



Thailand's Climate Change Policies

The 12th Workshop on GHG Inventories in Asia (WGIA12)

4th August 2014

Pullman Bangkok King Power, Bangkok, Thailand

by

Natthanich Asvapoositkul

Climate Change Management and Coordination Office

Office of Natural Resources and Environmental Policy and Planning

Ministry of Natural Resources and Environment



OUTLINE

- **Background**
- **DRAFT Climate Change Master Plan (2013-2050)**
- **Thailand's NAMAs**
- **Challenges**



Background

- Area : Total area is about 513,000 km²
- Population: 68.23 million
- Entire land boundary: 5,326 km.
- Location: latitude 5° 37', 20° 27' N.
longitude 97° 22' 105° 3'
- Time zone: UTC+7
- Religion: Buddhism (95%)
- Capital: Bangkok
- Economy: Manufacturing, Agriculture, Tourism



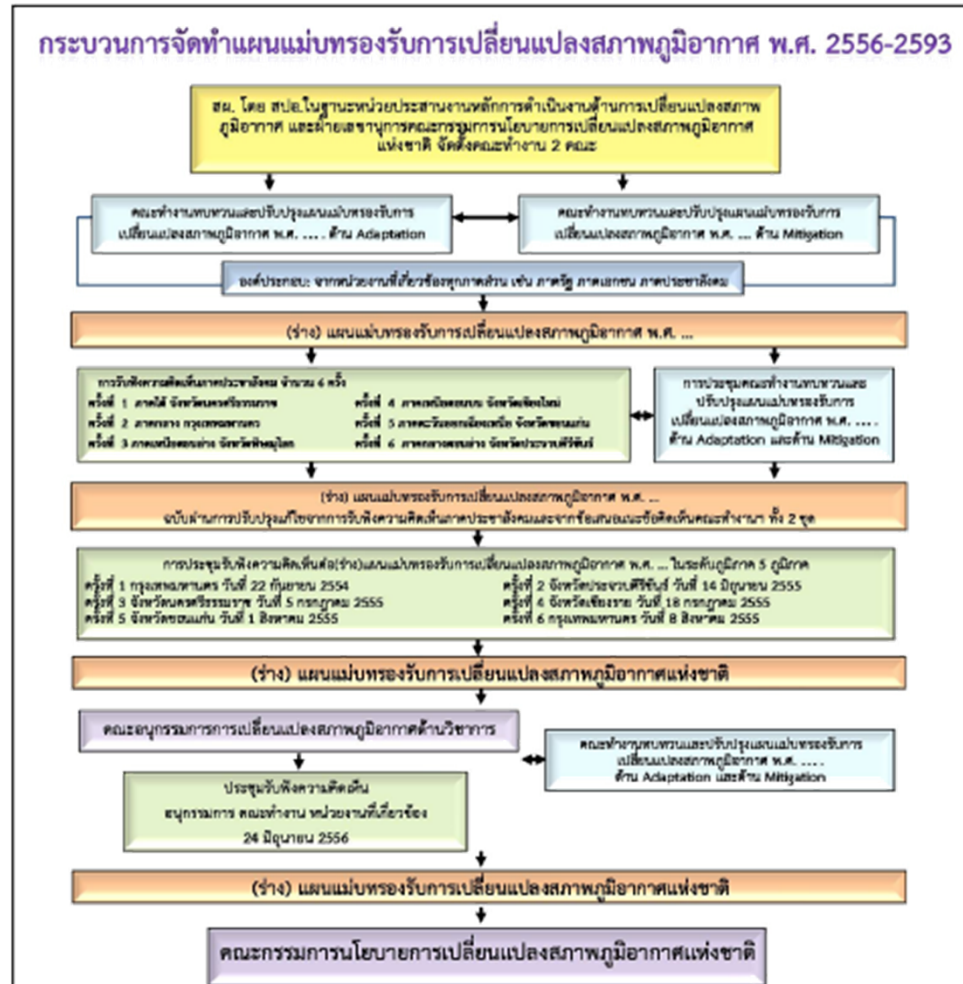


DRAFT Climate Change Master Plan (2013-2050)



DRAFT Climate Change Master Plan (2014-2050)

Process:





DRAFT Climate Change Master Plan (2013-2050)

Step for approving CC Master Plan

- Draft Master Plan ↔ Public Seminar**
- Approved by Technical Sub-Committee**
- Approved by the National Climate Change Committee**
- Approved by the Cabinet**



DRAFT Climate Change Master Plan (2013-2050)

Vision

Thailand has achieved **climate resilience** and **low carbon growth** in accordance with sustainable development agenda

