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# Stocktaking of NAMA Experience in Asia

**Workshop of the Asian Regional Group, International Partnership on NAMA and MRV**

Unpacking (I)NDCs – identifying, prioritising, planning and implementing  
mitigation and adaptation measures

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Dao Xuan Lai

Team Leader, Climate Change and Environment, UNDP Viet Nam

[dao.xuan.lai@undp.org](mailto:dao.xuan.lai@undp.org)

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# Introduction

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## Contents

- NAMA Overview and NAMA in Paris Agreement
- Status of NAMAs in some Asia & pacific countries
- Example of NAMAs Transportation in Indonesia and Viet Nam

# NAMA Overview

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- NAMA = a tool for climate mitigation action
  - Extensive research and strategy required (e.g., to reallocate market and political risk)
  - Informs NDCs on GHG Emission Reduction
  - Potential instrument for NDC implementation / GCF proposal
- Key concepts
  - Climate finance mobilization: developed to developing countries
  - Transformative
  - Policy alignment (e.g., LEDS)
  - Co-benefits
  - Country-driven / political buy-in
  - MRV
  - Capacity building

# No Explicit Mention of NAMAs in Paris Agreement

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- With TNA, NAPs, Nat'l Action Plans, NAMAs play key role in project pipeline development & much discussed pre-COP21
- Read quickly and you'll miss it
  - ✓ “Parties shall pursue domestic mitigation measures with the aim of achieving” NDCs (§ 4.2) → Confusion & Skepticism
  - ✓ About 40 countries reference NAMAs in INDCs
  - ✓ NAMAs do this (SD and national circumstances)
  - ✓ PA focus on ambition, high-level national contributions, objectives not specific mechanisms for:
    - implementation + finance + transparency (also no **SDGs**)
  - ✓ NAMAs designed for only developing countries
- Cancun Agreement – Parties take NAMAs to deviate from BAU by 2020 (no clear signal NAMAs continue after 2020)

# NAMAs by the Numbers (Global)



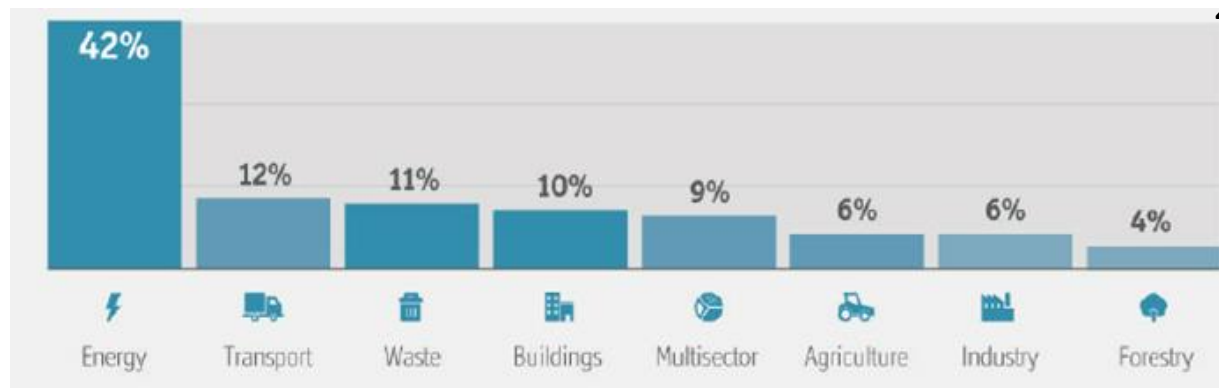
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- 178 NAMAs (UNFCCC Registry + NAMA Database)
- Big push pre-COP21 (47 in 2015, 13 between October & April)

Continue to be developed cross all sector, with nearly half of all NAMA being developed within the Energy sector.



