

The 27th AIM International Workshop

National Institute for Environmental Studies (Online)

September 30 and October 1, 2021

DAY 1: September 30, 2021

12:30 of JST Open Zoom Account and Registration

13:00-14:00 Session 1: Opening

Chairperson: Dr. Toshihiko Masui (NIES, Japan)

13:00-13:05 Opening remarks

Dr. Masahide Kimoto (President of NIES, Japan)

13:05-13:20 Activities in FY 2020-2021 including 5th 5-year plan of NIES

Dr. Toshihiko Masui (NIES, Japan)

13:20-13:40 Keynote speech (1): 1. Mitigation of climate change: The IPCC AR6 cycle; and
2. Framework for national scenario: A case of India

Prof. Priyadarshi Shukla (Ahmedabad Univ., India)

13:40-14:00 Keynote speech (2): A United States path to 2050 net zero

Dr. James Edmonds (PNNL, USA)

14:00-14:15 Contribution of AIM to update NDC and LTS in Japan

Mr. Go Hibino, Dr. Shuichi Ashina, Dr. Diego Silva Herran, Dr. Yuko Kanamori and
Dr. Toshihiko Masui (NIES, Japan)

14:15-14:30 Assessment of local GHG mitigation actions toward the net-zero emissions in Japan

Dr. Shuichi Ashina and Dr. Kei Gomi (NIES, Japan)

14:30-15:15 Break

15:15-18:00	Session 2: GHG mitigation and AIM in Asia
	Chairperson: Dr. Tatsuya Hanaoka and Dr. Diego Silva Herran (NIES, Japan)
15:15-15:30	SLCPs emission scenario for China Prof. Xiulian Hu and Prof. Kejun Jiang (ERI, China)
15:30-15:45	GHG mitigation for India: Status and way forward Prof. Amit Garg (IIMA, India) and Dr. Saritha Vishwanathan (NIES, Japan)
15:45-16:00	Regional disparity in development and its relationship with SDG Prof. Manmohan Kapshe (MANIT, India)
16:00-16:15	Update of NDC and LTS in Thailand Prof. Bundit Limmeechokchai (SIIT-TU, Thailand)
16:15-16:30	Indonesia: Assessment of LTS in Indonesia Prof. Rizaldi Boer (IPB, Indonesia), Prof. Retno Gumilang Dewi and Prof. Ucok WR. Siagian (ITB, Indonesia)
16:30-16:45	Short Break
16:45-17:00	Local Mitigation actions for carbon neutral Kuala Lumpur 2050 Prof. Chin Siong Ho (UTM, Malaysia)
17:00-17:15	Assessment of peak-out of GHG emissions in Vietnam Dr. Tung Lam Nguyen (VNPI, Vietnam)
17:15-17:30	The Republic of Korea's first NDC and its revision Prof. Tae Yong Jung and Mr. Jongwoo Moon (Yonsei Univ., Korea)
17:30-17:45	GHG emission implications of second NDC targets in Nepal Mr. Bijay Bahadur Pradhan (SIIT-TU, Thailand), Prof. Ram Manohar Shrestha (AITM, Nepal) and Prof. Bundit Limmeechokchai (SIIT-TU, Thailand)
17:45-18:00	How to achieve Taiwan's NDC target and what are the economic impacts Dr. Yi-Hua Wu (ITRI, Taiwan)
18:00	Adjourn

DAY2: October 1, 2021

12:30 of JST	Open Zoom Account and Registration
13:00-15:00	Session 3: Climate impact, adaptation, and sustainability Chairperson: Dr. Kiyoshi Takahashi (NIES, Japan)
13:00-13:15	Scenarios of bioenergy and food demand: implications for land use and carbon storage Dr. Ronald Sands (USDA, USA)
13:15-13:30	Impacts of GHG emissions abatement measures on agricultural markets and food security Dr. Wenchao WU (JIRCAS, Japan)
13:30-13:45	Impact of future climate and socioeconomic change on fire carbon emissions Dr. Chaeyeon Park (NIES, Japan)
13:45-13:50	Introduction to AP-PLAT (to be confirmed) Dr. Yuji Masutomi (NIES, Japan)
14:00-14:15	Impact of global warming on streamflow in Korea Dr. Hui Cheul Jung (KEI, Korea) and Prof. Dong Kun Lee (SNU, Korea)
14:15-14:30	Towards comprehensive assessment of climate change impacts and adaptation in Japan Dr. Yoshifumi Masago (NIES, Japan)
14:30-14:45	Study on climate change impact on human health Dr. Kazutaka Oka (NIES, Japan)
14:45-15:00	Discussion
15:00-16:00	Break
16:00-17:45	Session 4: Role of AIM to achieve decarbonized society Chairpersons: Dr. Toshihiko Masui (NIES, Japan) and Dr. Rahul Pandey (IGSA Lab., India)
16:00-16:15	New research collaboration in Asia and the world Ms. Tomoko Ishikawa and Dr. Mikiko Kainuma (IGES, Japan)
16:15-16:30	Activities in Asia Mr. Tomoki Hirayama and Dr. Yuko Motoki (MHRT, Japan), Mr. Yuki Ochi and Mr. Tomoki Ehara (E-konzal, Japan)
16:30-17:45	Discussion: What will be needed in your country/institute to achieve decarbonization? Expected research topics within AIM team Collaboration among researchers, policy makers and other stakeholders in Asia Mitigation and adaptation

