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REPORT

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Mekong-U.S. Partnership Track 1.5

Policy Dialogue

Mekong-U.S. Partnership Track 1.5 Policy Dialogue on Transboundary Water Governance

Summary Report



September 2023



The Mekong – U.S. Partnership promotes the stability, peace, prosperity, and sustainable development of the lower Mekong sub-region. 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/.



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ABOUT THE POLICY DIALOGUE SERIES

This summary report provides an outline and recommendations derived from discussions on needs to address transboundary water governance challenges held as part of the Mekong-U.S. Partnership Track 1.5 Policy Dialogue series. The Partnership Policy Dialogues are a series of eight 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.

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KEY ACRONYMS

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
CSO	Civil society organization
EITI	Extractive Industries Transparency Initiative
ESG	Environmental, social, and corporate governance
INGO	International non-governmental organization
IUCN	International Union for Conservation of Nature
LMI	Lower Mekong Initiative
MRC	Mekong River Commission
MRCS	Mekong River Commission Secretariat
MRICC	Mekong River Inter-Community Commission
MUSP	Mekong-U.S. Partnership
NbS	Nature-based Solutions
NGO	Non-governmental organization
NMC	National Mekong Committee
RBO	River basin organization
SUMERNET	Sustainable Mekong Research Network
UN	United Nations
UNDP	United Nations Development Programme
WWF	World Wildlife Fund

A NOTE FROM CONFERENCE CHAIR

The seventh Mekong-US Partnership Track 1.5 Policy Dialogue on Transboundary Water Governance was held in Chiang Rai, Thailand from July 17-18, 2023. The Partnership Policy Dialogues are a series of eight conferences taking place between 2021 and 2023. These Policy Dialogues explore solutions to key policy and sustainability challenges in the Lower Mekong sub-region. This seventh Policy Dialogue focused on the challenges of transboundary water governance in the Mekong River basin, with particular focus on regulation and conservation of natural resources, optimization of dam management, policies and institutions related to water management, and nature-based solutions for water governance.

Over 86 experts and community representatives participated in in-person activities throughout the two days of the Policy Dialogue in Chiang Rai. Approximately 63% of the attendees came from one of the five Mekong countries, with 29% coming from the United States. The remaining expert speakers came from the United Kingdom, France, Poland, Australia, and Singapore. Just over half of the attendees (51%) were women. Government institutions were well represented at 38% of all attendees, with 29% of attendees coming from non-governmental institutions, 26% from academia, 6% from international organizations, and the remainder from private sector. 31% of attendees were rising experts under 40.

We deeply appreciated support from the U.S. Department of State and the Mekong-U.S. Partnership for this Policy Dialogue. In particular, the team would like to thank Holly Lindquist Thomas, Nicole Smolinske, Katie-Jo Younkens, and Victoria Harrison at the U.S. Department of State Bureau of East Asian and Pacific Affairs. We also sincerely appreciate the substantial expertise and support from Julien Katchinoff and Rebecca Peters from the Office of Conservation and Water in the Bureau of Oceans and International Environmental and Scientific Affairs, as well as Sarah Quinzio with the U.S. Embassy in Bangkok. The U.S. Army Corps of Engineers was invaluable in advising and providing expertise for these discussions, and we particularly want to thank Evan Ting, David Smith, John Remus II, and Margaret Owensby for their active participation and support. Mae Fah Luang University was the local co-host in Chiang Rai, and we would like to thank Dr. Apisom Intralawan for his assistance in coordinating the support team on a variety of tasks to help keep discussions running smoothly and for sharing his expertise and network.

All of these and others contributed to an interactive and impactful Policy Dialogue. We would also like to thank our 95 presenters, attendees, and virtual participants for engaging actively during the discussions. There will be one additional Policy Dialogue held in early 2024 and focusing on food security. In addition to this event series, Stimson Center and IUCN have been engaged on Mekong issues for over a decade and plan to build on the progress and insights gained from these events through ongoing programming related to water data, sustainable development, river conservation, and water governance.

Sincerely,

Brian Eyer
The Stimson Center
Conference Co-Chair

Jake Brunner
IUCN
Conference Co-Chair

EXECUTIVE SUMMARY

The seventh Mekong-U.S. Partnership Track 1.5 Policy Dialogue took place on July 17-18 in Chiang Rai, Thailand to explore transboundary water governance needs across themes including resource extraction, optimization of dam management, institutions for river governance, and nature-based solutions.



