The Mekong – U.S. Partnership promotes
the stability, peace, prosperity, and
sustainable development of the Mekong
sub-region and cooperation in addressing
transboundary challenges among Mekong
countries and the United States. It further
reinforces the strong and longstanding
relationship among the United States,
Cambodia, Lao PDR, Myanmar, Thailand,
and Viet Nam. The Partnership builds upon
11 years of cooperation and progress from
2009-2020 through the Lower Mekong
Initiative (LMI) to expand collaboration in
the face of new challenges and
opportunities. The Partnership supports the
implementation of the ASEAN Community
Vision 2025 and is an integral part of
support and cooperation between the
United States and ASEAN.

Find more about the Partnership at
mekonguspartnership.org/.

The Stimson Center promotes
international security, shared prosperity
& justice through applied research and
independent analysis, deep engagement,
and policy innovation. For three decades,
Stimson has been a leading voice on urgent
global issues. Founded in the twilight years
of the Cold War, the Stimson Center
pioneered practical new steps toward
stability and security in an uncertain
world. Today, as changes in power and
technology usher in a challenging new era,
Stimson is at the forefront: Engaging new
voices, generating innovative ideas and
analysis, and building solutions to promote
international security, prosperity, and
justice.

More at stimson.org.

International Union for Conservation of
Nature (IUCN) is a membership-Union
composed of both government and civil
society organizations. It harnesses the
experience, resources and reach of its
more than 1,400 Member organizations
and the input of more than 18,000
experts. This diversity and vast expertise
make IUCN the global authority on the
status of the natural world and the
measures needed to safeguard it.

Cover Photo: GMS Nam Theun 2 Hydroelectric Project in Lao PDR, courtesy of Asian Development Bank Flickr account.
ABOUT THE POLICY DIALOGUE SERIES

This summary report provides an outline and recommendations derived from discussions on energy and infrastructure held as a part of the Mekong-U.S. Partnership Track 1.5 Policy Dialogue series. The Partnership Policy Dialogues are a series of seven conferences taking place between 2021 and 2023 that are generously supported by a grant from the U.S. Department of State's Mekong-U.S. Partnership. Cross cutting principles of inclusivity, resilience (including climate), and collaboration will be applied to all conferences in this series.

The U.S. Government launched the Mekong-U.S. Partnership in 2020 to expand cooperation with the five countries of the Mekong sub-region on strategic challenges and shared priorities under the Partnership's four areas of cooperation (non-traditional security, natural resources management, economic connectivity, and human resource development). The Mekong-U.S. Partnership builds on the strengths of the Lower Mekong Initiative’s development-focused agenda by cooperating on strategic sub-regional issues and challenges. Each area of engagement under the Mekong-U.S. Partnership is supported by a flagship project. The Partnership’s Track 1.5 Policy Dialogue series serves as the flagship program of the Mekong-U.S. Partnership’s human resources development area of engagement.

CONTENTS

Key Acronyms ................................................................. 2
A Note from the Conference Chairs ................................. 3
Summary .............................................................................. 4
Agenda ................................................................................. 6

Thematic Areas and Recommendations

Renewable Energy Transition ........................................... 10
Smart & Regional Energy Planning ................................. 12
Linear Infrastructure and Cross-Border Corridors .......... 14
River Delta Planning and Coastal Climate Resilience .... 16

Feedback and Next Steps.............................................. Inside back page
## KEY ACRONYMS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association of Southeast Asian Nations</td>
</tr>
<tr>
<td>CLMTV</td>
<td>Cambodia, Laos, Myanmar, Thailand, and Vietnam</td>
</tr>
<tr>
<td>ESG</td>
<td>Environmental, Social, and Governance</td>
</tr>
<tr>
<td>FIT</td>
<td>Feed-in-Tariff</td>
</tr>
<tr>
<td>GESI</td>
<td>Gender, equity, and social inclusion</td>
</tr>
<tr>
<td>LMI</td>
<td>Lower Mekong Initiative</td>
</tr>
<tr>
<td>MUSP</td>
<td>Mekong - U.S. Partnership</td>
</tr>
<tr>
<td>MW</td>
<td>Megawatts</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-government Organization</td>
</tr>
<tr>
<td>PV</td>
<td>Photovoltaic</td>
</tr>
</tbody>
</table>
A NOTE FROM CONFERENCE CHAIRS

The second Mekong-U.S. Partnership Track 1.5 Policy Dialogue on Energy and Infrastructure was the first topically-oriented dialogue under the Partnership Policy Dialogue series, and it took place across four virtual half-day sessions organized by the Stimson Center and IUCN and supported by the U.S. Department of State between October 19 – 26, 2021. The Partnership Policy Dialogues are a series of seven conferences taking place between 2021 and 2023 which will explore solutions to key policy and sustainability challenges in the Lower Mekong. The first was held virtually in March 2021 and convened partners and stakeholders from around the Mekong region to explore gaps, needs, and opportunities for collaboration on addressing key challenges. This second dialogue built on those initial discussions with a deep dive into energy and infrastructure opportunities and challenges, with a focus on needs related to the renewable energy transition, regional power trade, cross-border economic corridor development, ESGs, and climate adaptation, among other opportunities.

