VIRTUAL ASIA CLEAN ENERGY FORUM 2020
SUMMARY REPORT

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Dear Participants,

We have successfully held a Virtual Asia Clean Energy Forum despite the constraint of being unable to gather physically in one location. We can say that during this global pandemic we have found new and creative ways to learn to share information, and to find solutions to meet the sustainable energy needs of Asia and the Pacific.

We have conducted plenaries, thematic sessions, deep dive workshops, and partnered in side events that cover a wide range of critical issues. We have also showcased innovation in ADB projects and introduced ADB Ventures, which will support private sector startup companies.

On the role of clean energy to support the post-pandemic recovery and long-term climate actions, let me emphasize that we do not need to choose between economic recovery and clean energy.

Let me share four points that struck me during the Virtual ACEF:

- **Innovative Technologies.** We need to continue to invest and use innovative technologies that are relevant as the energy sector transitions to clean and low-carbon systems.
- **Energy System Resilience.** We need to provide more support for the development of local manufacturing capacity and train local skills to ensure continuity in renewable energy deployment and production. This could in turn translate to more jobs and economic opportunities.
- **Financing Issues.** This is the time to assess how tariffs can be structured to support the most vulnerable, while at the same time ensuring that revenues are sufficient for the sustained operations of the utilities.
- **Role of the Private Sector.** Mobilization of the private sector and commercial sources of investment is very important as we transition to the new normal.

I wish to thank the thousands of participants who joined this year’s Virtual ACEF. We truly hope that you have gained valuable knowledge and new insights from your participations at the Virtual ACEF 2020.

Sincerely,

Bambang Susantono

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Dear Clean Energy Colleagues,

ADB was privileged to organize its 15th Asia Clean Energy Forum (ACEF) during 15–19 June 2020. With the complications caused by the COVID-19 pandemic, we adapted the event to hold it for the first time in a fully virtual format.

ACEF participants were able to attend a total of 28 sessions across the week, covering all aspects of clean energy, as well as an additional 12 side events, which were organized by ACEF Partners during special ACEF Evening Sessions. This brief summary report captures the key trends, themes, and messages discussed during the 5-day forum.

We would like to acknowledge the support and close cooperation of our co-organizers, the US Agency for International Development (USAID) and the Korea Energy Agency, along with a number of other international development partners.

In line with ADB’s Strategy 2030, ADB is currently in the process of reviewing and updating its energy policy. The new energy policy will guide ADB’s energy sector operations, aiming to help members develop sustainable and resilient energy systems that foster economic growth and provide secure and affordable modern energy services. Stakeholder consultations will be held with ADB members, economies, development partners, international organizations, energy policy and technology experts, civil society organizations, and the public. For more information, see [here](#).

We look forward to continued engagement with the Asia Clean Energy Community, through our regular ADB operations, the energy policy review process, and other events such as ACEF.

Regards,

Yongping Zhai
VIRTUAL ACEF 2020
IN NUMBERS

15 years of bringing together climate and clean energy practitioners to respond to the region’s most pressing energy challenges and needs

28 main sessions
- 2 Plenaries
- 7 Deep Dive Workshops
- 15 Track Sessions
- 4 Spotlight Sessions

12 Side Events

60 hours of content
- presentations
- discussions

3,400 active participants

Top 10 Countries by Number of Participants
1. Philippines 1,329
2. India 601
3. Singapore 403
4. Indonesia 280
5. Japan 277
6. United States 261
7. People’s Republic of China 198
8. Viet Nam 147
9. Thailand 135
10. United Kingdom 128

Gender Ratio
41% Women
59% Men

Virtual ACEF Participants by Sector
- Private Sector: 21.1%
- Government: 17.7%
- International Organization: 14.4%
- Consulting Services: 14.38%
- Academic: 8.7%
- Others: 7%
- NGO: 6.6%
- Finance: 4.5%
- Think Tank: 3.5%
- CSO: 1.3%
93% of the participants said that the Virtual ACEF 2020 met, exceeded, or far exceeded expectations.

