

27. Shift freight off road

Freight is an important contributor to transport demand. Both Rail and IWT (Inland Water Transport) are extremely energy efficient ways of moving bulk cargo. Both are fixed route modes, so a certain amount of the tonne-km the freight travels must be by road unless factories and warehouses both link directly to the system. This form of infrastructure requires a significant investment.

The last decade

The World Bank recently investigated IWT as the most effective transport improvement for Bangladesh. The low speeds further suggest it has more use as a freight vector than a passenger carrier. Rail freight has remained nearly constant. Like passenger rail, this is because of saturated capacity, not because of limited demand.

Assumptions of model

Heavy investment in fixed route transportation systems would affect the pattern of urbanisation, favoring large, dense settlements. This would have a further impact on passenger transportation modes, but this has not been modelled.

Levels

Level 1

Business as usual. No additional rail or IWT capacity is developed. By 2050, road carries 99% of freight.

Level 2

By 2050, road carries 85% of freight, Rail carries 5% and Water 10% of freight traffic.

Level 3

By 2050, road carries 65% of freight, Rail carries 15% and Water 20% of freight traffic.

Level 4

By 2050, road carries 50% of freight, Rail carries 25% and Water 25% of freight traffic.

Interaction with other levers

The implications of an expanded rail system for freight might suggest a compatible setting for the 'transport policy lever'. Freight is modeled as a function of population and GDP, so those levers will have a strong affect on the importance of this one.

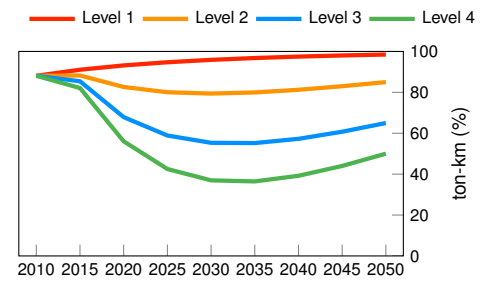


Figure 27.1: Freight demand on road



Figure 27.2: Inland Water Transport, USA



Figure 27.3: A containerised freight train, Germany