#### **Activities in FY 2021-2022**

#### Toshihiko Masui

National Institute for Environmental Studies

The 28th AIM International Workshop Ohyama Memorial Hall in NIES and Online September 13 & 14, 2022





# "Welcome back to the AIM Workshop!" and "Good to meet you!"





AIM International Workshop 26th

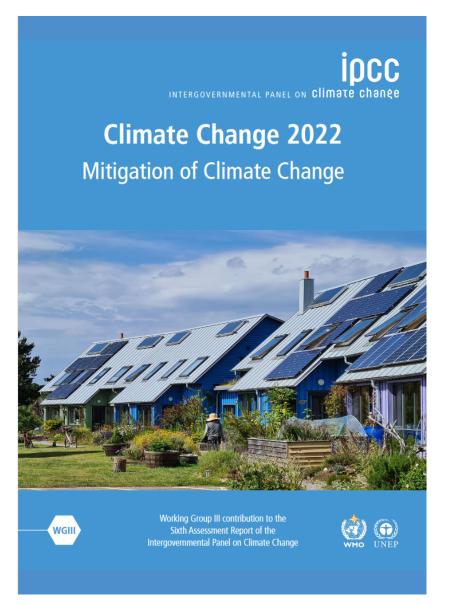
The 26th AIM International Workshop (Online), Sept. 3-4, 2020



The 27th AIM International Workshop (Online), Sept. 30-Oct. 1, 2021 2



# IPCC AR6 WG3 was released in April 2022



2010-2019: Average annual greenhouse gas emissions at highest levels in human history.

We are not on track to limit warming to 1.5  $^{\circ}$  C.

But there is increased evidence of climate action.

Unless there are immediate and deep emissions reductions across all sectors, 1.5° C is beyond reach.

There are options available now in every sector that can at least halve emissions by 2030.

Accelerated climate action is critical to sustainable development.

The evidence is clear: The time for action is now.

https://report.ipcc.ch/ar6wg3/pdf/IPCC\_AR6\_WGIII\_PressConferenceSlides.pdf



# Contribution of AIM to develop long-term strategies in Asia

#### Thailand:

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

THAILAND'S
THIRD NATIONAL
COMMUNICATION

https://unfccc.int/documents/181765



https://unfccc.int/sites/default/files/resource/Thailand LTS1.pdf

#### Indonesia:

Prof. Rizaldi Boer (Bogor Agricultural University)

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



https://unfccc.int/sites/default/files/resource/Indonesia\_LTS-LCCR\_2021.pdf



# Contribution of AIM to develop long-term strategies in Vietnam

#### Joint Ministerial Statement 6th Viet Nam - Japan Environmental Policy Dialogue

The  $6^{\rm th}$  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  $24^{\rm th}$  and  $25^{\rm th}$  August 2020. Following is the summary of discussions of the meeting:

#### Session 1: Review on Progress of the Cooperation

 Both sides welcomed the outcome of the cooperation between the two Ministries since the 5th Tothy Dialogue and shared the progress of the cooperation in various areas within the transversior of the dialogue, including in the Jost Credit Recharams (CDI, Tarbership to Strengthen Transparency for co-involvation (VESTT), supporting climate adaptation plans for these promises in Vest Man. Inviting of inventmental Protection Law 2014, amount of them.

#### 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 mitigation, transparency and adaptation.
   Resparding mitigation, both sides agreed on comprehensive cooperation for advancing
- Regarding mitigation, both sides agreed on comprehensive cooperation for advancing transition treased incolorations in view fix this mitinosphinology and/or updating policies, instruments, capacity building and diffusion of low-carbon and docarbonized technologies, including developing the importer strategy and maintainuming rememble energy by for instance utilizing AM model.
- 4. Both sides welcomed the propries of investing the biliterial document on the XDH and confirmed that the XDH continues to be an important mechanism in contributing to mitigation activities. Both sides also recognized the potential in stilling the XDH for the activement of SDG and facilitating multiliterial partnerships among the XDH pattern countries and relevant stakeholders brough the XDH 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
- ton-premiserable procession insulproper not considerable procession of the considerable 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

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

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

#### 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 26<sup>th</sup> 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,

- The Ministry of the Environment of Japan and the Ministry of Natural Resources and Environment of Vest Nam will sthereighten further their bilatest acceptation on climited change responses toward carbon neutrality by 2009, in line with Vest Nam's Nationally Determined Contribution which extends from 2021 to 2030, as well as other fields including environment and plastic pollution.
- The two Ministries will enhance their cooperation in the following areas:
- 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 facilitating private sector engagements in climate actions through Partnership to Strengthen Transparency for co-Innovation (PaSTI);

