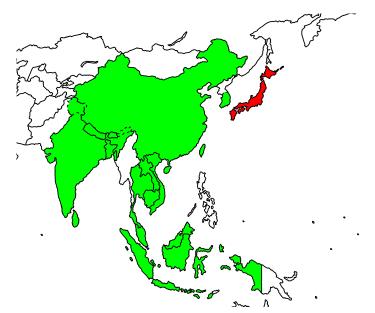
Japan's contributions towards a decarbonised and resilient Asia 脱炭素でレジリエントなアジアに向けた日本の貢献

Framing Presentation

12 November 2022 COP27 Japan Pavilion

> FUJINO Junichi IGES

Development of AIM (Asia-Pacific Integrated Model)



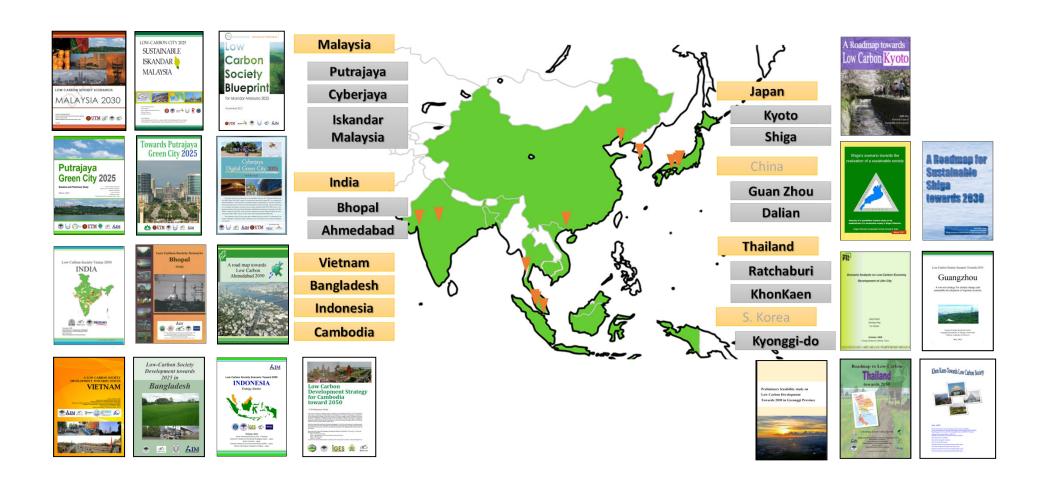


The 28th AIM International Workshop in 2022 (Online)

- Asian countries will update their mitigation target and roadmap to achieve the 2/1.5 degree target reflecting their issues to be solved and the resources to be endowed.
- Model can be a collaboration tool between science and decision making process. From the long-term viewpoint, each country will need the capacities to develop model and scenarios by itself.
- AIM (Asia-Pacific Integrated Model) has supported Asian countries to develop the integrated assessment model and their long-term low carbon/decarbonized scenarios.
- https://www-iam.nies.go.jp/aim/index.html



Examples of brochures introducing Asian Low Carbon Scenarios Communication and feedbacks of LCS study to real world

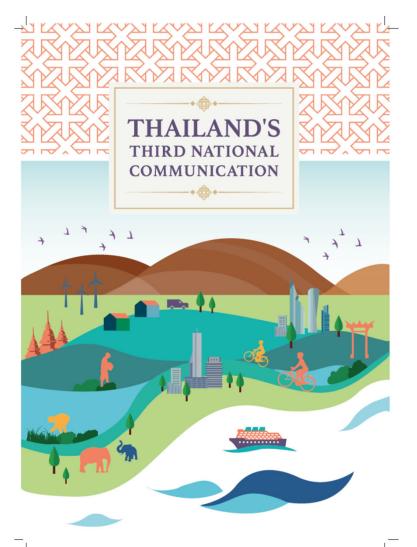




Prof. Bundit Limmeechokchai (Sirindhorn International Institute of Technology, Thammasat University)

Thailand

Third National Communication



CHAPTER 3: MITIGATION MEASURES

3.2.1 NAMAs roadmap

Thailand's NAMAs aims at voluntarily reducing greenhouse gas emissions in the energy and transportation sectors by 7% by 2020 from the Business as Usual (BAU) levels. With sufficient international support, Thailand's NAMAs aims to lower the carbon trajectory up to 20% below the BAU level by 2020. The key mitigation actions committed and implemented in the Thailand's NAMA mortany includer.