Did ACEF 2020 meet your expectations?
Respondents: 312

- 36% Exceeded expectations
- 23% Far exceeded expectations
- 10% Met expectations
- 3% Fell short of expectations
- 1% Fell significantly short of expectations

Do you think you will participate in ACEF 2021?
Respondents: 315

YES - 310
NO - 5
OPENING PLENARY: GLOBAL ENERGY CHALLENGES AND IMPACT OF THE COVID-19 PANDEMIC

“Clean energy should be at the core of COVID-19 Recovery Plans” was the resounding, unified message during the opening plenary of the Virtual ACEF 2020. This message was carried through all the sessions of the week.

Aside from welcoming the participants to the event, ADB Vice-President for Knowledge Management Bambang Susantono highlighted the challenges of the region’s energy sector amid the COVID-19 pandemic.

In their opening remarks, representatives of ADB partners, USAID Vietnam Deputy Mission Director Craig Hart, KEA Executive Director of Climate Response Daegyu Oh, and British High Commissioner to Singapore H.E Kara Owen described their initiatives to fast-track the region’s clean energy transition and to make sustainable energy accessible and a reality.

ADB President Masatsugu Asakawa kicked off Virtual ACEF by aligning this year’s theme “Vision 20/20: Cross-sectoral Innovations for Sustainable Future” with the urgent need to respond to the impacts of the COVID-19 pandemic. Highlighting ADB’s past and current work in the energy sector of Asia and the Pacific, President Asakawa emphasized that climate finance is critical to the social and economic rebound from the COVID-19 pandemic. In his keynote address, IEA Executive Director Fatih Birol stressed the importance of addressing climate change and air pollution in recovery packages and economic revitalization efforts, and stressed that clean energy should be at the heart of COVID-19 recovery plans.

In a subsequent panel discussion, energy experts and leaders addressed critical issues during the panel discussion on Sustainable Energy for the Economic Recovery. The panelists were Permanent Secretary of Ministry of Power & Energy of Sri Lanka Wasantha Perera, International Solar Alliance Director General Upendra Tripathy, IEA Acting Deputy Executive Director Dave Turk, and ADB Director General for Sustainable Development and Climate Change Woochong Um.

Upendra Tripathy stressed that “International organizations need to reinvent ourselves. And particularly when we are talking about infrastructure, we have to think in terms of renewable energy in various sectors and health in particular, and for example solarization of rural health systems.”

Masatsugu Asakawa
ADB President

“In 2019, our climate finance reached a record high of $6.56 billion... for the next 10 years under our Strategy 2030, we aim to provide $80 billion in cumulative climate financing, and to focus on climate adaptation and mitigation efforts in at least 75% of our operations.”
Craig Hart  
Deputy Mission Director, USAID Vietnam  
“In Vietnam, solar energy has grown from just 10 megawatts in 2018 to more than 4,500 megawatts in 2020. Solar now constitutes more than 10 percent of the country’s total generation capacity, and this happened in just 2 years... USAID’s Regional Development Mission for Asia mobilized over $250 million of public and private financing towards renewable energy in 2019.”

Daegyun Oh  
Executive Director, Climate Response, KEA  
“Let’s turn a crisis into an opportunity... Governments and international organizations around the world will need to actively supply clean energy and prepare eco-friendly transition policies to fully support the response to climate change, develop innovative technologies related to clean energy, and continuously strive to foster industries.”

H.E. Kara Owen  
CVO, British High Commissioner to Singapore  
“Under the Energy Transition Campaign, we are going to work with countries, development banks, investors and civil society to enable a global transition to cheaper, cleaner power in Southeast Asia through expanding the Powering Past Coal Alliance and strengthening the renewable energy offer as an alternative to new coal.”

Wasantha Perera  
Permanent Secretary of Ministry of Power and Energy, Sri Lanka  
“The country’s first development priority in this post-COVID-19 economic recovery is agriculture, targeting to improve food security and livelihoods. The second priority is renewable energy promotion. That shows how keen we are on making our environment clean.”

Upendra Tripathy  
Director General, International Solar Alliance  
“International organizations need to reinvent ourselves. And particularly when we are talking about infrastructure, we have to think in terms of renewable energy in various sectors and health in particular, and for example solarization of the health system.”