Photo: Conference photo taken on July 17, 2023, courtesy of Mae Fah Luang University.

This seventh Policy Dialogue was a deep-dive into needs and challenges in the Mekong sub-region related to transboundary water governance, with a particular focus on issues related to resource extraction regulation for fisheries and sand mining, optimization of the water-energy-food nexus, river basin organizations, and nature-based solutions. These topics have been interwoven into much of the discourse of previous Policy Dialogues, and the July 2023 event took a deep dive into specific issues and challenges in the water space. Participants explored policy challenges, best practices, and case studies from the Mekong sub-region as well as the United States. Cross-cutting values of inclusivity, resilience (including climate), and collaboration framed the sessions and were woven into the key takeaways and recommendations.

POLICY RECOMMENDATIONS INCLUDE:

- **Create a Mekong River Inter-Community Commission with representatives from Mekong Communities and civil society organizations across all Mekong sub-region countries to address fisheries issues and other related issues.** Some grassroots voices are not effectively heard by government stakeholders, leading to a disconnect and tension between local communities and authorities. The Mekong River Commission (MRC) and international donors should provide funding for the creation of a coordinating body for engagement between local community representatives. National Mekong Committees (NMCs) should design coordination mechanisms that are appropriate and inclusive of key communities in each country.
- **The 1995 Mekong Agreement is out of date and needs to be modernized to meet today's needs.** The last few decades have exposed gaps in the MRC's mandate, including that it does not fully cover tributaries and groundwater, and that there is no enforcement mechanism or conflict resolution mechanism. The national Mekong governments should supplement the Mekong Agreement with articles from the U.N. Watercourses Convention. The MRC Secretariat (MRCS) should increase accessibility for data downloading and uploading in multiple languages, allowing two-way data sharing. Development partners should support further capacity-building to integrate technology such as remote sensing and satellite imagery into monitoring processes.
- **Mekong national governments should reach agreement on bounds for natural flow based on a basin-wide study of hydrographs that accounts for seasonality.** Mekong countries need a basin-wide mechanism for identifying emerging drought conditions and setting out a series of activities to alleviate drought. National line agencies should develop a common approach for forecasting and agree on a formula to identify drought conditions. Researchers should identify what flow bounds are necessary to maintain key ecological processes. Governments should negotiate boundaries which would prompt action based on available data and evidence-based decision-making principles.
- **Conduct national baseline surveys for all sand sources across the Mekong region.** Currently there is no transboundary cooperation on tracking or managing sand mining, and there is insufficient information at all levels of how much sand is available, how quickly it is replenished, or the broader impacts of mining. The MRCS Core Monitoring Function Division should include river sand monitoring, and NMCs should track sand mining statistics. Researchers should determine a basin-wide sand balance (budget) and tipping point. International initiatives such as the Extractive Industries Transparency Initiative (EITI) should provide guidelines for impact assessments and policy recommendations.



