

Removals data collection case study: Germany

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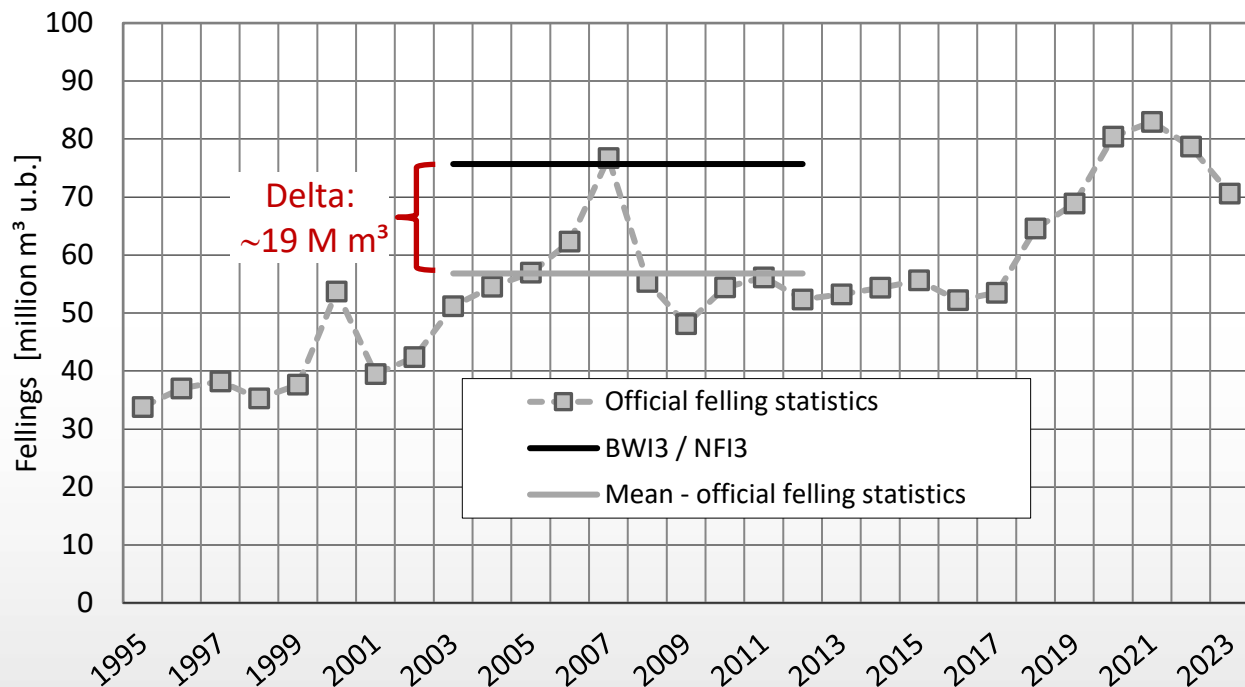
* Presenter

*3rd Meeting of the ECE/FAO
Team of Specialists on Forest Products
and Wood Energy Statistics
20-21 May 2024*