- Development of renewable energy and alternative energy sources;
- Energy efficiency improvements in power generation, industries, buildings, and transportation;
- · Substitution of bio-fuels for fossil fuels in the transport sector; and
- Thailand's Transport Infrastructure Development Plan.

3.2.2 Thailand's NDC

Thailand submitted its INDC and relevant information to the UNFCCC in 2015 to restate that GHG emissions can be reduced by 20% from the BAU levels by 2030, and up to 25% if the required support is received from international organizations. In addition to this progress, the NCCC established the Subcommittee on Climate Change Policy and Planning Integration, which is tasked with preparing and proposing mitigation mechanisms and measures that encompass the legal, economic, stocal and social instruments that are required to translate the measures into the policies, strategies, and work plans to meet the medium-term and long-term mitigation targets. Since the submission of its fard Biennial Update Report and ratification of the Paria Agreement in 2015, several climate change mitigation policies and measures have been put in place at the national level to fulfill Thailand's drive toward a low carbon and resilient society. In 2017, Thailand launched its NDC Roadmap to reduce 115.0 MICC₂eq, which will account for a 20.3% reduction by 2300 when compared to the BAU level.

As mentioned, both Thailand's NAMAs and Thailand's NDC were developed on the basis of BAU (Figure 3-1). The BAU scenario was created by using the Asia-Pacific Integrated Assessment Model (AiM). The AIM model was developed in collaboration between the National Institute for Environmental Studies (NIES) Japan, Kyoto University, the Mizuho Information & Research Institute, and other Asian researchers including Thailand. The AIM model focuses on relevant policies to support low-carbon pathways.

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https://unfccc.int/documents/181765

Prof. Bundit Limmeechokchai (Sirindhorn International Institute of Technology, Thammasat University)

Thailand

Mid-century, Long-term Low Greenhouse Gas Emission Development Strategy

Mid-century, Long-term Low Greenhouse Gas Emission Development Strategy

THAILAND

Submitted under the Paris Agreement

October 2021

3.1 Methodology for the Development of Long-term Low Greenhouse Gas Emission Pathways

3.1.1 Model for Low Greenhouse Gas Emission Pathways

Thailand's mid-century, long-term low greenhouse gas emission development strategy was developed based on the scenario of net-zero greenhouse gas emissions in the second half of this century, in line with science and the Paris Agreement. The BAU scenario was developed using input information of the current country's circumstances and status provided by related ministerial agencies into the Asia-Pacific Integrated Assessment Model (AIM) (Figure 3-2).

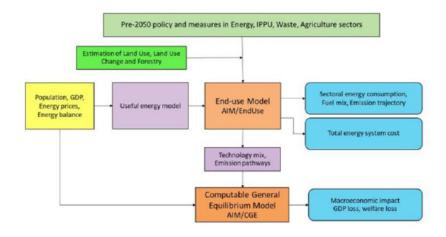


Figure 3-2: Framework of Thailand's LEDS Development

https://unfccc.int/sites/default/files/resource/Thailand_LTS1.pdf



Prof. Retno Gumilang Dewi and Dr. Ucok WR. Siagian (Bandung Institute of Technology)