The conference was designed to be inclusive of experts across the region and across multiple sectors, and we’re delighted to report that more than 100 participants attended individual conference sessions. Fifty-one percent of conference registrants were nationals of Mekong countries, 40% were from the United States, and the remaining 9% were from other ASEAN and development partner countries. Rising voices were engaged in this discussion, as 22% of participants were under the age of 35. Most attendees (59%) were from non-government institutions and 41% were from governments. Evaluation surveys completed by conference participants show a high degree of satisfaction in both the range of issues discussed and the mix of stakeholders who represent these issues.

The Stimson Center and IUCN look forward to building on this interactive dialogue through five additional dialogues on other topics in coming years. We gratefully acknowledge support from the U.S. Department of State and the Mekong – U.S. Partnership for supporting this Policy Dialogue. In particular, the team would like to thank Nicole Smolinske, Scott Wicker, Elizabeth Evans, and Rachel Rodgers of the U.S. Department of State; Maria Goravanchi from the U.S. Development Finance Corporation; and William Lyons, Stephanie Fischer, and their colleagues at the Department of Transportation for helping to pull together an impactful virtual conversation. We would also like to thank our more than 40 speakers and moderators who shared their expertise through presentations and all our participants for engaging actively during the discussions.

Sincerely,

Jake Brunner
IUCN
Conference Co-Chair

Courtney Weatherby
Stimson Center
Conference Co-Chair
SUMMARY

Across four half-day meetings held between October 19 – 26, 2021, the Stimson Center and IUCN facilitated the second Mekong – U.S. Partnership Track 1.5 Policy Dialogue to explore key challenges and opportunities related to energy and infrastructure development in the Lower Mekong.
The second dialogue was a deep-dive into energy and infrastructure opportunities and challenges in the Mekong Region. Panelists and participants explored policy challenges and best practices from the US, Mekong countries, and development partner countries such as Australia, Japan, the EU, and the UK in meeting needs related to the renewable energy transition, regional power trade, cross-border economic corridor development, environment, social, and governance (ESG), and climate adaptation, among other opportunities. Cross-cutting values of inclusivity, resilience (including climate), and collaboration framed presentations and discussions and were woven into the recommendations. The conference’s 11 sessions were designed to maximize engagement of all participants and panelists in order to collaboratively identify needs, gaps, and opportunities related to the key topics.

**KEY TAKEAWAYS AND POLICY RECOMMENDATIONS FROM THE SECOND POLICY DIALOGUE INCLUDE:**

- Provide a clear process for a wide range of stakeholders, from private companies to individual households and from organization to city level, to deploy rooftop solar or independent power projects and connect to the grid. Within technical constraints, this can reduce electricity demand from national power grids, produce electricity for grids, and reduce electricity costs, particularly for energy intensive industries.

- Build flexibility into power planning processes to make space for disruptive technologies. For example, in the storage market there will be major changes in the next 2-5 years greatly expanding the ability to expand renewable energy capacities. Policymakers should modify plans on a more frequent basis to accommodate advances in the energy sector and include up-to-date realistic domestic and regional demand forecasts. Private sector working groups should inform the power development planning process.

- Improve and strengthen the uptake and enhancement of the understanding and integration of ESGs into early decision making on infrastructure projects in the Lower Mekong to ensure that these risks and impacts are properly identified and managed throughout the project lifecycle. Improve and strengthen Mekong region financiers’ considerations regarding ESG risk, approaches, and methodologies to mitigate risk, and capacity to integrate ESG risk principles into their infrastructure investing and lending processes.

- To maximize benefits and create a more adaptive approach to delta planning, policy makers and stakeholders should value and protect the positive contributions of natural flooding and natural ecosystem services. Education about the positive benefits to floodplains and maintaining the natural flow of rivers is needed for stakeholders from all sectors. The Mekong River Commission and other similar government and inter-government agencies need to recognize that the current state of river deltas represents a new baseline situation and initiate studies on how to move forward amid continued climate change and infrastructure impacts.