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

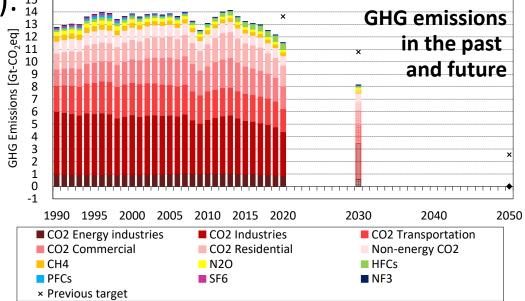
https://www.env.go.jp/press/files/jp/117125.pdf

Through the above memorandum among the governments, AIM team supports development of long-term scenarios to assess the net-zero GHG emissions in Vietnam.



#### Updated GHG mitigation goals of Japan

- GHG mitigation target of 2030 (NDC):  $\frac{15}{14}$  46% reduction compared to emissions in 2013.
- Long-term strategy:
   Net-zero GHG emissions, that is,
   to realize carbon neutrality by 2050.
- Plan for Global Warming Countermeasures approved by the Cabinet in 2021:



"Japan will support the formulation of long-term strategies using the Asia-Pacific Integrated Model (AIM), assist in revising NDCs, and help private companies build institutions and improve their implementation capacity, thereby contributing to raising the ambition of partner countries and strengthening their efforts to decarbonize their economies."



Our research activities based on AIM will be more important!

# Contribution of AIM to Realization of Decarbonized Society

- We could stock a certain level of scientific knowledge on climate change, and it has been applied to climate policies through the AIM.
- ➤ More detailed models and analyses are requested by stakeholders to implement to "evidence-based decision making."
- ➤ Since there are still many unknown issues, we need more scientific research.

Through the discussion at the 28th AIM International Workshop, we will share the recent model activities and results, and we will discuss the future directions of AIM.



# Schedule of the 28th AIM International Workshop (1)

- September 13, 2021
  - ✓ Session 1: Opening
    - > Keynote Speeches: Dr. Jae Edmonds, Prof. P.R.Shukla and Dr. S. Nishioka
  - ✓ Session 2 & 3: GHG mitigation and AIM in Asia
    - > Thailand
    - > Indonesia
    - Vietnam
    - > China
    - > India
    - Malaysia
    - Korea
    - Nepal
    - > Taiwan