AGENDA FOR OPENING MEKONG–U.S. PARTNERSHIP TRACK 1.5 POLICY DIALOGUE

DAY 1		July 17, 2023 from 8:30 AM - 5:00 PM ICT Chiang Rai, Thailand
8:30–9:30 am	Opening Plenary Conference overview and expectations: <ul style="list-style-type: none"> • Brian EYLER, Stimson Center Conference Co-Chair Keynote Address: <ul style="list-style-type: none"> • Lisa A. BUZENAS, U.S. Consul General for Chiang Mai, Thailand • Anoulak KITTIKHOUN, CEO, Mekong River Commission Secretariat • Nguyen Hong PHUONG, Deputy Director General of the Viet Nam National Mekong Committee • Chawee WONGPRASIRTIPORN, Executive Advisor on Water Strategy, ONWR • Jake BRUNNER, IUCN Conference Co-Chair (moderator) 	
9:30 - 10:00 am	Coffee and Tea Break	
10:00 AM - 12:00 PM	Great Debate Sessions <i>To demonstrate multiple perspectives on transboundary water governance, speakers engaged in four “great debates” to inspire an active dialogue, and their arguments may or may not have represented their actual views.</i>	
CONCURRENT SESSIONS 10:00 am–11:00 am	Debate 1: Increased storage can help mitigate future drought and extreme weather events. Moderator: Piyaphat CHAEMCHUEN, Royal Irrigation Department Debaters: <ul style="list-style-type: none"> • Dr. John REMUS, US Army Corps of Engineers (USACE) (pro-storage) • Carl MIDDLETON, Chulalongkorn University (rebuttal argument) 	Debate 2: The renewable energy transition can present a viable set of alternatives to hydropower projects. Facilitator: Jake BRUNNER, IUCN Debaters: <ul style="list-style-type: none"> • David WOOD, Independent Consultant (pro-renewable energy) • Courtney WEATHERBY, The Stimson Center (rebuttal argument)
CONCURRENT SESSIONS 11:00 am–12:00 pm	Debate 3: Fish ladders and fish mitigation through dams can achieve success in promoting long distance fish migration. Moderator: CHEA Seila, USAID Wonders of the Mekong Debaters: <ul style="list-style-type: none"> • Dave SMITH, USACE (pro-fish ladders) • Eric BARAN, EU CAPFish Fisheries Consultant (rebuttal argument) 	Debate 4: Investments like Resolution 120 and Stung Treng UNESCO World Heritage will achieve success without a change in status quo transboundary cooperation. Moderator: NGUYEN Minh Quang, Can Tho University and Mekong Environment Forum Debaters: <ul style="list-style-type: none"> • Dr. DANG KIEU Nhan, Can Tho University (pro-status quo) • Jake BRUNNER, IUCN (rebuttal argument)

12:00 - 1:30 pm	Lunch	
CONCURRENT SESSIONS 1:30 - 3:00 pm	A1 Fisheries Regulation and Community Based Conservation Efforts Facilitator: Zeb HOGAN, University of Nevada and National Geographic Panelists: <ul style="list-style-type: none"> • YOUK Senglong, Fisheries Action Coalition (FACT) • Teerapong POMUN, Mekong Community Institute • LUY Rasmey and Vannak UN, Culture and Environment Preservation Association (CEPA) 	B1 Optimization for the Water-Energy-Food Nexus Facilitator: Austin LORD, The Stimson Center Panelists: <ul style="list-style-type: none"> • Ormbun THIPSUNA, ComNetMekong Association • Vannaphone PHETPASEUTH, Lao National Mekong Committee • Santi BARAN, MRC Secretariat
3:00 - 3:30 pm	Coffee and Tea Break	
CONCURRENT SESSIONS 3:30 - 5:00 pm	A2: Opportunities for transboundary monitoring and regulation of sand mining Facilitator: Dr. Magdalena SMIGAJ, Wageningen University Panelists: <ul style="list-style-type: none"> • HA HUY Anh, WWF Vietnam • Dr. NGUYEN NGHIA Hung, Southern Institute of Water Resources • Dr. Thanapon PIMAN, Stockholm Environment Institute • Louise GALLAGHER, University of Queensland 	B2 Responding to Extreme Events Facilitator: Alan BASIST, Eyes on Earth Panelists: <ul style="list-style-type: none"> • Brian EYLER, The Stimson Center • Sonephet PHOSALATH, Department of Meteorology and Hydrology, Lao PDR • Dr. Sitang PILAILAR, Kasetsart University
5:45 - 7:30 pm	Welcome Dinner <i>Included announcement of the winning research proposal for the NexGen Mekong Scientists program by Julien Katchinoff, U.S. Department of State.</i>	