Background

Fellings and Removals



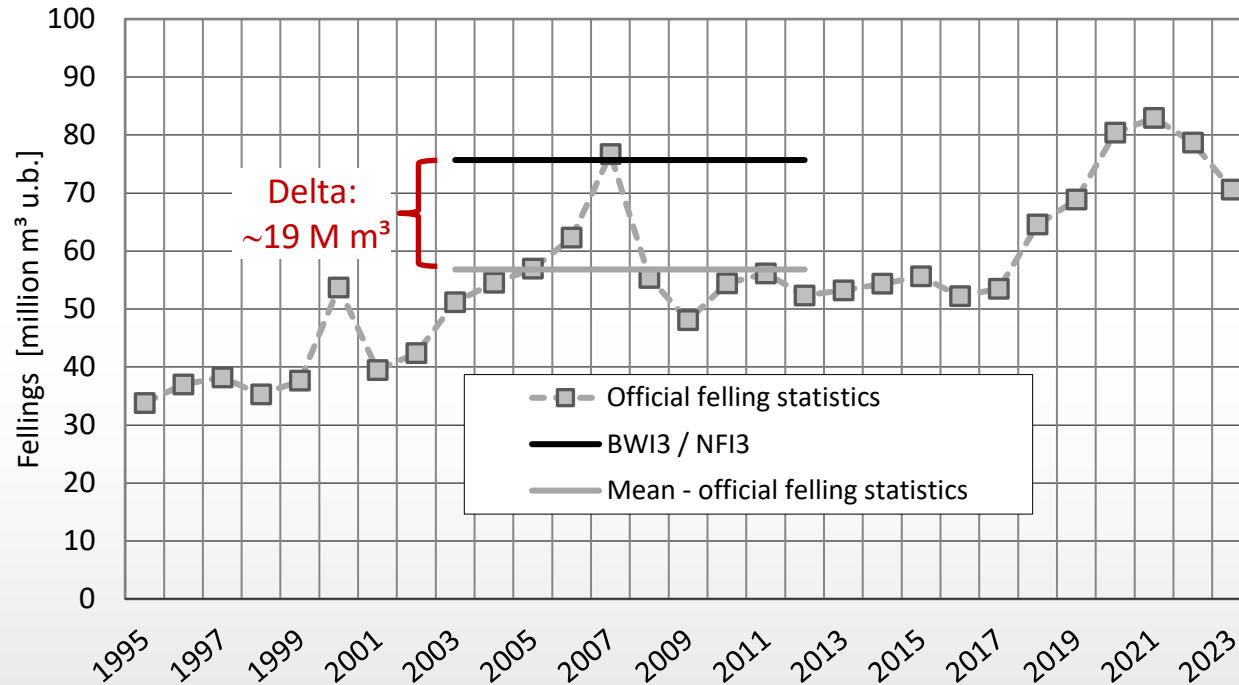
Considerable gap in felling statistics:

-> under-recording of ca. 19 million m³ u.b. when comparing official statistics with results from last NFI period (2003-2012)

=> strong need to improve data on fellings and removals

Method: Re-calculation of removals and fellings

Fellings and Removals



Removals R :

$$R_j = \sum_{i=1}^n U_{i,j} + X_j + S_j$$

Fellings F :

$$F_j = R_j - NDH_j + NVD_j$$

U = User of roundwood i (by C and NC)

X = Net trade

S = Stock changes

NDH = Non-coarse wood

NVD = Non usable coarse wood

C = Coniferous

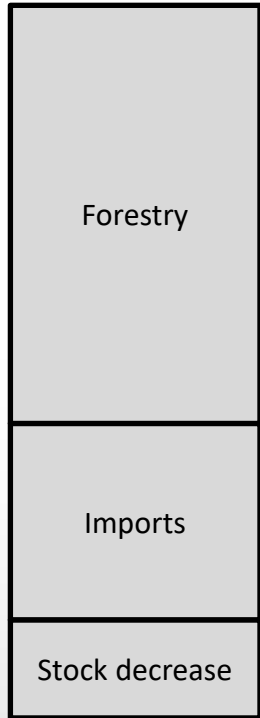
NC = Non-coniferous

j = Year

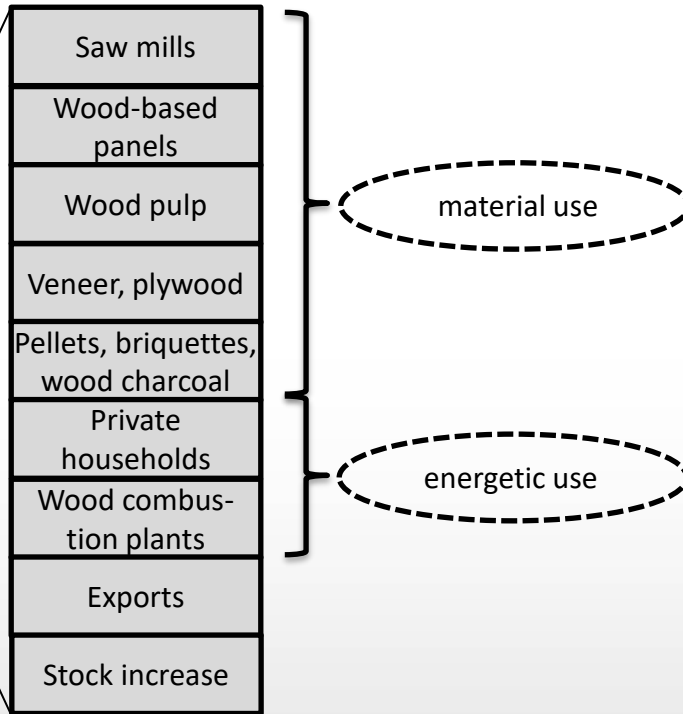
Sources: BWI3/NFI3, Destatis, Jochem et al. (2015)

