Transportation Transformation

- Energy
- Climate Change
- Transportation

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Energy Security as a global Common Driver

Real GDP Growth, 1990 v. 2006-2015

More Income

More Travel

Total Passenger Miles Traveled / Region

Average Annual Growth Rates

World Petroleum Product Demand

Developing countries over 3/4 of increase in global CO2 emissions between 2004 and 2030. Fastest annual growth in emissions in the transport sector, (avg.1.3% )
International Action to Meet Transportation Transformation

- **Integrated Approach Necessary**: Link between transport, energy, climate, health, planning, R&D policy, demand management, consumer behavior ...
- **Behavior Change Essential**: Modal switch, efficiency, high price value etc..
- **West Must Lead by Example**: EU/US actions in low carbon transport policy and carbon market development reality. Harmonization/alignment key!
- **Allow for Cultural Difference and National Prioritization**: Developing countries will leapfrog & maximize on GHG co benefits from other policies technologies. Empowerment via information exchange and own solutions
- **Engage Developing Countries on Their Priorities and Terms**: Bring developing countries to table via trust built on bilateral MOU's, global technology and low carbon business investment e.g. carbon trust concept
- **Technology & Knowledge Transfer**: Need more focus on transfer of technology and knowledge across industry and governments globally, North/South, and South/North. Partnerships, CDM and new mechanisms?
- **Accurate Price & Market Signals Fundamental**: Include full externalities in energy and transport pricing to stimulate innovation, and create global carbon market. Rich in developing countries will feel most impact
- **Long Term Infrastructure Investment & Planning**: Ensure infrastructure in place to uphold transportation transformation.
Main Constraints TO Transportation Transformation

- Current energy and transport pricing structures
- Low carbon price
- Land use issues
- Infrastructure development
- Future technology costs (start with what we have!)
- “Seed/well to tank” LCA modeling and indirect land use factors
- Energy demand growth vs. low carbon goals
- Allocation of carbon credit needs to be sorted
- Complexity of solutions and different interest groups
- Sustainability criteria and leakage impact on developing world
- Short term political gains vs. long term strategies
- Local, national, global politics and egos
- Behavior change and major paradigm shift acceptance still most important factor!