AGENDA FOR OPENING MEKONG–U.S. PARTNERSHIP TRACK 1.5 POLICY DIALOGUE

DAY 2 July 18, 2023 from 8:45 AM - 5:00 PM ICT Chiang Rai, Thailand		
CONCURRENT SESSIONS 8:45am - 10:15 am	C1 Promoting Inclusivity and Accountability in Transboundary River Agreements Facilitator: Raphael GLEMET, IUCN Panelists: <ul style="list-style-type: none"> • WATT Botkosal, Mekong River Commission • Louise WHITING, Food and Agriculture Organization of the United Nations • Ming Li YONG, East West Center (virtual) 	D1 Tackling water challenges with Nature-based Solutions Facilitator: Jake BRUNNER, IUCN Panelists: <ul style="list-style-type: none"> • LY Sophanna, Ministry of Environment Cambodia • Dr. NGO Thuy Diễm Trang, Can Tho University • Dr. Apisom INTRALAWAN, Mae Fah Luang University
10:15-10:30 am	Coffee Break	
10:30 am - 12:00 pm	C2 Local and National River-Basin Organizations (RBOs) Facilitator: Julien KATCHINOFF, U.S. Department of State Panelists: <ul style="list-style-type: none"> • Pakkasem (Kai Ou) TONGCHAI, IUCN Thailand • Kaneka KEO, OXFAM Cambodia • Mr. Lerdphan SUKYIRUN, Office of the National Water Resources of Thailand 	D2 How Can Improved Data Support NbS? Facilitator: Courtney WEATHERBY, The Stimson Center Panelists: <ul style="list-style-type: none"> • Oulavanh SINSAMPHANH, National University of Laos • Margaret OWENSBY, USACE • VAN Pham Dang Tri, Can Tho University • Pra-on UDOMPRASERT, Wetland Convention (Ramsar) Subdivision, Department of Water Resources
12:00 - 1:30 pm	Lunch	
1:30 - 4:30 pm	Synthesis Workshop & Survey	
4:30 - 5:00 pm	Closing Plenary Panel <ul style="list-style-type: none"> • Niwat ROYKAEW (Kru Tee), Chiang Khong Conservation Group • Holly LINDQUIST THOMAS, U.S. Department of State, Bureau of East Asian and Pacific Affairs • WATT Botkosal, Mekong River Commission Secretariat • Khamstone PHILAVONG, Lao National Mekong Committee • John DORE, Department of Foreign Affairs and Trade (DFAT), Australia 	

THEMATIC AREAS AND RECOMMENDATIONS

The key concerns and recommendations related to each conference theme below were the result of an interactive workshoping process with participants during a synthesis workshop on Day 2. Throughout the conference the organizing team took detailed notes on the specific concerns, challenges, or gaps that were identified during session presentations and discussions. Key problems were identified across six thematic topics covered during the debates and sessions: fisheries, sand mining, optimization and resilience, nature-based solutions for water governance, river basin organizations, and inclusivity.

Attendees ranked the top issues among these subsets, and then split into thematic breakout groups to collaboratively identify and draft potential policy recommendations and key actors involved in addressing each of the top three key issues. The breakout groups collectively drafted policy recommendations and solutions for eighteen individual issues and presented them to the group for a final voting process. The top three recommendations for each sub-theme, as determined by the participants through this voting process, are included in this summary report.

Photo: Synthesis workshop activities at the Policy Dialogue in Chiang Rai, Thailand on July 18, 2023. Photo courtesy of Mae Fah Luang University.





FISHERIES

The Mekong River system is the world's most productive freshwater fishery, providing more than 15% of the global freshwater fish catch and food security for people across the Mekong region. Mekong governments are implementing ambitious and wide-reaching fisheries regulations as freshwater capture fisheries come under pressure due to a variety of factors such as overfishing, illegal fishing, climate change, and flow regime change from dams and other anthropogenic changes.

The Policy Dialogue held two sessions on fisheries – a debate and a deep dive panel session. In the debate, experts argued for or against the following statement: Fish ladders and fish mitigation through dams can achieve success in promoting long distance fish migration. These experts debated the merits and inadequacies of fish ladders as a solution to supporting fish migration in the Mekong system. The affirmative side argued that science and technology must be put forward to test and eventually develop effective fish passage systems, while the con side argued that fish ladders simply cannot achieve desired results on high-head dams in tropical rivers.

The deep-dive session on fisheries regulation and community-based fisheries explored ways that policymakers can effectively balance the needs of various stakeholders in the basin, ranging from local communities to large-scale industrial fishing organizations. This session also examined best regulatory practices in stock assessment, monitoring, and enforcement from Mekong governments and development partners. Speakers presented case studies of what has worked at the local community level, exploring ways that successful approaches can be scaled up around the basin.

Photo: Fish market at U Minh Thong National Park. Photo courtesy of Kathryn Bimson at IUCN.