Dave Turk  
Acting Deputy Executive Director, IEA  
“Disruption is giving us time to think. And I think it is very important as we look at various economic recovery and stimulus programs to take a bit of a step back, and think about where do we want to go and how do we get to where we want to go, and think creatively and think rigorously as well.”

Woochong Um  
Director General, Sustainable Development and Climate Change Department, ADB  
“One of the key things is about disruption and innovation...but where are we going to get the innovation from? If we look at our generation, you’re not going to get anything new. So my suggestion is to ask somebody at least 20 years younger than you what we should do...in order to get real innovations, we need to tap into young people’s minds and their thinking about the future...”
KEY HIGHLIGHTS OF THE THEMATIC TRACK SESSIONS

1. Enhancing Road Maps for Nationally Determined Contributions
2. Multi-Sector Approaches to Clean Energy Development: Energy++
3. Fragile and Conflict-Affected Situations and Small Island Developing States: Resilience in the Face of Fragility and Conflict
4. Building Energy Sector Resilience
OVERVIEW

Responding to the COVID-19 Pandemic

In the light of the health, safety, and travel impact of the coronavirus disease (COVID-19) pandemic, the Asian Development Bank designed and delivered the Asia Clean Energy Forum (ACEF) through a virtual platform for the first time in its 15 years as an annual clean energy conference. Virtual ACEF was held during 15–19 June 2020 and was attended, virtually, by more than 3400 participants from across the globe.

Theme:
Vision 20/20: Cross-Sectoral Innovations for A Sustainable Future

This year’s theme was derived from the broad objectives of the United Nations’ Sustainable Development Goals (SDGs) and covered the seven priorities of ADB’s Strategy 2030.

As the world is facing the challenges and impacts of the COVID-19 pandemic, Virtual ACEF highlighted Cross-Sectoral approaches, innovations, and collaboration on clean energy, along with strategies for a post-COVID economic rebound.

Strategic Conference Design

To avoid overwhelming desk-bound virtual participants, sessions were limited to only 90 minutes. There were three 90-minute time slots: morning and afternoon for the main ACEF events, plus an evening slot for side events organized by ACEF partner organizations.

The virtual platform was designed to replicate an in-person conference—a venue for learning, knowledge-sharing, and networking. The platform allowed participants to engage with each other through the built-in features in the ACEF Virtual Platform.
ENHANCING ROAD MAPS FOR NATIONALLY DETERMINED CONTRIBUTIONS

This thematic track provided in-depth analyses of specific approaches, new technologies, described their role in the national and regional context, and demonstrated how they contribute to achievement of Sustainable Development Goal (SDG) 7 and nationally determined contributions (NDCs). The track showcased successful cases of clean energy deployment in rural areas of ADB’s developing member countries (DMCs).

TAKEAWAYS

- DMCs face several challenges during NDC implementation, including the lack of government engagement, private sector participation, availability of data and information, and access to financing.
- Climate change is an issue that requires data to move forward. In the climate change context, we need everyone to be on board, and it is essential for different ministries to share data.
- There is a need to see a regulatory environment that sends signals to the market to adopt the use of low-carbon technology.
- Renewable energy penetration has not increased as expected, and it requires continuous policy support. Energy storage technologies could be the game changer that can fast-track the implementation of renewables.
- In terms of bankability of energy storage projects, issues to be addressed are on the structure and financial modelling; revenue forecasting; construction and O&M; equipment and performance warrantees; environmental and social aspects, including safety, recycling and disposal of batteries, operation and maintenance not just of the batteries but also the facilities where the batteries are stored; and supply-chain issues (such supply of cobalt and lithium from conflict areas).

TRACK SESSIONS

1.1 Overview of NDC Implementation in the Context of Climate Change in Asia and the Pacific
1.2 Rural Clean Energy: A Crucial Solution for NDCs
1.3 Technology Road Maps for Key Technologies: Approaches and Findings

"Road maps often end up on a shelf. In practice, they need to be integrated with planning documents of the ministries and key enterprises of most of our developing member countries."

