Achieving Thailand’s Nationally Determined Contributions: National Perspective

By

Dr. Phirun Saiyasitpanich
Director of Climate Change Management Coordination Division
Office of Natural Resources and Environmental Policy and Planning
Thailand
Presentation Outline

- Thailand Climate Change Situation and Impacts
- Paris Agreement
- Thailand Climate Change Mitigation
- Thailand’s INDC Formulation
- NDC Roadmap on Mitigation 2021-2030
Thailand Climate Change Situation


Countries most affected by extreme weather events (1996–2015)
1. Honduras
2. Myanmar
3. Haiti
4. Nicaragua
5. Philippines
6. Bangladesh
7. Pakistan
8. Vietnam
9. Guatemala
10. Thailand

Climate Risk Index: Ranking 1996–2015
1–10  11–20  21–50  51–100  >100  No data

Source: Germanwatch and Munich RE NatCatSERVICE
Overview of Thailand Climate Change Impacts
The Paris Agreement

• The Paris deal is the world's first comprehensive climate agreement
• Adopted by consensus at COP21
• Went into effect on 4 November 2016

Collective Goals: • long term temperature goal
• resilience and low GHG emission development

Collective efforts: a global emission trajectory
(peaking, reduction, balance between sources and sinks)

Individual efforts: successive Nationally Determined Contributions - NDCs
Thailand’s Response to the Paris Agreement

Signed the Paris Agreement on 22 April 2016

Ratified the Paris Agreement on 21 September 2016
Nationally Appropriate Mitigation Actions (NAMAs)

Voluntary reductions by developing countries

Post-2020

Pre-2020

Thailand’s NAMA

Pledge in 2014

“Thailand will endeavor to lower CO₂ emissions in the range of 7-20% in 2020 compared to the BAU”

Kyoto Protocol

(Commitment for Annex I Parties)

Thailand involved in CDM

Intended Nationally Determined Contribution (INDC)

Taking action on the Paris Agreement

Thailand Climate Change Mitigation
National Structure of Climate Change

National Board of Climate Change Policy
(Chair: Prime Minister) M of MoNRE, M of MoFA

Found 2007

MoNRE (Perm-Sec.)

Secretary

Sub Nt’l Board on Policy Integration (Chair: MoNRE Perm-Sec)
Amended 2015

Sub Nt’l Board on Technical Support (Chair: ONEP Sec-Gen)
Amended 2015

Sub Nt’l Board on Negotiation (Chair: MoNRE Perm-Sec)
Amended 2015

Climate Change Coordinators (CCC)
(30 Agencies :: 19 Ministries + 11 Agencies under PM Office)
Appointed 2010

Office of Natural Resources and Environmental Policy and Planning (ONEP)
Climate Change Management Coordination Division (CCMC)
(Policy formulation and National Focal Point)

Thai Green House Gas Organization (TGO)
(DNA, GHG Management & CDM implementation)
Total GHG Emissions (excluding LULUCF) by Sector

- Energy: 70.79%
- Agriculture: 17.35%
- Industrial Process: 7.33%
- Waste: 4.53%

Ref. First Biennial Update Report
Thailand’s INDC Formulation

- Consistent with the Philosophy of Sufficiency Economy and the principle of Sustainable Development
- Integration of national policies and plans
- Focus on plans which be driven by the government
  - support remodel towards sustainable development
  - lead to the actual implementation and evaluation
- Continue on the NAMAs activities

Energy & Transport  Waste  IPPU
Climate Change Mitigation

Statement by H.E. General Prayut Chan-o-cha (Ret.),
Prime Minister of the Kingdom of Thailand
at the General Debate of the 70th Session of the United Nations General Assembly
New York, 29 September 2015

“THAILAND INTENDS TO REDUCE
GREENHOUSE GAS EMISSIONS BY 20% FROM BAU LEVEL BY 2030”

The level of contribution could increase up to 25%
subject to adequate and enhanced access to
technology development and transfer, financial
resources and capacity building support through
a balanced and ambitious global agreement under
the UNFCCC
Thailand’s INDC

- 20% Reduction at 2030 from BAU
- Priority Sectors:
  - Energy and Transport
  - Waste
  - IPPU

GHG emission (Kt-CO$_2$e)

- 2005: 100,000
- 2010: 200,000
- 2015: 300,000
- 2020: 400,000
- 2025: 500,000
- 2030: 555 Mt-CO$_2$e