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

- 1. The Mekong River Commission should create a Mekong River Inter-Community Commission (MRICC) with representatives from Mekong communities and civil society organizations across all Mekong sub-region countries to address fisheries-related issues and other relevant issues.** Currently, some grassroots voices are not effectively heard by government stakeholders, which leads to a disconnect and a lack of cooperation between local communities and authorities.
 - The MRC and development partners such as the U.S. Department of State should provide source funding for the creation of a coordinating body for engagement between local community representatives.
 - National Mekong Committees (NMCs) should design coordination mechanisms that are appropriate and inclusive of key communities in each country.
 - International donors should support exchange visits with communities and commissions in similar river basins to learn lessons from how they effectively coordinate national and local community needs, such as the Mississippi Basin in the United States.
 - Local community representatives and organizers should work to coordinate and harmonize ongoing and existing projects in the basin.
 - National government should provide education and scholarship programs for community-level youths in the MRICC.
 - International donors should provide small grants to communities.
 - Academic networks such as SUMERNET should coordinate research to identify an effective assessment for a MRICC management initiative.
- 2. The MRC and associated NMCs should develop an economic argument for environmental conservation that supports fisheries and disseminate this amongst international donors and development partners, ministries, and national assembly members.** There is currently a gap in understanding between decision makers on upstream development and energy decisions and the environmental needs and fishing practices of downstream communities. There is a need to better link these separate groups and improve understanding of multi-sector impacts of development projects.
 - The MRC, NMCs, and relevant line agencies responsible for agriculture, forestry, fisheries, rural development, and the environment should increase the number of people from communities involved in consultations on project development.
 - Analysts and researchers with think tanks and the private sector should expand cost benefits analysis to capture all ecosystem services provided by the natural system.
 - National universities should engage youth by designing environmental education programs.
 - Local communities, civil society organizations, and community networks should design a comprehensive media campaign at local and national levels.
 - IUCN and international NGOs like WWF, International Rivers, and Oxfam should support dissemination of consultations on energy mix, fisheries and trade-offs with governments, donors, and stakeholders.



SAND MINING

The Mekong and many other large rivers suffer reduced sediment loads caused by anthropogenic activities such as hydropower development and sediment extraction. The removal of nutrient-rich sediment significantly impacts communities and ecosystems in the Mekong region. Sediment loss affects riverbank and floodplain agricultural production throughout the basin, reduces deposits of sediment which ensure the physical integrity of the Mekong Delta, and reduces biomass and nutrients, which flow through the system and support the world's most productive inland fishery. Estimates of riverine sand extraction are lacking, in part due to the pervasive and distributed nature of extraction processes and insufficient monitoring.

The dedicated deep-dive session explored how sand mining issues could be more effectively addressed from a regional, trans-boundary scale, with particular focus on identifying better regulations, ways to reduce impacts, and opportunities for research and monitoring. Presentations included a case study analysis to identify healthy sediment budgets for river systems, ways to reduce demand for sand in construction, and ways that the private sector could help identify alternative sustainable sand sources.

Photo: Mekong River to Cu lao Gieng (January) Island, showing river dredging. Photo courtesy of Flickr user Ted McGrath and used under a Creative Commons license.

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

1. **The MRC should design guidelines for implementing a baseline survey, and national line agencies should conduct national baseline surveys for all sand sources across the Mekong sub-region (rivers, marine, mining, etc.).** Currently there is no transboundary cooperation on tracking or managing sand mining, and there is insufficient information at all levels of how much sand is available, how quickly it is replenished, or the broader impacts of mining. Each Mekong country prioritizes addressing challenges of sand mining differently, in part due to the key role that sand plays in national development goals linked to infrastructure and urban development and in part due to differing levels of severity of impacts.
 - The MRCS Core Monitoring Function Division should include river sand monitoring within its core mandate, and National Mekong Committees should track sand mining statistics.
 - The MRC, with support from international NGOs and expert researchers, should determine a basin-wide sand balance (budget) and tipping point.
 - Line agencies in the Mekong countries responsible for mining and energy, environment, economy, finance, and investment should regularly share knowledge on ongoing impacts, lessons learned, and best practices to identify evidence-based solutions.
 - The UNDP Development Minerals Program and international groups such as the Extractive Industries Transparency Initiative (EITI) should provide guidelines for impact assessments and policy and planning recommendations.

