we can expect stimulating macro-economic conditions benefiting the forest sector.

Trends of selected indicators in forestry and its comparison with Slovak national economy

Indicator	Unit	Year				
		2010	2013	2014	2015	2016
GDP in current prices	billion €	67,39	73,84	75,56	78,07	80,96
Of that: Forest Sector		0,22	0,28	0,31	0,28	0,27
Increment of GDP	%	5,6	2,0	2,3	3,3	2,9
Investment in current prices	mil. €	14 910	15 292	15 766	17 969	16 332
Of that: Forest Sector		32	24	37	39	61
Employment	thous. persons	2 170	2 192	2 223	2 267	2 321
Of that: Forest Sector		9	10	10	10	10
Average monthly salary	€	769	824	858	883	912
Of that: Forest Sector		676	907	958	996	1 004

Slovakia is an open economy and its development depends on demand in foreign markets, especially the EU markets. This fact was the reason for economic growth in 2016. Development of the Slovak economy in 2017 will depend on the development of demand in the markets of major trading partners and on the ability to soften the continuing critical effects in the world and Europe's economy. These factors will also affect the area of wood production and processing.

A brief summary the most important indicators for Slovakian forestry

Indicator	Unit	Year				
		2010	2013	2014	2015	2016
Economic result of forestry	thous. €	18 109	31 533	51 619	44 723	44 728
Public support		40 136	15 400	17 386	55 413	24 375
Direct costs in silviculture		43 898	42 351	46 632	56 484	54 501
Logging total	thous. m^3	9 860	7 947	9 417	9 142	9 321
Total wood supply		9 599	7 955	9 168	8 995	9 267
Average wood prices	€.m^{-3}	39,40	48,36	47,44	47,03	46,74
Forest area	thous. ha	2 010,8	2 013,4	2 014,3	2 014,7	2 016,7

2. Policy measures taken in your country over the past 18 months

The Action Plan of the National Forest Programme of the Slovak Republic II 2014-2020 was approved by the Government of the SR in December 2015 (Government Resolution Number 697/2015; 16.12.2015). There are proposed a few measures related to support and development of production and effective utilization of timber in Slovakia.

3. Market drivers

Recent age structure figures confirm a gradual increase in the growing stock of Slovak forests. In 2016, this reached 480.65 million m^3 of timber inside bark. The average stock per hectare was 248 m^3. The increase in the total growing stock has also been confirmed by the results of the second national forest inventory (NFIM SR) which shows an increase of 7.5% per

hectare of forest in a 10-year period. Data released in the Compendium of Slovak Forestry Statistics gives an increase of 7.4% (from 231 m^3 in 2006 to 248 m^3 in 2016).

The growing stock of broadleaved species is increasing. It reached 278.7 million m^3 in 2016, an increase of 19.1% on 2006 figures. Conversely, the stock of coniferous species has been falling since 2010 as a result of frequent natural disturbances in coniferous forests (spruce in particular). The coniferous stock fell by 3.7% in 10 years.

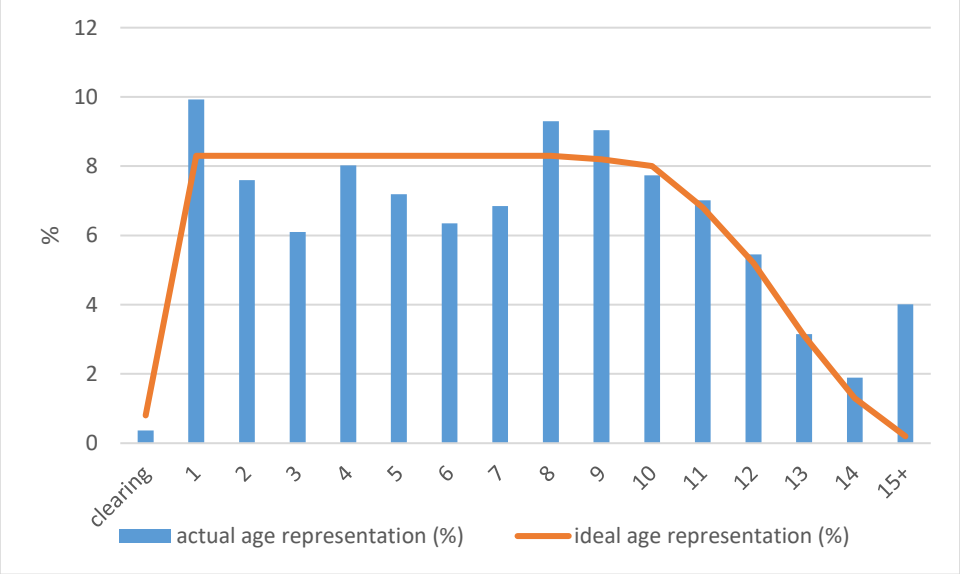
The total volume of timber felled in 2016 reached 9.32 million m^3. Compared to 2015, felling increased by 0.8%, but fell by 1% compared to 2014. Of the total felling, state forest enterprises felled 52.4%; the remaining 47.6% being felled by non-state enterprises. 55% of timber came from coniferous species, 45% from broadleaved species.

