



## ASIA CLEAN ENERGY FORUM 2020

VISION 20/20: CROSS-SECTORAL INNOVATIONS FOR A SUSTAINABLE FUTURE

15-19 JUNE | [www.asiacleanenergyforum.org](http://www.asiacleanenergyforum.org)

### Deep Dive Workshop

Friday, 19 June 2020

10:30 am – 12:00 pm (Manila Time, GMT+8)

## Collaborative Initiatives on Energy System Transition with Innovative Technologies, Policies and Financing



#### Point of Contact:

Susumu Yoneoka, ADB

Email: [syoneoka@adb.org](mailto:syoneoka@adb.org)

Toru Ito, ADB

Email: [toruito@adb.org](mailto:toruito@adb.org)

Akira Izumo, METI

Email: [izumo-akira@meti.go.jp](mailto:izumo-akira@meti.go.jp)

### Background

Issues and challenges such as climate change, biodiversity loss, resource efficiency, sustainable consumption and production, air, land, freshwater and marine pollution, urban environmental quality, and energy access, are becoming more significant and need to be addressed urgently in Asia and the Pacific. These challenges are complex, and we recognize the importance of energy transitions and innovation on more sustainable and cleaner energy systems, the close nexus between energy security, economic growth, climate change, and environmental protection, and the importance of long-term low emissions strategies for sustainable development.

In the midst of global energy transition, accelerating energy innovation is essential for Asia and the Pacific, recognizing the critical role of innovative, clean and efficient technologies, including digitalization, renewable energy and systems flexibility, demand side management, energy efficiency and conservation, biofuels, and advanced cleaner fossil fuels technologies.

Under this circumstance, it's required that both developed and developing countries support international collaboration and analyze the impact of innovative technologies and share best practices for the development, dissemination and deployment of these technologies in particular on policies, national experiences, and market frameworks. Furthermore, to share recent innovative technologies, financing and currently implementing initiatives/platforms can contribute greatly to operational priorities in ADB Strategy 2030 and also to energy transitions in ADB developing member countries.

## Objective

Covering strategic considerations for managing 21st century energy system transition, this DDW titled “Collaborative Initiatives on Energy System Transition with Innovative Technologies, Policies and Financing” organized by the Ministry of Economy, Trade and Industry (METI) of the Government of Japan, will highlight development and deployment of innovative technologies (e.g., IoT/AI, CCS/CCUS, Hydrogen) in Asia, by improving policy and institutional framework, utilizing public and private finance, and promoting international cooperation through the multinational initiatives such as the Cleaner Energy Future Initiative for ASEAN (CEFIA) and the Taskforce on Climate-related Financial Disclosures (TCFD), etc.

## Agenda

Time	Activities
<b>19 June</b>	<b>Activities</b>
<b>10:30 – 10:40 am</b>	<b>Opening Remarks</b> <ul style="list-style-type: none"><li>- Mr. Yongping Zhai, Chief of Energy Sector Group, Asian Development Bank (ADB)</li></ul>
<b>10:40 – 10:50 am</b>	<b>Keynote Address</b> <ul style="list-style-type: none"><li>- Mr. Takashi Omote, Deputy Director-General for Industrial Science, Technology, and Environmental Policy, METI, Japan</li></ul>
<b>10:50 – 11:55 am</b>	Highlights initiatives on climate change, energy transition, and promoting activities including facilitation of investment and finance in Asia and the Pacific:  <b>Presentations</b> <ul style="list-style-type: none"><li>- 1 Role of the ASEAN Center for Energy to promote the energy transitions in ASEAN Dr. Nuki Agya Utama, Executive Director, ASEAN Centre for Energy (ACE) [TBC]</li><li>- 2 New driving force to promote the energy transitions: Cleaner Energy Future Initiative for ASEAN (CEFIA) Ms. Mizuki Saito, Deputy Director, Global Environment Partnership Office, METI, Japan</li><li>- 3 Financing for low-carbon energy transitions and innovation in Asia Ms. Emily Chew, Global Head of Sustainability for Investment Management, Morgan Stanley [TBC]</li><li>- 4 Potential of Carbon Capture, Usage and Storage (CCUS) technology in Asia and Pacific Mr. Ziqiu Xue, Chief Researcher, Research Institute of Innovative Technology for the Earth (RITE), Japan</li><li>- 5 Potential of IoT/AI Energy Management System in Factory, Building and Community</li></ul>

Dr. David Banjerdpongchai, Professor of Electrical Engineering,  
Chulalongkorn University, Thailand [TBC]