Mission

Build climate resilience for Thailand's development by mainstreaming climate change adaptation into development planning of all sectors and levels

Reduce GHG emission and establish policy instruments to encourage sustainable and low-carbon development

Develop appropriate knowledge base, databases and technologies to support climate change adaptation and low-carbon development

Enhance capacity and awareness of development partners at all levels to enable effective engagement in executing climate change policy and plan

Strategy

ADAPTATION

1. Water resource management
2. Agriculture and food security
3. Tourism
4. Public health
5. Natural resource management
6. Settlements and human security

MITIGATION

1. Power generation
2. Transport
3. Buildings
4. Industry
5. Waste management
6. Agriculture
7. Forestry
8. Urban Management

CROSS-CUTTING ISSUES

1. Database, R&D and technological development
2. Policy instrument development
3. Awareness and capacity building
4. Enhancement of international cooperation



DRAFT Climate Change Master Plan (2013-2050)

Key feature

- Long-term plan (continuous response to long-term issue)
- Comprehensive framework (to guide specific actions)
- Roadmap of short, medium and long-term goals
- Flexibility (rolling plan subject to evaluation every 5 years)
- Emphasis given on establishment of policy instruments



DRAFT Climate Change Master Plan (2013-2050)

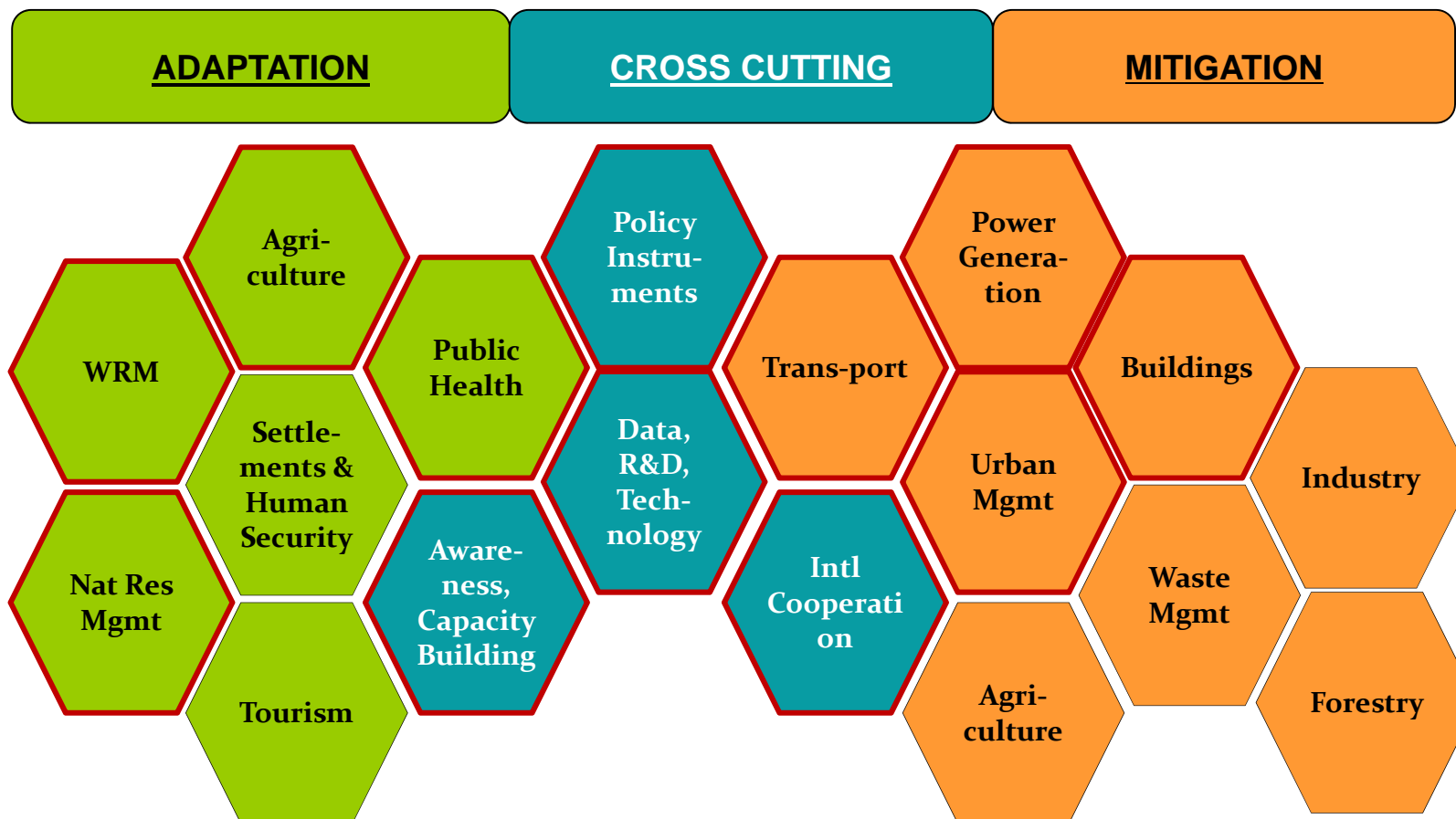
ROADMAP OF GOALS

Short-term (2016)	Medium-term (2020)	Long-term (2050) & continuous
<ul style="list-style-type: none"> •vulnerability mapping •10% biodiversity protected area and 5,000 rai (about 800 hectares) additional mangrove annually •50% of coastal cities with coastal restoration plan •development of national climate resilience index •establishment of NAMAs and MRV 	<ul style="list-style-type: none"> •development of forecasting and early-warning systems for agricultural and natural disaster hot spots •development of climate insurance systems for agriculture •establishment of national adaptation fund •40% growth in forest cover •maximum conservation area for 	<ul style="list-style-type: none"> •increased ratio of farm land and farmers with irrigation system •increased ratio of farm land outside irrigation area with water resource development •increased ratio of farmers in hot spots with training on natural disaster management and vocational training •increased ratio of farmers with climate insurance •decreased ratio of climate-related agricultural loss per agricultural GDP •increased ratio of land in natural disaster hot spots with soil and water •increased ratio of managed surface water
