

# The 24th AIM International Workshop

National Institute for Environmental Studies

November 5-6, 2018

DAY 1: November 5, 2018

8:45 Bus will leave Okura Frontier Hotel Tsukuba.

9:00-9:30 Registration

**9:30-10:40 Session 1: Opening**

Chairperson: Dr. Toshihiko Masui (NIES, Japan)

9:30-9:35 Welcome Address

Mr. Nobuhiro Kino (Ministry of the Environment, Japan)

9:35-9:50 Overall Activities in FY 2017-2018

Dr. Toshihiko Masui (NIES, Japan)

9:50-10:15 Keynote Speech (1): Emission Pathways and System Transitions: An Assessment of IPCC Special Report on 'Global Warming of 1.5°C

Prof. P. R. Shukla (Ahmedabad Univ., India)

10:15-10:40 Keynote Speech (2): What's with Article 6 and 45Q? : Two new research questions

Dr. Jae Edmonds (PNNL, USA)

10:40-11:00 Coffee Break

**11:00-12:20 Session 2: Activities in Japan**

Chairperson: Prof. Koji Shimada (Ritsumeikan Univ., Japan)

11:00-11:15 Cobenefits and Tradeoffs of Combinations of GHGs, SLCs and Air Pollutants Mitigation Measures: Overview of S12 project

Dr. Tatsuya Hanaoka (NIES, Japan)

11:15-11:30 Global modeling activities and a new study on national mitigation policy

Prof. Shinichiro Fujimori (Kyoto Univ., Japan)

11:30-11:45 Research Activities toward Low Carbon City in Japan

Dr. Shuichi Ashina (NIES, Japan)

11:45-12:00 Development of Spatial Transition Model and Recovery Scenarios in Fukushima

Dr. Kei Gomi (NIES, Japan)

12:00-12:20 Discussion

12:20-13:20 Lunch Break

**13:20-15:00 Session 3: Research on Low Carbon Society Development in Asia (1)**

Chairperson: Prof. Yoko Shimada (Kyoto Univ., Japan)

- 13:20-13:35 Moving Towards to 2/1.5C Future Energy Transition in China  
Prof. Xiulian Hu and Prof. Kejun Jiang (ERI, China)
- 13:35-13:50 Low Carbon Society Scenario 2050 in Korea  
Prof. Dong Kun Lee (SNU, Korea), Prof. Tae Yong Jung (Yonsei Univ., Korea) and Prof. Chan Park (Univ. of Seoul, Korea)
- 13:50-14:05 Strategies for Deep Decarbonization in Indonesia  
Prof. Rizaldi Boer (IPB, Indonesia)
- 14:05-14:20 The Role of Bioenergy Coupled with Carbon Capture and Storage (BECCS) in Indonesia's Deep-Decarbonization Pathway  
Prof. Retno Dewi (ITB, Indonesia)
- 14:20-14:35 The Emission Reduction Pathway in Taiwan: What is the Impact?  
Dr. Yi Hua Wu (ITRI, Taiwan)
- 14:35-15:00 Discussion

15:00-15:20 Coffee Break

**15:20-16:40 Session 4: Toward Sustainable Low Carbon Society in the World**

Chairperson: Mr. Tomoki Ehara (E-konzal, Japan)

- 15:20-15:35 LCS-RNet Research and Activities in FY2018  
Ms. Tomoko Ishikawa (IGES, Japan) and Dr. Mikiko Kainuma (IGES/NIES, Japan)
- 15:35-15:50 The Efficiency and Equity of Carbon Tax Revenue Recycling: A Case Study of French  
Dr. Aurélie Mejean (CIRED, France)
- 15:50-16:05 Modeling Urban Expansion: Downscaling Urban Scenarios under the Shared Socioeconomic Pathways  
Dr. Vincent Viguié (CIRED, France)
- 16:05-16:20 Implications for Agriculture of +1.5° and +2.0°C Global Warming  
Dr. Ron Sands (USDA, USA)
- 16:20-16:40 Discussion

16:40-17:00 Coffee Break

**17:00-18:00 Session 5: Poster Session**

- (1) Synergistic Effect of Regional Energy Transformation and Air Pollution Control  
Dr. Songyan Ren (CAS, China)
- (2) Modelling Water-Energy-Economy Nexus at the Provincial Scale across China  
Prof. Hancheng Dai (Pekin Univ., China)
- (3) Co-benefits of Climate Mitigation from Aspects of Global Air Quality  
Ms. Yazhen Wu (Pekin Univ., China)