Indonesia

Long-term strategy for Low Carbon and Climate Resilience 2050



4.1. Scenario Development

4.1.1. Models for Mitigation Pathways

Indonesia used a set of models in developing the emission pathways with two stages of analysis. In the first stage, separate models were developed for modelling agriculture, forestry and other land uses (AFOLU), and energy. The AFOLU sector used AFOLU Dashboard (a spreadsheet model), meanwhile energy sector used AIM-EndUse and the AIM-ExSS (Extended Snapshoot). In both models, economic and population growth are the key drivers for changes in food and energy demand. In the second stage, the economic and economic impact of both AFOLU and energy sector mitigation are analysed by utilizing the Asia Pacific Integrated Model/Computable General Equilibrium (AIM/CGE)-Indonesia (see Figure 3).

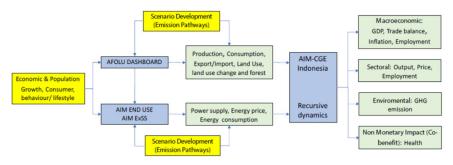


Figure 3. Models for developing emission pathways in Indonesia



Vietnam

Joint Ministerial Statement: 6thViet Nam - Japan Environmental Policy Dialogue (August 25, 2020)

Joint Ministerial Statement

6th Viet Nam - Japan Environmental Policy Dialogue

The 6th Viet Nam - Japan Environmental Policy Dialogue between the Ministry of Natural Resources of Viet Nam and the Ministry of the Environment of Japan was organized virtually on 24th and 25th August 2020. Following is the summary of discussions of the meeting:

Session 1: Review on Progress of the Cooperation

1. Both sides welcomed the outcome of the cooperation between the two Ministries since the 5th Policy Dialogue and shared the progress of the cooperation in various areas within the framework of the dialogue, including in the Joint Credit Mechanism (JCM), Partnership to Strengthen Transparency for co-innovation (PaSTI), supporting climate adaptation plans for three provinces in Viet Nam, revision of Environmental Protection Law 2014, amongst others.

Session 2: Climate Change

- Both sides shared the review of climate change measures after the adoption of Paris Agreement and confirmed commitment for continuous and enhanced cooperation in the areas of milication, transparency, and adoptation.
- 3. Regarding mitigation, both sides agreed on comprehensive cooperation for advancing transition towards decarbonization in Viet Nam through introducing and/or updating policies, instruments, capacity building and diffusion of low-carbon and decarbonized technologies, including developing the long-term strategy and mainstreaming renewable energy by for instance utilizing AIM model.
- soon sales welcomed the progress of renewing the distateral occurrent on the JCM and confirmed that the JCM continues to be an important mechanism in contribution on mitigation activities. Both sides also recognized the potential in utilizing the JCM for the achievement of SDGs and facilitating multilateral partnerships among the JCM partner countries and relevant stakeholders through the JCM Global Partnership.
- Regarding transparency, both sides agreed to promote identification of specific activities in the Partnership to Strengthen Transparency for co-Innovation (PaSTI) and to cooperate in Long-term Strategy towards reducing emissions, and confirmed to discuss detailed activities.
- 6. Both sides also agreed on accelerating efforts to advance lifecycle management of fluorocarbon including continued engagement to global actions, such as the Initiative on Fluorocarbons Life Cycle Management, amongst others.
- 7. Recognizing the strategic importance of engaging cities in advancing decarbonization, both

Regarding mitigation, both sides agreed on comprehensive cooperation for advancing transition towards decarbonization in Viet Nam through introducing and/or updating policies, instruments, capacity building and diffusion of low-carbon and decarbonized technologies, including developing the long-term strategy and mainstreaming renewable energy by for instance utilizing AIM model.

https://www.env.go.jp/press/files/jp/114598.pdf



Vietnam

Joint Cooperation Plan on Climate Change toward Carbon Neutrality by 2050 between the MOEJ and the MONRE of Viet Nam (November 24, 2021)