*Photo: Bridge construction for railway near Luang Prabang, taken by Courtney Weatherby.*
# AGENDA FOR OPENING MEKONG–U.S. PARTNERSHIP TRACK 1.5 POLICY DIALOGUE

## DAY 1

### Oct. 19 from 8:30–11:40am ICT

### Oct. 18 from 21:30pm-00:40am EDT

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30–10:00am</td>
<td><strong>Opening Plenary</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Keynote Address</strong> by Assistant Secretary Daniel Kritenbrink, U.S. Department of State</td>
</tr>
<tr>
<td></td>
<td><strong>High level plenary panel with Q&amp;A</strong></td>
</tr>
<tr>
<td></td>
<td>• H. E. Ha Kim Ngoc, Ambassador of the Socialist Republic of Vietnam to the United States</td>
</tr>
<tr>
<td></td>
<td>• Melanie Nakagawa, Special Assistant to the President and NSC Senior Director for Climate and Energy, The White House</td>
</tr>
<tr>
<td></td>
<td>• Kate Newman, Vice President of Sustainable Infrastructure and Public Sector Initiatives, WWF</td>
</tr>
<tr>
<td></td>
<td><strong>Conference overview and expectations:</strong></td>
</tr>
<tr>
<td></td>
<td>• Courtney Weatherby, Southeast Asia Program Deputy Director, Stimson Center</td>
</tr>
<tr>
<td></td>
<td>• Jake Brunner, Indo-Burma Hotspot Program Director, IUCN</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10:10–11:40am</th>
<th><strong>Opening Plenary  2: How to make a DFC Bankable Project?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>The infrastructure gap in Southeast Asia has been widely analyzed by the Asian Development Bank, but the gap persists despite a plethora of proposed infrastructure projects for financing. The gap is not related to identifying needs or opportunities, but rather to the challenges in ensuring that projects seeking funding meet commercial and technical requirements as well as necessary environmental, social, and governance safeguards to be attractive to international financial institutions. This session will explore the role that the U.S. Development Finance Corporation could play in helping to fill this gap and what is necessary to make projects bankable for the DFC and other similar institutions.</td>
</tr>
<tr>
<td></td>
<td><strong>DFC Staffers:</strong></td>
</tr>
<tr>
<td></td>
<td>• Maria Goravanchi, Regional Managing Director, Mekong</td>
</tr>
<tr>
<td></td>
<td>• Douglas Midland, Managing Director, Indonesia</td>
</tr>
<tr>
<td></td>
<td>• Geoffrey Tan, Managing Director, Asia Pacific</td>
</tr>
<tr>
<td></td>
<td>• Ajay Rao, Regional Managing Director, South Asia</td>
</tr>
</tbody>
</table>
# Agenda for Opening MEKONG–U.S. Partnership Track 1.5 Policy Dialogue

## Day 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 - 8:40 ICT</td>
<td>Brief Opening Remarks from Conference Co-Chairs</td>
</tr>
<tr>
<td></td>
<td><strong>CONCURRENT SESSIONS 1</strong></td>
</tr>
<tr>
<td>8:40–10:10am ICT</td>
<td><strong>A1 Renewable Energy Transition</strong> Panel: Breaking through renewable energy bottlenecks &amp; other challenges</td>
</tr>
<tr>
<td></td>
<td>Facilitator: Brian Eyler, Stimson Center</td>
</tr>
<tr>
<td></td>
<td><strong>B1 Linear Infrastructure and Cross-border Corridors</strong> Panel: Planning for Regional Transport Connectivity: Identifying Best Practices that Deliver Effective Cross-Border Corridors</td>
</tr>
<tr>
<td></td>
<td>Facilitator: William Lyons, U.S. Department of Transportation</td>
</tr>
<tr>
<td></td>
<td><strong>Panelists:</strong></td>
</tr>
<tr>
<td></td>
<td>• Dr. Hang Dao, World Resources Institute and Clean Energy Invest Accelerator Vietnam</td>
</tr>
<tr>
<td></td>
<td>• Jonathan Morganstein, National Renewable Energy Laboratory</td>
</tr>
<tr>
<td></td>
<td>• Dr. Scott Wicker, U.S. Department of State and Kentucky State University</td>
</tr>
<tr>
<td></td>
<td><strong>Panelists:</strong></td>
</tr>
<tr>
<td></td>
<td>• Yinghui Ting, FedEx</td>
</tr>
<tr>
<td></td>
<td>• Asadullah Sumbal, Asian Development Bank</td>
</tr>
<tr>
<td></td>
<td>• Stephanie Fischer, Department of Transportation</td>
</tr>
<tr>
<td></td>
<td>• Dr. Watcharas Leelawath, Bolliger &amp; Company</td>
</tr>
<tr>
<td></td>
<td><strong>CONCURRENT SESSIONS 2</strong></td>
</tr>
<tr>
<td>10:20–11:40am ICT</td>
<td><strong>A2 Renewable Energy Transition</strong> Panel: Building a better baseload</td>
</tr>
<tr>
<td></td>
<td>Facilitator: Dr. Nkiruka &quot;Nikky&quot; Avila, Pacific Gas &amp; Electricity (United States)</td>
</tr>
<tr>
<td></td>
<td><strong>Panelists:</strong></td>
</tr>
<tr>
<td></td>
<td>• Pitoon Junthip, USAID Mekong Safeguards</td>
</tr>
<tr>
<td></td>
<td>• Dr. Nate Blair, National Renewable Energy Lab</td>
</tr>
<tr>
<td></td>
<td>• Dr. Yoshiaki Shibata, Institute of Energy Economics Japan</td>
</tr>
<tr>
<td></td>
<td>• Ekin Niksarli, AES Vietnam</td>
</tr>
<tr>
<td></td>
<td><strong>B2 Linear Infrastructure and Cross-border Corridors</strong> Panel: Improving ESG in linear infrastructure and corridor development</td>
</tr>
<tr>
<td></td>
<td>Facilitator: Winston Chow, USAID and Australia Mekong Safeguards Program</td>
</tr>
<tr>
<td></td>
<td><strong>Panelists:</strong></td>
</tr>
<tr>
<td></td>
<td>• Petch Manopawitr, USAID Linear Infrastructure Safeguards in Asia (LISA)</td>
</tr>
<tr>
<td></td>
<td>• Eileen Larney, USAID Linear Infrastructure Safeguards in Asia (LISA)</td>
</tr>
<tr>
<td></td>
<td>• Jennifer Mudge, Australia Partnership for Infrastructure (P4I)</td>
</tr>
<tr>
<td></td>
<td>• Stefano Zenobi, WWF/USAID Mekong for the Future</td>
</tr>
<tr>
<td></td>
<td>• Oliver Warner, IBIS Consulting and The Asia Foundation</td>
</tr>
</tbody>
</table>
### AGENDA FOR OPENING MEKONG–U.S. PARTNERSHIP TRACK 1.5 POLICY DIALOGUE