2. **Government agencies and international NGOs should promote transparency and resource governance through engaging local communities in the monitoring process.** Sand mining enterprises often belong to powerful and well-connected actors, and local communities are not necessarily in a position to fight directly with them to stop projects from moving ahead. Corruption poses problems for resource management.
 - National laws should require information disclosure on sand mining and monitoring.
 - National agencies responsible for sand mining management and permitting such as the ministries for environment, mining, and industry should promote information access to empower local communities to engage on sand mining impacts and challenges.
 - Academic institutions and researchers should apply new methods—such as using remote sensing—to track sand mining activities.
 - International NGOs and local civil society organizations should support information-sharing with local community members about how to access information and how to identify and report illegal sand mining.

3. **Agencies responsible for regional infrastructure planning should ensure that plans consider available resources and sand alternatives and adopt ESG standards that include sustainable considerations for sand sourcing.** Demand for sand is large: sand makes up about 60% of the concrete supply. Studies indicate that rapid increases in construction will lead to a 300% increase in sand use by middle-income regions through 2060. Much of this will be concentrated in Southeast Asia, as the Asian Development Bank (ADB) indicates that Southeast Asia needs to invest \$3.147 billion in infrastructure through 2030. Without addressing demand, there is no scalable solution.
 - National construction organizations and green building associations should include sand sourcing standards when developing green building standards and schemes.
 - National agencies involved in permitting and environmental management should set up an inter-ministerial working group to identify sand demand, identify non-river alternative sources for sand, and explore ways to develop sources which contribute to local development.
 - Private sector investors should explore alternative options to sand to explore ways to reduce demand in key industries such as construction.
 - National permitting agencies should provide regulatory pathways for alternative sand sources to reach the market and meet economic growth needs.
 - Multinational development banks such as the ADB, World Bank, and KfW Development Bank as well as other international investors should provide affordable loans to the private sector to scale-up alternative sand sourcing from non-river sources.



OPTIMIZATION AND RESILIENCE

The Mekong region epitomizes the sometimes painful trade-offs between water, food, and energy. Over the last 20 years, hydropower and irrigation have dominated planning and investment. But as their negative impacts on fisheries and livelihoods have become evident, there is growing interest in meeting economic development goals with a more diversified energy mix with fewer harmful effects on natural ecosystems. Trends have emerged to diversify away from intensive rice cultivation into less water-intensive crops and making other adjustments to build greater resilience to a changing climate. Improved access to data has also shown the cumulative impacts of hydropower operations on the seasonal rhythms of the Mekong River in ways that threaten downstream food security. Changes in weather patterns both complicate the operations of existing dams and pose a risk to dam safety and often result in sudden drawdowns, which introduce flood risk to downstream communities.

One debate session focused on whether it is feasible for increased storage to help mitigate future drought and extreme weather events in the Mekong sub-region. The pro-storage debater explored experiences using reservoirs to ensure reliable water availability in the United States and pointed out ways to operate dams in ways that are resilient. The negative side highlighted opportunities to improve governance and coordination to better manage the river basin rather than building more reservoirs, pointed to the complex relationships between supply and demand that means reservoirs may not solve supply issues, and highlighted difficulties of controlling natural processes with complex infrastructural systems

There were also two deep-dive sessions focused on optimization. The first focused on optimization of dam management and explored practical ways to optimize hydropower dams with consideration for the water-energy-food nexus, particularly potential operational regime changes that could protect key ecological processes such as the Mekong flood pulse. The second deep-dive session focused on optimization and information-sharing across the basin to build resiliency to extreme events as well as approaches and incentives to improve early warning systems.

Photo: GMS Nam Theun 2 Hydroelectric Project in Laos. Photo courtesy of ADB Flickr account and used under a creative commons license.