Source: Mitigation Momentum, NAMA Status Report, May 2016



# NAMAs in Asia



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- 48 Asia NAMAs (27%) of total NAMA developed

Asia: is slowly catching up. Slight increase in MANA developing across Asia from 24% to 27% between Oct 2015-April 2016

- NAMAs developed cross different sectors in Asia:
  - ✓ Cambodia: Garment Sector NAMA
  - ✓ Indonesia: Bus Rapid Transit Transportation in Greater Jakarta,
  - ✓ Lao PDR: Garment sector NAMA
  - ✓ Philippines: Agriculture NAMA
  - ✓ Viet Nam: Sectoral NAMAs for Chemical Fertilizer, Pulp & Paper, Low carbon Bus, and Cement.

# NAMAs in Asia & Pacific (supported by UNDP)



Country	Stage	Sector	NAMAs	Completion Date
Bhutan	Detailed (draft)	Transport	NAMA for Enhancing Urban Transport in Bhutan	Jul. 2016
	Concept	Waste	Municipal Solid Waste NAMA	Jul. 2016
Indonesia	Concept	Housing	Energy Efficiency Measures in City Hall (Block H)/DPRD DKI Jakarta Office Toward Green Building	Completed
	Detailed (final)	Transport	Bus rapid transit, Greater Jakarta	Completed
	Concept	Biofuel	Utilization of Used Cooking Oil Biodiesel in Building Sector Toward Green Building	Nov. 2016
	Concept	Energy	Installation of Solar PV Toward Green Building in DKI Jakarta	Nov. 2016
Malaysia	Detailed	Forestry	Avoided Emissions from Peat Swamp Forest Management and Central Forest Spine Ecological Connectivity in South East Pahang	Completed
	Detailed	Waste	Support to Integrated E-Waste Management System for State of Sabah	Completed
	Detailed	Transport	Towards Energy Efficient Two-Wheelers in Malaysia	Completed
	Concept	Energy	Feed-in Tariff recognition	Completed
Thailand	Concept (?)	Cement	On-going dialogue with Siam Cement Group (SCG) on a NAMA proposal. The idea is for SCG to develop a NAMA prototype for the cement sector in Thailand.	N/A
	Concept (?)	Iron & Steel	Electric arc furnace measures	N/A
Viet Nam	Concept	Fertilizer	Fertilizer NAMA	Dec. 2016
	Concept	Pulp and paper	Pulp and Paper NAMA	Dec. 2016
	Completed	Low Carbon Bus	Low carbon bus NAMA Ha Noi, Can Tho, and Hue	May 2016
	Concept (?)	Cement	Cement NAMA, Construction sector	Mar. 2017

# Asia NAMA Case Study #1 (a)

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*Scaling up and communication to change behavior and social acceptance*

## Indonesia BRT NAMA: Further develop the Transjakarta Bus Rapid Transit System

- reduce traffic congestion, increase energy efficiency in transport, improve urban air quality, and reduce GHG emissions from urban transport.
- encourage traffic mode share shift from private to public transportation.
- BRT system was introduced in Jakarta in 2004 and is already a popular mode of transport
- The number of system passenger-trips per day for the BRT in Indonesia are around 350,000 (Dec-12).