#### DAY 3

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30–8:50am</td>
<td><strong>Brief Opening Plenary</strong>&lt;br&gt;This opening session will summarize key takeaways from Day 2 of the conference and lay out expectations for Day 3.</td>
</tr>
<tr>
<td>8:50–10:10am</td>
<td><strong>A3 Smart and Regional Energy Planning</strong>&lt;br&gt;Panel: Graduating out of the project-by-project approach to power development planning&lt;br&gt;Facilitator: Jeff Opperman, WWF&lt;br&gt;Panelists:&lt;br&gt;- Kate Lazarus, International Finance Corporation&lt;br&gt;- Dr. Apisom Intralawan, Mae Fah Luang University&lt;br&gt;- Jose Gonzalez, FutureDAMS Initiative</td>
</tr>
<tr>
<td></td>
<td><strong>B3 River Delta Planning and Coastal Climate Resilience</strong>&lt;br&gt;Panel: Finding common cause in river delta planning&lt;br&gt;Facilitator: Brian Eyler&lt;br&gt;Panelists:&lt;br&gt;- Nguyen Minh Quang, Managing Director of the Mekong Environment Forum and Lecturer at Can Tho University&lt;br&gt;- Youk Senglong, Deputy Executive Director, Fishery Action Coalition Team (FACT)&lt;br&gt;- Dr. Nguyen Van Kien, Director of the Research Centre for Rural Development, An Giang University</td>
</tr>
<tr>
<td>10:20–11:40am</td>
<td><strong>A4 Smart and Regional Energy Planning</strong>&lt;br&gt;Panel: Technical Solutions to Optimizing Water-Food-Energy Resources&lt;br&gt;Facilitator: Courtney Weatherby, Stimson Center&lt;br&gt;Panelists:&lt;br&gt;- Chairapee Liengboonlertchai, Electricity Generating Authority of Thailand&lt;br&gt;- Vithoulabandith (Vitoun) Thoummabouth, Ministry of Energy and Mines of Lao PDR&lt;br&gt;- Beni Suryadi, ASEAN Center for Energy&lt;br&gt;- Matthieu Bommier, Nam Theun 2 Power Company</td>
</tr>
<tr>
<td></td>
<td><strong>B4 River Delta Planning and Coastal Climate Resilience</strong>&lt;br&gt;Panel: Planning for coastal defense infrastructure and coastal climate adaptation&lt;br&gt;Facilitator: Ty Wamsley, US Army Corps of Engineers&lt;br&gt;Panelists:&lt;br&gt;- Natalie Snider, Environmental Defense Fund&lt;br&gt;- Dr. Nguyen Hieu Trung, Can Tho University DRAGON Institute&lt;br&gt;- Dr. Sok Serey, Asian Vision Institute</td>
</tr>
</tbody>
</table>
### DAY 4

**Oct. 26 8:30–11:40am ICT**  
**Oct. 25 21:30pm–00:40am EDT**

| 8:30–11:10am | **Synthesis Workshop:**  
In between Days 3 and Day 4 of the Dialogue, participants took time to assess preliminary policy recommendations resulting from the first three days of the conference. and provide responses via an online survey to rank and prioritize the key concerns, best practices, and policy recommendations identified during the Dialogues sessions.  
During the Synthesis Workshop, participants reviewed the top concerns and recommendations for each category to come to a consensus on wording, final ranking, and brainstorm ideas for implementation while in smaller breakout rooms. |
| 11:10–11:40am ICT | **Final Plenary: Summary Statements and Closing Remarks** |
THEMATIC AREAS AND RECOMMENDATIONS