- (4) Co-Benefit of Climate Change Mitigation on PM2.5 Related Mortality: A Global Aspect  
Mr. Chaoyi Guo (Pekin Univ., China)
- (5) Comparison of PM2.5 and Ozone Pollution in China  
Prof. Yang Xie (Beihang Univ., China)
- (6) Regional and Sectoral Contributions to Climate Change  
Dr. Xuanming Su (JAMSTEC, Japan)
- (7) Prioritizing Adaptation Measures to Support Local Government Climate Adaptation Planning  
Ms. Chaeyeon Park (SNU, Korea)
- (8) A Meta-model Framework for Long-term Adaptation Planning in Korea  
Ms. Jung Hee Hyun (SNU, Korea)
- (9) Analysis of National and Subnational Governance Systems to Achieve SDGs: Case Studies of Japan and Indonesia  
Dr. Kanako Morita (FFPRI, Japan)
- (10) Estimation of Flexibility Resources for Power System Stabilization under a Long-term Low Carbon Scenario  
Dr. Hiroto Shiraki (Shiga Pref. Univ., Japan)
- (11) Time Variation of Parameters Used in Electricity Demand Models  
Dr. Keita Honjo (Center for Env. Science in Saitama, Japan)
- (12) Frost Risk to Apple Trees under Climate Change  
Dr. Yoshimitsu Masaki (Hirosaki Univ., Japan)
- (13) Will Electric Vehicles Deliver the Transition to a Low Carbon Future?  
Prof. Runsen Zhang (Hiroshima Univ., Japan)
- (14) An Assessment of Japan's 2030 Emission Reduction Target Based on the Results from Energy-Economic Models - Applying Decomposition Method for Historical and Prospective Factors of CO2 Emissions-  
Mr. Akihisa Kuriyama (IGES, Japan)
- (15) Evaluation of Japan's Long Term Climate Mitigation Goal under Uncertain Nuclear Power with the AIM/CGE Model  
Dr. Diego Silva Herran (IGES, Japan)
- (16) Long-term Projection of Water Use in Japan under Stringent Climate Policy Scenarios  
Dr. Jingyu Liu (NIES, Japan)
- (17) State Level Analysis of Energy Transition in Indian Residential Sector  
Dr. Satish Kumar Yawale (NIES, Japan)
- (18) Developing LPS Downscale Model and Apply to Chinese Iron and Steel Industry  
Dr. Zhaoling Li (NIES, Japan)
- (19) Flood Economic Disruptions and Climate Change Adaptation in Indonesia  
Dr. Ambiyah Abdullah (NIES, Japan)
- (20) Global Bioenergy Potential under Environmental Protection Policies and Societal Transformation Measures  
Dr. Wenchao Wu (NIES, Japan)
- (21) Impacts of Public Acceptance and Willingness to Pay on Achieving Target of Renewable Energy Resources in Japan  
Dr. Lu Gao (NIES, Japan)

- (22) The Impact of Regional Climate and Socio-economic Factors on the Variation of Hourly Electricity Demand in Japan: A Regression Analysis Using Multivariate Adaptive Regression Splines  
Dr. Yuki Hiruta (NIES, Japan)
- (23) Impact of Afforestation on the Discharge of the Chao Phraya River under a Warmer Climate  
Dr. Kumiko Takata (NIES, Japan)
- (24) Discharge Extrema for Transient and Stabilized Climates  
Dr. Julien Boulange (NIES, Japan)
- (25) Can the GRACE-GLDAS Based Method Detect Contrasting Intensity of Anthropogenic Evapotranspiration? A Case Study of Two Large-scale Basins in China  
Dr. Zhipin Ai (NIES, Japan)
- (26) A Review of Quality of Life (QOL) Assessments and Indicators: towards a “QOL-Climate” Assessment Framework  
Dr. Ronald Canero Estoque (NIES, Japan)
- (27) Integrated Regional Climate Projection with a Regression Model Using Multi-model Ensemble  
Dr. Noriko N. Ishizaki (NIES, Japan)
- (28) Potential Distribution of Pine Wilt Disease under Future Climate Change Scenarios  
Dr. Akiko Hirata (NIES, Japan)
- (29) The Effects of Hot Nights on Mortality in Japan  
Dr. Satbyul Kim (NIES, Japan)
- (30) Influences of Planning Unit (PU) Characteristics in Landscapes Dominated by Different Land-Cover for Systematic Conservation Planning  
Dr. Yongwon Mo (NIES, Japan)
- (31) Narratives for Shared Socioeconomic Pathways (SSPs) in Japan: Linking Local Scenarios and Global Context  
Dr. He Chen (NIES, Japan)
- (32) Forecasting Regional Road Transport Service Demand: Thai’s Energy Efficiency Policy Target Perspective  
Dr. Penwadee Cheewaphongphan (NIES, Japan)
- (33) Assessing the Potential Economic Impact of GHG Mitigation Policy in Land Use Change and Forestry (LUCF) in Indonesia  
Ms. Marissa Malahayati (NIES and Tokyotech, Japan)

