



**MINISTÈRE
DE L'AGRICULTURE
ET DE LA SOUVERAINETÉ
ALIMENTAIRE**

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WOOD ENERGY DATA IN FRANCE

Team of Specialists on Forest Products and Wood Energy Statistics,
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1. Issues



ISSUES

Data for wood energy sold by professionals :

- Estimate statistics on all roundwood harvested and removed in France, from forest
- Unit : solid volume over bark in cubic meter (by conversion of tonnes)
- Use : for JFSQ, JWEE but as well for FRA

Problematic :

How collecting data on wood energy harvested by other actors than forestry companies ?

How collecting data for others wood energy (chips, briquettes, pellets and wood charcoal...) ?

2. Methods

Wood energy from forest

- Content : comprehensive data collected from forestry operators
- Source : administration's mandatory survey conducted every year
- Responses : over 90 %
- Wood energy statistics :
 - Roundwood (> 2 meters),
 - Logs (< 2 meters)
 - Wood chips for energy (made in forest)

Extract of our questionnaire : roundwood, logs (< 2 meters) and wood chips for energy (in tonnes)

Bois énergie



813-Energie : bois ronds de grande longueur (supérieurs à 2m) et bois ronds pour carbonisation

814-Energie : bois en rondins ou bûches de 2m ou moins et souches

816-Energie : Plaquettes forestières

830-Total bois énergie

---> 835- **dont** bois énergie certifiés gestion durable (PEFC ou FSC).
Si code 830 > 0, **mettre 0 si absence de volume pour ce code.**

---> 840- **dont** bois énergie exportés hors France métropolitaine.
Si code 830 > 0, **mettre 0 si absence de volume pour ce code.**

---> 850- **dont** bois énergie vendus aux particuliers (en direct ou par un revendeur).
Si code 830 > 0, **mettre 0 si absence de volume pour ce code.**

Estimate of wood non-harvested by forestry companies

Hypothesis :

- What ? only wood fuel
- Use ? mainly self-consumed, but self-supplying as well
- International trade are considered negligible : no imports or exports
- Source : administration's mandatory survey conducted every year

Estimate of wood non-harvested by forestry companies

Hypothesis :

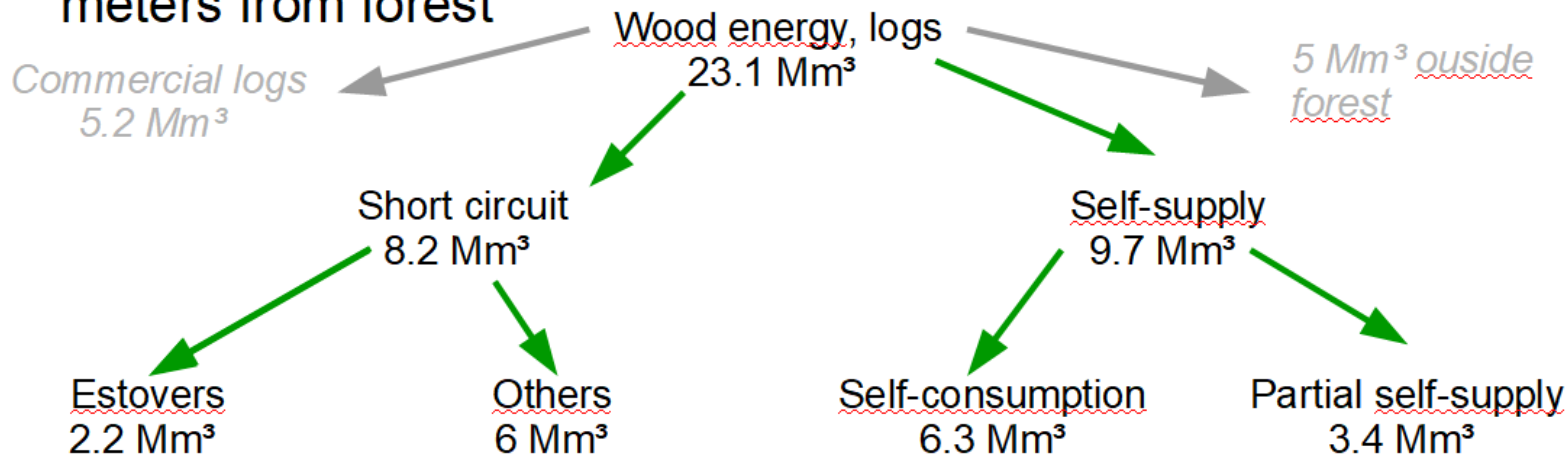
- What ? Non-commercial cut woods (not sold) are not valuable
→ estimated including natural losses
- Use ? mainly self-consumed, but self-supplying as well