Method: Re-calculation of removals and fellings

Roundwood supply



Roundwood use



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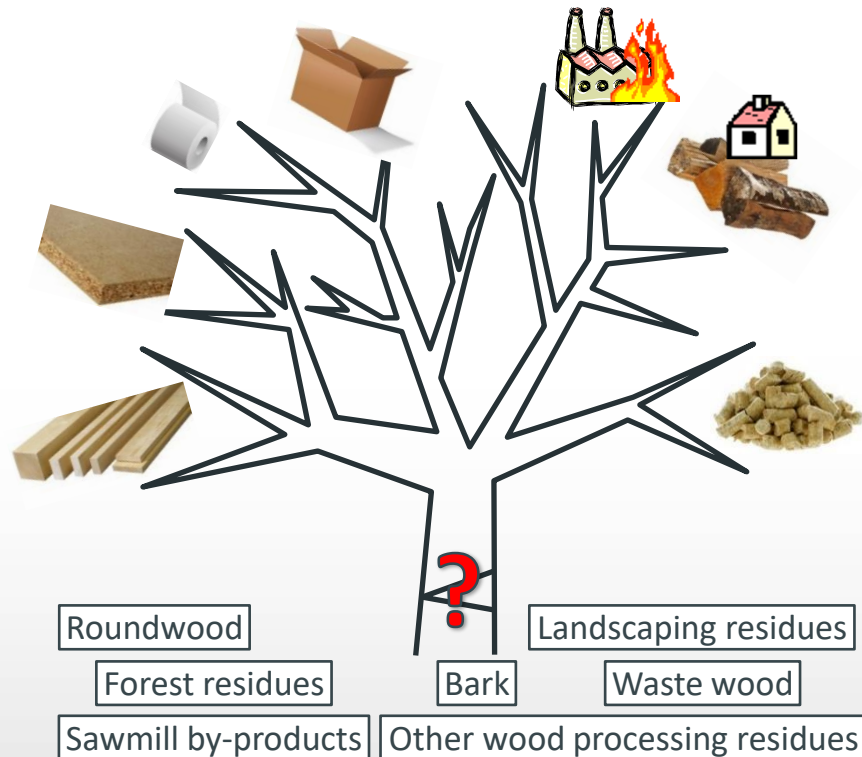
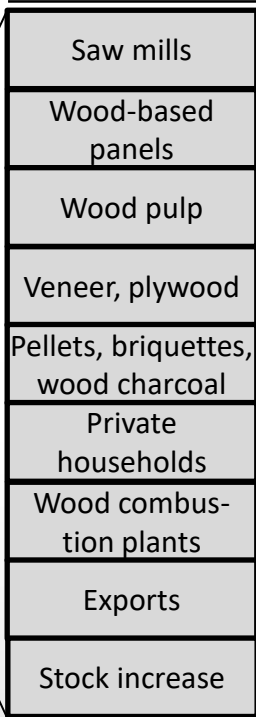
Method: Re-calculation of removals and fellings

