HCT vehicles in the Swedish transport system

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SKOGFORSK
An analysis on the effects of heavier vehicles impact on railway transportation

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Case
Transport system

Conventional

HCT

100 %

4 %

96 %
Reduced cost and emissions
Route analysis of a two-parted vehicle fleet with HCT and conventional round wood trucks

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- 24 vehicles
- 2 weeks (5 days each)
- ~475 loads/week
- 272 landing sites
- 52 industries
- RouteOpt
HCT-road network

Proposed HCT-road network

Extended HCT-road network
## Result

<table>
<thead>
<tr>
<th>Case</th>
<th>74 tonne vehicles (%)</th>
<th>Loadratio (Loaded/total distance)</th>
<th>Relativ CO2-changes (%)</th>
<th>Relativ cost reduction (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Only 64 tonne vehicles</td>
<td>0</td>
<td>52.1</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Only 74 tonne vehicles</td>
<td>100</td>
<td>52.1</td>
<td>-3.0</td>
<td>-4.0</td>
</tr>
</tbody>
</table>

*Note: The table above shows the results of using different types of vehicles for transportation, focusing on two cases: Only 64 tonne vehicles and Only 74 tonne vehicles. The table includes the load ratio (percentage of total distance loaded) and the relativ CO2 changes and cost reductions compared to the current situation.*
Summary

• Reduced transportation cost with trucks (74-ton) will have an very small effect or none effect at proportion of train transportation.

• Even with a small proportion of changed transport mode there will be positive environmental and economic effect for the hole transport system

• A restricted road network for HCT-truck will effect the transport efficiency even for the 64-tonne vehicles.

• It is important to have the right proportion of HCT-trucks in relation to open road network, otherwise it might increase the costs and emissions.
Thanks for listening

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