

INTERNATIONAL CONFERENCE OF LOW CARBON ASIA

IN CONJUNCTION WITH

THE 4TH ANNUAL MEETING OF LOW CARBON ASIA RESEARCH NETWORK

> STABILIZING CLIMATE THROUGH LOW CARBON ACTIONS IN ASIA: ROAD TO COP21 AND BEYOND

Officiated by

YAB. Dato Mohamed Khaled Nordin Menteri Besar Johor

11-13 October 2015 DoubleTree Hotel, Johor Bahru, Malaysia











ACKNOWLEDGEMENT

















AMBASSADE DE FRANCE EN MALAISIE





OKAYAMA UNIV









We wish to acknowledge and thank all individuals, companies, agencies and ministries mentioned here in giving their support on this event.

Sunday, October 11 2015

8:00 - 8:45 Registration and the arrival of guests

Parallel Poster & Exhibition Session

8:45 - 9:00 Opening Ceremony:

Introduction from emcee

Johor State Anthem - Lagu Negeri Johor

National Anthem- Negaraku

Prayer Recital

9:00 - 10:30 Welcoming Speech

Dr Shuzo Nishioka, Senior Research Advisor, IGES, Japan

Prof Datuk Ir Dr Wahid Omar, Vice Chancellor, Universiti Teknologi Malaysia (UTM)

HE Ambassador Christophe Penot, French Ambassador to Malaysia

Opening Speech

Mr Nobohiro Kino, Director, International Cooperation Office, Ministry of the Environment

Japan (MOEJ)

Officiating Speech

YAB, Dato Mohamed Khaled Nordin, Menteri Besar Johor

Launching of LoCARNet's Iskandar Malaysia Declaration (Message to COP21)

Exchange of MoU

10:30-11:00 Group Picture / VIP Visit to Exhibition Booths / Press Conference /

Coffee Break / Networking

11:00-11:30 Keynote 1-1

French Government's Expectation for Asia and COP21 and Beyond

HE Ambassador Christophe Penot, French Ambassador to Malaysia

11:30-12:00 Keynote 1-2

Green Technology Initiatives in Malaysia

Datuk Loo Took Gee, Secretary General (KSU),

Ministry of Energy, Green Technology, and Water (KeTTHA), Malaysia

12:00-12:30 Keynote 1-3

Bridging Climate Change and the Sustainable Development Goals (SDGs)

Dr Mikiko Kainuma, Senior Research Advisor, IGES, Japan

12:30-13:30 Lunch

13:30-14:00 Keynote 1-4

Pursuing Green Growth for Sustainability and Resilience in Malaysian Cities

Prof Dr Ho Chin Siong, Director, UTM - Low Carbon Asia Research Centre, UTM, Malaysia

14:00-14:30 Brief Introduction on UTM - Low Carbon Asia Research Centre, Exhibitions, Special Issues on Low Carbon Asia

> Assoc Prof Dr Lee Chew Tin, Director for Global Education, UTM International, Malaysia

Prof Dr Jirí Jaromír Klemeš, University of Pannonia, Hungary;
 Appointed Executive Editor, Journal of Cleaner Production, Elsevier

DAY 1

Sunday, October 11 2015

14:45-16:45 Breakout Session 1

Theme: Business, Finance and Industry

Chair: Dr Bindu N. Lohani, Distinguished Adjunct Faculty, Asian Institute of Technology (AIT) / Special Advisor, Y-Port Center, City of Yokohama / Distinguished Fellow. IGES, Japan

Speakers:

- > Assoc Prof Dr Tomonori Sudo, Ritsumeikan Asia Pacific University, Japan
- > Mr Nobohiro Kino, MOEJ, Japan
- Mr Boyd Dionysius Joeman, Head, Environment, Iskandar Regional Development Authority (IRDA), Malaysia

Breakout Session 2

Theme: Sustainable Consumption and Production (SCP) and SCOPE3 (and Waste) Chair: Dr Yasuhiko Hotta, Area Leader, SCP Area, IGES, Japan