Roundwood supply



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Roundwood use



Sources: Jochem et al. (2015), TI-WF, picture credits see last slide

Method: Data collection

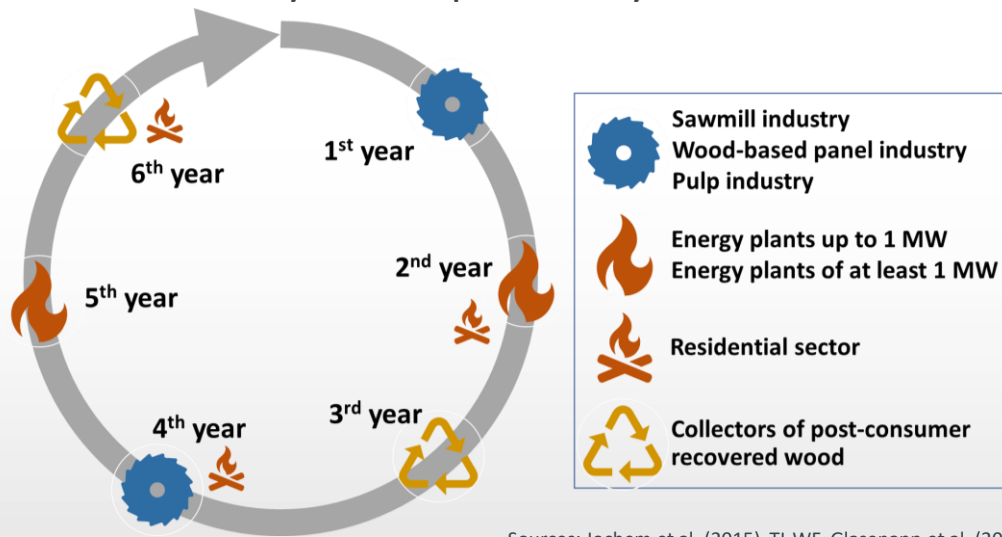
Roundwood supply



Roundwood use



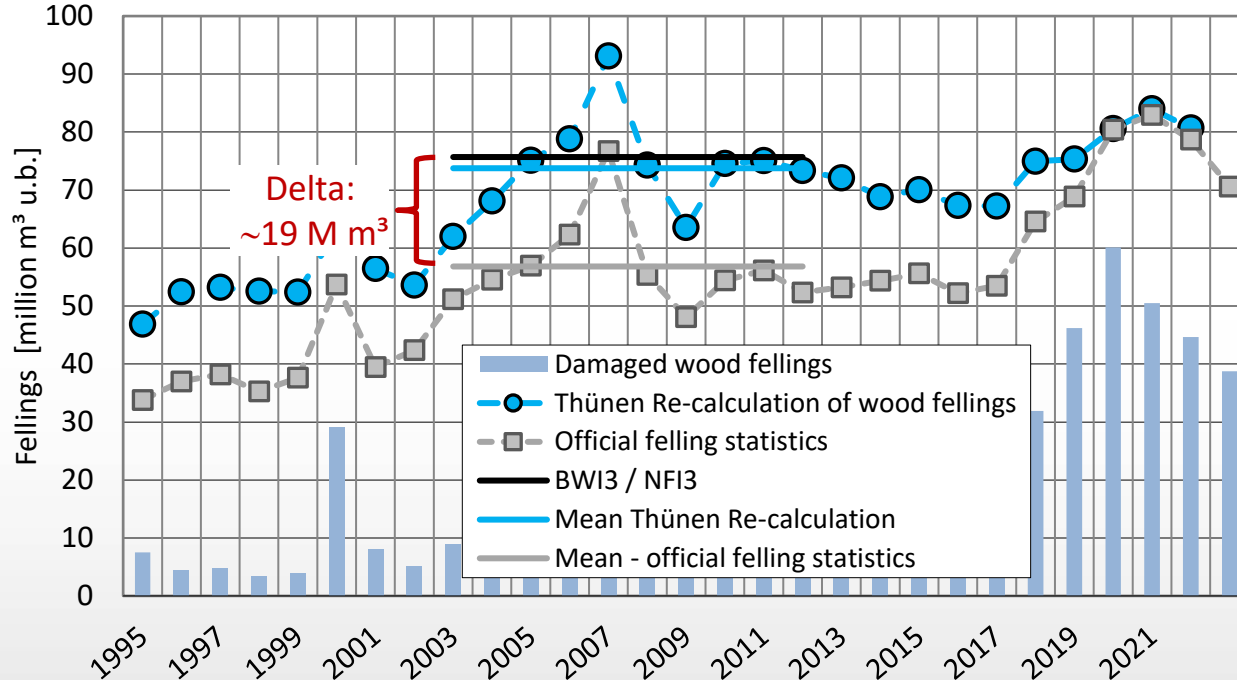
! Gaps/missing data in official production statistics
-> Empirical surveys where necessary:
- every 2nd/3rd year, models for years in between
- full survey or sample survey