A high volume of incidental felling (4.69 million m^3, or 50.3% of the total felling) was associated with the removal of calamitous timber from past natural disturbances in forests. Compared to 2014 and 2015, this felling decreased by 14.9% and 6.1% respectively. The majority of incidental felling was in coniferous forests (84.9% of the volume); the remaining 15.1% being felled in broadleaved forests.

The actual felling in Slovakia has been increasing long-term. The annual share of incidental (calamitous) felling from the total felling has fluctuated from 42% to 65% since 1990 (from 1.8 million m^3 in 1992 to 6.5 million m^3 in 2005). This dramatic increase occurred after extensive damage to forests caused by windthrow Alžbeta (November 2004) which triggered mass outbreaks of bark beetle species in coniferous forests (spruce forests in particular).

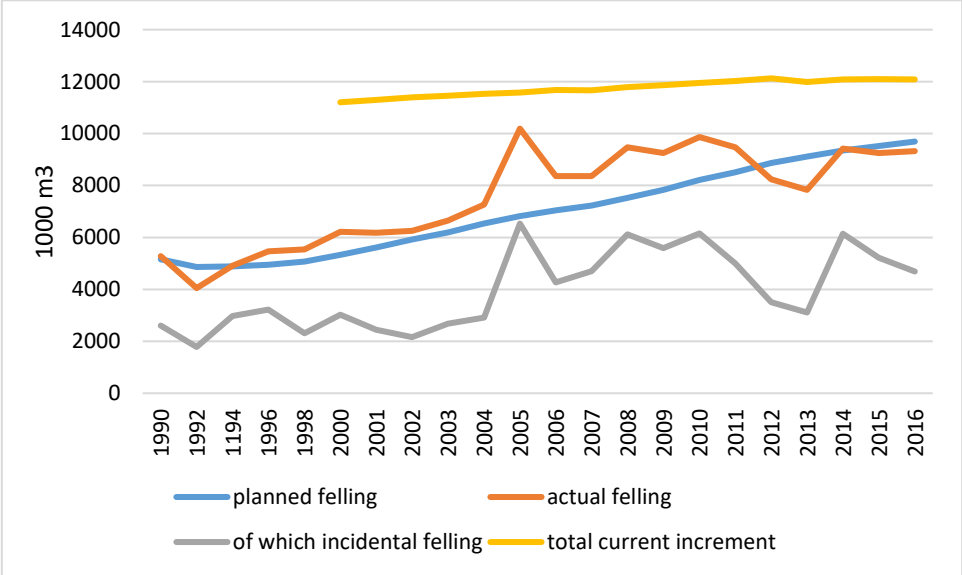
Compared to the beginning of the 1990s, the volume of salvaged calamitous timber doubled or even tripled in some years following 2004. After a gradual decrease in the volume of incidental felling in 2013 to 3.11 million m^3, which was comparable to the period before 2005, the felling increased again in 2014 (6.14 million m^3) and 2015 (5.21 million m^3) following the catastrophic windstorm Žofia (15 May 2014).

A detailed analysis of the production potential of Slovak forests indicates that the main factor behind increased felling capacity and consequent actual felling has been the current age structure of forests and their ever increasing growing stock, especially in more mature forests over 70 years of age (8th and above age classes). This is caused by a higher than normal area of forests in these age classes (see next picture). These forests are mature and thus of felling age.



Next picture illustrates the trends in total growing stock, clearly show the accumulation of a high volume of growing stock in the aforementioned age classes which continues to further grow. This fact confirms the increase of the actual felling potential in Slovak forests.

As a result, the volume of planned felling has gradually grown and reached 9.69 million m^3 in 2016. Over the last 20 years (compared to 1996), the planned felling almost doubled; it increased by 96%, or 4.74 million m^3. In spite of these facts, realised felling is still lower when compared to the total current increment which represents the volume of timber annually accrued in forests. The total current increment was 12.1 million m^3 in 2016.



