Thailand’s Climate Change Policy

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Presentation Outline

- Institutional structure
- Climate Change Master Plan 2014-2050
- Pre-2020 - Thailand’s NAMAs
- National Adaptation Plan
- Post-2020 – INDCs
Institutional Structure for Climate Change Policy

National Committee on Climate Change Policy (NCCC)

**Chair**
Prime Minister
Minister of Natural Resources and Environment

**Vice-Chairs**
Minister of Foreign Affairs

**Subcommittees**
1. Technical Subcommittee
2. Negotiation Subcommittee
3. NAMAs Subcommittee

**NCCC members:**
1. Prime Minister’s Office
2. Ministry of Finance
3. Ministry of Agriculture and Cooperatives
4. Ministry of Transport and Communications
5. Ministry of Foreign Affairs
6. Ministry of Information and Communication Technology
7. Ministry of Energy
8. Ministry of Commerce
9. Ministry of Interior
10. Ministry of Science and Technology
11. Ministry of Education
12. Ministry of Public Health
13. Ministry of Industry
14. Bangkok Metropolitan Administration
15. Office of the National Economics and Social Development Board
16. Bureau of Budget
17. 9 Experts

Ministry of Natural Resources and Environment

ONEP/CCMP
(Policy formulation and National Focal Point)

TGO
(DNA (for CDM) / Technical support and services to carbon market actors)
Climate Policy Integration in Thailand

National-level planning

Environmental Quality Management Plan B.E. 2550-2554
Environmental Quality Management Plan B.E. 2555-2559

Issue-based planning

National Strategic Plan on Climate Change B.E. 2551-2555
Climate Change Master Plan B.E. 2557-2593

10th National Economic and Social Development Plan B.E. 2550-2554
11th National Economic and Social Development Plan B.E. 2555-2559

Sectoral planning

- Power Development Plan
- Energy Conservation Plan
- Renewable Energy Development Strategies
- Sustainable Transport Master Plan, etc.

Local-level planning and implementation

Climate Change Master Plan

**Key features:**

- 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 five years)
Climate Change Master Plan

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

Mission:
1. Build climate resilience for Thailand’s development by mainstreaming climate change adaptation into development planning of all sectors and levels
2. Reduce GHG emission and establish policy instruments to encourage sustainable and low-carbon development
3. Develop appropriate knowledge base, databases and technologies to support climate change adaptation and low-carbon development
4. Enhance capacity and awareness of development partners at all levels to enable effective engagement in executing climate change policy and plan
Climate Change Master Plan

Priorities:

- Adaptation
- Cross Cutting
- Mitigation

Adaptation:
- Agriculture
- Public Health
- Settlements & Human Security
- Tourism
- WRM
- Nat Res Mgmt

Cross Cutting:
- Policy Instruments
- Data, R&D, Technology
- Awareness, Capacity Building
- International Cooperation

Mitigation:
- Power Generation
- Urban Mgmt
- Buildings
- Agriculture
- Waste Mgmt
- Industry
- Forestry
## Climate Change Master Plan

<table>
<thead>
<tr>
<th><strong>Short-term (2016)</strong></th>
<th><strong>Medium-term (2020)</strong></th>
<th><strong>Long-term (2050) &amp; continuous</strong></th>
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</thead>
<tbody>
<tr>
<td>• vulnerability maps formulated</td>
<td>• forecasting and early-warning climate insurance systems</td>
<td>• more farm land and farmers with irrigation system</td>
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<tr>
<td>• 19% biodiversity protected area and 5,000 rai (about 800 hectares) additional mangroves annually</td>
<td>• national adaptation fund</td>
<td>• more farm land outside irrigation area with water resource development</td>
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<td>• 50% of coastal cities with coastal restoration plan</td>
<td>• 40% growth in forest cover</td>
<td>• more farmers in hot spots with training on natural disaster management and vocational training</td>
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<tr>
<td>• establishment of NAMAs and MRV</td>
<td>• maximum conservation area for biodiversity protection</td>
<td>• more farmers with climate insurance</td>
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<tr>
<td>• development of policy instruments to encourage low-carbon growth</td>
<td>• all coastal cities with coastal restoration plan</td>
<td>• less climate-related agricultural loss per agricultural GDP</td>
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<tr>
<td>• development of climate change R&amp;D and strategy database, GHG emission database, carbon footprint database, climate change adaptation and restoration plan, increased ratio of farm land and farmers with irrigation system</td>
<td>• management and vocational training</td>
<td>• more land in natural disaster hot spots with soil and water conservation and restoration</td>
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<tr>
<td>• decreased ratio of GHG emission per GDP</td>
<td>• increased ratio of farm land with GAP or organic standards</td>
<td>• more managed surface water</td>
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<tr>
<td>• increased ratio of water resource development</td>
<td>• increased ratio of farmers with climate insurance</td>
<td>• more population with access to clean water</td>
</tr>
<tr>
<td>• increased ratio of farmers in hot spots with training on natural disaster management and vocational training</td>
<td>• increased ratio of managed surface water with coastal restoration and early warning systems</td>
<td>• more natural disaster hot spots with surveillance systems</td>
</tr>
<tr>
<td></td>
<td>• increased ratio of government and farmers with climate insurance</td>
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### Climate Change Master Plan

