Smart Growth, Climate Change and Prosperity

Developing country and NAMA opportunities?

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CCAP MAIN Dialogue
Costa Rica
March 22, 2011
Context: Major growth expected in developing country road transport

Source: Holger Dalkmann citation of Sakamoto, K, 2010 based on IEA 2010 and AEA 2010
Mobility – the ability to move

Accessibility – the ability to get where you want to go
These common-sense principles can improve accessibility and reduce the need for driving.
Doesn’t driving make us prosperous?

Not like it used to.
By 1996 economic growth began to outpace driving growth.

Source: *Growing Wealthier, CCAP 2011*
It takes fewer miles to make a GDP dollar than it used to.

Source: US Chamber of Commerce, as cited in *Growing Wealthier*, CCAP 2011
Alternative Urban Growth Pathways
Modal Share of Motorized Private Travel vs. GDP

Source: Holger Dalkmann citation of UITP 2006, in IEA, 2008
Transport Impacts hinder the Local Economy

Percent of the Gross Regional Product in Transport Externalities

Most US households between 1967 and 2007 are drove substantially more but their income did not grow proportionately.

Source: Growing Wealthier, CCAP 2011
Travel (VKT) that contributes little or nothing to households and local economies might be called “empty miles”
Travel (Person hours) that consumes nearly as much as it contributes to households and local economies might be called “empty hours”
Smarter development patterns can:

• make money
• save on costs
• improve quality of life

- for households, businesses and governments.
How does it happen?

Improved accessibility
More efficient travel
More efficient services
Lower energy costs
Use natural services
Inclusive planning
Quality design
## Growing Wealthier Matrix

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<thead>
<tr>
<th></th>
<th>Business</th>
<th>Household</th>
<th>Municipal and Region</th>
<th>Nation</th>
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<tbody>
<tr>
<td><strong>Return on Investment</strong></td>
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<td><strong>Savings on Expenditures</strong></td>
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<td><strong>Improved Quality of Life</strong></td>
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### Dallas: Retail grew 33% in 1st year after light rail began

### Portland: $100 million public investment in streetcar attracted $3.5 billion in adjacent private investment

### Denver: Households within ½ mile of light rail line rose in value by 18% 2006-8; other Denver homes lost 7.5%

### US: Investments in transit create 2X jobs as in highways

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<tr>
<td>Access to new markets</td>
<td>Enhance or preserve housing values</td>
<td>Higher public revenues</td>
<td>More efficient use of transportation investments</td>
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<tr>
<td>Reduced investment risks</td>
<td>Better access to jobs</td>
<td>Reduced citizen opposition to development</td>
<td>Construction &amp; transit jobs</td>
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<td>Higher property values</td>
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<td>More efficient economy</td>
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<td>Productivity enhancements due to agglomeration</td>
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### Sacramento
Infrastructure savings: $18,000 per household

### Bay Area
$140 million in health savings by 2035

### Sarasota, FL
Downtown development cost city 50% less and generated 8 times the tax revenues than similar suburban development

### Garland, TX
Tree canopy diffuses 19 million cubic feet of runoff per storm, displacing the need for $38 million in retention infrastructure
**US:** Lower rates of pedestrian fatalities in compact urban areas, higher rates in car-oriented suburban areas

**Seattle:** Increase in neighborhood walkability was associated with more time spent walking and lower body-mass-index

**Placemaking efforts** in Ohio, Kentucky, Washington DC, others help attract new businesses and visitors to formerly depressed areas.
Some Developing Country Examples

Bogotá TransMilenio BRT, Cycling and Walking Efforts
• 20 minutes less travel time per passenger (-32%)
• 15-20% increase in property values along the original line
• Enhanced tax revenues
• Improved access to jobs, services
• Health and safety improvements
• Enhanced civic culture

Mexico: “Competitive Cities” (Mérida, Culiacán, Aguascalientes)
• High social segregation and travel costs at present
• 7-20% reduction in infrastructure and construction costs in smart growth scenario vs. current practice
Cost-Effective GHG Reductions from Sustainable Urban Transportation

Graph showing emission reduction in MtCO2E and social cost per ton (USD) for various transportation methods.
Urban Transport Investment Requirements under three Policy Scenarios in India

SCN 1:
Sprawling Cities focused on Rail and Road Infrastructure

SCN 2:
Relatively Compact Cities with Complete network

SCN 3:
Compact Cities with Complete network and transit focused

Better growth management can cut investment requirements by more than half

Source: Prof. H.M. Shivanand Swamy, Centre of Excellence in Urban Transport, CEPT University
Recommendations

• Do Measure Learn

• Equip and Empower
Millions, Billions, Trillions

Global transport investments by source of finance

- **Domestic finance**: 582.56
- **Foreign Direct Investment**: 148.73
- **International Debt Finance**: 149.62
- **ODA**

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**Climate finance**

Source: Holger Dalkmann, TRL
For Group Discussion:
Potential NAMA Framework for Sustainable Urban Development

• **Goal:** Encourage transformational changes in urban development and transportation systems
  • Can the millions ‘turn the ship’ for the billions?
• **Technical assistance** to develop, implement and evaluate integrated transportation, land use and housing plans
• **Funding** for implementation
  • E.g., grants and/or concessionary debt financing for: BRT, walking, cycling, smart growth, TOD, accessible social housing
  • Include projects with short-term observable results
• **Accept uncertainty on GHG** reductions
• **Measure implementation progress** and economic impacts
Online Survey on Transport NAMAs

http://www.surveymonkey.com/s/JML7VK2

Partnership on Sustainable Low Carbon Transport
Bridging the Gap Initiative