4. Developments in forest products markets sectors

a. Wood raw materials

Timber supply

Proceeds from timber trading represent the most important source of sectoral earnings and revenue, which is primarily being used for maintaining important forest functions and the retention of sectoral workforce. In 2016, timber trading proceeds constituted 85.2% of the total sectoral earnings and revenue. Timber is not only a basic raw material in forestry, but also in the wood processing industry and thus secures earnings, revenue and employment in both

sectors. In 2016, the total supply of raw timber (including export) reached a volume of 9,267,000 m^3, an increase of 3% compared to 2015.

Forest managing enterprises supplied the domestic market with 8,867,500 m^3 of timber including timber for their own consumption. Compared to 2015, it represented an increase of 256,500 m^3. The domestic softwood supply grew considerably by 505,500 m^3 whilst the hardwood supply fell by 249,000 m^3. Higher supply was chiefly caused by higher felling volumes, particularly in coniferous forests.

Log grade structure of raw timber supply

Grade	2016 (m^3)				Year (%)	
	Slovakia	Export	Own con-sumption	Total	2015	2016
Softwood						
I grade logs	4 385	34	0	**4 419**	0,00	0,09
II grade logs	1 821	109	0	**1 930**	0,01	0,04
III grade logs	2 877 851	49 631	45 359	**2 972 841**	58,98	57,24
Paper-pulp & abrasive timber	940	0	0	**940**	0,00	0,02
Mining timber	9 055	708	0	**9 763**	0,06	0,19
Thin poles	14 745	26	174	**14 945**	0,35	0,29
Pulpwood	1 394 181	28 048	6 179	**1 428 408**	25,79	27,50
Energy wood	22 826	915	5 484	**221 869**	0,70	4,27
Fuelwood	213 624	182	8 063	**29 225**	4,40	0,56
Stumpage	189 687	6 193	38	**195 919**	4,95	3,77
Raw trunks	303 139	8 577	1 662	**313 378**	4,75	6,03
Total	**5 032 255**	**94 422**	**66 959**	**5 193 637**	**100,00**	**100,00**
Hardwood						
I grade logs	2 047	2 362	0	**4 409**	0,09	0,11
II grade logs	13 911	6 753	0	**20 664**	0,43	0,51
III grade logs	1 299 663	105 292	5 773	**1 410 727**	32,96	34,63
Mining timber	1 219	0	0	**1 219**	0,02	0,03
Thin poles	4 565	0	385	**4 950**	0,06	0,12
Pulpwood	2 095 805	189 202	3 711	**2 288 719**	56,50	56,19
Energy wood	53 120	243	10 240	**63 603**	1,37	1,56
Fuelwood	195 622	1 115	3 739	**200 476**	6,06	4,92
Stumpage	49 516	0	44	**49 560**	2,14	1,22
Raw trunks	28 503	0	402	**28 905**	0,37	0,71
Total	**3 743 972**	**304 967**	**24 294**	**4 073 233**	**100,00**	**100,00**
∑softwood & hardwood	**8 776 227**	**399 389**	**91 253**	**9 266 870**	**--**	**--**
Softwood lumber	37 736	0	337	**38 073**	97,39	95,62
Hardwood lumber	445	1 286	14	**1 745**	2,61	4,38
Chipwood (tonnes)	90 324	0	355	**90 679**	--	--

Timber export

According to 2016 customs statistics data, Slovakia exported a total of 2,449,000 m^3 of raw timber. Forest managing enterprises themselves exported 399,400 m^3 (16.3%). The remainder of almost 84% was exported by various non-forestry businesses, trading companies in

particular. Timber was exported primarily to the EU market. In the segment of softwood logs, the majority of exported logs were of I - III grades (42%). In the segment of hardwood logs, IV and V grades were most sought after (18.3%).

One of the negatives of timber export is the relatively high percentage of exported high grade domestic timber (mainly I-III grade softwood), which is exported unprocessed. The added value is thus generated abroad, where wood processing creates additional employment. Slovakia as exporter thus loses tax revenue and income from statutory employee/employer contributions. In 2016, Slovakia imported 576,000 m^3 of raw timber, the majority of which were of lower grades.

