

Clean EDGE Asia Conference

***Opportunities for Innovation: Ensuring Equitable Energy
Development in the Indo-Pacific***

Virtual Conference

February 15, 2022

9:30 a.m. – 12:00 p.m. EST

7:30 p.m. – 8:35 p.m. EST

9:30 a.m. – 9:35 a.m. Welcome and Opening Remarks

Ashley JOHNSON

The National Bureau of Asian Research

9:35 a.m. – 9:45 a.m. Framing Keynote Remarks

Laura Lochman

Deputy Assistant Secretary for Energy Diplomacy

U.S. Department of State

9:45 a.m. – 10:45 a.m. Beyond Wind and Solar: Additional Pathways for a Green Transition

As countries look to drastically reduce their emissions or aim for entirely net-zero economies, wind and solar PV are envisioned as key technologies to achieve such goals. Realistically, these sources will not account for 100% of global electricity generation in 2050. To ensure equitable energy development, policy planners are looking for innovative technologies and additional energy sources that could help round out a green energy transition. Thinking beyond just wind and solar, how are other technologies such as hydroelectricity, nuclear, hydrogen, biogas, and geothermal factoring into national energy plans? What roles are these energy sources anticipated to play in decarbonization strategies of the region, and why? What factors might bolster or undercut their envisioned deployment? What are the benefits or drawbacks to a broader portfolio of power sources? How could these sources of energy impact vulnerable populations?

Moderator: Clara GILLISPIE
The National Bureau of Asian Research

Panelists: James BOWEN
Perth USAsia Centre

NGUYEN Linh-Dan
Clean EDGE Asia Fellow; Hanoi University of Science and Technology

Deepak RAUNIAR
Betan Karnali Sanchaykarta Hydropower Company Limited

Niharika TAGOTRA
Clean EDGE Asia Fellow; World Resources Institute, India

10:50 a.m. – 11:50 a.m. Private Sector Action to Mobilize Energy Investments

With the conclusion of COP26 in November 2021, consensus was that targets and ambitions were not adequately met by the public sector. Private sector actors who were in attendance pledged to ramp up climate funding with the Glasgow Financial Alliance for Net Zero, a coalition of over 450 finance firms across 45 countries jointly managing \$130 trillion, to align their financing activities to achieve net-zero emissions by 2050. Mobilizing the private sector is not a new goal, but it has remained a major challenge. To add complexity, investments and private sector actors will be expected to address growing environmental justice issues and ensure equitable development for all. In the decade where many countries have pledged to slash emissions, invest in renewables, and overhaul their power mix, where is the space for public-private partnerships? What kind of policies would incentivize markets and promote green financing? What innovative financing mechanisms exist to encourage additional investment?

Moderator: Mikkal E. HERBERG
The National Bureau of Asian Research; University of California, San Diego

Panelists: Shafiqul ALAM
Clean EDGE Asia Fellow, Bangladesh

Alberto CORIA
U.S. – ASEAN Business Council

Madison FREEMAN
Office of the Special Presidential Envoy for Climate, Department of State

Rajiv Ratna PANDA
Clean EDGE Asia Fellow; Research Triangle Institute Global India Private Limited; South Asia Regional Energy Partnership, India

11:50 a.m. – 12:00 p.m. Morning Concluding Remarks

Chihiro AITA
The National Bureau of Asian Research

- Break -

7:30 p.m. – 7:35 p.m. Welcome Remarks and Morning Summary

Thomas LUTKEN
The National Bureau of Asian Research

7:35 p.m.–8:35 p.m. Supporting Just Transitions in the Indo-Pacific

As the United States and its partners in Asia seek to address climate change and strive for lower carbon societies, developing countries are championing the notion of a just transition: an equitable distribution of the benefits and costs that come with climate action. As countries shift towards lower carbon footprints, developing technologies, and phasing down/out industries, communities and countries alike will need comprehensive social, economic, and energy development policies to ensure a thriving livelihood for impacted individuals. How can more developed countries share the economic and social burden of a green transition? What existing or innovative policy approaches can be utilized to mitigate these challenges? What actionable items are developing countries looking for from public and private sector partners?