**Short-term** (2016)
- Center or platform for climate change R&D network
- Databases including GHG emission database, GHG mitigation registry, database to support climate change negotiations
- Development of relevant action and/or strategic plans in line ministries

**Medium-term** (2020)
- 7-20% reduction of GHG emission from energy and transport sectors, relative to BAU
- 25% share of renewable energy in final energy consumption
- More municipalities with over 10 m² per capita of urban green space
- Development of local-level action plans on climate change adaptation
- Smart grid technology deployed

**Long-term (2050)** & continuous
- Fewer endangered species
- More eco-tourism
- 20% reduction of final energy consumption relative to BAU
- 25% reduction in energy intensity relative to BAU
- More public transport travel
- Less GHG emission from land transport sector
- More low-carbon and environmental-friendly investments in industry
- More farm land with GAP or organic standards
- Less agricultural burning
- Less GHG emission per GDP

**Key Strategies**
- Technology transfer and strategies to support low carbon and environmental-friendly investments in industrial sectors
- Negotiations for relevant organizations at central, regional, and local levels with climate change related capacity development plans
- Development of forecasting and strategic plans on climate change R&D
- Establishment of center or network platform for climate change R&D
- Establishment of NAMAs and MRV GHG mitigation registry, database, GHG emission database, and national GHG inventory, monitoring, and reporting systems for agriculture, forestry, and other land use, and energy and transport sectors, relative to BAU
- Increased ratio of farmers in hot spots with training on natural disaster management and adaptation
- Increased ratio of mangrove forest area and 5,000 hectares of mangrove area
- Increased ratio of community-based organizations with coastal restoration and/or development
- Smart grid technology deployed
- Improved trends in national climate resilience index
- Increased ratio of natural disaster-related public health expenditures per capita
- Increased ratio of eco-tourism
- Reduced ratio of climate-related agricultural loss per agricultural GDP
- Increased ratio of clean energy in natural disaster hot spots with soil and water conservation and restoration
- Increased ratio of natural disaster hot spots with surveillance systems
- Increased ratio of energy intensity relative to BAU
- Reduced number of children under five with malnutrition conditions
- Increased ratio of natural disaster hot spots with climate change-related capacity development plans
- Increased ratio of eco-tourism
- Increased number of mangrove forest area and 5,000 hectares of mangrove area
- Increased ratio of community-based organizations with coastal restoration and/or development
- Development of forecasting and strategic plans on climate change adaptation
- Deployment of smart grid technology at national level
- More municipalities with over 10 m² per capita of urban green space
- Development of local-level action plans on climate change adaptation
- Smart grid technology deployed

**Key Indicators**
- Increased ratio of renewable energy in final energy consumption relative to BAU
- Increased ratio of GHG emission from energy and transport sectors, relative to BAU
- Decreased ratio of agricultural burning
- Decreased ratio of open dumping area
- Increased ratio of eco-tourism
- Increased ratio of clean energy in natural disaster hot spots with soil and water conservation and restoration
- Increased ratio of natural disaster hot spots with surveillance systems
- Increased ratio of climate-related agricultural loss per agricultural GDP
- Increased ratio of energy intensity relative to BAU
- Reduced ratio of climate-related public health expenditures per capita
- Increased ratio of eco-tourism
- Increased number of mangrove forest area and 5,000 hectares of mangrove area
- Increased ratio of community-based organizations with coastal restoration and/or development
- Development of forecasting and strategic plans on climate change adaptation
- Smart grid technology deployed
Linking Actions in Thailand to Global Efforts: NAMAs

- At COP13, Parties decides to address enhanced actions on climate change mitigation and identifies NAMAs – Nationally Appropriate Mitigation Actions – as option for actions by developing countries (Decision 1/CP.13 para. 1(b)(ii))

- At COP16, Decision 1/CP.16 Para. 48, Parties agrees that developing countries will take NAMAs in the context of sustainable development, supported and enabled by technology, financing and capacity building, aimed at achieving a deviation in emissions relative to business as usual emissions in 2020.