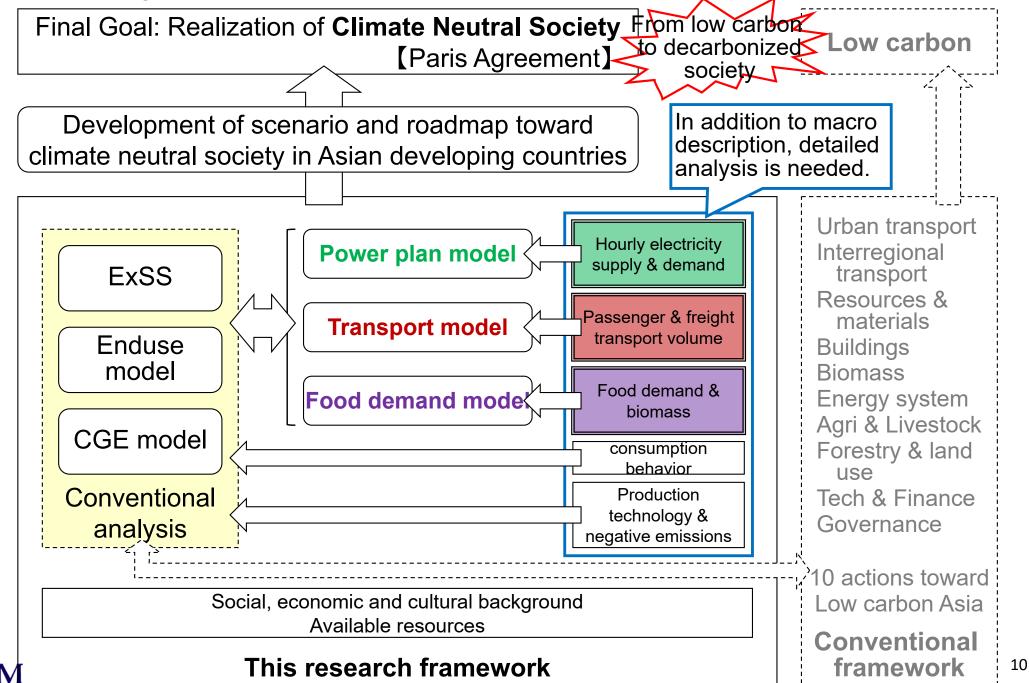


# Schedule of the 28th AIM International Workshop (2)

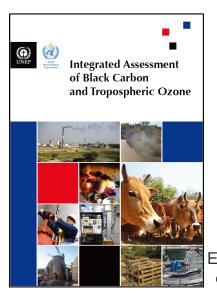
- September 14, 2022
  - ✓ Session 4: Climate impact, adaptation, and sustainability
    - > Dr. R. Sands, Dr. T. Hasegawa, Dr. S. Xia, Dr. T. Yokohata, Dr. H. Jung, and Dr. F. Liu
  - ✓ Session 5: From Research to Actions towards Net-zero Society
    - Discussion of research activities and new research directions
      - Local Decarbonization
      - National Decarbonization in Asia
      - SLCFs and Decarbonization in Asia: Activities among UNEP/CCAC & Other Programs
      - Global Study
  - ✓ Session 6: Closing
    - Poster Award Ceremony



# Research on quantification of roadmap toward climate neutral society in Asian developing countries

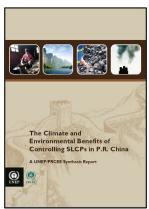


#### **Examples of UNEP CCAC Reports in the past & future**

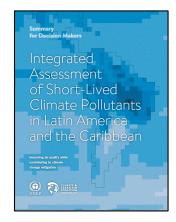


Integrated Assessment of Black Carbon and Tropospheric Ozone (2011)

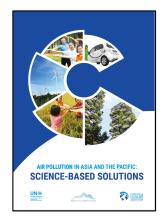
> This report brought focusing on SLCPs



The Climate and **Environmental Benefits** of Controlling SLCPs in P.R.China (2015)

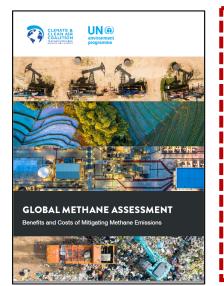


Integrated Assessment Air Pollution in Asia of SLCPs in Latin America and the Caribbean (2016)



and the Pacific (2019)

[Today's Main Discussion] How can AIM team contribute to "Economic Assessment of SLCP mitigations" to bring a next global movement?



Global Methane Assessment: Benefits and Costs of Mitigating Methane Emissions (2021)

> This report brought at COP26

**Economic** Assessment of **SLCP** Mitigations

(Under discussion)

What's next in plan?





# Schedule of the 28th AIM International Workshop (3)

#### Poster session

- ✓ Poster session has already started on September 7.
- ✓ Please give your comments and questions to each poster.

  Comment Sheet will be sent to aim-as-nies@nies.go.jp by September 30.
- ✓ By 3 pm on September 14 of Japan Time, please vote for the best poster from the following URL or QR code.

