THE CHALLENGE OF MOTORIZATION AND REDUCING TRANSPORTATION GHGS

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THREE LEGS OF GHG PRODUCTION

Transport sector emissions can be reduced by addressing

- Vehicle efficiency
- Energy source
- Amount of travel activity
VMT GROWTH CAN WORK AGAINST FUEL EFFICIENCY IMPROVEMENTS

Source: Growing Wealthier, CCAP 2011
VMT reductions in conjunction with efficiency allows targets to be met.
IN DEVELOPED COUNTRIES MODEST VMT REDUCTIONS ARE SUFFICIENT

Source: Growing Wealthier, CCAP 2011
DEVELOPING COUNTRIES FACE A CHOICE

Source: Holger Dalkmann citation of UITP 2006, in IEA, 2008
THE TREND IS TO MOTORIZE
Latin America Not Yet “Fully Motorized”

Motor Vehicles per 1,000 Population*

Source: World Bank Development Indicators Table 3.13

* Motor Vehicles per 1,000 population.
Annual Kg of Oil equivalent per capita
Source: World Bank Development Indicators Table 3.13
Motor Vehicles per 1,000 population*

Source: World Bank Development Indicators Table 3.13
COLOMBIA ON A PATH TO MOTORIZE

Colombia projected motorization growth

Vehicles per 1,000 population

<table>
<thead>
<tr>
<th>Year</th>
<th>Colombia</th>
<th>Ecuador</th>
<th>Dominican Republic</th>
<th>Panama</th>
<th>Costa Rica</th>
<th>Chile</th>
<th>Uruguay</th>
<th>Mexico</th>
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<td>3000</td>
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<td>4200</td>
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Source: World Bank Development Indicators Table 3.13
POPULATION GROWTH TIMES MOTORIZATION RATE GROWTH
Transport GHG rises due to growth in driving

Colombia projected motorization 2010 → 2040

- Light duty vehicles: from 70 to 320 per 1,000 inhabitants
- Motorcycles: from 77 to 250 motorcycles per 1,000

Truck fleet grows 3x
Auto fleet grows 6x
Moto fleet grows 4x
MULTIPLE STRATEGY APPROACH NEEDED

Colombia BAU projection

GHG emissions mmt CO2e

Road Transport

2010

2020

2030

2040
30% FUEL EFFICIENCY IMPROVEMENT STANDARD FOR NEW VEHICLES STARTING 2020

GHG emissions mmt CO2e

Road Transport

plus Fuel efficiency

2010 2020 2030 2040
The graph shows the trend of GHG emissions mmt CO2e from 2010 to 2040 for different transport modes:

- **Road Transport** (light blue line)
- **plus Fuel efficiency** (green dashed line)
- **plus Freight** (orange dashed line)

The emissions increase steadily over the years, with the road transport showing a higher rate of increase compared to the others.
GRADUAL DECARBONIZATION OF PRIVATE TRANSPORT - 30% OF FLEET BY 2040

GHG emissions mmt CO2e

- Road Transport
- FE plus 30% electric
- Plus Freight
- Plus TOD

2010 2020 2030 2040
### Policy Package/Unilateral Elements

<table>
<thead>
<tr>
<th>Freight efficiency and mode shift</th>
<th>5% of sector BAU total</th>
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</thead>
<tbody>
<tr>
<td>Passenger vehicle efficiency (import standards and incentives)</td>
<td>2.4% of sector BAU</td>
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### Policy Package/Supported Elements

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<th>Transit Oriented Development</th>
<th>3.5 - 5.2% of sector BAU</th>
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SOME POLICY PACKAGES COULD GARNER INTERNATIONAL SUPPORT
¡GRACIAS!

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