Timber prices on domestic and foreign markets

In 2016, earnings from timber trading in softwood log grades were down on 2015 by € 1.75/m^3, or 3.4%. Conversely, hardwood log grades were on average selling for €1.75/m^3, or 4.1%, more than in 2015. Average earnings from traded grades of raw timber show a stable development since 2011, characterised by a gradual moderate increase in the price of hardwood logs and a decrease in the price of softwood logs. Compared to 2015, average earnings declined by 0.6%.

b. Wood energy, with a focus on government policies promoting wood energy

Forest land is the largest potential source of fuelwood biomass in Slovakia. Its annual available volume is 2.8 million tonnes which accounts for about 60% of the total available annual volume of this raw material in Slovakia. The volume of fuelwood and wood chips supplied by forest sector enterprises reached 1,440,000 tonnes in 2016, which was 10,000 tonnes less than in 2015. Slovak companies produced 610,000 tonnes of wood chips and 830,000 of fuelwood in 2016. Supply of these products accounted for only 48.8% of the total domestic consumption of woody fuels. Wood used for energy was additionally sourced from residues from timber processing and woody biomass for forest vegetation on non-forest land. Almost 50% of the available forest woody biomass remained unused due to higher production costs when compared to sources on non-forest land and felling residue.

Woody biomass for energy production

Year	Chips[1)]		Fuelwood and others [2)]		Total	
	1000 tonnes	TJ	1000 tonnes	TJ	1000 tonnes	TJ
2016	610	5 795	830	7 885	1 440	13 680
2015	615	5 843	835	7 933	1 450	13 776
2014	620	5 890	830	7 885	1 450	13 775
2012	530	5 035	780	7 410	1 310	12 445
2010	250	2 375	695	6 602	945	8 977
2005	120	1 140	640	6 080	760	7 220
2000	5	48	471	4 475	476	4 523
1990	2	19	368	3 496	370	3 515

Note: [1)] Chips and woody biomass for the production of chips; [2)]Fuelwood and wood used for energy from woody residue, felling debris and dead trees.

In 2016, the total consumption of solid fuelwood biomass (fuelwood, wood chips, fine and coarse timber processing residue) reached 2.95 million tonnes. Its major consumers included the housing-communal sector (e.g., municipal heat units), residents, timber processing units, and the energy sector. Compared to 2015, consumption decreased by about 0.2 million tonnes, mainly due to changing climatic conditions and energy savings (thermal insulation of residential

buildings). Despite the decline in the consumption of fuelwood biomass, the number of consumers slightly increased. The share of woody biomass in the total consumption of primary energy sources in the Slovak Republic remained at 1.8%.

c. Certified forest products

Under the PEFC scheme, 1.229 million ha of forests, or 64.1% of the total forest area in Slovakia, were certified at 31 December 2016. The PEFC Slovakia had 19 members at 31 December 2016 in three chambers: Forest Owner (Lessee) Chamber, Chamber of Timber Processors and the Chamber of Other Stakeholders.

To date, 264 certificates have been issued on participation in forest certification under the PEFC scheme. In 2016, ten timber processors and business associates successfully passed the Chain of Custody (C-o-C) audit of forest products, bringing the number of valid C-o-C certificates to 74 and the number of certified C-o-C companies to 86. The other three companies operating in the Slovak market are certified through their parent companies abroad.

According to the 2016 FSC data, the area of forests certified under the FSC scheme in Slovakia was 146 271 ha. Eight certificates were issued for this period (of which 4 were group certificates). A total of 32 forest managing enterprises are certified (including two state enterprises). Based on the official FSC data, 123 Chain of Custody certificates have been issued to date.

d. Timber processing industry

Last year saw the continuation of moderate growth in demand for wood products, especially mechanically processed products. This trend was reflected in the increased volume of domestic timber processing, which grew from 6.857 to 7.394 million m^3, or 7.8%, compared to 2015. At the same time, timber export fell from 2.687 to 2.449 million m^3, or 8.9% whilst timber import figures were up from 0.549 to 0.576 million m^3, or 4.9%.

Production, import, export and consumption of raw timber in 2016

Log grade	Production	Import	Export	Consumption
Conifer I – III log grades	3 488,49	86,97	1 028,80	2 546,66
Conifer IV log grades	25,65	1,54	7,14	20,05
Conifer V log grades	1 428,41	25,21	365,60	1 088,02
Broadleaved I – III log grades	1 514,27	67,95	307,09	1 275,13
Broadleaved IV log grades	6,17	63,98	24,41	45,74
Broadleaved V log grades	2 288,72	293,11	424,20	2 157,63
Fuelwood	515,17	37,49	291,72	260,94
Total	9 266,87	576,25	2 448,96	7 394,16

Source: Quaterly Timber Supply Record Les D (MARD SR) 2-04; Statistical Office of the SR – unconfirmed 2015 data; Prepared by: NFC.

In 2016, consumption of high quality I -III log grades increased from 3.411 to 3.822 million m^3, or 12% whilst the demand for logs of IV-VI grades remained unchanged. Growth in domestic timber processing was also reflected in improved economic performance of the sector and moderate employment growth. Total revenue of the industry increased by 8.5% compared to 2015 with 6.8% growth in costs. The overall economic result before tax increased by 41.9%.