https://forms.office.com/r/Lds3cmdcbf



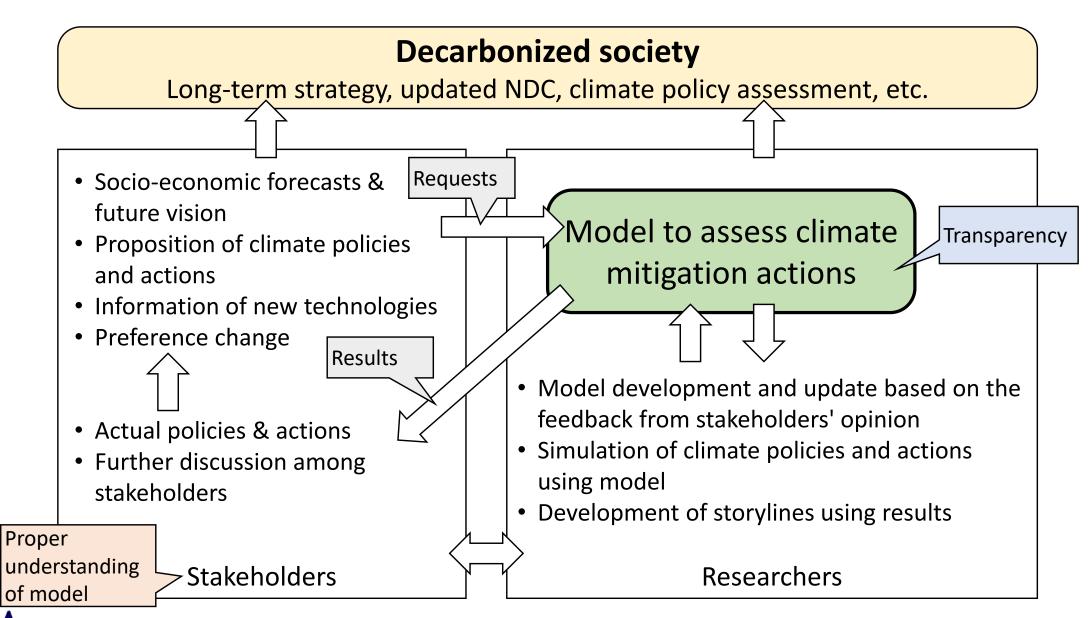


# Online training workshop on September 27-29, 2022

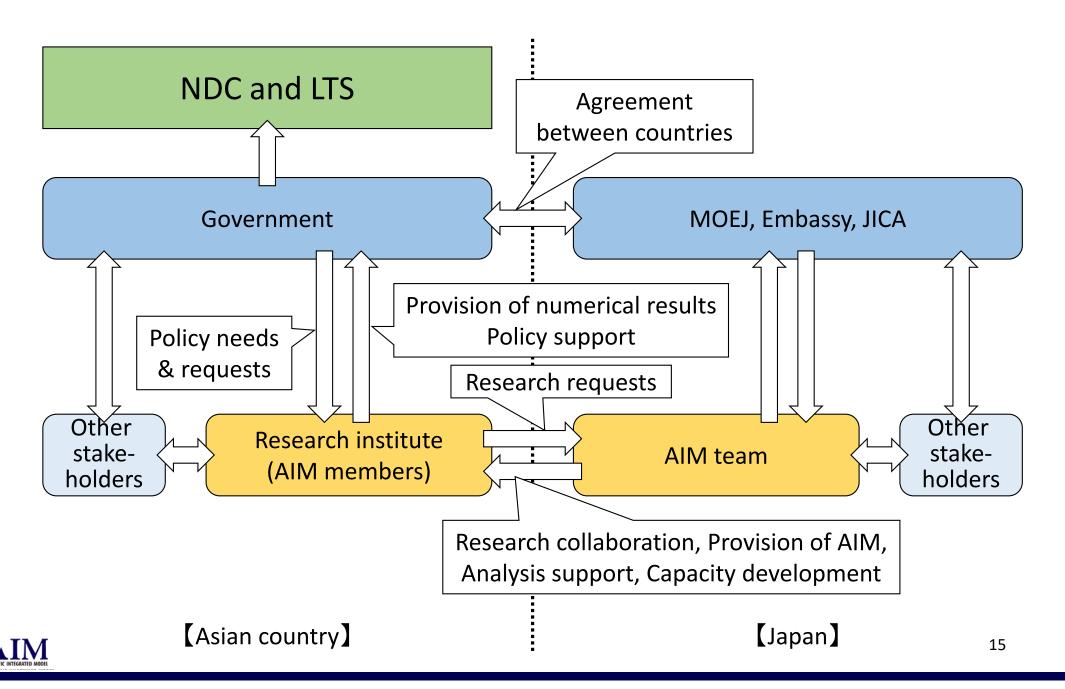
- With LoCARNet and Center for Climate Change Adaptation of NIES, the training workshop will be held at 13:00-18:00 on September 27-29, 2022.
- Anticipated participants are stakeholders including policy makers. The final goal is to give participants an understanding of the role of the model and an overview of AIM to build good communicate between model researchers and stakeholders.
- Day 1 (September 27, 2022)
  - ✓ Session 1: Opening
    - ➤ What is model and AIM? / Climate policy and AIM
  - ✓ Session 2: ExSS Extended SnapShot tool
- Day 2 (September 28,2022)
  - ✓ Session 3: Climate change impacts & adaptation and AIM
    - ➤ Introduction of AP-PLAT / New CMIP6 tool "ClimoCast" / Climate Impact Viewer / Other AP-PLAT Tools
  - ✓ Session 4: AIM/Enduse
- Day 3 (September 29, 2022)
  - ✓ Session 5: AIM/CGE
  - ✓ Session 6: Discussion on how to apply AIM in your country
- If you want to attend this event to discuss with stakeholders, please access the following URL or QR code.
  - https://forms.gle/8P7q58mx2qAwzEPx6



Interactions between stakeholders and model researchers to realize decarbonized society



# Expected structure to support climate policy in Asian country



Let's discuss to realize a decarbonized society