The key concerns and recommendations in each thematic section below were captured through a series of synthesis surveys and in-workshop dialogues. The conference team tracked specific recommendations raised during session discussions and surveyed workshop participants to rank top choices in each of the four categories: renewable energy transition, smart and regional energy planning, river delta planning and coastal climate resilience, and linear infrastructure and cross-border corridors. These recommendations were further refined and ranked in order of priority during an interactive synthesis workshop on the final day of the conference.

RENEWABLE ENERGY TRANSITION

Even as the five Mekong countries face rising electricity demand and need to expand the electricity generation and transmission network, the global energy market is simultaneously going through significant changes due to the rise of renewable energy technologies. Renewable energy deployment in the Mekong countries has risen rapidly in recent years: solar, wind, and modern biomass power generation in the five Mekong countries grew from approximately 250 MW of installed capacity in 2010 to more than 20,000 MW as of 2021. However, the growth of renewable energy has been uneven across the region, with Vietnam installing so much solar that it now faces overcapacity in some localities while Laos and Myanmar have not yet connected significant amounts of non-hydropower renewable energy to the grid. An often cited barrier to the integration of renewable energy is that it is not dispatchable on-demand and cannot directly replace traditional power sources.
such as hydropower and fossil fuels without energy storage. Sessions at the conference explored bottlenecks to the further growth of renewable energy, with particular focus on addressing the challenge of grid integration and discussing the state of energy storage technologies in the Mekong region and globally.

**KEY CONCERNS**

- The rapid expansion of wind and solar (particularly in Vietnam) and inadequate investment in transmission have resulted in grid congestion and extensive curtailment. This could impact long-term project revenues and challenge further solar development.

- There is a lack of legal clarity surrounding energy storage, and no law articulates what is and is not permitted.

- National energy planners are not removing coal from power systems despite a boom in variable renewable energy. Solar and wind will make up about 5% of the regional power generation mix in 2025, but under existing power development plans by 2040 this will have only risen to 7% because ASEAN countries continue to develop coal, gas, and some hydropower.

- The evolution of the solar industry is too fast for governments to keep up. There are still many outdated perceptions about solar energy prices and viability that are no longer valid but which inhibit support for solar among policymakers.

The top three key concerns that were raised during the Dialogue sessions and reflected above were flagged by 53%, 50%, and 47% of all respondents on the session surveys. This indicates relative consensus on the main problems facing the renewable energy transition in the Mekong region.

**RECOMMENDATIONS**

- Provide a clear process for stakeholders, from private companies to individual households and from organization to city level, to deploy rooftop solar or independent power projects and connect to the grid. Within technical constraints, this can reduce electricity demand from national power grids, produce electricity for grids, and reduce electricity costs, particularly for energy intensive industries.

- Policymakers need to provide a clear and stable long-term policy direction to attract investment in the energy storage space and ensure continued investment in renewable power generation technologies. Provide clarity on the future of mechanisms like Feed-in-Tariffs (FITs), improve terms and clarity around power purchase agreements (PPAs) and grid connections for rooftop solar users, and allow net-billing. The lack of clarity is an issue for businesses and consumers. Notably, 84% of survey respondents indicated support for this recommendation during the survey.

- Deploy available advanced tech with energy storage and deeper integration of smart grid technologies in order to support higher levels of renewable energy by smoothing spikes in generation from solar throughout the day and later helping to address and manage peak demand.

- Develop a whole-of-lifespan project oversight approach early, from commissioning to decommissioning and e-cycling. PV panels last 20-25 years and contain hazardous metals. Develop e-cycle plans early in the planning process in order to support the reaction and generate revenue among secondary and tertiary markets. Support a pilot project to demonstrate repurposed uses of utility-scale and rooftop solar panels such as power charging stations or other novel solutions. Explore creation of an e-cycling exchange network in the Mekong or ASEAN region that would connect buyers and sellers to provide solutions to repair, reuse, repurpose, and resell retired solar panels.

*Photo on page 10: Photo of Lopburi Solar Farm in Thailand, courtesy of Asian Development Bank Flickr account and used under Creative Commons license.*
National plans for the five Mekong countries indicate that over 150,000 MW of new electricity generation projects will be needed through the mid-2030s. Most Mekong countries incorporate long-term power mix targets as part of the national planning process, but decisions about individual power generation projects usually proceed on a case-by-case basis. This can lead to less than optimal outcomes, as assessing projects as part of a broader portfolio allows for better systematic consideration of cumulative impacts across the sector. At the same time, these multi-sector and multi-project plans can be utilized at the regional level. Decisions about individual power projects are usually made at the national level, but bilateral electricity trade among the Mekong countries is widespread, and electricity imports play a key role in meeting national demand in Cambodia and Thailand.