Speakers:

- 1. Low Carbon Society and Sustainable Consumption and Production (SCP)
 - > Dr Yasuhiko Hotta, Area Leader, SCP Area, IGES, Japan
- 2. Patterns of Household (Energy) Consumption in Selected Asian Cities and Opportunities for Sustainable Low Carbon Lifestyle
 - > Dr Pongsun Bunditsakulchai, Research Fellow, Chulalongkorn University, Thailand
- 3. Climate Benefit of Sound Waste Management and Recycling
 - > Dr Shazwin Taib, Faculty of Civil Engineering, UTM, Malaysia
- 4. Promotion of Sustainable and Eco-lifestyle in Sapporo City
 - > Ms Misato Nojima and Ms Maya Kudo, Environmental Planning Section, Eco-City Promotion Department, Environmental Bureau, Sapporo City, Japan

16:45 Adjourn

18:00 Reception Dinner



Monday, October 12 2015

8:00 - 9:00 Registration

Parallel Poster & Exhibition Session

9:00 - 9:30 Keynote 2-1

Climate Change: Key Findings of the IPCC Fifth Assessment Report Prof Dr Fredolin Tangang, Vice-Chair WGI, Intergovernmental Panel on

Climate Change (IPCC), UKM, Malaysia

9:30-10:00 Keynote 2-2

Dr Bindu N. Lohani, Distinguished Adjunct Faculty, Asian Institute of Technology (AIT) / Special Advisor, Y-Port Center, City of Yokohama / Distinguished Fellow, IGES, Japan

10:00-10:30 Keynote 2-3

Datuk Dr Mohd Yusoff Sulaiman, President / Chief Executive Officer,
Malaysian Industry-Government Group for High Technology (MIGHT), Malaysia

10:30-11:00 Coffee Break / Networking

11:00-11:30 Keynote 2-4

Japan's INDC and International Cooperation for Low Carbon Society through SATREPS
Prof Kenji Yamaji, Director-General, Research Institute of Innovative Technology for the Earth, Japan

11:30-13:00 Lunch

13:00-15:00 Breakout Session 3

Theme: Resilient Cities

Chair: Mr Toshizo Maeda, Director, IGES Regional Centre, Thailand

Speakers:

- Evaluation of the Resiliency of Laguna Lake Catchment Area in the Philippines
 Prof Damasa B. Magcale-Macandog, University of the Philippines Los Banos, Philippines
- Can Tho City's Experience and Actions in Resiliency and Adaptation
 Dr Ky Quang Vinh, Director, Climate Change Coordination Office of Can Tho City, Vietnam
- Managing Natural Disaster for Resilient Urban Transportation Infrastructure
 Prof Dr Kwang Sik Kim, Faculty of Built Environment, UTM, Malaysia
- 4. Adaptation Project Development by the USAID Adapt Asia-Pacific
 > Dr Peter N. King, Senior Advisor, IGES, Japan

Breakout Session 4

Theme: INDC

Chair: Dr Toshihiko Masui, NIES, Japan

Speakers:

- Mr Uy Kamal, Deputy Director, Climate Change Department, National Council for Sustainable Development, Cambodia
- > Dr Bundit Limmeechokchai, SIIT Thammasat University, Thailand
- > Prof P. R. Shukla, Indian Institute of Management Ahmedabad (IIMA), India
- > Dr Hancheng Dai, Research Associate, Integrated Assessment Modelling Section, Center for Social and Environmental Systems Research, NIES, Japan
- > Dr Gary William Theseira, Ministry of Natural Resources and Environment (NRE), Malaysia

DAY 2

Monday, October 12 2015

15:00 - 15:30 Coffee Break and Networking

15:30 - 17:30 Breakout Session 5

Theme: GHG Reduction Planning and Concrete Actions Chair: Dr Junichi Fujino, NIES, Japan

Speakers:

- > Dr Nguyen Tung Lam, Director, Centre for Information, Consultancy, Training, Institute of Strategy, Policy on Natural Resources and Environment, Ministry of Natural Resources and Environment of Vietnam
- > Dr Ucok Siagian, Senior Researcher, Center for Research on Energy Policy, Institute of Technology, Bandung (ITB), Indonesia
- > Ms Chanyaphak Wathanachinda, Climate Change International Technical and Training Center (CITC) / Capacity Building and Outreach Office, Thailand Greenhouse Gas Management Organization (Public Organization)
- > Mr Shunsuke Shinbori, Miyako Ecology Center, Japan

Breakout Session 6

Theme: Land Use, Land-Use Change and Forestry (LULUCF)
Chair: Prof Rizaldi Boer, Bogor Agricultural University (IPB), Indonesia

Speakers:

- Designing Low Carbon and Climate Resilience Watershed Management through Multi-Stakeholder Process; Study Case in Philippines
 - > Prof Dr Damasa B. Magcale-Macandog, University of the Philippines Los Banos, Philippines
- 2. Saving Tropical Forest through Governor Climate Forum: Challenge and Opportunities
 - > Mr Bernadinus Steni, Governors Climate and Forest Task Force (GCF) Coordinator, Earth Innovation Institute (Yayasan Penelitian Inovasi Bumi - INOBU), Indonesia
- 3. Policy and Strategies for the Implementation of REDD+ and Development of its MRV System: Malaysia Case
 - > Dr Elizabeth Phillip, Forest Research Institute Malaysia / Ministry of Natural Resources and Environment, Malaysia
- Low Carbon Urban Spatial Simulation of Tokyo Metropolitan Region and Application for Asian Cities
 Prof Tsuyoshi Fujita, Director, Center for Social and Environmental Systems Research, NIES, Japan
- 5. Future Spatial Analysis Utilizing Innovative Satellite Inform
 - > Dr Nobuko Saigusa, Deputy Director, Center for Global Environmental Research, NIES, Japan

17:30 Adjourn



Tuesday, October 13 2015

8.00 - 9.00

Registration

Parallel Poster & Exhibition Session

9.00 - 12:00

Wrap-up and The Way Forward

Chair: Assoc Prof Dr Sirintornthem Towprayoon, JGSEE, King Mongkut's University of Technology Thonburi (KMUTT). Thailand

Moderators:

- > Dr Mikiko Kainuma, IGES, Japan
- > Prof Dr P. R. Shukla, IIMA, India
- Group Presentations (Report Back from Each Breakout Session)
- Finalizing LoCARNet's Iskandar Malaysia Declaration (Message to COP21)
- Discussion on LoCARNet Future Plan
- Comments and Suggestions from LoCARNet Core Members

12:00

Closing Remarks

- > Prof Dr Nordin Yahaya, Senior Director, UTM International, UTM, Malaysia
- > Prof Dr Ho Chin Siong, Director, UTM Low Carbon Asia Research Centre, UTM, Malaysia
- > Remarks by the next Chair of the 5th Annual Meeting of LoCARNet

14:00 - 17:30

Technical Tour to UTM Campus & Kota Iskandar Meeting Point: DoubleTree Hotel foyer DAY 3

