Passenger Road Transport in the Long Run

A case study applied to China and India

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Historic Energy Ladder for Passenger Road Transport

- 20% of global energy consumption
- 50% of global oil consumption
- Energy consumption varies strongly between countries
Correcting for fuel economy differences reduces the country variation.
Travel Demand Depends on Infrastructure

- The price at the time of the infrastructure development has a large influence on future demand patterns.
China and India Developing in Current Subsidy Environment

- China could consume 30 EJ at $30,000 GDP per capita
- India could consume 35 EJ at $30,000 GDP per capita
- World consumption for passenger road transport in 2050: 120 EJ (tripling from today)

Development of China and India in Current Subsidy Environment

- USA
- Canada
- Australia
- France
- Germany
- China
- India

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China and India Developing in Current European Tax Environment

- China could consume 20 EJ at $30,000 GDP per capita
- India could consume 25 EJ at $30,000 GDP per capita
- World consumption for passenger road transport in 2050: 80 EJ (doubling from today)
World Energy Demand in Passenger Road Transport under Two Policy Scenarios

- China’s upcoming energy surge will impact the global level
- Prices today determine the energy path of the future for developing countries