As the region moves towards a more integrated ASEAN Power Grid, there are opportunities to strategically coordinate to both limit the negative impacts of energy infrastructure as well as use integration to support higher levels of deployment of renewable energy on a regional basis. Sessions on smart energy planning and regional electricity trade discuss case studies for how system-scale and multi-sector planning approaches have been utilized in the Mekong and explore ways that electricity trade, grid integration, and regional planning can support higher levels of renewable energy penetration.
KEY CONCERNS

• Climate change considerations and modeling are not sufficiently incorporated into power planning or even project operating rules.

• Joint management and inclusion of stakeholders in planning processes is not common practice. Infrastructure development can have adverse impacts on the health, safety, and integrity of ecosystems and communities, and a failure to address these challenges with those affected can both exacerbate impacts and lead to sub-optimal outcomes for communities and the environment. Meaningful inclusion of stakeholders earlier in the planning and project development process can help better identify risks and impacts and ameliorate or avoid them.

• There is a lack of harmony in different legal and regulatory frameworks relating to power interconnection, as well as technical standards and codes relating to system design, operation, and maintenance, constrain electricity trade. There are noticeable variations in power purchase agreement terms and electricity prices with little consistency across national borders, which may impact the economic analysis behind electricity trade.

• Cumulative impact assessments have been done purely from an environmental and social perspective rather than in an integrated manner with power planning and optimization approaches.

RECOMMENDATIONS

• Planners should build flexibility into power planning processes to make space for disruptive technologies. For example, in the storage market there will be major changes in the next 2-5 years greatly expanding the ability to expand renewable energy capacities. Policymakers should modify plans on a more frequent basis to accommodate advances in the energy sector and include up-to-date realistic domestic and regional demand forecasts. Private sector working groups should inform the power development planning process.

• Improving the exchange of data and information and looking at how to collectively maintain environmental flows and fish migration, coordinated flood monitoring and warnings and sharing of that data and coordinated safety analysis among all of the projects including those on tributaries and the mainstream of rivers. Include data about the cumulative operating or cascade management of new projects. Build a reliable and accurate data repository for use in impact studies and cumulative impact assessments.

• Climate change considerations and modeling should be incorporated into national power planning processes and required for analysis at the individual project level.

• The Mekong countries or the ASEAN region should identify a regional body responsible for supporting regional energy planning as well as harmonization of different legal and regulatory frameworks to support expansion of electricity trade.

• National agencies and regional bodies should establish clear standards and require cumulative impact assessments which include environmental and social perspectives as well as consider power planning and optimization approaches

Photo on page 12: Photo of transmission lines near the Kampong Khleang community in Cambodia, courtesy of Courtney Weatherby.
The region has seen a rapid expansion of linear infrastructure (roads, railways, and waterways) over the last two decades. When coupled with regional plans for economic corridor development, linear infrastructure connectivity can greatly increase regional commerce and build a more integrated region. However, east-west connectivity across the region has lagged in comparison to the rapid growth of north-south connectivity. What has been built is often constructed with low consideration to ESG aspects, leading to unequitable benefits and unknown environmental impacts. Greater incorporation of ESG considerations and inclusion of a broad set of stakeholders in regional and project level planning can quicken the pace of development and deliver a more equitable stream of benefits. Sessions centered around considerations driving economic corridor development and challenges to regulatory frameworks on ESG issues.

**KEY CONCERNS**

- Connectivity goals are too focused on economic growth and commercial connectivity. A more comprehensive framework would include social, cultural, political, environmental implications of transportation or commercial connectivity. This was flagged by 68% of survey respondents.

- A lack of civil society participation at the beginning of a project’s development cycle introduces risk elements to the project’s success and sustainability. Civil society can play a critical role in terms of enhancing local participation and improving communication around infrastructure projects.

- Linear infrastructure development often leads to an uneven distribution of benefits as well as a lack of access to benefits related to the project development cycle including procurement and employment opportunities. An uneven distribution of benefits increases the potential for livelihood reduction, displacement, and impact to important cultural and environmental sites.
• Challenges in infrastructure regarding gender equality and social inclusion (GESI) are underpinned by low awareness and low prioritization, a lack of representation in decision making bodies, data gaps, and minimum compliance.

