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WHAT INCENTIVES TO CLIMATE CHANGE MITIGATION THROUGH HARVESTED WOOD PRODUCTS IN THE CURRENT FRENCH POLICY FRAMEWORK? (SUMMARY)[1]

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Beyond the important role that forests play in the fight against climate change through the sequestration of carbon in their biomass, wood products also contribute to climate change through three channels:

- ***Material substitution*** : the manufacturing of wood products being less energy intensive allows to avoid carbon emissions from the processing of other alternative materials (eg. concrete, steel, etc);
- ***Energy substitution***: achieved by the generation of energy from wood combustion replacing other fossil fuels.
- ***Carbon sequestration in the wood products:*** wood products sequester carbon during their whole life span until their decomposition.

This Climate Report identifies French policies that have an impact on climate change mitigation by wood products through these three mitigation channels. Our analysis asserts that similarl to the context at the EU level, the current national policy framework incentives are mostly directed to the "energy wood" sector. These incentives include fiscal and financial instruments such as:

- The heat fund (*fonds chaleur)*, which subsidizes the production of renewable heat particularly from biomass;
- The zero interest rate eco-loans *(éco-prêt à taux zéro)* and the Sustainable development tax credit *(crédit d'impôt développement durable (CIDD))* which partly subsidize wood heating;
- Reduced VAT on renewable heat purchases.

The use of wood as a material is currently less encouraged, at least on the financial side: the few devices that support it are rarely binding and mobilize limited resources. Future measures planned under the National Action Plan for the forest-based sector and the upcoming law for the future of agriculture and forestry *(Loi d'avenir pour l'agriculture et la forêt)* could slightly rebalance this situation.

[1] This document is solely a summary; the full report is available in French.

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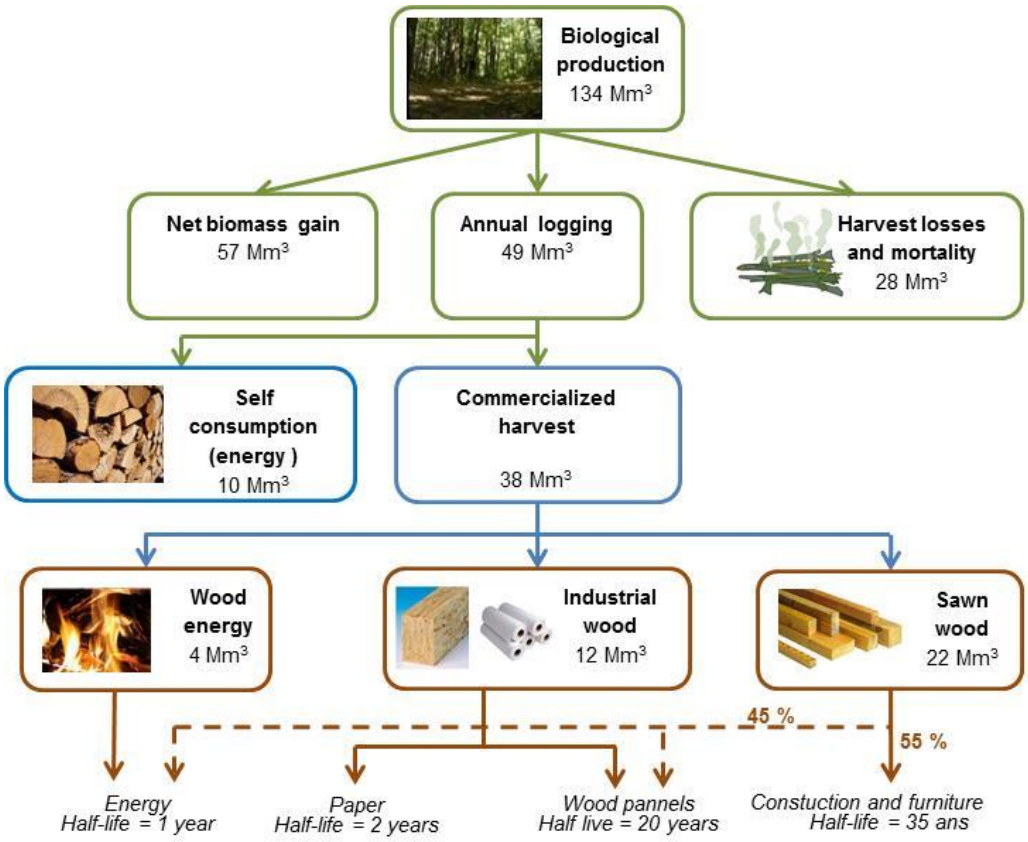
EXECUTIVE SUMMARY

The contribution of wood products to climate change mitigation is largely affected by the type of use made out of harvested wood. In France, harvested wood is mainly used as sawn wood (45%) followed by energy use and industrial wood, representing 29% and 24% respectively (Figure 1)[5]. The duration of carbon sequestration in wood products also varies according to the life span of the products which also depends on final uses.