Despite the positive development of economic indicators and the growth of domestic timber processing volumes, there was no significant increase in the competitiveness of the majority of timber processing businesses and the added value also struggled to grow. Production

is mostly sub-deliveries of semi-finished products with a lower level of finalization for foreign companies. Processed volume of the highest quality roundwood, domestic production capacity of which is around 0.3 million m^3, is still low. With the exception of a few multinational companies operating in Slovakia, no significant investments in the modernization of processing technologies were made. Pulp and papermaking sectors belong to the best performing industries of the national economy and 11 companies associated in the Pulp and Paper Industry Federation of the Slovak Republic cover 100% of the national paper production and majority of other pulp/paper based products. Trends and current situation in the timber processing industry are shown in the following Table.

Selected economic indicators

Indicator	Industry	Million €					
		2010	2012	2013	2014	2015	2016
Revenue	TI	456	494	443	613	590	687
	FI	621	661	596	771	817	964
	PPI	1 458	1 407	1 432	1 317	1 379	1 372
	Total	2 535	2 562	2 471	2 701	2 786	3 023
Costs	TI	469	513	441	597	573	660
	FI	607	665	572	805	835	950
	PPI	1 328	1 315	1 334	1 222	1 242	1 220
	Total	2 404	2 493	2 347	2 624	2 650	2 830
Gross economic result	TI	- 13	- 19	2	16	17	27
	FI	14	- 4	24	-34	-18	14
	PPI	130	92	98	95	137	152
	Total	131	69	124	77	136	193
Employment	TI	5 667	5 031	3 535	5 005	4 875	4 954
	FI	10 236	9 806	8 133	10 583	11 102	11 287
	PPI	6 591	6 202	5 885	5 986	6 110	6 205
	Total	22 494	21 039	17 553	21 573	22 087	22 446

Source: Ministry of Economy of the SR 2006-2011; SO SR 2012 -2015 (Record Prod 3-04).
Key: TI - Timber industry, FI – Furniture-making industry; PPI - Pulp and papermaking industry.

e. Sawn softwood

5.C	SAWNWOOD, CONIFEROUS		2015	2016	2017 est.*)	2018 est.
	Production	1000 m^3	1 150	1 200	1 050	1 050
	Imports		358	302	300	300
	Exports		629	810	600	550
	Apparent consumption		879	692	750	800

*) est.: estimate

The highest volumes of coniferous sawnwood were imported from the Russian Federation and the Ukraine. Exports were mainly directed to EU.

f. Sawn hardwood

5.NC	SAWNWOOD, NON-CONIFEROUS		2015	2016	2017 est.	2018 est.
	Production	1000 m^3	450	380	380	390
	Imports		25	30	35	35
	Exports		155	179	150	160
	Apparent consumption		320	232	265	265

Import and export of sawnwood realizes mainly in EU markets.

g. Wood-based panels (particle board, fibreboard and MDF, OSB, plywood)

- Veneer sheets

6.1	VENEER SHEETS		2015	2016	2017 est.	2018 est.
	Production	1000 m^3	9	17	16	16
	Imports		17	17	17	17
	Exports		7	10	8	8
	Apparent consumption		19	24	25	25

- Plywood

6.2	PLYWOOD		2015	2016	2017 est.	2018 est.
	Production	1000 m^3	398	420	400	400
	Imports		66	65	85	85
	Exports		107	116	115	115
	Apparent consumption		357	370	370	370

- Particleboard

6.3	PARTICLE BOARD (including OSB)		2015	2016	2017 est.	2018 est.
	Production	1000 m^3	547	595	590	600
	Imports		299	318	315	315
	Exports		471	518	500	500
	Apparent consumption		375	395	405	415

Slovakia does not have capacity for the production of MDF.

- Fibreboard

6.4	FIBREBOARD		2015	2016	2017 est.	2018 est.
	Production	1000 m^3	0	0	0	0
	Imports		175	218	220	225
	Exports		12	30	30	30
	Apparent consumption		163	189	190	195

h) Pulp and paper

7	WOOD PULP		2015	2016	2017 est.	2018 est.
	Production	1000 m^3	708	699	650	650
	Imports		165	158	180	180
	Exports		265	225	190	190
	Apparent consumption		608	631	640	640

10	PAPER & PAPERBOARD		2015	2016	2017 est.	2018 est.
	Production	1000 m^3	812	859	800	800
	Imports		459	453	470	470
	Exports		650	708	650	650
	Apparent consumption		620	604	620	620