Sana Khan, National Energy Efficiency and Conservation Authority, Pakistan

“In order to attain its climate action goal, the government has a role to play. We should not always completely rely on foreign aid and consider the role of national funds and private investment.”
MULTI-SECTOR APPROACHES TO CLEAN ENERGY DEVELOPMENT: ENERGY++

Aside from highlighting ADB’s experience in energy end uses in infrastructure, cleaner production, the circular economy and related activities required to facilitate the global energy transition, this track showcased cross-sector strategies to champion clean energy revolution in the region. Speakers agreed that a clean energy revolution cannot be focused on a single sector. It requires coordinated actions that come from every sector of society. An inclusive approach opens exciting opportunities to deepen and accelerate the transition.

TAKEAWAYS

- The clean energy transition requires a collaborative, inclusive approach. It takes all sectors of society to make clean energy transition a reality. Each sector plays a role in fast-tracking and sustaining the clean energy revolution.
- Clean energy development is not just about technology. The biggest mistake is to look at technology as a snapshot and not as a dynamic process of development. The focus should be on the delivery and financing mechanisms needed to get the product to market.
- The use of solar water pumping shows how solar power can support farming and generate multiple benefits for remote farming communities. Among these benefits are food security, reduced malnutrition, increased productivity, and community and women’s empowerment.
- Community participation is a must. For rural renewable energy projects, the community must participate in decision-making in all aspects of project implementation—from technical design (tailor made to fit community needs), to delivery mechanisms (e.g. metering), to tariff structure—and gain a sense of project ownership.

TRACK SESSIONS

2.1 Economy-wide Energy Evolution
2.2 Solar Energy – It’s Not Just Electricity
2.3 Multi-sector Approaches to Clean Energy Development: Energy ++: Air Quality Improvement Program in the Greater Beijing-Tianjin-Hebei Region

Click session number to watch the recording.

Sujata Gupta
Director of Sustainable Infrastructure Division
East Asia Department, ADB

“What we see happening in China [with integrated work on clean energy and air quality] is an example of what is happening in Asia and the rest of the world. The importance of this work is very high because the rest of the world would like to learn from China.”

Jin Wenjing
Engineer, Chinese Research Academy of Environmental Sciences

“Clean energy engagement can increase the number of good air quality days while reducing the number of days with heavy pollution.”
Aside from being vulnerable to man-made threats and natural calamities, Fragile and Conflict-Affected Situations (FCAS) and Small Island Developing States (SIDS) are facing challenges related to energy and food security. The sessions in this thematic track addressed differentiated approaches to address FCAS and SIDS challenges as well as the huge opportunities for innovations in sustainable technologies and applications in clean energy.

**TAKEAWAYS**

- Enhancing the resilience of small islands and fragile states requires long-term, holistic planning across multiple sectors, strategic financing for transformational interventions, and boosting local capacity to build back better.
- Cross-sectoral innovations in established renewable energy technologies and applications can deliver far-reaching solutions that sustainably address the energy-food-water-climate nexus of challenges for the most fragile and vulnerable.
- Marine renewable energy technologies are poised to change the game for small island developing states.
- In order to address energy and economic insecurity, it is essential to promote increased engagement of women as drivers of change.

"We do owe it to ourselves and our region’s future generations to recover and build back better. Our exchanges and dialogues will inculcate in us a 20/20 vision and empower our leaders to make smarter choices that will shape our lives and hopefully accelerate and enable a more resilient and sustainable future for us all."

Samuel Tumiwa
Advisor (FCAS)
ADB

"Support for FCAS and SIDS must be context-sensitive to enable them to progress from fragility, along the development continuum, and transition to stability and resilience"
The key takeaway of this thematic track is that “Resilience is not an add-on but an integral part of energy sector development.” Speakers shared their insights on how energy sector resilience—to adapt to climate change and to manage risk from natural and other hazards, including calamities, and now, pandemic—can be enhanced through planning, technology, capacity building and finance.

4.1 Planning for Resilient Energy Infrastructure and Supply Chains
4.2 High-Level Technology and Innovative Design for Power System Resilience
4.3 Managing for Resilience

Public-Private Partnerships can provide the needed incentives and share risks and costs for resilient energy systems.
Renewables without fundamental changes in the grid architecture do not make the grid more resilient against future changes.
Digital technology enables more women to join the power sector workforce.
Policy options can be developed through the lens of the Energy Trilemma, by taking into account autarky, price, supply and carbon emissions.
The transition to green energy requires government leadership, blended finance, and a change in mindset of planners.