Moderator: Pradip SWARNAKAR
Indian Institute of Technology, Kanpur

Panelists: Kate HUGHES
Asian Development Bank

Jillian NEUBERGER
World Resources Institute

Alisi RABUKAWAQA
Pacific Climate Warriors

Twarath SUTABUTR
Clean EDGE Asia Fellow; Ministry of Energy, Thailand

8:35 p.m. Closing Remarks

Micah SINDELAR
The National Bureau of Asian Research

Speaker Biographies

Laura LOCHMAN – *U.S. Department of State*

Laura Lochman started December 13, 2021, as Deputy Assistant Secretary for Energy Diplomacy in the Bureau of Energy Resources. She was previously Director of the Office of Canadian Affairs, and from January-September 2021, served as Acting Deputy Assistant Secretary in the Bureau of Western Hemisphere Affairs for Canada, Haiti, and the Caribbean. Ms. Lochman is a career member of the Senior Foreign Service with over 30 years of experience in policy analysis and implementation. She has served in various overseas assignments with the Department of State, including as Deputy Chief of Mission at the U.S. Embassy to the Kingdom of Denmark; Economic Counselor in Bogota, Colombia; Consul General in Calgary, Canada; Deputy Economic Counselor and Chief of the Trade and Investment Unit at the U.S. Embassy in Moscow; and Deputy Economic Counselor and Environment, Science and Technology Officer at the U.S. Embassy in Madrid. Earlier, she served in Caracas, Venezuela and Sao Paulo, Brazil. In Washington, she previously served in the State Department's Office of Cuban Affairs, the Bureau of South Asian Affairs, and in the Bureau of Oceans and International Environmental and Scientific Affairs. She was detailed for one year from the State Department to a non-governmental organization, the Nature Conservancy, as a policy advisor. She also spent two years as the State Department's Deputy Director of the Office of Central European Affairs. Ms. Lochman graduated with a B.A. in International Studies and French from Miami University in Oxford, Ohio. She also studied at the Université de Montpellier, France. Ms. Lochman holds a black belt in karate, and her foreign languages include French, Spanish, Portuguese, and Russian.

Ashley JOHNSON – *The National Bureau of Asian Research*

Ashley Johnson is the Senior Director for the Energy and Environmental Affairs group at NBR. In this role, she manages and oversees NBR's initiatives on energy security, environmental sustainability, and economic development. Ms. Johnson received her MA from the Johns Hopkins School of Advanced International Studies, with concentrations in international economics and energy, resources, and the environment. Prior to joining NBR, she interned in the Consular Section of the Consulate General of the United States in Shanghai, China. She also holds a graduate certificate in Chinese-American Studies from the Hopkins-Nanjing Center and a BA in International Studies from Southwestern University. Ms. Johnson received the Critical Language Scholarship to study Mandarin and attended Hamilton College's intensive language program, Associated Colleges in China. Her expertise has been featured in various media outlets, including *Nikkei Asian Review*, *The Guardian*, the *Associated Press*, and *BBC World News*. Her research interests include environmental sustainability in China and South Asia, energy security, and economic trends in the Asia-Pacific.

Chihiro AITA – *The National Bureau of Asian Research*

Chihiro Aita is a Project Associate with the Energy and Environmental Affairs team at NBR. She supports various energy and environmental programs, such as the Pacific Energy Summit and the Energy Security Program, in addition to assisting NBR's work on nontraditional security challenges and climate resiliency. Prior to joining the Energy and Environmental Affairs team, Ms. Aita was a Gorton Leaders Fellow at NBR's Slade Gorton Policy Center. Ms. Aita also worked for the Japan research team within the Think Tanks and Civil Society Program at the University of Pennsylvania.

Shafiqul ALAM – *Clean EDGE Asia Fellow, Bangladesh*

Shafiqul Alam has more than a decade of experience in the energy and climate change sectors of Bangladesh. Most recently Mr. Alam was a senior advisor at GIZ. Prior to this, he implemented award-winning climate change mitigation projects under the Clean Development Mechanism and concluded the signing of several multi-million-dollar technical assistance grants and carbon finance agreements between private sector and multilateral development banks. In 2018, he received a fellowship from the Alexander von Humboldt Foundation, Germany, to conduct a study on the role of market-based instruments for climate change mitigation in Bangladesh. He is an engineer by training and possesses a master's in environmental economics and an MBA in finance.

James BOWEN – *Perth USAsia Centre*

James Bowen is a Policy Fellow at the Perth USAsia Centre. He is currently working on the intersection of hydrogen sector development and regional cooperation, as well as European engagement with the Indo-Pacific. Mr. Bowen was previously a Non-Resident Research Fellow at the Centre from 2018 to 2020. He was a Visiting Research Fellow at Berlin's Mercator Institute for China Studies in late 2019. From 2015 to 2017 he worked at the International Peace Institute in New York City, editing its flagship *Global Observatory* publication, and contributing to programs on countering and preventing violent extremism.

