





VIET NAM

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

Ministry of Transport Commitment

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

MOT Responsibility and solutions

- 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 model share from

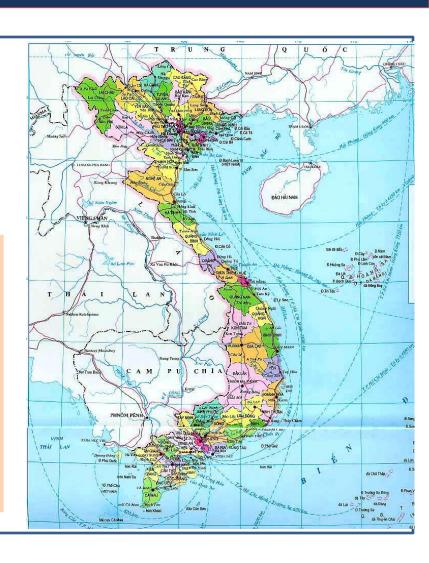
<10% at present to 25-30% by 2020;

- ✓ Controlling individual vehicles
- Developing non-motorized vehicles
- Enhancing capacity of emission inventory, NAMA

Low carbon bus NAMA

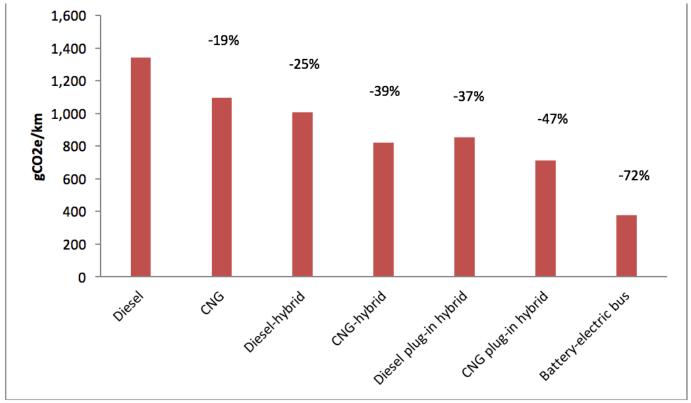
Sector-wide Low-carbon Bus NAMA (2016-2030)

NAMA Support Project (3-5 cities) 2016-2020



Potential bus technology

- 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

Components of the NAMA

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

Measure	Fuel Savings and GHG Mitigation Impact
LRR Tires	3.5%
Optimal Tire Pressure	1.5%
Idling Stop Devices	2.5%
Eco Drive	2%
Combined Measures	9%

Components of the NAMA

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

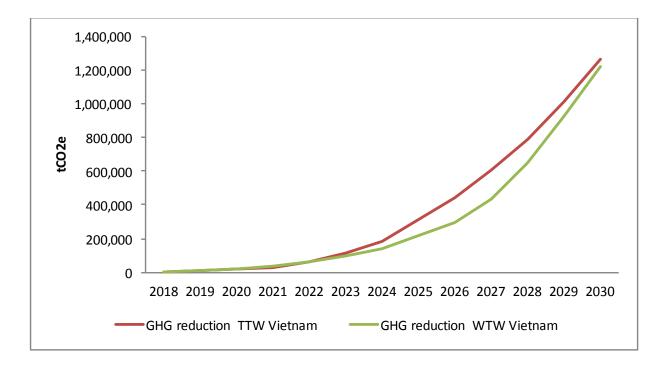
Key partners:

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



Conclusion

- 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)