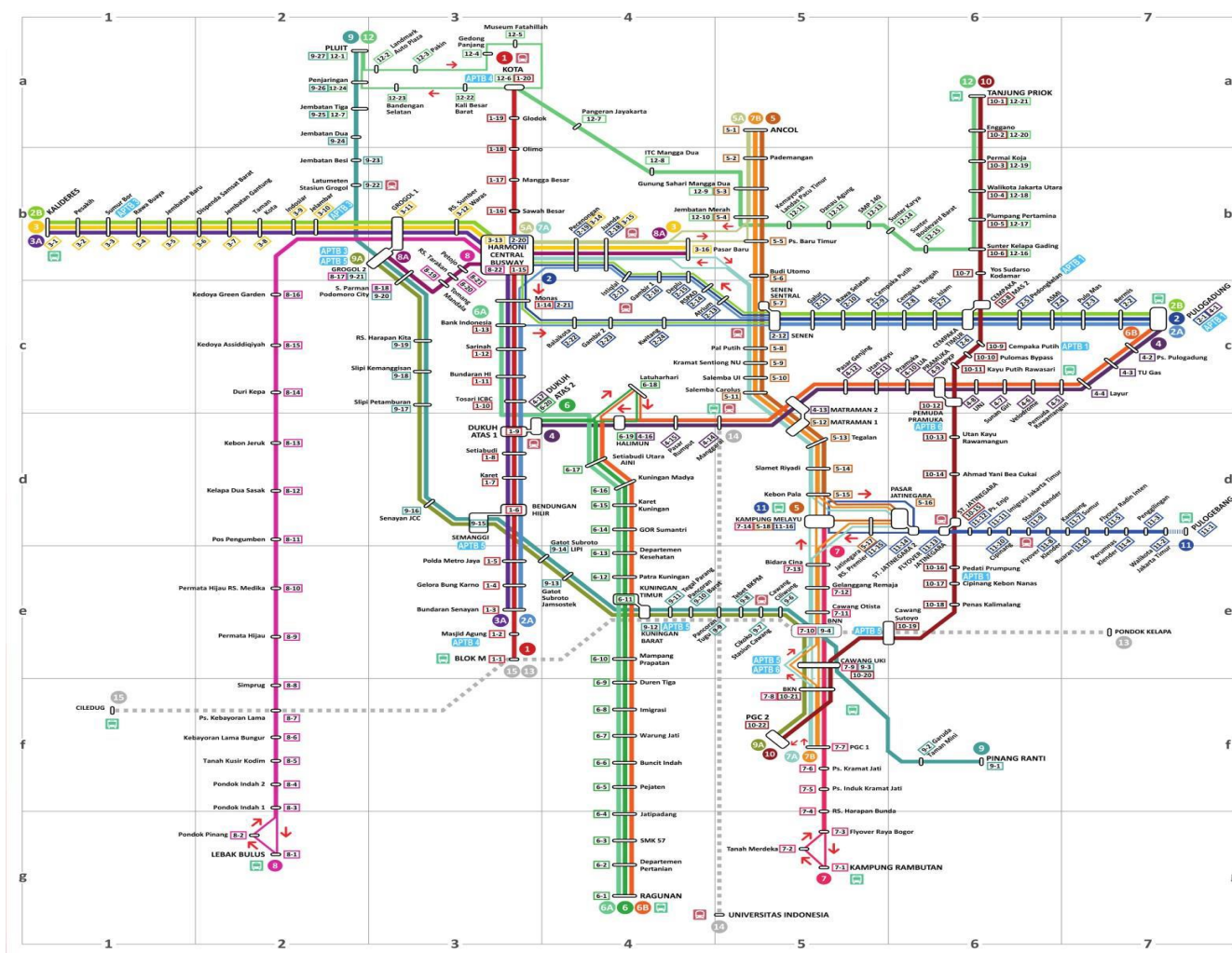


# Asia NAMA Case Study #1 (b)



## Indonesia: Upgrade the Transjakarta Bus Rapid Transit system

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# Asia NAMA Case Study #1 (c)



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*Indonesia BRT NAMA: Scaling up and communication to change behavior and social acceptance*

Further develop the Transjakarta Bus Rapid Transit System

- A baseline/No Build BRT scenario, Business As Usual scenario (BAU)
- Three possible NAMA scenarios
  - ✓ Reduction of 25% of cars and motorcycles from the BAU
  - ✓ Reduction of 35% of cars and motorcycles from the BAU
  - ✓ Reduction of 45% of cars and motorcycles from the BAU
- Duration of 10 years and rate on return of investment of 5% are used for calculation of costs and benefits
- Communication and information is among key tools to bring about transformational changes to the sector.
- Development of an intelligent transport system (ITS).