### Panel discussion

- Dr. Nuki Agya Utama, Executive Director, ASEAN Centre for Energy (ACE) [TBC]
- Ms. Mizuki Saito, Deputy Director, Global Environment Partnership Office, METI, Japan
- Ms. Emily Chew, Global Head of Sustainability for Investment Management, Morgan Stanley [TBC]
- Mr. Ziqiu Xue, Chief Researcher, Research Institute of Innovative Technology for the Earth (RITE), Japan
- Dr. David Banjerdpongchai, Professor of Electrical Engineering, Chulalongkorn University, Thailand [TBC]
- Ms. Shannon Cowlin, Senior Energy Specialist, Asian Development Bank [TBC]
- <Facilitator> Mr. Akira Izumo, Deputy Director, Global Environment Partnership Office, METI, Japan

### Q&A

11:55 am – 12:00 pm

### Closing Remarks

- Mr. Toshiaki Nagata, Director, Global Environment Partnership Office, METI, Japan

## Speakers

### Keynote Speech Mr. Takashi Omote



Mr. Omote is Deputy Director-General for Industrial Science, Technology, and Environmental Policy at the Ministry of Economy, Trade and Industry (METI) of the Government of Japan. He is concurrently serving as Deputy Commissioner for International Affairs of METI's Agency for Natural Resources and Energy (ANRE).

Mr. Omote has previously held several energy and industry-related positions, including Executive Director, New Energy and Industrial Technology Development Organization (NEDO) in 2017-2019, Director for Industrial Safety Division, METI in 2011-2013, and Director for International Cooperation Office, Energy Conservation and Renewable Energy Department, ANRE in 2007-2008.

Mr. Omote also had diplomatic experience as Counsellor and Minister at the Mission of Japan to the European Union in Brussels, Belgium in 2013-2017.

Mr. Omote is a graduate of Faculty of Law at University of Tokyo. He studied industrial management at Carnegie Mellon University, Pittsburgh, Pennsylvania, U.S.A.

**Ms. Mizuki Saito**



Ms. Mizuki Saito is Deputy Director for Global Environment Partnership Office in the Ministry of Economy, Trade and Industry (METI) and leading climate change negotiations as well as strategic planning on global climate actions. Ms. Saito was previously in charge of international relations in the digital sector, and as Deputy Director for International Affairs Office in METI's Commerce and Information Policy Bureau, responsible for organizing G20 Ibaraki-Tsukuba Ministerial Meeting on Trade and Digital Economy which was convened under Japan's G20 Presidency in 2019. She took the leadership to promote the concept of "Data Free Flow with Trust (DFFT)", which aimed to maximize the benefits of digitalization by facilitating the free flow of data and addressing challenges such as security and privacy. Before joining METI in 2016, Ms. Saito had working experience in IT sector and engaged in analyzing and creating new services for the e-commerce business.

**Mr. Ziqiu Xue**



Dr. Xue is a Chief Researcher with a primary focus on seismic rock physics in earth science. He started his professional career in carbon sequestration in 2000. He was responsible for CO<sub>2</sub> monitoring at the first Japanese pilot-scale saline aquifer storage project (Nagaoka project). Now he is the General Manager of Technical Division of the Geological Carbon dioxide Storage Technology Research Association and he is also the technical leader of US-Japan CCS collaboration program.

Dr. Xue has teaching experiences as a Senior Lecturer and then an Associate Professor at the Department of Civil and Earth Resource Engineering in Kyoto University. He served as an Associate Editor of International Journal of Greenhouse Gas Control during 2007-2012 and was responsible for CO<sub>2</sub> monitoring. He received a B.S. and an M.S. and Doctor's degree in faculty engineering from Hokkaido University, and a best paper award from Society of Exploration Geophysicists of Japan in 2006.

**Mr. Toshiaki Nagata**



Mr. Toshiaki Nagata is Director of Global Environment Partnership Office at METI, Japan. Having taken up the post on July 1 2019, he's been leading a variety of work relating to international cooperation to address climate change, including, but not limited to, climate negotiations under the UN and bilateral cooperation to promote low-carbon innovations and policy designing. He started his engagement in the climate change field at environment divisions in METI in 2001. Since then, his work has constantly focused on promoting international efforts to address climate change, including through the use of carbon markets and cleaner energy. His career history also includes work at two renowned international organizations relating to climate and energy: the Climate Change Secretariat in Bonn, Germany (2003-2007) and International Renewable Energy Agency (IRENA) in Abu Dhabi, United Arab Emirates (2017-2019).