RECOMMENDATIONS

• Improve and strengthen the uptake and enhancement of the understanding and integration of ESG aspects into early decision making on infrastructure projects in the Lower Mekong to ensure that these risks and impacts are properly identified and managed throughout the project lifecycle. Improve and strengthen CLMTV financiers’ considerations regarding ESG risk, knowledge of known approaches and methodologies to mitigate risk, and capacity to integrate ESG risk principles into their infrastructure investing and lending processes.
  a. International agencies and foreign aid can facilitate the process of building capacity for and integrating ESG aspects into the project life cycle.
  b. MUSP, ASEAN and the ADB can support the ESG-focused dialogue with policy makers and governments about transboundary impacts and practices.
  c. Financial institutions and other stakeholders with experience in ESG can facilitate peer-to-peer sharing with investors and governments agencies/stakeholders in their networks.

• Develop regional and national agreements about rights and access to information (such as feasibility studies, EIAs, free/prior/informed consent) to strengthen public participation, infrastructure sustainability, and an equitable distribution of benefits. This would increase the ability of NGOs and other civil society stakeholders to engage in the project development process. Such agreements are not common in Mekong countries, so international organizations and bilateral partners with experience on information rights and access could provide capacity building and feasibility studies to kickstart the process.

• Strengthen the uptake of safeguard measures for wildlife and ecosystems through consideration of direct impacts on species population viability and critical habitats. These impacts are currently under-studied across all modes of linear infrastructure. The study of animal movement across roads and railways needs to be better linked with demographic rescue (management of wildlife populations by bringing in additional individuals), gene flow, and access to habitat. Incorporate ecological perspectives into engagement activities on linear infrastructure.

• Governments should formalize commitments to wildlife and ecosystem safeguards for linear infrastructure through national laws and regulations and ensure collaboration between infrastructure and wildlife departments.

• Implementation plans for corridor development can be quickened by establishing a database of relevant projects, harmonizing road infrastructure standards, aiming for improved border facilities at the border, accelerating the implementation of the ADB’s Cross-Border Transport Agreement, and strengthening multimodal transport links. Authorities can facilitate commercial activity and make cross-border payments more economically feasible by involving local councils and business authorities in managing transparency around fees, procedures, and other legalities.

Photo on page 14: A photo of the Friendship bridge across the Mekong River connecting Thailand and Laos, courtesy of the Australia Department of Foreign Affairs and Trade Flickr account and used under a Creative Commons license.
RIVER DELTA PLANNING AND COASTAL CLIMATE RESILIENCE

The region’s major river deltas (the Irrawaddy, Salween, Chao Phraya, Mekong, Red) are all densely populated areas responsible for a significant portion of regional economic activity – but all deltas also suffer from a triple threat of increasing climate change impacts, poor and uncoordinated local planning, and upstream impacts from dams and extractive activities like sandmining. For example, the Mekong Delta is home to almost 20 million people and is responsible for more than 50% of Vietnam’s rice export and 75% of the country’s fruit and aquaculture. Yet rising seas, saline intrusion, increasing intensity of storms and drought, and more than a 50% reduction of sediment delivery to the Delta because upstream dam construction is undermining the delta’s geological integrity and accelerating risk. Stakeholders in the region and from key deltas in the United States such as the Mississippi and Columbia rivers have toolboxes ready to address these challenges. Resilience and optimal cost solutions can be achieved through stronger cooperation and sharing of best practices. Sessions focused on exploring ways for sharing best practices and lessons learned across river basins and identifying current planning approaches for coastal resilience amid climate change.

KEY CONCERNS

• Upstream extractive activities (including sediment trapping behind dams) and poor groundwater management are leading to excessive and unnecessary land subsidence along rivers, tributaries, and floodplains. This concern was flagged by 68% of survey respondents as a key issue.
• Grey infrastructure and mega projects have shifted ecosystems and increased risk and vulnerabilities to communities.

• Although floods are historically beneficial in the Mekong basin, instances of damage caused by flash floods and cyclones are increasing, requiring an adjustment to risk management and response. Responses to major disasters still do not seem to be adequate and projections do not accurately capture the pace of change.

• Planning asymmetries reduce the ability to develop effective solutions. For example, most planning in Southeast Asia is top-down, and its determination at the national level excludes communities and important local and sectoral stakeholders.

RECOMMENDATIONS

• To maximize benefits and create a more adaptive approach to delta planning, policy makers and stakeholders should value and protect the positive contributions of natural flooding and natural ecosystem services. Education about the positive benefits to floodplains and maintaining the natural flow of rivers is needed for stakeholders from all sectors. The Mekong River Commission and other similar government and inter-government agencies need to recognize that the current state of river deltas represents a new baseline situation and initiate studies on how to move forward amid continued climate change and infrastructure impacts. More data is needed to inform future plans, and the MUSP’s Mekong Water Data Initiative can serve as a platform to support evidence-based decision making for governments and support other stakeholders.

• Planning agencies should develop integrated planning tools and coordinate across platforms to ensure that planning increases resilience for all and effectively engages stakeholders at multiple levels to build capacity for risk reduction and adaptivity. Local leaders and local civil society groups must be included in these processes.

