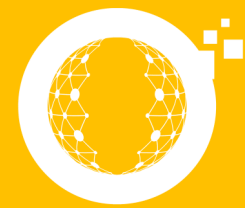


Environmental Life Cycle Assessment of the Consequences of Increased Wood Penetration in the Construction Sector



LIRIDE

Research team

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Context

In keeping with the Quebec government's strategy, which allows for increased use of wood in the construction sector, the wood charter is recognized as a government commitment. It aims to support the forest industry of Quebec. With this increase in the use of wood, the supply of construction materials will undergo changes and environmental consequences will follow. The environmental assessment of policies is important to know the consequences of our decisions and to go beyond our preconceived notions. Currently, Life Cycle Assessment (LCA) approaches are deficient in this regard.



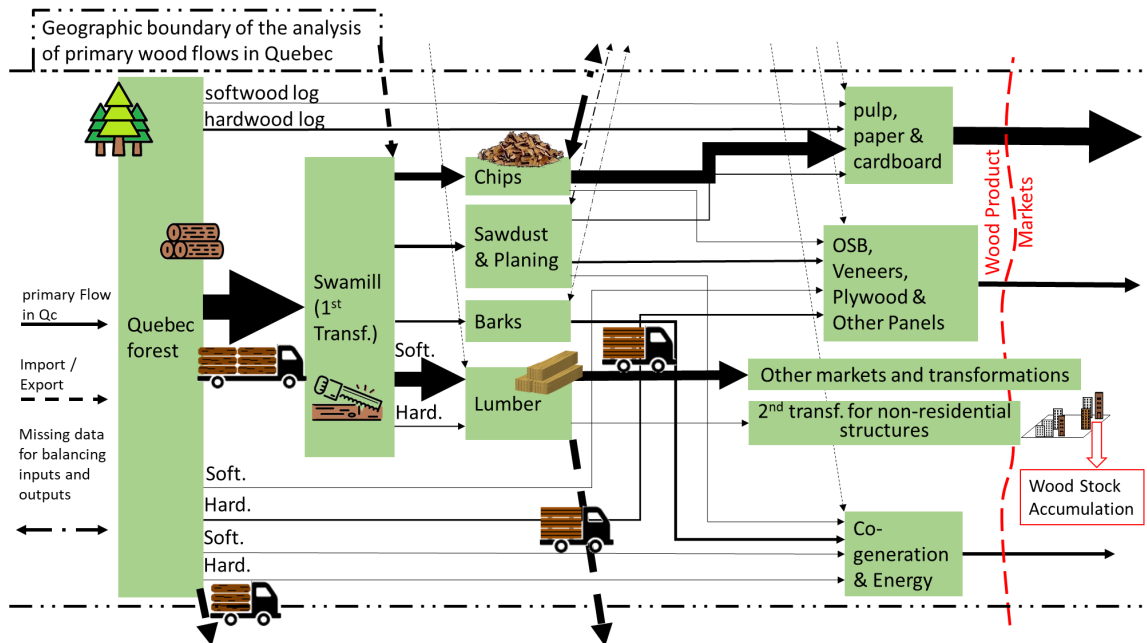
Goal

The main objective of the research is to develop a consequential life cycle assessment. It consists of evaluating the environmental consequences of changes caused by an increase in the application of wood in the construction sector. The aim is to develop a model that combines existing methods for modeling flows at the market scale with those for assessing environmental impacts.



Methods

Firstly, the methodology consists in reviewing the different methods for evaluating and modelling material flows in a sector and combining them with the consequential life cycle assessment. In a second step, this will allow the development of an appropriate approach for wood material in the construction sector. Finally, a case study will be defined to model the changes caused by a major usage of wood in the construction sector and thus assess the environmental consequences.



Applications

The research project will improve the evaluation of public policies (such as a major adoption of the Wood Charter) through the implementation of life cycle assessment focusing on the environmental consequences of changes. It will also provide a better understanding of the potential environmental issues in the sector at the regional scale.