POSTER SESSION 1

11 - 12 October 2015

No.	Paper Title
1	Methodological Review in Assessing Water Footprint using Life Cycle Approach
2	Households Carbon Emissions in Felda Taib Andak Community, Kulaijaya, Johor Darul Takzim
3	Safety Issues Consideration for Direct and Indirect Heat Transfer on Total Sites
4	Evaluation of GHG Emission from Industrial Solid Waste in Iskandar Malaysia
	Iskandar Malaysia Eco-Life Challenge: Low Carbon Education for Teachers and Students
6	Planning a Better Land Use Composition for Cleaner Air in Iskandar Malaysia
7	Multi-Period Electricity Planning Comprises Renewable Energy and Carbon Dioxide Reduction
8	Accelerating the Transformation of Low Carbon Society in Iskandar Malaysia: Focus Group Discussion as a Tool for Multi- Stakeholders Integration
9	Strengthening Community Participation in Reducing GHG
10	Waste-To-Wealth: Biorecycling Centre as Core Elements in Living Laboratory to Create Sustainable Zero Waste Campus Plan
11	Review of the Microalgae Growth in Palm Oil Mill Effluent
12	Design of a Hybrid Renewable Energy System during Flood Disaster
13	Urban Configuration and Sky View Facor Effects on Temperature Increase in Hot Humid Region
14	Natural Disaster Resilience of Urban Transportation Infrastructure
15	Declining Land Use Mix: Are Residential Areas of Iskandar Malaysia Promoting Low-Carbon Travels?
16	Neo-Institutional Economics in Low Carbon Direction: From Residential Open Space Protection Perspective
17	Reducing Fear of Crime through Spatial Configuration Analysis for Low Carbon Society
18	CO ₂ And Water Flows Embodied In International Trade: A Review On Consumption-Based Analysis
19	Electric Vehicles and Future Low Carbon Passenger Mobility in India
20	A Concept of Total Site-Carbon Integration for CO ₂ Capture, Utilization and Storage
21	Are The Neighborhood Commercial Areas of Iskandar Malaysia Centrally Located for Low-Carbon Travel?
22	Lipid Recovery by Microalgae from Agro Industrial Waste Water as Biofuel Substrate
23	Modeling the Causal Linkages between Non-Renewable and Renewable Energy Consumption, Economic Growth and CO ₂ Emissions
24	Hydrological Effects of Long-Term Palmisation on Upper Muar Watershed in Johor
25	Mircobial Diversity of Empty Fruit Bunch (EFB) - Palm Oil Mill Effluent (POME) Co-Composting
26	An Integrated Pinch Analysis Framework for Low Carbon Industrial Site Planning
27	Recycling Awareness and Practices among Felda Residents in Southern Region
28	GHG Mitigation from MSW Management in Thailand: Possible Scenarios and Targets
29	Maturity and Quality for Compost from Food Waste and Green Waste
30	Low Carbon Emissions Review in Aviation Engine Technology for ASEAN Airspace: A Proposal
31	Design Biogas Distributed Energy System through Gas System Cascade Analysis (GSCA)
32	Cradle-to-Gate Potential Environmental Impacts Assessment of Bioethanol Production from Palm Oil Residue Utilizing Life Cycle Approach
33	Energy Consumption and CO₂ Emissions in Iran, 2025
34	Power Pinch Analysis for Suitable Strategy on Purchasing and Selling of Electricity
35	Land Use Impact in Life Cycle Assessment
36	A Multi Period Model for Steady Planning of Oil Palm Eco-Industrial Town
37	A Review of Algal Oil Extraction Methods for Bio-Oil
38	Methane Emission from Thin Layer Landfill
39	Framework of Environmental Performance Index Palm Oil Mill
40	Multi-Objective Planning of Centralized Sewage Treatment Plant for Electricity Generation