Joint Cooperation Plan

on Climate Change toward Carbon Neutrality by 2050 between the Minister of the Environment of Japan

and the Minister of Natural Resources and Environment of Viet Nam

The Minister for the Environment of Japan, H.E. Yamaguchi Tsuyoshi, and the Minister of Natural Resources and Environment of Viet Nam, H.E. Tran Hong Ha,

Recognizing the statement by the Viet Nam Prime Minister, H.E. Pham Minh Chinh at the 26th session of the Conference of Parties to the United Nations Framework Convention on Climate Change (COP26) in Glasgow, UK in early November 2021, which expressed Viet Nam's intention to become carbon neutral by 2050;

Emphasizing the ASEAN-Japan Climate Change Action Agenda 2.0 on October 27, 2021 and the renewal of Memorandum of Cooperation on Low Carbon Growth between Japan and Viet Nam on October 14, 2021:

Fully aware of the comprehensive cooperation for advancing transition towards decarbonization in Viet Nam confirmed in the sixth Viet Nam - Japan Environmental Policy Dialogue on August 24 and 25, 2020; and

Recognizing the importance of enhancing environmental business between two countries towards realization of sustainable and decarbonized society in Viet Nam,

Have consented as follows:

- The Ministry of the Environment of Japan and the Ministry of Natural Resources and Environment of Viet Nam will strengthen further their bilateral cooperation on climate change responses toward carbon neutrality by 2050, in line with Viet Nam's Nationally Determined Contribution which extends from 2021 to 2030, as well as other fields including environment and plastic pollution.
- z. The two ministres miniermance their cooperation in the following areas.
- a. The development of National Strategy on Climate Change for the period to 2050 including the Long-Term Strategies (LTS) as required by Paris Agreement especially through analysis of future emission scenarios utilizing Asia-Pacific Integrated Model (AIM);
- The development of city-level LTS especially through analysis of future emission scenarios utilizing AIM and formulation of decarbonizing projects through City to City collaboration such as Hai Phong City and Kitakyushu City;
- Improving monitoring, evaluation and reporting system and racilitating private sector engagements in climate actions through Partnership to Strengthen Transparency for co-Innovation (PaSTI);

- a. The development of National Strategy on Climate Change for the period to 2050 including the Long-Term Strategies (LTS) as required by Paris Agreement especially through analysis of future emission scenarios utilizing Asia-Pacific Integrated Model (AIM);
- b. The development of city-level LTS especially through analysis of future emission scenarios utilizing AIM and formulation of decarbonizing projects through City to City collaboration such as Hai Phong City and Kitakyushu City;

https://www.env.go.jp/press/files/jp/117125.pdf



1. Background and Objectives

Background

- The <u>ASEAN State of Climate</u> <u>Change Report (ASCCR)</u> released in October 2021.
- The "<u>ASEAN Climate Vision</u> <u>2050</u>" in the report showed ASEAN's <u>goal</u> and <u>pathway</u>.
- The vision identified <u>prioritised</u> <u>climate actions</u>, 29 adaptation and 30 mitigation actions, for 2030 and 2050.