“Renewables by themselves do not make the grid more resilient against future changes. If you truly want resilience in the grid system, you have to simultaneously change the physical grid design and its operational architectural layers.”

“Through its Low Carbon Energy Programme, the UK government is supporting ASEAN governments to understand the steps and government support [that are] needed to develop a domestic and regional supply chain for the offshore wind.”
This special thematic track tackled the most pressing issue in the world today and explored insights on how to recover from the impacts of COVID-19 pandemic. Speakers in this track generally agreed that the COVID-19 crisis has created opportunities, including for the creation of flexibility in supply chains, additional policy support, and greater focus on regional and local value chains. Discussions in the track sessions explored technological and policy response in the energy sector to deal with the impacts of the pandemic.

The COVID-19 crisis is presenting a unique trilemma between energy efficiency, thermal comfort, and productivity, especially in the tropics. The crisis will likely lead to countries focusing on shortening supply chains and placing more emphasis on food and energy self-sufficiency. Technologies such as the Internet of Things (IoT), cost effective indoor air quality monitoring devices, cloud computing, and artificial intelligence (AI) bring endless uses of data, and can provide solutions for older buildings to modernize and tackle COVID-19. Bioenergy can be promoted through development of sustainable supply chains; land use and landscape management; biomass production; logistics; market deployment; and sustainability governance.

Kate Hughes
Senior Climate Change Specialist, ADB

“The [COVID-19] recovery is a package of interventions that look at immediate needs for stimulus along with long-term transformation.”

Antonio Della Pelle
Senior Energy Expert and Client Director, McKinsey

“The [green] stimulus needs to be directed to support initiatives that deliver jobs in the short, medium and long term, preferably in industries that will thrive in the future.”
DEEP DIVE WORKSHOPS & SPOTLIGHT SESSIONS

A total of 7 Deep Dive Workshops (DDWs) and 3 Spotlight Sessions were organized by ADB and partner agencies, including the ADB Institute, UK Government, US Agency for International Development (USAID), Korea Energy Agency (KEA), Ministry of Economy, Trade and Industry (METI) of Japan, Department for Business, Energy & Industrial Strategy (UK-BEIS), Sustainable Energy for All (SEforALL), UN Economic and Social Commission for Asia and the Pacific (UNESCAP), ADB Ventures, and the Private Financing Advisory Network (PFAN).

DDWs and Spotlight Sessions are focused sessions designed to give participants in-depth updates on specific topics of interest.

Deep Dive Workshops

Click the session banner to watch the recording.
Spotlight Sessions

Click the session banner to watch the recording.

Note: Part 2 of the Spotlight Session, Scaling Energy Tech as We Enter the New Normal was broadcast outside the Virtual ACEF platform.
CLOSING PLENARY: REBOUNDING FROM COVID-19 AND FUTURE DIRECTIONS

The closing plenary had two parts: the first part brought together several key leaders within the climate, clean energy, and development sectors. Armida Alisjahbana, Under-Secretary-General of the United Nations and Executive Secretary of ESCAP; Dr. Ilan Noy, Chair in the Economics of Disasters and Climate Change, Victoria University of Wellington; Lord Callanan, Minister for Climate Change and Corporate Responsibility, UK Government; and Juniper Neill, Deputy Mission Director, Regional Development Mission for Asia at USAID were the keynote speakers of the closing plenary.

They addressed the impacts of the COVID-19 pandemic, shared insights on approaches to stimulate economic recovery, and ways to move forward, and provided information on current initiatives to help the region’s recovery.

The second part was a panel discussion, “Future Directions for the Energy Sector” in which invited speakers tackled the following questions:
- How are energy needs changing in ADB’s DMCs?
- Does ADB need to change its approach to DMC energy lending?
- What do we need to do now to head in the right direction?

The panelists were Hongpeng Liu, Director, Energy Division at UNESCAP; keynote speaker Dr. Ilan Noy; Priyantha Wijayatunga, Energy Director, South Asia Regional Department at ADB; and Sujata Gupta, Director, Sustainable Infrastructure, East Asia Department at ADB.