Sources: Jochem et al. (2015), TI-WF, Glasenapp et al. (2023)

Results

Fellings and Removals



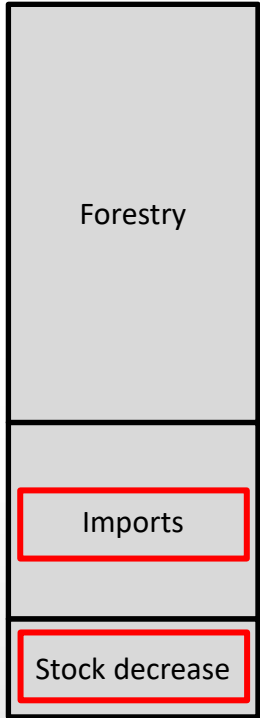
Re-calculation of roundwood fellings and removals closes the gap to NFI considerably:

- > 1.9 million m³ or 2.5% compared to NFI period (2003-2012)
- > Data are used for JFSQ removals reporting from 1995 to the current reporting year

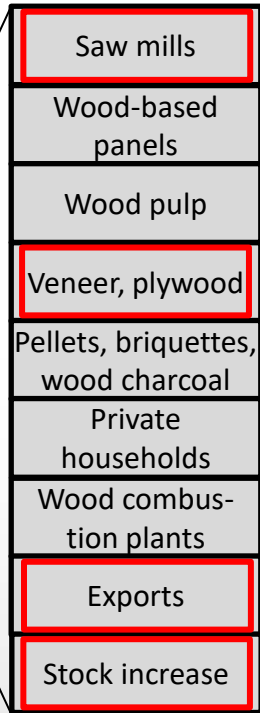
Sources: BWI3/NFI3, Destatis, Jochem et al. (2015), TI-WF

Data transfer to JFSQ structure

Roundwood supply



Roundwood use

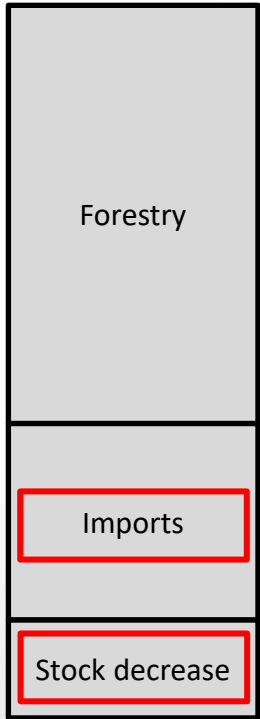


Product Code	Product
REMOVALS OF ROUNDWOOD (WOOD IN THE ROUGH)	
1	ROUNDWOOD (WOOD IN THE ROUGH)
1,1	WOOD FUEL (INCLUDING WOOD FOR CHARCOAL)
1.1.C	Coniferous
1.1.NC	Non-Coniferous
1,2	INDUSTRIAL ROUNDWOOD
1.2.C	Coniferous
1.2.NC	Non-Coniferous
1.2.NC.T	of which: Tropical
1.2.1	SAWLOGS AND VENEER LOGS
1.2.1.C	Coniferous
1.2.1.NC	Non-Coniferous
1.2.2	PULPWOOD, ROUND AND SPLIT (INCLUDING WOOD FOR PARTICLE BOARD, OSB AND FIBREBOARD)
1.2.2.C	Coniferous
1.2.2.NC	Non-Coniferous
1.2.3	OTHER INDUSTRIAL ROUNDWOOD
1.2.3.C	Coniferous
1.2.3.NC	Non-Coniferous

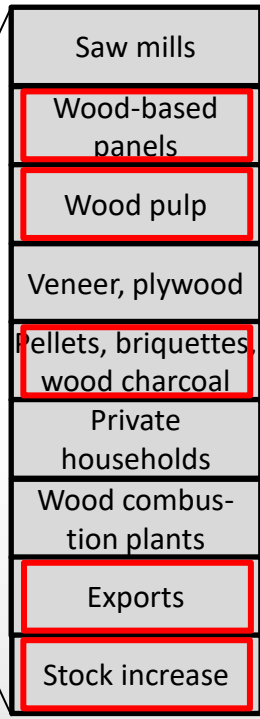
Sources: Jochem et al. (2015), TI-WF, JFSQ

