

## Potential wood supply in Poland

Due to Poland's obligation to increase the share of renewable energy in the total energy balance, as well as good economic conditions, recent years have shown a shortage of roundwood on the market. This leads to **an extreme increase in the significance of knowledge about actual and potential supply of wood** from various sources and in different forms.

Wood supply is a derivative of wood resource abundance including current volume increment and regulation methods which include cutting age and other cutting location limitations. An imperative norm is the relation between harvesting and volume increment, i.e. harvesting may not exceed annual current volume increment.

The latest study of potential wood supply (2005) is based on the results of an update of forest area condition and wood resources in the State Forests National Forest Holding of 1st January 2004 which was prepared by the Forest Planning and Geodesy Bureau (in Poland 90-94% of wood comes from the State Forests). A simplified forecast of wood resources till 2020 has been prepared based on the trend in changes of wood resources in the period of 1995–2004. The forecast took into consideration their growth circumstances. At the same time, due to the fact that in Poland there is no data on small-sized timber resource, these resources were estimated based on species and age structure of stands and average quality class using „Tables of stand volume and crop increment”.

Wood assortments	Removals - 2006			Forecast - 2020		
	State Forests	Other forests	Total	State Forests	Other forests	Total
	M m <sup>3</sup>					
Large- and medium sized timber	28,7	1,5	30,2	35	1,5	36,5
Slash timber	2,1	0,1	2,2	4,9	0,1	5
<b>Total</b>	<b>30,8</b>	<b>1,6</b>	<b>32,4</b>	<b>39,9</b>	<b>1,6</b>	<b>41,5</b>

Source: K. Jodłowski, G. Bidzińska, J. Gład, E. Ratajczak, A. Szostak, J. Witkowska, *Removals (supply) of wood in the State Forests compared with domestic wood industry needs and energy purposes*, Forestry Research Institute, Warsaw, 2005

If it comes to **potential supply of wood** there is not a single comprehensive study in Poland which would deal with this issue, i.e. no study encompassing all wood raw material sources altogether. In the case of roundwood – forecasts of wood procurement are as a rule prepared by the State Forests (generally for their own operational purposes).

**In Poland** there is lack of information on: felling remnants, biomass outside the forests, wood waste, wood supply for energy, use of wood (material and energy production). The only solution to solve the problem is empirical research.

**Main empirical research concerning wood flows in Poland** carried out in a comprehensive way in the last years (run by the Wood Technology Institute in Poznan) concerned: demand for wood raw material till 2013 in Poland regarding its main consumption types (2007), use of wood materials at various stages of processing and application areas (2004-2006) - on the basis of indices method, industrial wood waste (2002-2003) – on the basis of index method and interviews, used wood (2002-2003) – index method/life cycle analysis.

**Poland - supply of wood from different sources (2005, 1000m<sup>3</sup>)**

	Sources of info		
	Central Statistical Office	Wood Technology Institute	other
<b>Supply from the forest &amp; wood biomass from outside the forest:</b>			
Industrial roundwood (P+I-X)	28 982		
Fuelwood (P+I-X)	3 404		
Bark (P)	.	.	.
Used logging residues (P)	227		
Felling remnants	.	.	.
Wood biomass outside the forest (P)	636		
Wood from fast-growing trees		700	
<b>Supply by-products:</b>			
Chips, particles & wood residues (P+I-X)	3 916 <sup>a)</sup>	7 210 <sup>b) c)</sup>	
Pulp production co-products (black liquor etc.) (P)		1 888 <sup>c) d)</sup>	
Bark (P)		1 400 <sup>c)</sup>	
<b>Supply recovered wood (P)</b>		6 270 <sup>c)</sup>	
<b>Supply processed fuel wood (P+I-X)</b>			17-35
<b>SUPPLY TOTAL</b>	?	?	?

<sup>a)</sup> from sawmills; <sup>b)</sup> incl. composite wood materials waste; <sup>c)</sup> index method; <sup>d)</sup> tonnes

**There is no any empirical research on wood for energy at the national level.** Despite the rising interest in the issue of biomass for energy production in recent years, there is lack of comprehensive and reliable information on its supply and use (only estimation on the basis of different fragmented information).

**New initiative in relation to the comprehensive wood flows analysis - 2008** action taken in order to find national financing of a research project called „Wood resources in Poland and their production and energy use – diagnosis and forecast”. The planned scope of the project will cover all sources of the wood supply (forests, outside forests, industrial wood waste from primary and secondary wood processing, used/recovered wood, pulp production co-products, and wood fuel products).

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