Dr. Noy shared inspiring insights about how to “build back better” during the pandemic recovery period, urging governments to do things differently and not just go back to business as usual.

“Renewable energy has shown remarkable resilience to the pandemic in major markets. However, in developing countries, many major renewable energy projects have been suspended or postponed because of transport and logistics interruptions and travel restrictions. We need to provide more support for the development of local manufacturing capacity and train local skills to ensure continuity in renewable energy development. This will in turn translate into more jobs and economic opportunity.”

Bambang Susantono
Vice-President
Knowledge Management
Asian Development Bank
Armida Salsiah Alisjahbana
Under-Secretary-General of the United Nations Executive Secretary of ESCAP

“Through my interactions with leaders and senior policymakers, I recognize the growing urgency to address climate change by accelerating the clean energy transition. In the context of the ongoing COVID-19 crisis, we see both risks and opportunities ... The risks are the potential for declining investments in renewable energy and energy efficiency, supply chain issues, and the policy focus shifting away from sustainable and low-carbon energy. But the opportunities include the enormous potential for clean energy to form the mainstay of the economic stimulus packages announced by member states. Let us consider how we can turn these risks into opportunities as we implement the Paris Agreement and 2030 Agenda for Sustainable Development.”

Dr. Ilan Noy
Chair in the Economics of Disasters and Climate Change
Victoria University of Wellington

“The COVID-19 crisis actually provides an opportunity for us to do a lot of things, especially because of the massive amounts of government and international funding that is going towards the economic recovery. My hope is that we can direct more of these subsidies towards “good policies” such as green infrastructure, clean energy, and environmental goods.”

Lord Callanan
Minister for Climate Change and Corporate Responsibility, UK Government

“The economics of low-carbon technology have changed. Investing in clean technology now makes clear financial sense. And this means that we can say with absolute confidence that the clean energy transition is as possible as it is necessary.”

Juniper Neill
Deputy Mission Director
Regional Development Mission for Asia, USAID

“To foster ingenuity and innovation across Asia, last year we launched the water and energy for food prize under the Asia EDGE program in partnership with governments of Germany, Sweden, and the Netherlands. The Prize recognizes and rewards promising innovators in the nexus of renewable energy and agriculture.”
KEY MESSAGES FROM ACEF 2020

The closing plenary began with a short video of the key messages captured during the first four days of the Virtual ACEF. Compiled by the ACEF Secretariat, the video presents the key takeaways from the ACEF 2020 discussions and includes memorable quotations from a number of speakers.

Virtual ACEF 2020 partnered with Tech for Impact, which is a knowledge-sharing platform covering technology-focused solutions to enormous challenges for resources, infrastructure, climate, and equality in Asia and the Pacific. In collaboration with ADB, TFI tells stories about visionaries, entrepreneurs, investors and innovations that drive the region’s development. TFI amplified the key messages of the Virtual ACEF, its organizers, and partner organizations, and conducted interviews with a number of ACEF speakers.
SIDE EVENTS

To accommodate the wealth of content and insights for Partner Organizations, ADB coordinated 12 ACEF 2020 Side Events during a special evening time slot. ACEF Partner Organizations shared news and information about their projects and initiatives that address key challenges and needs in the energy sector.

Tuesday 16 June 2020

- Public Support for Renewables: Why and How (incl launch of Renewables 2020 Global Status Report) (REN21)
- Cross Border Power Trade and Future Energy Markets (USAID India)
- Successful Impression: The Indian Rooftop Solar Implementation Journey (Ernst & Young, SUPRABHA TA Program)

Wednesday 17 June 2020

- Delivering Equality: Utility Experience in Making Change to Achieve Gender Equality and Promote Women in Leadership (USAID DC)
- Measuring Energy Efficiency Results: International Best Practices and Examples (ADB and EPS Capital Corp.)
- Blockchain Applications in the Electricity Sector (India Smart Grid Forum)

Thursday 18 June 2020

- U.S. Government Resources to Support Project Preparation, Financing, and Implementation (USAID Asia)
- GIS Tools for Smarter Energy Planning (The Stimson Center)
- Key Financing Principles for CCUS (CEM CCUS)