• Community-scale programming should be implemented to help local stakeholders understand risks from development and climate change. This programming should encourage the examination of problems from different angles through inclusive, multi-stakeholder informed processes that engage designers, engineers, natural scientists, indigenous people, women, youth, artists, etc.

• To reduce the vulnerability of deltas, strengthen resilience of the communities who live there, and improve economic outcomes, agricultural policy for deltas and coastal areas should encourage higher value crops which use fewer natural resources to produce as opposed to increasing the intensity of low-value cash-crops and support local investment in processes that add value to products. To facilitate equitable benefit sharing, subsistence or artisanal farmers should not be disadvantaged by new policies.

• Development partners should invest in technical assistance and investment in delta conservation and protection with a focus on the Mekong, Chao Phraya, Red River, and Irrawaddy deltas. Cross-delta engagements should be actively encouraged so that regional actors learn from one another and share best practices with ministries and stakeholders.

Photo on page 18: Photo of a bridge in My Tho in southern Vietnam, courtesy of Alex Berger’s Flickr account and used under a Creative Commons license.
This word cloud was created utilizing survey responses ahead of the synthesis workshop. Each survey respondent provided a three-sentence letter to their country’s leader making recommendations about energy and infrastructure outcomes in the Mekong region. Every relevant word that appeared more than two times in the survey responses is included in the word chart, with the size of the words corresponding to the number of times it appeared across all the written survey responses.
FEEDBACK

Attendees participated in a survey following the dialogue, and feedback indicates that most attendees felt that the dialogue was successful in sharing. Of the anonymous evaluation surveys from attendees:

- 96% of attendees indicated that they learned some or a lot of new information through participating in the Dialogue
- 79% indicated that they would definitely or probably use the knowledge gained in their work
- 92% would recommend participating in the Dialogue to a colleague
- 81% felt that the right people were present to participate in the Dialogue

Many participants noted in comments that they valued the focus on pragmatic and working solutions to the challenges that were being discussed, benefited from the breadth of relevant topics that were explored across the various sessions, and enjoyed the interactive setup for discussion.

Some participants did identify some areas for improvement for future dialogues: some noted that it would be valuable to have more participation from the ASEAN region, line-ministries in the Mekong countries, and local civil society groups. Many participants noted that the synthesis workshop format can be difficult to manage in a way that is inclusive, noting that it would be valuable to have more Mekong citizens active in the discussion. Suggestions for alternative approaches included utilizing more immediate surveys or polls after each session; including more preparatory work for the synthesis workshop; nominating local voices to lead discussions; or considering other approaches that can be more inclusive for non-native English speakers.

NEXT STEPS

This was the second of seven Mekong-U.S. Partnership Track 1.5 Policy Dialogues, and moving forward, one conference exploring each of these themes above will be held at roughly four-to-five month intervals through 2023. Given continued travel and gathering restrictions due to the coronavirus pandemic, the third conference—which will be held in spring 2021—will also be held virtually. While future themes are subject to change over the coming two years, it is likely that following conferences will focus on non-traditional security, water governance, connectivity, nature-based solutions, and human resources capacity. As with the energy and infrastructure Dialogue, the future discussions will be designed as opportunities for stakeholders from the region, the United States, and development partners to identify lessons-learned, build collaborative partnerships, transfer best practices, and identify joint-pathways to meeting policy needs.

As a Track 1.5 dialogue series and as a best practice to strengthening the Mekong-U.S. Partnership at large, participants to these thematic conferences will come from government and non-government sectors and emphasis will be placed on gender balance, youth participants, and the participation of individuals from under-represented stakeholder groups. The first and second dialogues both drew a large and diverse crowd. Future policy dialogues will have targeted invitation lists based on the specific sectoral focus, and all attendees will be asked to actively contribute to the breakout discussions and other activities in exploring and ranking best practices, case studies, and opportunities.
This summary report provides an outline and recommendations derived from discussions held as a part of the Mekong-U.S. Partnership Track 1.5 Policy Dialogue series. The Partnership Policy Dialogues are a series of seven conferences taking place between 2021 and 2023 that are generously supported by a grant from the U.S. Department of State's Mekong-U.S. Partnership. Cross cutting principles of inclusivity, resilience (including climate), and collaboration will be applied to all conferences in this series.

The U.S. Government launched the Mekong-U.S. Partnership in 2020 to expand cooperation with the five countries of the Mekong sub-region on strategic challenges and shared priorities under the Partnership's four areas of cooperation (nontraditional security, natural resources management, economic connectivity, and human resource development). The Mekong U.S. Partnership builds on the strengths of the Lower Mekong Initiative's development focused agenda by cooperating on strategic sub-regional issues and challenges. Each area of engagement under the Mekong-U.S. Partnership is supported by a flagship project. The Partnership's Track 1.5 Policy Dialogue series serves as the flagship program of the Mekong-U.S. Partnership's human resources development area of engagement.