**Ms. Emily Chew**



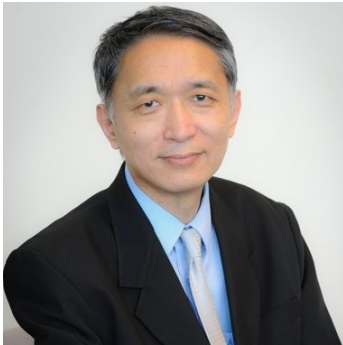
Emily is Global Head of Sustainability for Investment Management at Morgan Stanley Investment Management, and chairs the firm's Sustainable Investing Council. Before joining Morgan Stanley in 2020, Emily was Global Head of ESG Research and Integration for Manulife Investment Management in Hong Kong and Boston. Previously, Emily was Head of Asia-Pacific ESG Research for MSCI Inc. in Beijing and Hong Kong, leading a team of ESG research analysts covering the Asia-Pacific constituents of the MSCI All Country World Index. Emily is a member of the Principles for Responsible Investment's Listed Equities Integration Subcommittee, and formerly served as rotating chair of the Steering Committee of the Climate Action 100+ investor engagement initiative, and chair of the Asian Investor Group on Climate Change. She holds an MBA from the University of Oxford, and Bachelors of Laws and Arts (honors) from the University of Melbourne.

**Mr. David Banjerdpongchai**



David Banjerdpongchai has been with Faculty of Engineering, Chulalongkorn University. Currently, he is a professor of Electrical Engineering, head of Intelligent Control Automation of Process Systems Research Unit, and deputy director of International School of Engineering. He is a senior member of IEEE, a founding chair of IEEE Control Systems Society Thailand Chapter, an executive board member of ECTI Association, and a chair of IEC TC65 Thailand National Committee. He is a TPC co-chair of SICE 2020 and general chair of ICA-SYMP 2021. In addition, he serves as Associate Editor of International Journal of Control Automation Systems and section Editor-in-Chief of ASEAN Engineering Journal. He has published over 150 articles in journal and conference proceedings. His research interests are energy management systems, advanced process control, iterative learning control, and robust control design.

**Mr. Yongping Zhai**



Dr. Yongping Zhai has been working on energy development in Asia and Africa for more than 25 years. He is currently Chief of Energy Sector Group of the Asian Development Bank (ADB), in charge of overall energy policy coordination and technical support to ADB energy sector operations. He is also in charge of developing energy sector knowledge work for ADB and interacts with worldwide energy sector partners.

Prior to his current position, Dr. Yongping Zhai was Director of South Asia Energy Division (2010-2015), ADB, covering energy sector operations in Bangladesh, Bhutan, India, Maldives, Nepal and Sri Lanka. In this capacity, he led ADB's support to renewable energy, energy efficiency and power trade in South Asia. He also served as ADB's Lead Energy Specialist (2008-2010), in charge of energy sector in Southeast Asia including Indonesia, Philippines, and the Greater Mekong Subregion (GMS). In particular, he was instrumental in leading ADB's support to the power sector's successful restructuring process in the Philippines. Moreover, Dr. Zhai has played a key role in promoting power trade and cooperation in GMS.

From 1993 to 2000, Dr. Zhai was a Principal Program Coordinator/Public Utilities Economist at the African Development Bank (AfDB) in charge of energy projects in Southern African Development Community (SADC). Between 1990 and 1993, he served as an Assistant Professor at the Energy Technology Division (Energy Policy and Planning), Asian Institute of Technology (AIT) in Bangkok, Thailand.

He graduated from the Thermal Energy Engineering Department, Tsinghua University, Beijing, China (1983) and received a Ph.D in Energy Economics from Institute of Energy Economics and Policy, affiliated with the University of Pierre-Mendès France in Grenoble, France (1989).

Ms. Shannon Cowlin



Shannon Cowlin is an Senior Energy Specialist with ADB currently leading initiatives the Philippines, Viet Nam, and Indonesia on renewable energy, electric mobility, and carbon capture and storage. She previously spent more than 3 years contributing to ADB’s renewable energy and energy efficiency programs based out of the India Resident Mission. Prior to joining ADB, Ms. Cowlin worked at the U.S. National Renewable Energy Laboratory where she led bilateral and multilateral collaborations on clean energy and served as supervisor for a sustainability analysis unit. Ms. Cowlin’s prior work focused on the intersection of energy use, emissions (at household, urban, and global scales), human health implications, and mitigation approaches.

## About the Organizers

### **Ministry of Economy, Trade and Industry (METI):**

Ministry of Economy, Trade and Industry (METI) is a ministry of the Government of Japan. METI’s mission is to develop Japan’s economy and industry by focusing on promoting economic vitality in private companies and smoothly advancing external economic relationships, and to secure stable and efficient supply of energy and mineral resources.

### **Asian Development Bank (ADB):**

The Asian Development Bank was conceived in the early 1960s as a financial institution that would be Asian in character and foster economic growth and cooperation in one of the poorest regions in the world. ADB assists its members, and partners, by providing loans, technical assistance, grants, and equity investments to promote social and economic development. ADB is composed of 68 members, 49 of which are from the Asia and Pacific region.