Data transfer to JFSQ structure

Roundwood supply



Roundwood use



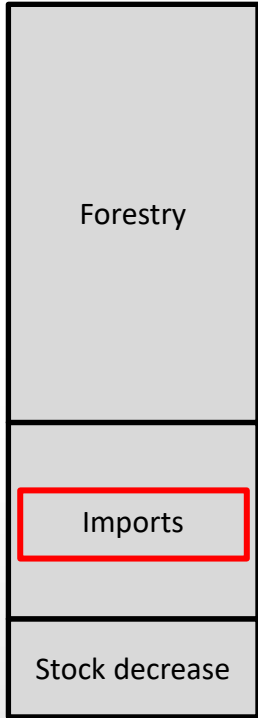
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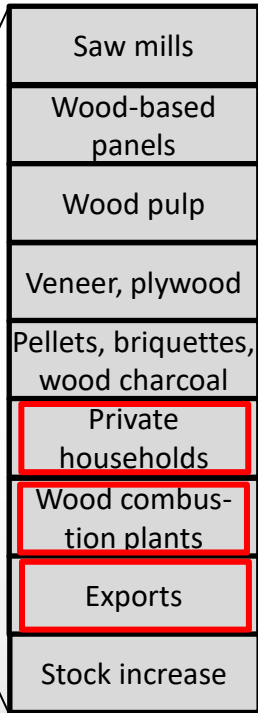
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Sources: Jochem et al. (2015), TI-WF, JFSQ

Results & Comments (from German case)

Year	1.C			1.1.C			1.2.C			1.2.1.C			1.2.2.C			1.2.3.C		
	1000 m ³ u.b.	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	1000 m ³	
1995	46.085,0	33.953,7	12.131,3	8.275,9	3.535,1	4.740,8	37.809,1	30.418,6	7.390,5	29.006,9	24.369,3	4.637,6	8.672,5	5.921,3	2.751,2	129,7	128,1	1,7
...
2018	73.737,2	55.220,0	18.517,2	21.987,0	8.900,3	13.086,7	51.750,2	46.319,7	5.430,6	41.555,3	38.031,9	3.523,4	10.120,9	8.214,2	1.906,7	74,0	73,6	0,4
2019	73.829,3	56.602,9	17.226,5	20.815,1	8.369,1	12.446,0	53.014,3	48.233,8	4.780,4	41.289,9	38.144,7	3.145,2	11.652,6	10.017,8	1.634,8	71,8	71,3	0,5
2020	78.682,9	63.062,3	15.620,6	20.241,7	8.144,9	12.096,8	58.441,2	54.917,4	3.523,8	47.027,5	44.611,6	2.415,9	11.339,7	10.234,1	1.105,6	74,0	71,7	2,3
2021	82.178,0	64.590,4	17.587,6	22.799,3	9.095,6	13.703,7	59.378,7	55.494,8	3.883,9	47.427,8	44.666,2	2.761,6	11.790,0	10.675,3	1.114,7	160,9	153,2	7,6
2022	78.871,9	61.258,6	17.613,4	22.337,6	8.833,9	13.503,8	56.534,3	52.424,7	4.109,6	44.755,7	41.760,7	2.995,0	11.644,1	10.541,1	1.103,0	134,5	122,9	11,6

- > Data are used for JFSQ removals reporting from 1995 to the current reporting year
- > Data comprise also removals of non-coarse wood (Ø below 7 cm, included in wood fuel)
- > Removals of stemwood can be identified
- > Wood fuel includes all wood from forest, also small diameters below 7 cm
- > Wood fuel does not include wood from outside forests (so far, ≠ FAO-Definition)
- > Removals include own-accounts of forest owners
- > Wood chips from forests for energy purposes are included in wood fuel (not included in wood chips!)
- > Roundwood for pellets, briquettes, charcoal is allocated to pulpwood (≠ FAO-Definition)
- > Damaged wood from storms, pests etc. are included in removals (and fellings)

Thank you for your attention!

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Sources

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- Jochem D, Weimar H, Bösch M, Mantau U, Dieter M (2015): Estimation of wood removals and fellings in Germany: a calculation approach based on the amount of used roundwood. European Journal of Forest Research 134(5): 869-888.
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