Figure 1 – The main forest products in France and the length of their carbon storage



Figures presented refer to aboveground biomass for biological production, net biomass gain and mortality

Source: CDC Climat Research using data from IFN and Agreste for harvesting and (IFN, 2011)(AGRESTE, 2012) for wood product use.

The contribution of wood products to climate change mitigation is widely acknowledged within environmental strategies be it at the global, European or national level. At the United Nations level, wood products have been included in national emission reporting for the second phase of the Kyoto protocol (2013-2020) (United nations, 2012). The prescribed mean of accounting for them under the Kyoto protocol is to consider direct oxidation on the forest site and an increase in carbon stock in wood products while taking into account carbon sequestration lengths (United nations, 2012). However, at a project level or through life-cycle assessments, a common simplification regarding wood products is to assume that they are carbon neutral when coming from sustainably managed forests (Sathre and O'Connor, 2010a). The rationale is that emissions from wood combustion or decomposition have been offset as the forest grew or will soon be offset as the forest regrows.

[5] Details on the method of characterization of the Forestry and wood sector are provided in Appendix 1 of the french version of this report.

In Europe, the Energy and Climate package, with its objective of "decreasing GHG emissions by 20% and energy consumption by 20% by 2020" (European commission, 2012) includes measures that have a considerable influence on wood and its uses (Baron et al., 2013). So does the Common Agriculture Policy and its European Fund for Agriculture and Rural Development (EFARD). Moreover, the European Union (EU) adopted accounting rules for the Land Use and Land use change (LULUCF) sector. These rules are consistent with those of the Kyoto protocol under the United Nation Framework Convention for Climate Change (UNFCCC). In addition, member states have to define action plans regarding the LULUCF sector in order to optimize the contribution of the sector to climate change mitigation (European parliament and European coucil, 2013).

In France, the *Grenelle de l'environnement* held in 2007 in order to "reinforce the climate policy of the country" (MEDDTL, 2011) defined a set of long-term objectives of emission reductions. The central idea is to divide the country's greenhouse gas emissions by four between 1990 and 2050. This technically represents a 23.1% reduction in annual GHG emissions by 2020 (MEDDTL, 2011). Concrete measures have been implemented in France since 2008 in order to achieve these objectives and wood has not been excluded from these.

Current French policy instruments are mostly directed towards the promotion of wood-energy

Among the twenty national measures that we have identified, the vast majority favors the use of wood as fuel. The use of wood as a material is not strongly encouraged (Table 1). This is particularly the case for legally binding policies or to those mobilizing significant amounts of public (eg. subsidies) or private (eg. energy saving certificates) funds.

The impact on the different levers to mitigate climate change was assessed initially on the basis of regulations and funds involved. This first subjective evaluation was proposed to about ten stakeholders (see Acknowledgements) followed by semi-structured interviews. The final impact assessment presented in Table 1 corresponds roughly to the 'average' subjective evaluations collected.

Table 1 – Overview of policies affecting the mitigation potential of wood products

Type of measure	Policy	General objectives	Specific to the wood products sector	Impact	
				Carbon sequestration and material substitution	Energy substituion
Incitation financière et fiscale	Renewable heat fund *(Fonds chaleur)*	Improves the production of heat from renewable sources	No	0	++
	Fund for wood *(Fonds bois)*	To develop the wood sector by directly investing in wood industries	Yes	+	0
	The CRE "Biomass" call for tenders	Promote renewable energies	No	0	0/+
	Feed-in-tariffs for renewable energies	Promote renewable energies	No	0	+
	Sustainable development tax credit *(CIDD)*	Encourage households to undertake thermal renovation in their houses	No	0	++
	Zero interest rate eco-loan *(éco-PTZ)*	Thermal renovation in buildings	No	0	++
	Reduced VAT (7 % au lieu de 19 %) on renewable heat purchases 10% à partir du 1er janvier 2014	Encourage the use of biomass energy in urban heating projects	No	0	+
	ANAH (national housing agency) subsidies	Improve housing energy efficiency	No	0/+	+
	Hexagonal rural development	Contribute to rural development	No	+	+