- Decision 1/CP.16 Para. 50, Parties invites developing countries that wish to voluntarily inform the COP of their intention to implement NAMAs in association with this decision to submit information on those actions to the secretariat.

Thailand’s NAMAs/Pledge for Target Year 2020
Thailand’s NAMAs

**CO₂ Counter-measures**
- **RE**: Biomass, biogas, hydro, Solar, Wind, *Waste-to-energy* etc.
- **EE** in Industries & Buildings
- **Bio-Fuels** and alternative energy sources
- **Environmental Sustainable Transport System**

“Thailand will endeavor to lower CO₂ emissions in the range of 7-20% in 2020 compared to the BAU”
Thailand’s Current Policies/Plans (Energy and Transport)

- **10-year Alternative Energy Development Plan (2012-2021)**, 25% targeted, including Bio-fuels
- **20-year Energy Efficiency Development Plan 2011 – 2030**: 
  - Energy Efficiency (EE) in buildings and industries (voluntary)
- **Environmental Sustainable Transport System Plan**
National Adaptation Plan (NAP)

- National Adaptation Framework
  - 6 months / synthesis of current data / knowledge assessment / activity under Climate Policy Project

- National Adaptation Plan (NAP) Phase I
  - Budget year B.E. 2558 / Climate risk assessment nationwide and policy recommendations

- Support to Climate Risk Assessment – new proposal to BMUB

- National Adaptation Plan (NAP) Phase II
  - Budget year B.E. 2559 / Action plan in priority sectors
Post-2020
Intended Nationally Determined Contributions: INDCs

**COP 20 Lima Decision**
- /CP.20 Lima call for climate action, Para 14; Agrees that the information to be provided by Parties communicating their INDCs, in order to facilitate clarity, transparency and understanding, MAY INCLUDE, as appropriate;

<table>
<thead>
<tr>
<th>Up Front Information</th>
<th>Thailand’s INDCs Preparation</th>
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<tbody>
<tr>
<td>1. Reference Point (as appropriate, a base year)</td>
<td>Base Year: 2005 (The same as NAMAs)</td>
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<tr>
<td>2. Time frames and/or Periods for Implementation</td>
<td>2030</td>
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<tr>
<td>3. Scope and Coverage</td>
<td>Sectoral; Energy, (Waste, IPPU) (cover about 60-80% of Thailand GHGs Emission; Second National Communication)</td>
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<tr>
<td>4. Planning processes</td>
<td>PDP, EEDP, Transport and Traffic Master Plan and etc.</td>
</tr>
<tr>
<td>5. Assumptions and Methodological approaches</td>
<td>Enduse approach (AIM Enduse, demand driven), IPCC Guidelines and Co-benefit approach</td>
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</table>
I. Review, Analyze mitigation potentials Thailand’s post 2020 contributions

- Review of UNFCCC and Thailand Pre 2020 and Post 2020 Mitigation
- Status/Readiness of Thailand for post 2020 contributions
- Countermeasures/Priority areas of Mitigation Contributions

II. AIM/Enduse and Multi-benefit analysis

- **AIM Modeling Energy** (IPPU/Waste)
  ➔ **Result From Model** (Energy Consumption, CO₂ Emission, Abatement Costs)
  ➔ **GHG Mitigation Potential**
- Post 2020 Assessment (Cost Effectiveness, Co-benefit, Energy Security)
  ➔ **Policy measures for post2020 agreement**

III. Consultation and INDCs preparation

- Stakeholders Involvement
- Thailand’s post 2020 Readiness and Contributions

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**Post-2020 Intended Nationally Determined Contributions: INDCs**
Lessons learned from Thailand’s NAMAs

Potential data challenges for iNDCs preparation:

- Access to sectoral data is sometimes difficult.
- Institutional arrangement is not clearly defined for both ex-ante assessment and for MRV.
  - Mandates for relevant agencies need to be agreed for data input in ex-ante assessment.
  - Mandates and framework for data collection, reporting and verification (MRV).
- Capacity building in MRV is needed in all relevant sectors.

Possible improvements:

- Early institutional arrangement is required with clearly defined mandates. (i.e. institutional arrangement should be discussed in the iNDCs study phase and decided upon in the iNDCs approval process.)
- Early start of capacity building activities in key sectors. (i.e. capacity building should continue from NAMAs and expand to other key relevant sectors.)
Thailand’s INDCs Approval Process

1. INDCs preliminary study results
2. Stakeholder consultations
3. Sub-committee Approval
4. National Committee (NCCC) Approval
5. Cabinet Approval
6. Parliamentary Approval (if needed)
7. Submission to UNFCCC

Dept. of Treaties and Legal Affairs to determine if parliamentary approval is required
Thank you!