NATIONAL POLICY and STRATEGY

1. Viet Nam Sustainable Development Strategy from 2011 to 2020 (Decision No. 432/QD-TTg dated 12 Apr 2012 of Prime Minister)

2. Viet Nam National Green Growth Strategy from 2011 to 2020 and vision to 2050 (Decision No. 1393/QĐ-TTg dated 25 Sep 2012 of Prime Minister)

3. National Strategy on Climate Change From 2011 to 2020 and vision to 2050 (Decision No. 2139/QĐ-TTg dated 05 December 2011 of Prime Minister)

4. Scheme on GHG emission management from 2012 to 2020 Decision No. 1775/QĐ-TTg dated 21 November 2012 of Prime Minister

5. Implementation plan of Paris Agreement about climate change Decision No. 2053/QĐ-TTg dated 28 October 2016 of Prime Minister
**Decision 49/2011/QĐ-TTg**: Roadmap for application of exhaust emission standards to manufactured, assembled and imported brand new cars and motorbikes

**Decision 1456/QĐ-BGTVT**: Action plan on climate change and green growth of MOT in the period 2016-2020

**Decision 356/QĐ-TTg**: plan for road traffic development in Viet Nam by 2020 and the orientation towards 2030

**QCVN 86:2015/BGTVT**: national technical of gaseous pollutants emission for new assembled, manufactured and imported automobiles of level 4.

**Circular 43/2014/TTLT-BGTVT-BCT**: energy labelling for the types of automobile from 7 seats or less
• **In line with INDC**: 8% emissions reduction compared to BAU by 2030, 25% with international support;

• **MOT Mitigation measure**:
  ✓ Using low carbon technology (bus encouragement, fuel switch from gasoline, diesel to CNG, LPG for taxis), switch from motorcycles (2W) to public transport;
  ✓ Building emission standard for vehicles
  ✓ Vehicle labelling
  ✓ Transport Development Strategy: increase public transport modal share from <10% at present to 25-30% by 2020;
  ✓ Controlling individual vehicles
  ✓ Developing non-motorized vehicles
  ✓ Enhancing capacity of emission inventory, NAMA
Low carbon bus NAMA

Sector-wide Low-carbon Bus NAMA (2016-2030)

Nama Support Project (3-5 cities) 2016-2020
Currently: 2W (slightly) lower emissions per passenger-km than buses

=> More energy efficient buses and increased occupancy rates are key to achieving the sector’s mitigation objective

Based on Euro IV 12m bus for 60-80 passengers with AC; Data for Vietnam (carbon factor of electricity production); WTW data including Black Carbon with GWP 100
Source: Grütter, 2016a
Components of the NAMA

**Component 1: Low-carbon bus technologies**

By 2020: introduction of 200 hybrid and 50 plug-in hybrid buses

Incremental cost and (perceived) risk compared to conventional diesel is covered by climate finance

- Eg. 70% of new hybrid buses to be financed via a regular credit facility, 30% grant from low-carbon bus fund
- Detailed monitoring to establish proof of impact

Post-2020: pure incremental cost financing, by 2025 hybrids and plug-in hybrids will be cost effective, fully-electric buses still require subsidies
Component 2: Operational efficiency improvements

Introduction of fuel efficiency measures in bus fleets and bus route optimization in 3 pilot cities

By 2025 and 2030, 25% and 50% relatively of the potential of the national public transport fleet will be used.

Financial and technical assistance to bus operators and cities

<table>
<thead>
<tr>
<th>Measure</th>
<th>Fuel Savings and GHG Mitigation Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRR Tires</td>
<td>3.5%</td>
</tr>
<tr>
<td>Optimal Tire Pressure</td>
<td>1.5%</td>
</tr>
<tr>
<td>Idling Stop Devices</td>
<td>2.5%</td>
</tr>
<tr>
<td>Eco Drive</td>
<td>2%</td>
</tr>
<tr>
<td>Combined Measures</td>
<td>9%</td>
</tr>
</tbody>
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Component 3: Public transport system improvement

Contribute to modal share increase by technical assistance for:

• Public transport planning
• Data and MRV/monitoring system for cities
• Integration of different modes of transport
• National policies that support cities

Key partners:

Ministry of Transport, Ministry of Environment and Natural Resources, Departments of Transport in cities, bus operator companies

International partners: GIZ, UNDP, KfW
Expected outcomes

- Total emission reductions: 4-5 MtCO₂e in 2016-2030
- Diesel fuel savings: USD 600 million/
- Air pollution reduction benefit (PM, NOx): USD 40 million
- Quality of life improvement, noise reduction
Conclusions

• Transport is a key sector for achieving sustainable development and climate change objectives
• NAMA complies with national transport, energy and climate policies
• Transformational due to rapid, large-scale technological change and public transport system improvement
• Clean technologies require initial financial support, which declines over time when risk is reduced and fuel prices increase
• Technical assistance is needed to improve policies, planning and monitoring
THANK YOU

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Bus in Ha Noi                             (Photo: NAMA Project)