<ul style="list-style-type: none"> strategies to support low-carbon and environmental-friendly investment and relevant technology transfer •development of climate change strategies at organizational level for relevant organizations 	<ul style="list-style-type: none"> technology at national level 	<ul style="list-style-type: none"> •reduced number of open dumping area •increased ratio of farm land with GAP or organic standards •decreased ratio of agricultural burning •decreased ratio of GHG emission per GDP •increased ratio of organizations at central, regional and local levels with climate change related capacity development plans



DRAFT Climate Change Master Plan (2014-2050)

Priorities:





Short-term goals (2016)

Adaptation

- Develop comprehensive climate change risk maps, in which key socio-economic and environmental aspects .
- Increase higher proportion of biodiversity conservation areas not less than 19% by increasing mangrove forest at a minimum of 5,000 Rai per year.
- Increase restoration plans of the provinces along the coastlines by 50% of their affected coastal areas.
- Develop climate change adaptive capacity indices for overall economy-wide.

Mitigation

- Develop domestic NAMA and MRV system.
- Integrate economic and legislation mechanisms to encourage low carbon development.
- Improve climate change database system such as GHG inventory system, mitigation registry system, voluntary emission trading schemes.
- Develop national climate change strategies and action plans for both adaptation and mitigation.



Medium-term goals (2020)

Adaptation

- Set up effective forecasting and early warning system for agricultural sector and natural disaster management for nationwide vulnerable areas.
- Establish crop insurance scheme for agricultural productivity that affected by climate change.
- Establish national mechanism for national adaptation fund for recovery from climate change impact, compensation.
- Increase proportion of biodiversity protected areas.

Mitigation

- Increase forest area for 40% of land area.
- Reduce GHG emission about 7-20% by 2020 (Thailand NAMA's toward 2020)
- Increase proportion of renewable energy to be 25% of total energy consumption.
- Increase green area for municipal area to be 10 m²/capita.
- Apply smart grid technology for energy efficiency.



Long-term goals (2050)

Adaptation

- Increase proportion of irrigated area for farmers.
- Develop water resources management for non-irrigated areas.
- Build capacity for natural disaster preparedness in risk areas.
- Increase the number of farmers participating in crop insurance scheme.
- Decrease the proportion of agriculture production damage from CC.

Mitigation

- Increase proportion of public transportation.
- Increase energy intensity at least 25% compared to BAU.
- Reduce emission from land transportation.
- Reduce proportion of open burning from agricultural residue.
- Increase proportion of GAP and organic farming.
- Increase low carbon development plans for both national and local government.