INDC
## Comparison of INDCs

<table>
<thead>
<tr>
<th>Country</th>
<th>EU</th>
<th>US</th>
<th>China</th>
<th>South Korea</th>
<th>Singapore</th>
<th>Japan</th>
<th>Vietnam</th>
<th>Thailand</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reduction Target</strong></td>
<td>40%</td>
<td>26–28%</td>
<td>60–65%</td>
<td>37%</td>
<td>36%</td>
<td>26%</td>
<td>8–25%</td>
<td>20–25%</td>
</tr>
<tr>
<td><strong>Type</strong></td>
<td>Absolute reduction</td>
<td>Absolute reduction</td>
<td>Carbon intensity</td>
<td>Reduction from BAU</td>
<td>Carbon intensity</td>
<td>Absolute reduction</td>
<td>Reduction from BAU</td>
<td>Reduction from BAU</td>
</tr>
<tr>
<td><strong>Target Year</strong></td>
<td>2030</td>
<td>2025</td>
<td>2030</td>
<td>2030</td>
<td>2030</td>
<td>2030FY</td>
<td>2030</td>
<td>2030</td>
</tr>
<tr>
<td><strong>Scope</strong></td>
<td>Economy-wide</td>
<td>Economy-wide</td>
<td>Economy-wide</td>
<td>Economy-wide</td>
<td>Economy-wide</td>
<td>Economy-wide</td>
<td>Energy, Agriculture &amp; Waste</td>
<td>Economy-wide Exclude Agriculture</td>
</tr>
<tr>
<td><strong>Peak year</strong></td>
<td>1979</td>
<td>–</td>
<td>2030</td>
<td>–</td>
<td>~ 2030</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Land Use Inclusion</strong></td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes / Small</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td><strong>Market Mechanism</strong></td>
<td>EU-ETS</td>
<td>No</td>
<td>–</td>
<td>Yes</td>
<td>No / Interest</td>
<td>Yes</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td><strong>Adaptation</strong></td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Submission Date</strong></td>
<td>6 Mar’15</td>
<td>31 Mar’15</td>
<td>30 Jan’15</td>
<td>30 Jun’15</td>
<td>3 Jul’15</td>
<td>17 Jul’15</td>
<td>30 Sep’15</td>
<td>1 Oct’15</td>
</tr>
</tbody>
</table>
Procedure of NDC Roadmap Development

Cabinet

National Board of Climate Change Policy (NCCC)

Sub-National Board on Policy Integration

2nd Draft NDC Roadmap

Working Group on Mitigation Planning

1st Draft NDC Roadmap

National Consultation
20 Jan 2017

Overview
Energy & Transport
Waste
IPPU
Agriculture, Forestry & Land use

Line Ministries/Related Agencies
NDC Roadmap on Mitigation 2021-2030

Reduction Potential 20.8%

- Renewable energy generation
- Increase power generation efficiency
- Increase energy efficiency in buildings
- Promote biofuels
- Increase energy efficiency in transport
- Renewable energy in industry
- Increase industrial refrigerator energy efficiency
- Solid Waste Management
- Industrial Wastewater Management
- Municipal Wastewater Management
- Clinker substitution
- Replacement refrigerants
- Renewable energy in households
- Increase energy efficiency in households
- Increase energy efficiency in buildings
- Increase energy efficiency in transport
- Municipal Wastewater Management
Plans to Meet Mitigation in NDC

- Power Development Plan, 2015-2036 (PDP2015)
- Thailand Smart Grid Development Master Plan, 2015-2036
- Energy Efficiency Plan, 2015-2036 (EEP2015)
- Alternative Energy Development Plan, 2015-2036 (AEDP2015)
- Master Plan for Sustainable Transport System and Mitigation of Climate Change Impacts
- National Industrial Development Master Plan, 2012-2031
- Waste Management Master Plan (2016 – 2021)
- Environmental Quality Management Plan, 2017 – 2021 (EQMP)
- Montreal Protocol Implementation
- RAC NAMA Project
Supporting Measures

- Motivation
- Reporting System and Database
- Capacity Building
- Awareness and Understanding
- Research and Technology
- Standard Setting
- Finance Support
- Law and Regulation
- Smart Grids
Driven Approach

2017 2021 2030

Preparation phase

Line Ministries/Related Agencies
- develop mitigation action plan
- prepare driven mechanism

ONEP (CC focal point)
- provide driven-action plan to support capacity of implementing agencies
- develop MRV guideline

CABINET approve NDC Roadmap

Implementation phase

Energy & Transport
- Increasing energy efficiency generation
- Renewable energy
- Increasing energy efficiency
- Promoting biofuels

Waste
- Solid waste management
- Industrial wastewater management
- Municipal wastewater management

IPPU
- Clinker substitution
- Refrigerant replacement

Bureau of the Budget
- support and allocate budget

Reduce GHG emission 20% from BAU level by 2030 (115.6 MtCO₂e)

Implementing agencies report progress to ONEP every 6 months

Monitor and report once a year, according to the MRV guideline

20.4% (113 MtCO₂e)
0.3% (2 MtCO₂e)
0.1% (0.6 MtCO₂e)
How to Achieve Thailand NDC

Public relations & Capacity building programs

Readiness program & Country work program

Technology roadmap & Database
Thank You

Climate Change Coordination and Management Division
Office of Natural Resources and Environmental Policy and Planning
Ministry of Natural Resources and Environment
Rama VI Rd., Prayathai District,
Bangkok 10400 Thailand
T/F: +66 2265 6692, +66 2265 6500 ext. 6842 ;
www.onep.go.th