Type of measure	Policy	General objectives	Specific to the wood products sector	Impact	
				Carbon sequestration and material substitution	Energy substituion
	plan				
	Eco-furniture *(Éco-participation)*	Develop the sector of furniture recovering *(Eco-mobilier)*	No	0/+	0
	Forest tax regime	Preserve the forest use of land	No	-	-
Règlementaire	Energy saving certificates	Reduce the demand for energy	No	0	+
	The thermal regulation 2012 (RT 2012)	Reduce energy consumption of the building sector	No	0	0/+
	Decree n°2010-273 of March 15th (struck down in 2013)	Increase of the minimum threshold for wood utilization in construction	Yes	0	0
	Environmental display of large consumption products and the European single market for green products	Provide environmental information of consumption products	No	0/+	0
	Technical norms in the construction sector	Regulate the construction sector	No	-	0
Mesures incitatives non obligatoires	Eco building label (*label bâtiment biosourcé)*	Increase the use of organic material in the construction sector	No	+	0
	Energy performance plan (PPE)	Improve energy efficiency in agricultural firms	No	0	+
	Wood-Environment-Construction charter	Boost the share of wood in construction	Yes	0/+	0
	National forestry program	Develop the sustainable management of forests in France	No	+	0/+
	Low consumption building Label (label BBC)	Reduce energy consumption in buildings	No	0	+

- : negative impact ; 0: no impact ; 0/+ : very slight impact; +: slight impact; ++ important impact

The strength of the impact has been assessed qualitatively from interviews and from data on the financial impact where relevant.

Source : CDC Climat Research

These measures are, of course, related to international agreements like the Kyoto Protocol or policies at the EU level. Measures to encourage the use of wood for energy in particular are widely drawn by the Climate and Energy Package. The predominance of wood energy is explained manly by the targets set for renewable energy. Biomass accounts as the main source considered by the government to achieve these goals (MEEDDM, 2008).

The renewable heat fund plays a major role in promoting the use of biomass, wood is particularly represented as a source of energy in the funded projects. Some of the institutions surveyed have indeed found that the fund had a "direct impact on the competitiveness of mills."

Energy production from biomass is also stimulated by feed-in tariffs and the energy saving certificates. Financial assistance for the renovation of buildings (CIDD, ANAH grants) has also an indirect effect by funding the installation of wood heating equipment. The impact of these measures, however, is not considered in the same way by the various participants in the study. Policymakers seem to have a rather positive view of these and see them as a way to strengthen the demand for wood. The players in the timber industry for their part are less convinced by these measures. They regret that they give benefits to other types of energy, and deplore such as tax reduction (CIDD) obtained for fuel wood is relatively low compared to other energy options.

The fact remains that the use of wood as a building material has somehow been overlooked. Strong measures encouraging this use remain scarce. The fund for wood is a step in this direction, but its impact is limited so far: only nine companies were funded over a period of five years. Managed by BPI France

this fund will be extended for a second period from 2014, and will continue to help mills, but also target downstream sectors, particularly wood construction.

The Decree No. 2010-273 (MEEDDM, 2010) to introduce a minimum threshold of wood in construction is seen by some stakeholders as an important measure to increase the use of wood in construction. However, the Constitutional Council finally invalidated the decree, particularly because of the absence of sufficient evidence of its environmental benefits. Negotiations are ongoing, but reaching a consensus is not a simple task. The construction sector is not confident in the outcome of this process. Industry stakeholders believe that the rate of incorporation of wood in buildings stipulated by the decree was not much higher than current levels. They did not see the decree as an effective measure. The actual effect of the decree was here considered invalid since this measure is not in force.

The wood sector is also a victim of a small number of technical standards poorly adapted to wood specificities (FCBA and CSTB, 2009) or impractical due to lack of appropriate technical skills in the sector.

So all this leaves the *label batiment bio-sourcé* as the only measure considered as effective to promote the use of wood in buildings. However, this is a non-binding measure, which does not target specifically wood limiting its positive impact.

Incentives mainly concern the use of wood for energy. From an economic perspective, this choice may be reasonable: adequate valuing of wood energy is, in some contexts, a strong argument for maintaining productive forests (Kallio et al, 2013.). However, from an environmental perspective, it might not be appropriate in all cases, as this choice is made at the expense of carbon sequestration in forests, in long-lived wood products and their cascading use (Agostini et al., 2013)

In terms of perspectives for the sector, issues of sustainable wood use and optimal use of forest resources seem reflected in both the National Action Plan for the Future of Wood Industry and the future law for the agriculture and forestry sector. Measures in terms of communication and the structuring of the sector are proposed but binding measure mobilizing significant public or private resources are still lacking.

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