

Session 2: AIM as a Policy Support Tool

Expectations from climate policy making process

[Chairperson] Dr. Yosuke Arino (IGES, Japan)

[Case study 3] Prof. Chin Siong Ho (UTM, Malaysia)

[Case study 4] Prof. Bundit Limmeechokchai (SIIT-TU, Thailand)

[Discussants] Dr. Vong Sok (ASEAN Secretariat),
Mr. BounEua Khamphilavanh (MONRE, Lao) and
Ms. Tomoko Ishikawa (IGES, Japan)

AIM is expected to play a role as a policy tool by providing quantitative information to support the development of climate mitigation policies including long-term strategies, and to assist local areas in their decarbonization policies.

Introduction

Yosuke Arino: Researcher & Project Leader (Mitigation and Adaptation Integration), Strategic Management Office, Institute for Global Environmental Strategies (IGES), Hayama, Japan



Recent works

- Programme manager for the **ASEAN Climate Change Strategic Action Plan 2023-2030 (ACCSAP)**, ongoing
- Principle investigator for the “**Research on Developing a Roadmap and Supporting Implementation of Transition Strategies for Mitigation and Adaptation towards Realizing Climate-neutral and Resilient Societies** in Developing Countries and Sub-regions in Asia (1CN-2206)” (2022-2025), ongoing
- Programme manager for the **ASEAN State of Climate Change Report** (October 2021)

Expertise

- Experiences of the **Integrated Assessment Model (IAM)** analysis on long-term mitigation, adaptation, and geoengineering
- Analyses of solar PV diffusions and estimation of capacities to adapt to climate-related hydrological hazards
- Transdisciplinary research on the development of climate change roadmap
- PhD in Economics, Keio University.

ASEAN's GHG emission pathways

The global 1.5 °C target calls for ASEAN to achieve a **net-zero CO₂ emission in 2050** while ASEAN needs to achieve **net zero GHG emissions in 2065** on average across models.

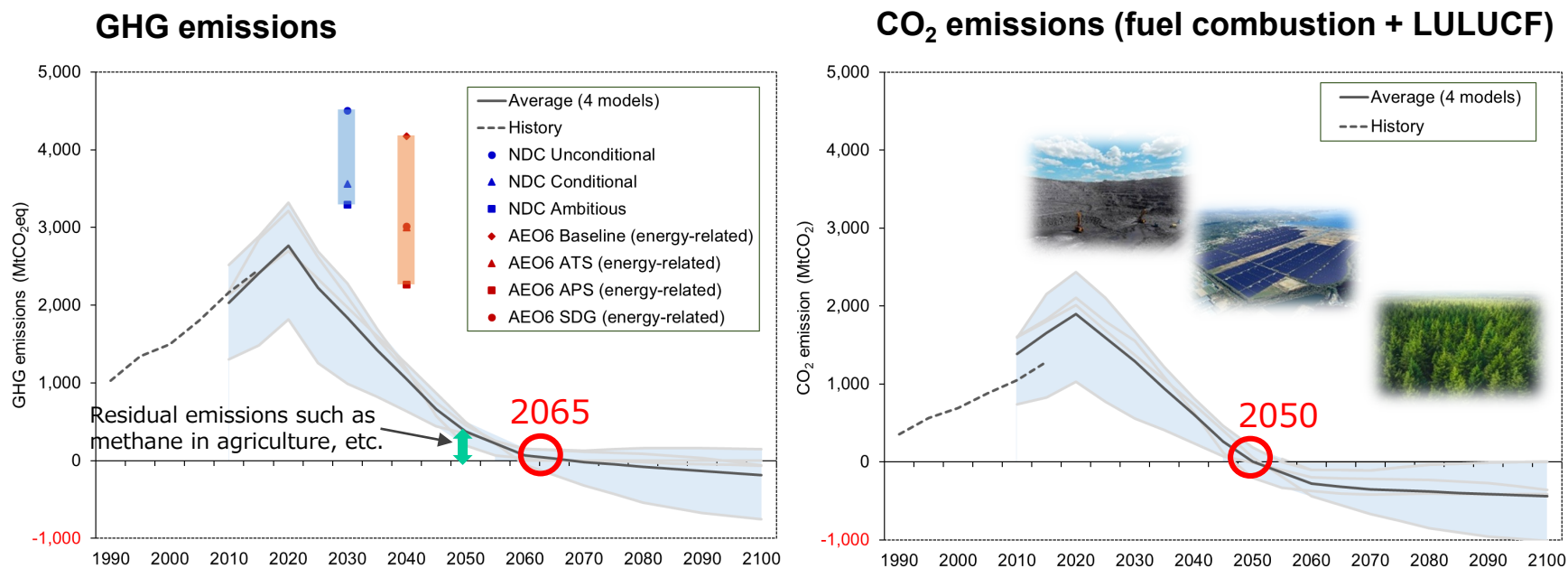


Figure 16. Historical and future GHG and CO₂ emissions pathways in ASEAN to meet the 1.5°C target on a global scale. CO₂ emissions include emissions from fuel combustion, industrial processes, and LULUCF. Four models whose simulation results shown are AIM/CGE 2.1, MESSAGEix-GLOBIOM 1.0, REMIND-MAGPIE 1.7-3.0, and WITCH-GLOBIOM 4.4.

Note: Photos are added on the original Figure 16 by presenter

ASEAN's long-term climate goals shown in ASCCR

Goal for synergizing adaptation and mitigation

Wherever possible, adaptation interventions should aim for synergy with mitigation synergies in order to drive the ASEAN transformative pathway toward net-zero emissions. For this purpose, climate change adaptation and mitigation need to be integrated using cost-effective solutions that maximise well-being.

Adaptation goal

- Process-oriented and/or outcome-based goals for sectors commonly impacted across AMS such as sea-level rise and urban heat island effects
- **Ensure adaptation transition's synergy with the mitigation transition toward net-zero emissions**

Mitigation goal

- Realise **net-zero GHG emissions as early as possible in the latter half of the 21st century.**
- Realise **peak GHG emissions as soon as possible after 2030** to ensure the net-zero GHG emission goal is met on schedule.

Development goal

Realise the AMS developmental goals, recognising the extent of multi-dimensional trade-offs and synergies among the sustainable development goals (SDGs) related to energy security, resources, food, water, safety and climate.

Source: Arino, Y. and Prabhakar, S.V.R.K. (2022) ASEAN's Transition Pathway to Realise a Resilient and Net-zero Community: Core Findings from the ASEAN State of Climate Change Report, Policy Brief, No. 02 / January 2022, ACEAN Centre for Energy

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Outline of Session 2

- **Presentations (two)** by the researchers in Thailand and Malaysia, showing how the simulation results from the AIM have been used in the climate mitigation policies

Panel discussion

- **Expectations (three short presentations)** for the integrated assessment model will be introduced by discussants, from the viewpoint of climate policy making process
- **Discussion** on the contribution of the AIM and its new direction to support decarbonization policies
- **Q&A session** (if possible)



minutes

30

25

30