# Asia Case Study #2 (a)

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*Identify a Champion to drive processes from strategy to implementation and engagement of businesses*

## Viet Nam: Shifting to Low Carbon Bus

- GHG emission targets set in (I)NDC, Green Growth Strategy, Ministry of Transport's Action Plan to Respond to CC and Green Growth (MOT AP)
- INDC: shift to public transit
- MOT AP task #2 – towards low carbon transportation and energy efficiency
- Transport strategy of Vietnam targets mode shift and environmentally friendly buses
- GIZ & UNDP, work with MONRE and MOT: developed the Low Carbon Bus NAMA

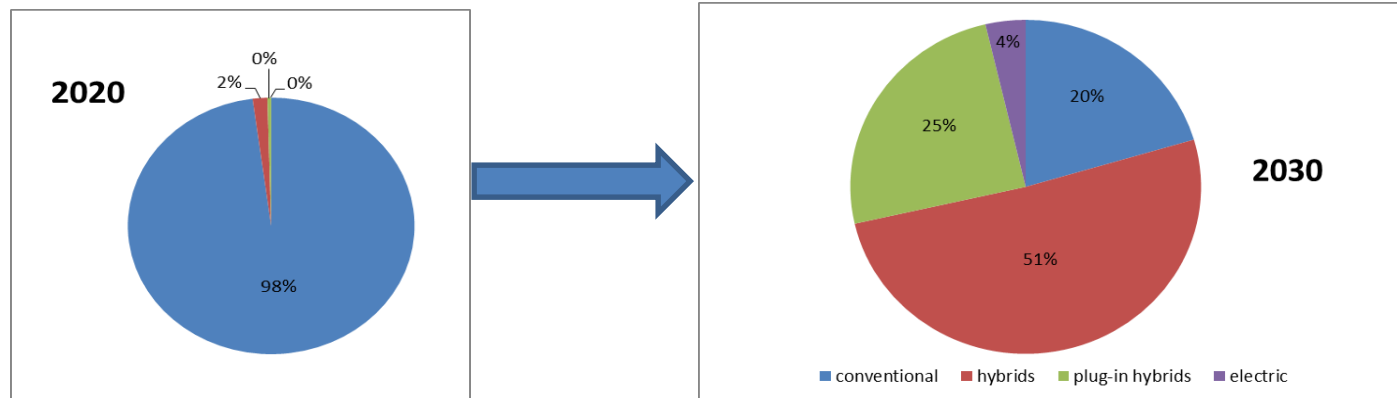
# Asia Case Study #2 (b)



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## Viet Nam: Low Carbon Bus NAMA

- objective: reduce urban transport GHG and criteria pollutant emissions in Viet Mam and contribute towards sustainable urban transport in Vietnam
- Components
  1. Introduce new Low Carbon Buses in Ha Noi & Can Tho
  2. Operational Efficiency Improvement
  3. Improve system efficiency of urban passenger transport & contribute towards increased mode share of public transport
- Expected transformational changes