POSTER SESSION 2

12 - 13 October 2015

No.	Paper Title
1	Reducing CO₂ Emission in Transport Sector of Malaysia: Present Status and Future Challenges
2	Malaysian Low Carbon Behavior Performance Assessment Tool: Towards Low Carbon Society
3	Sustainable Mushroom Cultivation Cycle in Offsetting Carbon Emission
4	Living Laboratory as the University Global Plan for the Sustainable DNA Campus
5	Soil Organic Carbon in Secondary Forest of Universiti Teknologi Malaysia Campus
6	Evaluation of Community Engagement Program on Water Awareness for Students in Malaysia
7	Recycling Awareness and Practices among Felda Residents in Southern Region
8	Analysis on Modelling the Flexible Operation Mechanism of CO ₂ Capture Power Plant
9	The Need of Social Discount Rate for Renewable Power Plant Project: Contribution towards Low Carbon Society
10	River Treatment using Cellulosic Fibres via Fabricated Column Models-Two River Case Studies
11	Selective CO ₂ Photoreduction over In ₂ O ₃ /TiO ₂ Catalyst in Monolith Photoreactor
12	Sustainable Green Management System as a Unified Approach for Facility Management
13	Anaerobic Digestion of Biodiesel By-Product for Biogas Production
14	Awareness and Agreement on Low Carbon Strategies among Urban Population of Malaysia
15	Sustainable Container Handling Equipment Planning: CO ₂ Reduction by Agent-based Modeling
16	Evaluation of Effective Microorganisms on Small Scale Simulated Kitchen-Waste Composting
17	One Step Transesterification of Biodiesel Production using Simultaneous Cooling and Microwave Heating
18	Conversion of CO ₂ to Fuels in a Continuous Monolith Photoreactor using AgO/TiO ₂ Nanocatalyst
19	Reclamation of Fluorocarbons (FCS) Refrigerants as Opportunities for Carbon Mitigation
20	Food Waste Management in Commercial Building
21	Isobutanol and 3-Methyl-1-Butanol Production by Saccharomyces Cerevisiae in Aerobic Condition
22	Biogas Generation and Utilization for Industrial Decarbonisation
23	Automatic Energy and Carbon Emissions Monitoring using OPC: Unified Architecture
24	Sustainable Design Improvement for Direct-Indirect Sequence of Aromatic Separation Process
25	Preparation of Composite Activated Carbon Nanofibers (ACNFs) for Adsorption of Heavy Metals
26	Assessing Environmental-Sustainability of Product Life Cycle: A Case Study of Hollow Fiber Membrane
27	Methanation Technology over Ceria based Catalysts: In-Depth of Surface Optimization, Regeneration and Field Trial
28	Computer Simulation of Hydrogen-Rich Production from Biogas Reforming using ASPEN PLUS
29	Comparison Study of Combustion Characteristic of Biomass-Derived Pyrolysis Oil and Heavy Fuel Oil
30	Photocatalytic Conversions of CO₂ and CH₄ over Plasmonic Ag/TiO₂ Supported on Mesh
31	Biodiesel Production using CaO Impregnated with Silica as Catalyst
32	Biopolymer from Bacterial Cellulose for Removal of Chromium Ion in Waste Water
33	Optimal Synthesis of Energy Efficiency Improvement for NGLS Indirect Sequence Fractionation Unit
34	Process Integration of Hybrid Power System with Seasonal Energy Storage
35	Effects of Different Loading of Magnesium Oxide on Activated Carbon Nanofibers for Methane Adsorption
36	Steam Reforming of Biodiesel By-Product for Hydrogen Production
37	Calcium Titanate Catalyst for Biodiesel Production from Waste Cooking Oil
38	Effect of Sintering Temperature on the Properties of Hollow Fiber Ceramic Support Membrane using Low-Cost Raw Materials
30-	for CO ₂ Capture
39	Integrated Process Design and Control Methodology for Heat Exchanger Network
40	Optimal Heat Exchanger Network Synthesis with Operability and Safety Considerations

AGENCY & INDUSTRY EXHIBITORS

11-13 OCTOBER 2015

- 1. Majlis Bandaraya Johor Bahru (MBJB) (Johor Bahru City Council)
- 2. Majlis Perbandaran Johor Bahru Tengah (MPJBT) (Johor Bahru Tengah Municipal Council)
- 3. Majlis Perbandaran Kulai (MPKU) (Kulai Municipal Council)
- 4. Mailis Perbandaran Pasir Gudang (MPPG) (Pasir Gudang Municipal Council)
- 5. Universiti Teknologi Malaysia (UTM), Malaysia
- 6 Iskandar Regional Development Authority (IRDA), Malaysia
- 7. Institute for Global Environmental Strategies (IGES), Japan
- 8. National Institute for Environmental Studies (NIES), Japan
- 9. Ronser Bio-Tech Berhad, Malaysia & Gait Rungkai Sdn Bhd, Malaysia
- 10. Ajiya Safety Glass Sdn Bhd, Malaysia
- 11. Kinki University, Japan
- 12. Felda Taib Andak, Kulaijaya (Low Carbon Village)
- 13. UTM Campus Sustainability





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