

For the wood balance model used in this study, wood materials reported by the Federal Customs Service in kilograms were converted into roundwood equivalent (RWE) values using average rates calculated from Russian trade statistics:

1 m³ of sawn wood = 559 kg

1 m³ of unprocessed wood = 758 kg.

The data in Figure 16 (in which averaged coefficients were used) and Figure 17 indicate that between 36 and 48 per cent, or 70 million to 90 million m³, of legal logging was of 'unknown origin'. Sensitivity analysis of the influence of individual coefficients (Figure 18) shows that the value may vary between 59 million and 117 million m³. These results are higher than those reached in other attempts to use the wood balance method to estimate

DEMAND			Init. units	RWE	SUPPLY			Init. units	RWE
Exports	Roundwood, thsd m ³		19,047	29,332	Imports	Roundwood, thsd m ³		38	59
	Firewood, thsd t		2,971	3,922		Firewood, thsd t		6	8
	Mill products	Sawnwood, thsd m ³	21,518	43,036		Mill products	Sawnwood, thsd m ³	39	78
		Plywood, thsd m ³	1,758	5,661			Plywood, thsd m ³	262	844
		Fiberboard, thsd m ²	79,575	736			Fiberboard, thsd m ²	109,814	1,016
		Particle board, thsd m ³	790	909			Particle board, thsd m ³	5,263	6,052
		Other wood, thsd m ³	980	1,960			Other wood, thsd m ³	412	1,739
		Pulp, thsd t	2,386	10,069			Pulp, thsd t	181	833
		Board, paper, thsd t	2,673	12,296			Board, paper, thsd t	2,368	10,893
Consumption by mills		Sawnwood, thsd m ³	21,700	43,400	Legal logging, thsd m ³			-	193,261
		Plywood, thsd m ³	3,329	10,719	Recycled waste	Recycled paper [67], thsd t		800	3,680
		Fiberboard, thsd m ²	427,000	3,950					
		Particle board, thsd m ³	6,600	7,590		Woodchips [68], thsd m ³		482	554
		Pulp, thsd t	7,200	30,384					
Board, paper, thsd t	7,822	35,981							
Households' firewood consumption [65], thsd m ³			-	9,000					
Waste	Mill activities [66], thsd m ³		-	35,800					
	Waste paper [67], thsd t		3,000	13,800					
Total demand (Qt)				298,544	Total supply (Qs) thsd m ³				219,016
Wood of unknown origin, Qi = Qt – Qs 79,529 thsd m ³									
Wood of unknown origin in the total demand 27%									
Wood of unknown origin in legal logging 41%									

Note: Table design based on Palmer, 2000.

Sources: Export and import – Federal Customs Service; Domestic consumption – Rosstat; Legal logging – Rosleskhoz; Sources: Semikashev, 2010 ; Kolesnikova, 2013 ; Kvaskova, 2005 ; LesOnline.ru, 2014

Graph by Manana Kurtubadze, GRID-Arendal, 2015.

Figure 17: Supply and demand for roundwood in Russia in RWE in 2013 (thousand m³)