Estimate of wood non-harvested by forestry companies

Data sources :

- Environment and Energy Management Agency (ADEME) : provides households wood consumption by study on domestic firewood : punctual statistic survey (last one in 2017)

- Study on domestic wood heating for 2017 : ~ 13 millions cubic meters from forest



Wood from common forests bought for population use

Wood purchased from private forest owners or farmers

Free wood removed from his own forest or own by other people

Partially purchased wood from his own forest or own by other people

Estimate of wood non-harvested by forestry companies

Data sources :

- Ministry of the ecological and solidarity transition (MTES) : also provides households wood consumption by
 - population census (every year) and housing survey (2013 and 2022) collect data on firewood
 - Data collected in energy units (must be converted)

Estimate of wood non-harvested by forestry companies

Data from ministry of Env.

Year	ktep	M stères	En Mm ³
2014	6 059	41	27,615
2015	6 437	44	29,340
2016	6 915	47	31,517
2017	6 668	45	30,393
2018	6 474	44	29,506
2019	6 553	45	29,865
2020	5 787	39	26,378
2021	6 626	45	30,200
2022	5 878	40	26,790

Data from ADEME's study (Mm3)

Pellets	Post-consumer recovered		Logs
1,657	3,375	22,583	
2,201	3,528	23,611	
2,837	3,728	24,952	
3,039	3,556	23,798	
3,246	3,414	22,846	
3,285	3,455	23,125	
2,902	3,052	20,425	
3,322	3,494	23,384	
3,550	3,021	20,219	

Wood energy sold by professionnels (Mm3)

Wood Energy from forest	Roundwood > 2m	Forest's chips	Wood ready for use
7,044	1,276	2,283	3,485
7,642	1,375	2,875	3,392
8,037	1,441	3,264	3,332
8,368	1,930	2,655	3,783
8,512	1,947	2,702	3,863
8,061	1,836	2,696	3,529
8,134	2,023	3,064	3,047
8,882	1,873	3,421	3,588
9,598	1,992	3,790	3,816

Trade (Mm3)

Import NC	Exports	Non harvested by companies (Mm3)
0,000	0,657	21 853
0,000	0,711	23 083
0,000	0,689	24 597
0,032	0,592	22 201
0,027	0,626	21 049
0,042	0,526	21 699
0,032	0,485	18 860
0,027	0,486	21 876
0,043	0,684	18 073

Estimate of other wood energy

Data sources :

- Pellets : French association professional Propellets
- Briquettes : French professional association FCBA
- Wood residues : administration's mandatory annual survey
- Black liquor : French association professional COPACEL
- Wood charcoal : French association professional FNB
- Post consumer recovered wood : administration's annual survey
- Energy use by ISIC-sectors : estimation by ministry of energetic transition

Results

Comparison of these data to forest inventory (IFN from IGN) :

- Satisfactory quality data : only 5 % difference between estimates and forest inventory for wood energy from forest
- Missing data for chips and particules (from other company which produce veneer sheets, wood-based panels, wood pulp...)

Complexity

- Lot of different sources
- Lot of conversions
- Lot of estimations (consumption, production data by companies)
- Need more survey's...

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