Alberto CORIA – *U.S.-ASEAN Business Council*

Alberto Coria joined the U.S.-ASEAN Business Council in April of 2019, and is now a manager covering the Financial Services, Customs, Malaysia, and Sustainability portfolios. Mr. Coria has also worked as a policy fellow at Foreign Policy for America, an advocacy group, and as a graduate research assistant at American University. He completed his master's degree in U.S. Foreign Policy, with a concentration in East Asia, from American University in December of 2020. Alberto concentrated his studies on regional trade within Asia, as well as Chinese and Southeast Asian relations.

Madison FREEMAN – *Office of the Special Presidential Envoy for Climate, Department of State*

Madison Freeman is a Senior Advisor to the Special Presidential Envoy for Climate John Kerry at the U.S. Department of State. In the office of the Climate Envoy, her portfolio includes emerging clean energy and climate technologies and private sector engagement to accelerate innovation, especially in hard-to-abate sectors like industry and heavy-duty transport. She works on several initiatives to mobilize private sector financing, including the First Movers Coalition, a public-private partnership that brings together a coalition of major companies to make significant commitments to purchase low-carbon materials and accelerate the development of critical solutions in challenging sectors.

Clara GILLISPIE – *The National Bureau of Asian Research*

Clara Gillispie is a Senior Advisor to NBR and serves as the official U.S. delegate to the Energy Research Institute Network. Ms. Gillispie is the author of numerous policy essays and reports on Asian energy issues, including recently co-authoring NBR's "Investments in Energy Transition: Strengthening the Power Sector in South and Southeast Asia." Ms. Gillispie is regularly called on to directly brief her research and analysis to U.S. and Asian government officials, senior

industry representatives, and the media, including the New York Times, Washington Post, and NPR's Marketplace.

Mikkal E. HERBERG – *The National Bureau of Asian Research; University of California, San Diego*

Mikkal E. Herberg is a member of the Board of Advisors at the National Bureau of Asian Research and Research Director of NBR's Energy Security Program. He is also a senior lecturer on international and Asian energy at the Graduate School of Global Policy and Strategy, University of California, San Diego. Previously, Mr. Herberg spent 20 years in the oil industry in Strategic Planning roles for ARCO, where from 1997 to 2000 he was Director for Global Energy and Economics, responsible for worldwide energy, economic, and political analysis. Mr. Herberg writes and speaks extensively on Asian energy issues to the energy industry, governments, and major research institutions in the Asia-Pacific region and Europe, including the U.S., China, and Japan.

Kate HUGHES – *Asian Development Bank*

Kate Hughes joined ADB in March 2020 and works on climate-change-related issues with a focus on climate policy and finance. Prior to this, she consulted on climate change and sustainable development projects across 19 countries in Asia and the Pacific for various clients, including ADB. She holds a master's in Engineering, majoring in Energy Policy and Planning and a bachelor's degree in Aeronautical Engineering.

Thomas LUTKEN – *The National Bureau of Asian Research*

Thomas Lutken is a Project Manager with the Energy and Environmental Affairs group at NBR. In this role, he helps manage NBR's ongoing projects on environmental policy, economic development, and energy security. Prior to joining NBR, Mr. Lutken spent six months working at the Center for Strategic and International Studies for their U.S.-India Policy Studies section and a year working for the U.S. Department of Agriculture as a hydrologic technician. Mr. Lutken earned an undergraduate degree in environmental science from Brown University in 2014 and a master's degree in environmental management from Duke University's Nicholas School of the Environment in 2019, concentrating in environmental economics and policy.

Jillian NEUBERGER – *World Resources Institute*

Jillian Neuberger works closely with WRI's Director of Government Affairs to amplify the impact of WRI's research findings on US policy. She supports congressional outreach, analyzes climate policy issues, and contributes to research across WRI as an expert on the latest climate-related developments in the federal policy space. Prior to joining WRI, Ms. Neuberger worked in international development consulting for USAID and the U.S. Department of State. Her previous research has addressed topics like deep sea mining, the circular economy, sustainable development goal 14, and national climate change commitments.

NGUYEN Linh Dan – *Clean EDGE Asia Fellow; Hanoi University of Science and Technology*

Nguyen Linh-Dan is a lecturer at the Department of Industrial Economics, formerly Energy Economics, under Hanoi University of Science and Technology (HUST). Before joining HUST in late 2020, Dr. Nguyen spent four years at the Asia Pacific Energy Research Centre (APEREC), a research institution for the APEC Energy Working Group based in Tokyo. Dr. Nguyen received a

master's degree and then a PhD in sustainability science from the University of Tokyo. She graduated with a bachelor's degree from the National Economics University, majoring in environmental economics and management.

