

Cost and Monetary Analysis of Timber vs. Non-Timber Buildings

Cost considerations are a decisive factor in building design and material selection. Traditionally, comparisons between timber and non-timber buildings (e.g., concrete or steel) have been limited to direct construction costs. However, this narrow view neglects the indirect or external costs associated with environmental impacts, resource use, and long-term sustainability.

This thesis introduces a more holistic approach by conducting a cost and monetary analysis of timber vs. non-timber buildings. The work includes both direct construction costs and indirect costs such as carbon pricing, environmental externalities, or other monetized impacts. Such an approach can offer new insights for policymakers, architects, and investors when evaluating the true value of timber construction.

Main Tasks

1. Literature review on cost structures in building construction and approaches to monetary valuation of environmental impacts.
2. Selection of two reference buildings (timber vs. non-timber).
3. Collection of data on direct construction costs (materials, labor, processes).
4. Definition of indirect cost categories (e.g., carbon costs, environmental externalities, potential subsidies or tax incentives).
5. Quantitative analysis of both direct and indirect costs using available data and assumptions.
6. Comparison of total economic impacts between timber and non-timber building options.
7. Critical discussion on the relevance and limitations of monetary analysis in construction.
8. Documentation and presentation of results.

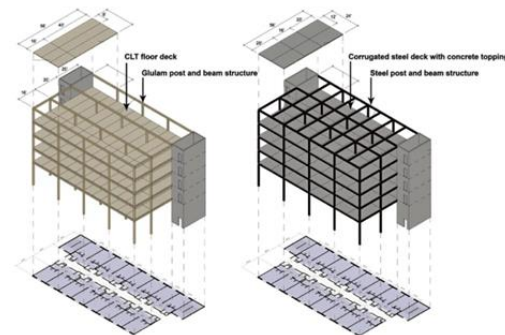
Details

- Start: Available immediately
- Level: Bachelor or Master (scope to be defined with student)
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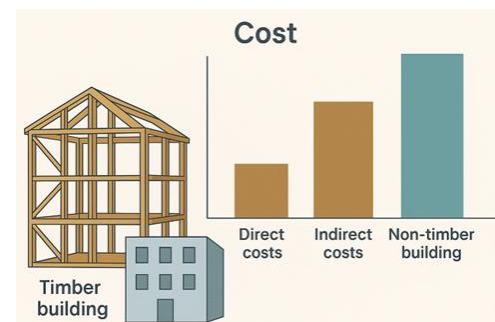
Institut für Konstruktives Gestalten
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<https://nsfconsulting.com.au/6-methods-for-evaluating-value-for-money/>



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