17:45-18:00	Session 5: Closing Chairpersons: Dr. Toshihiko Masui (NIES, Japan) and Dr. Rahul Pandey (IGSA Lab., India)
17:45-17:50	Poster Award Ceremony Dr. Junya Takakura (NIES, Japan)
17:50-18:00	Closing remarks Dr. Mikiko Kainuma (IGES and NIES, Japan)
18:00	Adjourn

Poster session

- (1) Comparative analysis of time series changes in abundance and rarity of amphibians in Central South Korea
Prof. Yongwon Mo (Yeungnam Univ., Korea)
- (2) Thailand's long-term GHG mitigation and economic impacts towards 2050
Dr. Puttipong Chunark (SIIT-TU, Thailand)
- (3) GHG mitigation in Agriculture, Forestry and Other Land Use (AFOLU) sector in Thailand
Ms. Achiraya Chaichaloempreecha (SIIT-TU, Thailand)
- (4) Decarbonization pathway in Thailand's transport sector toward 2050
Mr. Piti Pita (SIIT-TU, Thailand)
- (5) Peatland fire regime across a peat hydrological unit, Riau, Indonesia
Ms. Annuri Rossita (IPB, Indonesia)
- (6) Flood risk assessment model under climate change impacts using Machine Learning algorithms
Mr. Sangjin Park (SNU, Korea)
- (7) Determination of search radius for urban heat evaluation according to urban form
Mr. Seok Hwan Yun (SNU, Korea)
- (8) A framework for assessing urban flood risk considering adaptation effectiveness
Ms. Chaeyoung Bae (SNU, Korea)
- (9) Optimization of green infrastructure layout for climate adaptation by thermal evaluation in urban space
Ms. Ji Yeon Kim (SNU, Korea)
- (10) Exploratory analysis of optimal adaptation pathways according to sector prioritization and economic incentives under uncertain climate futures
Ms. Jung Hee Hyun (SNU, Korea)
- (11) Achieving carbon neutral in local government toward 2050: Case study on Jeju Island, South Korea
Mr. Yohan Choi (Univ. of Seoul, Korea)
- (12) The research on decarbonization pathway of synthetic ammonia industry by province in China
Dr. Pianpian Xiang (Beijing Univ. of Technology, China)
- (13) Water demand for energy transition under climate change mitigation targets in China
Ms. Chenmin He (Peking Univ., China)
- (14) An alternative co-benefit framework prioritizing health impacts: Potential air pollution and climate change mitigation pathways through energy sector fuel substitution in South Korea
Mr. Dafydd Phillips (Yonsei Univ., Korea)
- (15) Assessing strategies for reducing the carbon footprint of textile products in China under the Shared Socioeconomic Pathways framework
Ms. Siyu Peng (Shanghai Jiaotong University, China)
- (16) Assessment of generation mix in 2030 using high resolution power dispatch model
Dr. Hiroto Shiraki (The Univ. of Shiga Pref., Japan)
- (17) Analysis on Vietnam's NDC reduction target and further decarbonization using AIM/Enduse
Mr. Takaharu Ota (MHRT, Japan)
- (18) Combined impacts of climate change and population aging on indoor and outdoor heatstroke risks in Saitama City, Japan
Dr. Keita Honjo (Center for Environmental Science in Saitama, Japan)

- (19) Rethinking the role of the transport sector in post-COVID's new normal toward China's carbon-neutral goal by 2060
Dr. Runsen Zhang (Hiroshima Univ., Japan)
- (20) Feasibility study of net zero emission in Luang Prabang - Laos
Dr. Thai Hoa Nguyen (IGES, Japan)
- (21) Creating ICT development scenarios for analysis of ICT's role in decarbonization and solving social issues
Ms. Machiko Shinozuka (NIES, Japan)
- (22) Reduction potentials in Asian countries as contribution of decarbonizing technologies
Mr. Tomoki Hirayama (MHRT, Japan)
- (23) Source attributions of radiative forcing by regions, sectors, and climate forcers for the 2 °C and 1.5 °C targets
Dr. Xuanming Su (JAMSTEC, Japan)
- (24) Global steel demand, economic crises and pandemics from 1900 to 2020
Dr. Saritha Vishwanathan (NIES, Japan)
- (25) Indoor air pollution and decarbonization pathways from residential sector of India
Dr. Satish Kumar Yawale (NIES, Japan)
- (26) Assessing the impacts of climate change on electricity consumption in Japan: The regional and temporal variations in the impacts
Dr. Yuki Hiruta (NIES, Japan)
- (27) Estimation of potential of onshore wind energy in Japan with hourly data
Dr. Silva Herran Diego (NIES, Japan)
- (28) Association between PM10, smoke haze, and under-5 mortality in Klang Valley, Malaysia
Dr. Vera Ling Hui Phung (NIES, Japan)
- (29) Optimal allocation of willingness to pay for renewable electricity generation and grid transmission in transition to a low-carbon society in Japan
Dr. Lu Gao (NIES, Japan)
- (30) Novel technological route to develop carbon neutral cement
Dr. Zhaoling Li (NIES, Japan)
- (31) Contribution of food waste and loss reduction on Indonesia long-term emission mitigation: Preliminary finding
Dr. Marissa Malahayati (NIES, Japan)