Rajiv Ratna PANDA – *Clean EDGE Asia Fellow; Research Triangle Institute Global India Private Limited; South Asia Regional Energy Partnership, India*

Rajiv Ratna Panda is an international energy expert, electrical engineer, management, research, energy policy, development, strategy, and multiregional energy system professional with expertise in cross-border energy trade, energy/power grid integration strategy, energy commerce and trade, and regional power/energy markets. He is a power market specialist for USAID's South Asia Regional Energy Partnership (SAREP) program, implemented by RTI International in partnership with its India affiliate, Research Triangle Institute Global India Private Limited (RTI India).

Alisi RABUKAWAQA – *Pacific Climate Warriors*

Alisi Rabukawaqa-Nacewa has for over the past decade worked in environment conservation, climate activism and indigenous peoples' traditional rights and knowledge advocacy. She sits on the youth-led grassroots network 350.org Pacific Climate Warriors Council of Elders as the Melanesian representative, providing traditional knowledge on working with Pacific communities and indigenous perspectives to their climate justice work. She works as a marine scientist with the International Union for the Conservation of Nature, providing consultation on marine protected areas within Fiji and with communities — as protected oceans are also part of the solution to climate change and the resilience of the Pacific people.

Deepak RAUNIAR – *Betan Karnali Sanchaykarta Hydropower Company Limited*

Deepak Rauniar is the Chief Officer of KSK (Employees Provident Fund, Nepal) and has been deputed from KSK to lead the management of the company. He has more than twenty years of deep and professional engagement in the technology, management, infrastructure, banking and finance, and hydropower sector in Nepal and abroad. His professional experience includes leadership positions of several public institutions including the founding CEO of Hydroelectricity Investment and Development Company Limited (HIDCL), Officiating Administrator of Employees Provident Fund (EPF), and Managing Director of Betan Karnali Sanchayakarta Hydropower Company Limited (BKSHCL).

Micah SINDELAR – *The National Bureau of Asian Research*

Micah Sindelar is a Project Manager with the Energy and Environmental Affairs team at NBR where he leads energy security and climate change focused projects. Prior to his current position, Mr. Sindelar was an Environmental Specialist for the State of Minnesota working in environmental remediation and development and has held numerous internships at the U.S. Embassies in Beijing and New Delhi, working in the Economic, Environment, Science, and Technology Section.

Twarath SUTABUTR – *Clean EDGE Asia Fellow; Ministry of Energy, Thailand*

Twarath Sutabutr is a senior leader at Thailand's Ministry of Energy with experience in a wide range of public policy, including macro-energy economics and transition, climate change scenarios, job creation through promotion of renewable energy, and international cooperation. Dr. Sutabutr earned his doctoral of science in civil and environmental engineering from the Massachusetts Institute of Technology (MIT), a Master of Engineering (soil mechanics) from the

Asian Institute of Technology and a Bachelor of Engineering (civil) from Chulalongkorn University.

Pradip SWARNAKAR – *Indian Institute of Technology, Kanpur*

Pradip Swarnakar is an Associate Professor of Sociology at the Department of Humanities and Social Sciences, Indian Institute of Technology Kanpur, India, and the founder and coordinator of Just Transition Research Centre (JTRC) at IIT Kanpur, India. Dr. Swarnakar is trained as an environmental sociologist specialized in climate change adaptation and policy, social network analysis and sustainability transition. Synergizing his expertise in environmental sociology and information technology, he and Prof. S Zavestoski of the University of San Francisco are exploring the idea to create a global platform called “Sustainability Experimentation Venture Network (SEVeN),” which highlights the role of grassroots innovation and indigenous knowledge in climate change adaptation of vulnerable communities.

Niharika TAGOTRA – *Clean EDGE Asia Fellow; World Resources Institute*

Niharika Tagotra is a nuclear physicist and doctoral candidate in international politics at the School of International Studies, Jawaharlal Nehru University (JNU), New Delhi. She is concurrently working as a senior research specialist for the World Resources Institute in India. Prior to this she was a consultant of energy security at the Economic Diplomacy Division of the Indian Ministry of External Affairs. Before enrolling in a doctorate program, Ms. Tagotra completed her master's in philosophy from Jawaharlal Nehru University (JNU), New Delhi, in international politics.