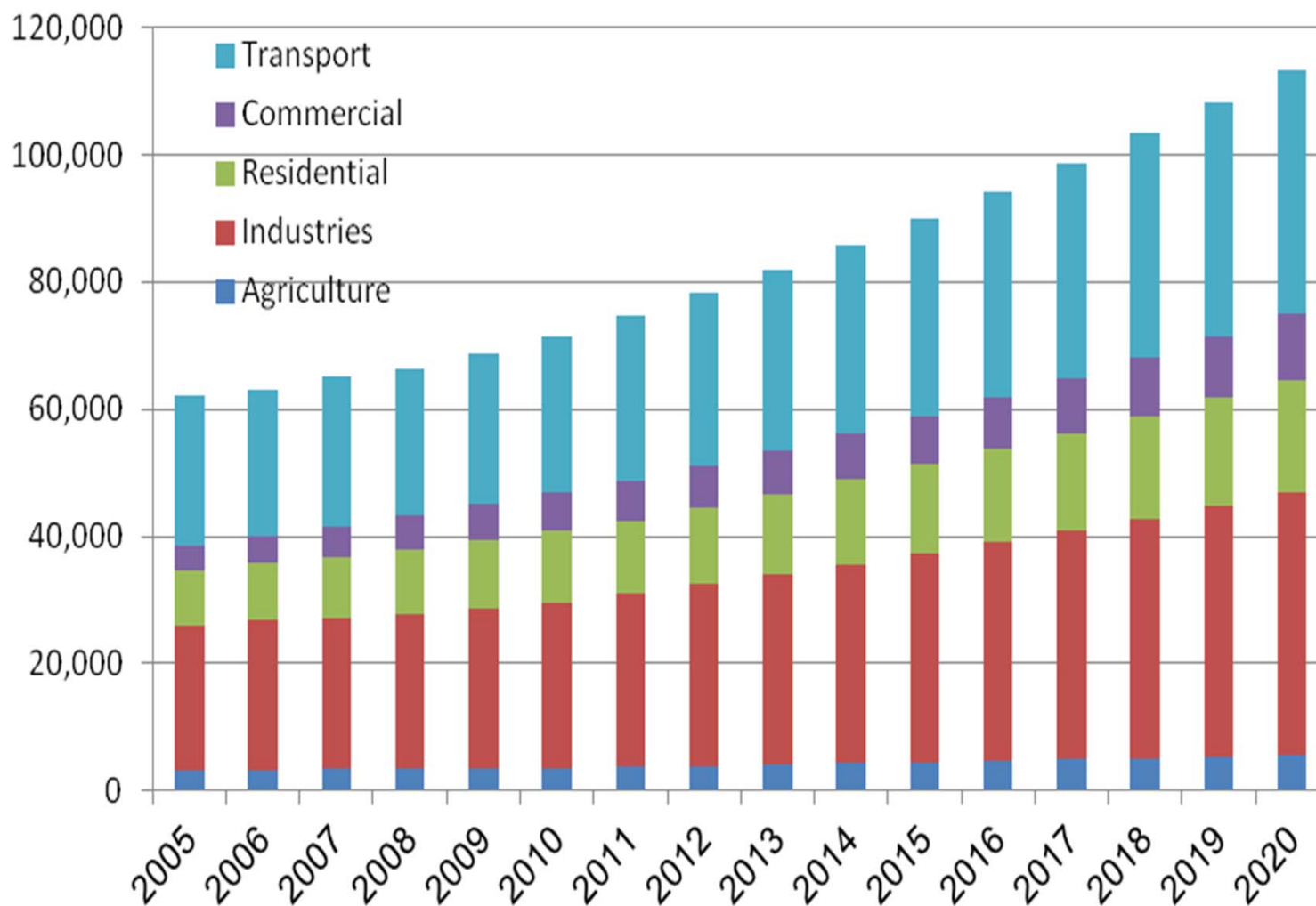


Thailand's NAMAs toward 2020



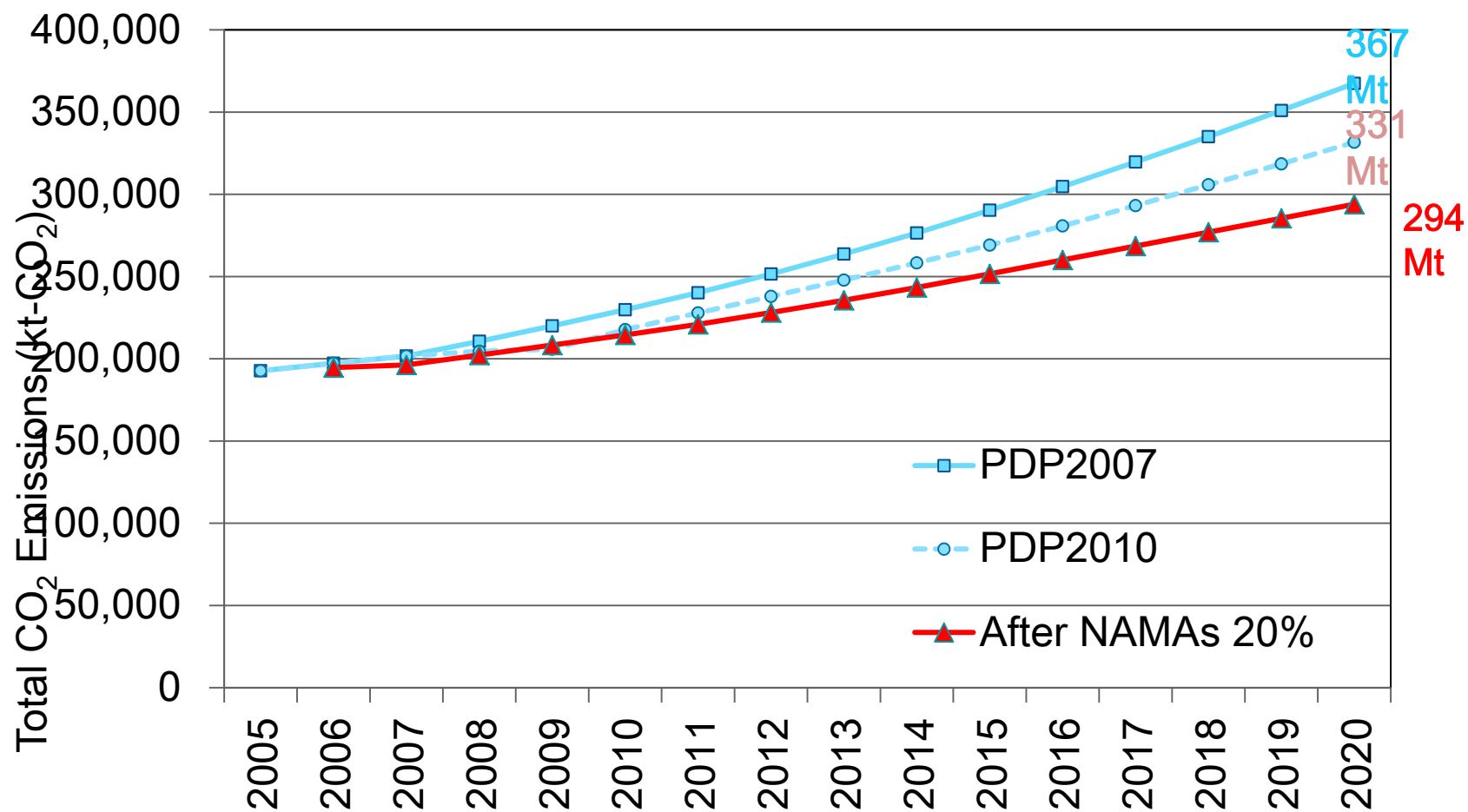
The BAU Energy Consumption of Thailand from 2005-2020

Final Energy Consumption (ktoe)





CO₂ EMISSION OF THAILAND FROM BAU



Potential of Domestically and Internationally Supported NAMAs by 2020



NAMAs	CO ₂ Countermeasures	CO ₂ reduction in 2020 (kt-CO ₂)
Domestically Supported NAMAs	RE Power (MAC)	2,568
	EE Large Industries (MAC < 10\$/t-CO ₂)	4,762
	Building Codes (Large buildings)	5,909
	Transport/Ethanol (AEDP 2012)	5,069
	Transport/Biodiesel 1st Gen (AEDP 2012)	5,022
	Sub-total	23,330 kt-CO₂ (7%)
Internationally Supported NAMAs	RE Power (MAC > 10\$/t-CO ₂ plus AEDP)	13,456
	EE Large Industries (MAC > 10\$/t-CO ₂)	9,743
	Transport/Biodiesel 2nd Gen (AEDP)	14,459
	Environmental Sustainable Transport ³	12,000
	Sub-total	49,658 kt-CO₂ (13%)

Sources: DEDE, EPPO, TGO, ONEEP, OTP (2012)



Challenges

- Engaging different stakeholders and getting them to agree on Thailand's NAMAs agenda are difficult.
- Developing NAMA project, based on the existing national policy and plans, linked to other national priorities (such as energy, environment), and also describing and quantifying as accurately as possible are challenging tasks.
- Developing MRV for NAMAs are facing many problems.
- No overlapping among NAMA activities.



Thank you

E-mail: natthan.asv@gmail.com

Tel. 02 256 6500 ext. 6783 / Fax 02 265 6690