No Smoking – how the world changes!
Part 1

WHAT DOES THE FUTURE HOLD?
Private Light Duty Vehicle stock, by type and region, 2005
Explosive motorization growth across Asia

Source: 2009 ADB, CAI-Asia, Segment Y LTF and IEA
Electric 2-wheelers in China

- Production from 48,000 in 1998 to 20 million in 2008
- Current estimated fleet: 100 million
- Range: 40-50 km
- Actual max speed: 20-30 km/hr
- Cost: US $200-500

<table>
<thead>
<tr>
<th>CO2 (g/pax-km)</th>
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</thead>
<tbody>
<tr>
<td>Car</td>
<td>102-306</td>
</tr>
<tr>
<td>Bus</td>
<td>24.2-96.8</td>
</tr>
<tr>
<td>Motorcycle</td>
<td>64-128</td>
</tr>
<tr>
<td>Bicycle</td>
<td>4.70</td>
</tr>
<tr>
<td>BSEB</td>
<td>15.6-31.2</td>
</tr>
<tr>
<td>SSEB</td>
<td>20.2-40.5</td>
</tr>
</tbody>
</table>

Sources: Cherry and Weinert, 2009
Mobility Split by Type of Transport, OECD and Non-OECD

Source: IEA, draft 2009
Peak Oil

“Global oil depletion is well understood, well advanced and imposing increasing constraints on future global oil supply”

Source: UK Energy Research Center, 2009

Source: IEA, 2008
CO2 emissions Transport sector
1980 - 2030

Source: Modified from IEA 2008, World Energy Outlook
Trends Air Pollution 2003-2006

- Air quality in Asia is improving but still far above WHO limits
- PM is main pollutant of concern

Note: TSP data aggregated from 17 cities; PM10 data from 32 cities; SO2 data from 31 cities; NO2 data from 29 cities
The Cost of Delay: when do we start?

- IPCC calls for 25-40% reduction below 1990 levels by 2020 for developed countries
- CO₂ emissions from fossil fuel consumption will have to be reduced globally by 70-90% compared to 1990 by 2050
- IPCC calls for 15% to 30% reduction in CO₂ emissions below BAU by 2020 as developing country contribution to 2°C Celsius scenario
Part 5

POLICIES
The Challenge: Integrate emerging processes at all Levels

Climate Policy Processes
- Global Climate Talks (UNFCCC)
- Regional / climate strategies
- National climate action plans/strategies

Transport Policy Processes
- MEET: Global Policy Discussions involving both developed and developing countries
- Regional EST Forum + Asian Transport Ministers Forum
- ASEAN Transport Senior Officials Meeting
  - National and Local Transport Policies and plans
Bellagio Principles on Transportation and Climate Change

1. Effective Climate Action is incomplete without addressing the **overall system performance** of the Transport Sector.

2. Climate action in the transport sector should recognize **co-benefits**

3. More Effective Carbon finance mechanisms and associated procedures should **catalyze** sustainable transport policies, programs and projects

www.sutp.org/bellagio-declaration
Differences in Policy Basis

**Developed Countries**
- High baseline
- Low growth
- Dominance 4 wheelers + private transport
- Good data availability
- Strong institutional capacity and regulatory track record
- Carbon Market failure in transport sector

**Developing countries**
- Low Base line
- High growth
- Dominance 2 wheelers (Asia), large PT share and NMT
- Limited data availability
- Weak institutional capacity and regulatory track record
- Carbon Market absence in transport sector
## Same Principles but different interpretation

<table>
<thead>
<tr>
<th>Principles</th>
<th>Developed Countries</th>
<th>Developing Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Avoid</strong></td>
<td>• Emphasis on reduction of VKT through TDM</td>
<td>• Emphasis on avoiding unnecessary generation of VKT through land use planning, TOD and TDM</td>
</tr>
<tr>
<td><strong>Shift</strong></td>
<td>• Shift from private vehicles to NMT and PT</td>
<td>• Prevent shift from NMT and PT to private vehicles</td>
</tr>
<tr>
<td><strong>Improve</strong></td>
<td>• Clean up existing vehicles, encourage down scaling vehicle/engine size</td>
<td>• Ensure that future vehicles are as clean as possible, prevent up scaling vehicle/engine size</td>
</tr>
</tbody>
</table>
Impact of Fuel Economy measures on Transport CO2 emissions: Thailand

- 2020- 20% improvement in stock average (on-road) efficiency
- 2030- 35% improvement in stock average (on-road) efficiency
- Scenarios – considered for LDV only and LDV + HDV cases

Source: CAI Asia (2009)
Cost effectiveness of transport interventions (Mexico)

Source: Worldbank MEDEC study, 2009
Co-benefits of Transport measures Beijing

Source: Creutzig, Deakin 2009
The importance of scale: think integrated and big!

Scaling up: number of cities

Scaling out: within cities

Awareness
Transport
Single issue
Analysis
Sustainable transport
Co-benefits
Action
Urban planning
Sustainability
Funding Sustainable Low Carbon Transport in developing countries

- Climate Funds: $ Millions
- Development Assistance: $ Billions
- Local Investments: $ Trillions

2500 cities in Asia with more than 100,000 persons
Integrate Policy, Financing and Monitoring

• India National Urban Transport Policy sets the direction

• JNURM Financing provides funding
  – Investments, if in line with Urban Transport Policy
  – Institutional conditionalities to support investments

• Benchmarking of Urban Transport Systems to measure progress
What kind of Cities do we want to live in?

Photo: Cornie Huizenga
Bus Rapid Transit systems in Asia

Operation (Pilot/Phase)
Feasibility/Planning/Construction
70 Number of Systems in Planning, Construction & Operation
Seoul, Korea

Before

After
Delhi, India

MCD junk underpasses, flyovers near Civic Centre

PRO-HERITAGE Civic body approves alternative traffic plan around its new HQ

NEW DELHI: The Municipal Corporation of Delhi (MCD) on Sunday gave the go-ahead for a new traffic circulation plan around the Civic Centre.

The plan is to replace the underpasses and flyovers with better surface roads with wider footpaths and ample space for public transport.

The approval comes more than a month after the MCD first thought of “removing” the traffic circulation pattern in the heart of Delhi to avoid separation of the Walled City from New Delhi.

MCD commissioner K.S. Mehra confirmed that the plan proposed by the Indian National Trust for Art and Cultural Heritage (INTACH) had been approved.

"The plan was given the final go-ahead in today's meeting and we are expecting to draw it up properly before June 2020 so that we are able to start work on the redevelopment of the Walled City," Mehra said.

There are several heritage monuments lining the roads surrounding the Civic Centre — Turkman Gate and Ajmeri Gate to name just two.

The plan aims to integrate the Walled City area with the rest of the city, right up to the Connaught Place, he said.

“We have co-ordinated with various departments — traffic, the civic body, the district, traffic, the civic body — to make sure that we do not create any hassle or problem,” Mehra said.
For more information:

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