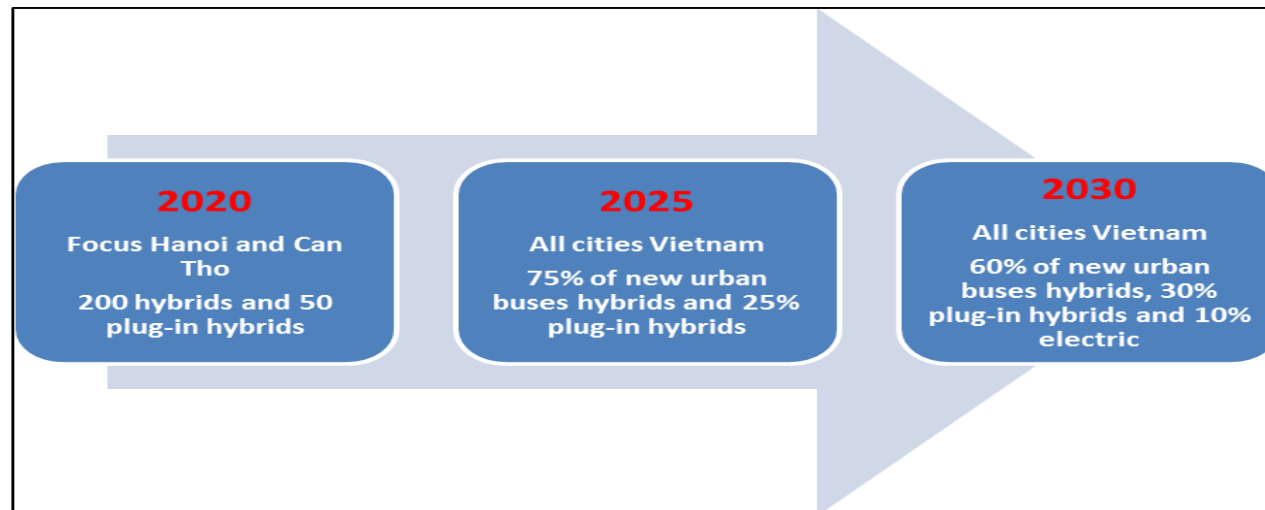


# Asia Case Study #2 (c)



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## Viet Nam: Low Carbon Bus NAMA



- Mitigation impacts
  - ✓ Cumulative 4.1-4.9 MtCO<sub>2</sub>e avoided with per annum 2030 of 1.2 MtCO<sub>2</sub>e
  - ✓ Represents around 1% of total Vietnam GHG transport emissions 2030

# Asia Case Study #2 (d)

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## Viet Nam: Low Carbon Bus NAMA

- Finance Phase I (2017 - 2020)
  - ✓ Total need is US\$44.5 million, of which \$15.1 is grant finance from international finance, \$7.0 is owner capital and \$22.4 is credit finance
- Finance Phase II (2021 - 2030)
  - ✓ \$326 million is credit finance; and \$ 3,700 million is owner capital
- Monitoring indicators
  - ✓ gCO<sub>2</sub>/km & gCO<sub>2</sub>/pkm
  - ✓ PT mode share (% of trips & % of pkm)
  - ✓ tCO<sub>2</sub>, tNO<sub>x</sub>, tPM reduced
  - ✓ # of implementation actions and USD invested in actions
- Risks and Mitigation

# Accessing Climate Finance for NAMAs

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- NAMA Support
  - ✓ UNDP (LECB and MDG) (Development), & Country Offices
  - ✓ 14 NAMA-Facility projects @ €181M (12M each)
  - ✓ Austria, Japan and Spanish NAMA Platform (Development)
  - ✓ Climate Technology Centre and Network (Development)
  - ✓ UNEP DTU (Development)
  - ✓ GIZ & NEFCO (Development and Implementation)
- Complex requirements
- Few success stories
- Long gestation period from concept → business case
- Business models / financial mechanisms vague or unconvincing
  - ✓ FIs / private sector care about **low-risk**, reliable environments

# NAMA Design Recommendations

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- How to build a convincing NAMA?
  - ✓ UNDP 2013 NAMA Guidance w/UNFCCC & DTU
  - ✓ Use existing methodologies (CDM, PoA, GS, VCS) and build off local expertise & existing MRV foundation
  - ✓ Gain clear understanding of country emissions
  - ✓ Fill capacity gaps
  - ✓ Mitigate risk
  - ✓ Address national priorities (NDC) & local ownership (TWG, SC)
  - ✓ Line ministry as driving force (not MoEnvnt)
  - ✓ Facilitate data flow between ministries
  - ✓ Streamline review procedures and MRV



# Technical Assistance for NAMA Preparation and NAMA Implementation

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International support for developing and implementing NAMAs currently available through bi- or multilateral cooperation;

The following institutions are already providing assistance in one form or the other, bilateral cooperation down the road.

- UNDP (LECB and MDG)
- Climate Technology Centre and Network (Development)
- UNEP DTU (Development)
- GIZ (Development and Implementation)
- NAMA Facility (NAMA Implementation)
- NEFCO (Development and Implementation)



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# Thank You!

Dao Xuan Lai  
[dao.xuan.lai@undp.org](mailto:dao.xuan.lai@undp.org)  
Skype: [dao.xuanlai](#)