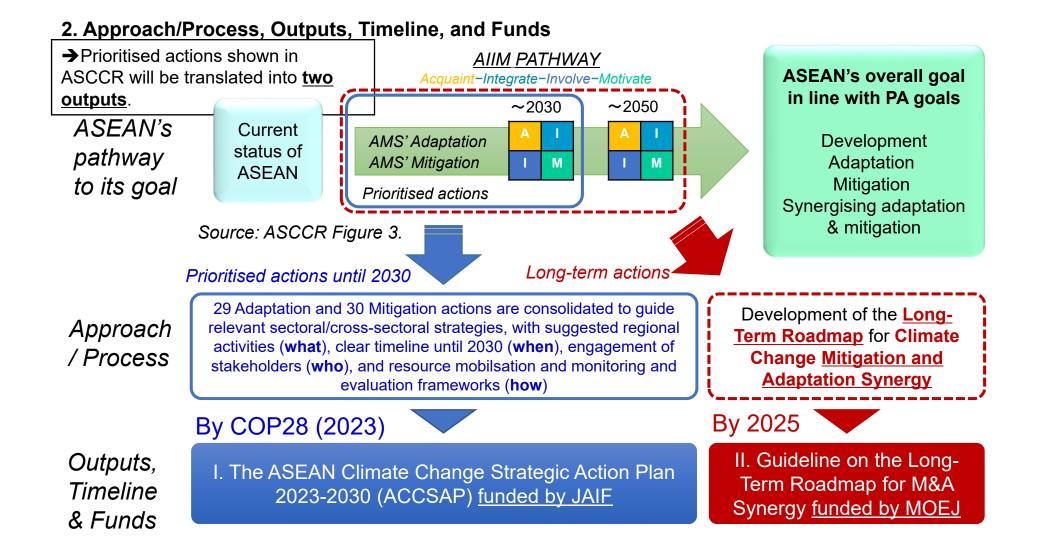




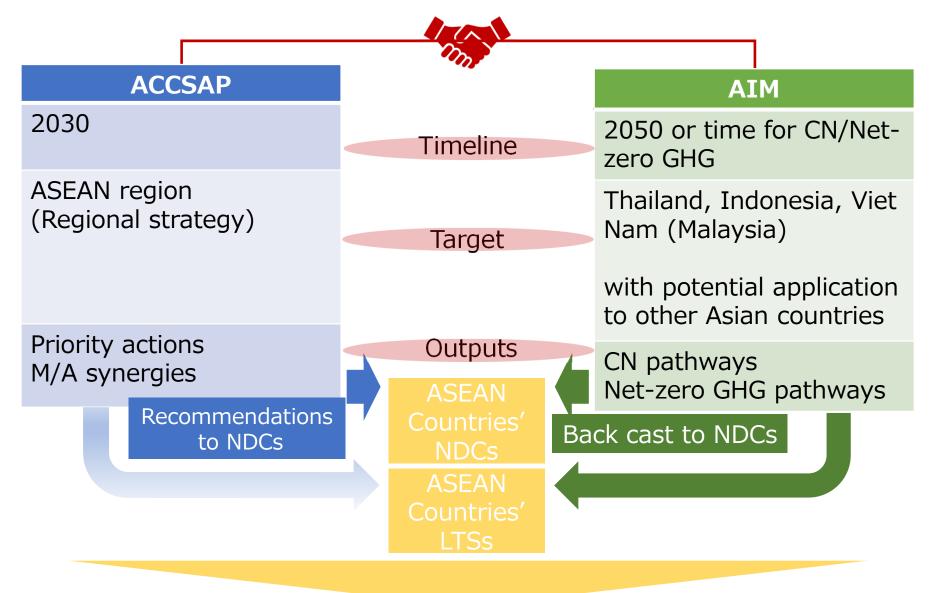
Secretary General's message at COP26

Objectives (Two outputs)

- I. To develop the (I) ASEAN Climate Change
 Strategic Action Plan 2023-2030 (ACCSAP)
 by 2023; and (II) Guideline on the LongTerm Roadmap for Mitigation and
 Adaptation Synergy by 2025, with a view to meeting the following requirements:
 - ✓ Integration: CC and Sustainable development, and mitigation and adaptation synergy
 - ✓ Inclusiveness: Vulnerable people and youth groups
 - ✓ Inter-temporal Consistency & Adaptability
- II. To link ACCSAP with sectoral/cross-sectoral regional strategic measures:
- III. To guide medium- to long-term <u>national</u>
 <u>climate policy by the two outputs</u>
 e.g. Nationally Determined Contributions (NDCs), Long-term
 Strategy (LTS)



Japan's support for the development of mid/long-term strategies



Towards a Decarbonised and Resilient Asia