18:00-20:00 Reception at Chu-Kaigi-Shitsu (Middle Meeting Room), NIES

20:00 Bus will leave NIES.

DAY 2: November 6, 2018

8:45 Bus will leave Okura Frontier Hotel Tsukuba.

**9:30-10:50 Session 6: Impact and Adaptation (1)**

Chairperson: Dr. Kiyoshi Takahashi (NIES, Japan)

9:30-9:45 Integrated Assessment of the Economic Impacts of Climate Change: Results of S-14 Project  
Dr. Jun'ya Takakura (NIES, Japan)

9:45-10:00 Climate policies and biodiversity (tentative)  
Dr. Haruka Ohashi (FFPRI, Japan)

10:00-10:15 Identifying Trade-offs and Co-benefits of Climate Policies in China to Align Policies with SDGs and Achieve the 2 °C Goal  
Dr. Jingyu Liu (NIES, Japan)

10:15-10:30 Varying Benefits of Irrigation Expansion for Crop Production under a Changing Climate  
Dr. Masashi Okada (NIES, Japan)

10:30-10:50 Discussion

10:50-11:10 Coffee Break

**11:10-12:30 Session 7: Impact and Adaptation (2)**

Chairperson: Dr. Yasuaki Hijioka (NIES, Japan)

11:10-11:25 Climate Change Adaptation Act and related activities in Japan  
Dr. Kazutaka Oka (NIES, Japan)

11:25-11:40 Introduction to Climate Change Adaptation Planning of the Public Enterprise in Korea  
Dr. Jung Hui-Cheul (KEI, Korea)

11:40-11:55 Strategizing Decision Support System for Long-term Local Climate Adaptation Planning  
Ms. Jung Hee Hyun and Prof. Dong Kun Lee (SNU, Korea)

11:55-12:10 Impact Assessment of Changes in the Emission of SO<sub>2</sub> and BC on Rice Productivity in Asia  
Prof. Yuji Masutomi (Ibaraki Univ., Japan)

12:10-12:30 Discussion

12:30-13:30 Lunch Break

**13:30-15:10 Session 8: Research on Low Carbon Society Development in Asia (2)**

Chairperson: Dr. Junichi Fujino (NIES and IGES., Japan)

13:30-13:45 AIM local LCS scenarios and beyond  
Dr. Junichi Fujino (NIES and IGES, Japan)

13:45-14:00 Thailand's 1.5 Degrees  
Prof. Bundit Limmeechokchai (SIIT-TU, Thailand)

- 14:00-14:15 Mitigation Pathways for Net Zero GHG Emission by 2050: A Case of Nepal  
Prof. Ram Shrestha (AITM, Nepal)
- 14:15-14:30 Low Carbon Society Development in Malaysian Cities- From LCS Blueprint to Programs  
Prof. Ho Chin Siong (UTM, Malaysia)
- 14:30-14:45 Low carbon development scenarios for cities in Vietnam  
Dr. Tung Lam Nguyen (ISPOMRE, Vietnam)
- 14:45-15:10 Discussion
- 15:10-15:30 Coffee Break
- 15:30-16:50 Session 9: Discussion on Low Carbon Development Strategy**  
Chairperson: Dr. Toshihiko Masui (NIES, Japan)
- 16:50-17:00 Session 10: Closing**  
Chairperson: Dr. Toshihiko Masui (NIES, Japan)
- 16:50-17:00 Closing Remarks  
Dr. Mikiko Kainuma (NIES and IGES, Japan)
- 17:30 Bus will leave NIES.
- 18:00-20:00 Dinner (Sen-nen no Utage, in Japanese “千年の宴”)