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

- 1. Mekong governments should establish a consensus on bounds for natural flow based on a basin-wide study of hydrographs that accounts for seasonality.** Mekong countries need a basin-wide mechanism for identifying emerging threats for drought conditions and setting out a series of activities which can be collectively taken to alleviate drought by releasing water in the wet season to maintain and restore the annual flood pulse. This requires improved and coordinated forecasting and early-warning systems to limit vulnerabilities.
 - National line agencies tasked with meteorology, weather, and climate predictions should collaborate on developing a shared approach for forecasting and agree on a formula to identify drought conditions.
 - Dam operators and national utilities should share data about water availability in an open platform which integrates this information into basin-scale analysis.
 - Researchers at key institutions, civil society organizations and other key stakeholders should identify what flow bounds are necessary to maximize ecological processes such as the Tonle Sap flood pulse, spawning seasons for key fish species, etc.
 - Regional governments should negotiate boundaries and red lines based on openly available data and evidence-based decision-making principles which would prompt action.
 - The MRC should formulate Mitigation and Adaptation strategies focused around resolving wet season drought, negotiated with Mekong governments.
- 2. Mekong governments should co-develop an integrated regional energy transition plan which considers the role of hydropower within the broader energy system and regional needs.** Currently energy planning is done at the national level, with limited consideration of how electricity trade can support renewable energy integration or where hydropower fits alongside new renewable technologies like solar and wind. Substantial transboundary cooperation is required to support the renewable energy transition in a strategic, regional, and systemic way.
 - The ASEAN Center for Energy, in coordination with the MRC and national agencies, should create a regional energy plan for the Mekong countries.
 - National utilities and power planners should work with outside expert researchers from key academic institutions and think tanks to assess a variety of possible supply scenarios.
 - National utilities, regulators, and government planners across the Lower Mekong sub-region should improve information-sharing on energy demand projections.
 - The MRC should improve messaging about renewable energy options and how hydropower can be optimized sustainably within the energy system.
 - Researchers at universities, think tanks, and private sector consultancies should improve analysis and messaging on emerging technological innovations and how they may alter supply, demand, and energy mix.
- 3. National Mekong governments and the MRC should create a protocol for forecast-informed dam operations that outlines coordinated flood and drought operations.** More real-time information-sharing is needed among dam operators, and current legal regimes do not necessarily require such information sharing or allow or encourage dam operators to manage water with bigger picture needs in mind. The MRC and Mekong governments have an opportunity to learn from existing examples such as the USACE Forecast Informed Reservoir Operations approach as they formulate an approach for the Mekong basin.
 - National governments should create laws that mandate data sharing by dam operators and integrate such requirements into permitting and licensing processes and contracts.
 - National utilities and regulators should build flexibility into power purchase agreements to allow adaptive operations for flood and drought mitigation initiatives, such as to allow for power generation reduction when water is released for crisis response.
 - Community groups, CSOs, and researchers should identify who needs what information during flood and drought situations and identify a set of ranked options for mitigation solutions.
 - The MRC should work with the NMCs, line agencies, and local communities to create emergency procedures and early warning systems with clear communication and information distribution plans.



NATURE-BASED SOLUTIONS FOR WATER GOVERNANCE

Nature-based Solutions (NbS) are increasingly recognized as important tools to address water and food security, tackle the climate and nature crises, and drive sustainable development. The importance of NbS for water is highlighted by the Freshwater Challenge – Mobilizing Action to Restore Freshwater Ecosystems, launched in March 2023 during the UN Water Conference. Recent advancements in data and technology can help share further insights in near real-time into how water flows through the Mekong river system. It is now possible to accurately predict the flow of water from the Lancang and other individual tributary systems into the Mekong River, enabling a more nuanced discussion of impacts on the Mekong flood pulse and other environmental services. This “democratization” of water data provides more reliable data for designing, implementing, and streamlining effective NbS in the basin. There is a need to further investigate how to scale-up NbS in the Mekong region to address societal challenges in a way that is inclusive of all stakeholders, is driven by evidence and data, and provides meaningful benefits to local communities and ecosystems.

Two deep-dive sessions focused on nature-based solutions within the water governance sector at this Policy Dialogue, which built more broadly on conversations held in Bangkok in December 2022 at an earlier Mekong-U.S. Partnership Track 1.5 Policy Dialogue on Nature-based Solutions. The first of these deep dive sessions focused on how major river basin institutions and other actors can better integrate NbS into their basin-wide policies and approaches, with a focus on scaling-up successful case studies. The second deep-dive session focused on how innovative technology and data is transforming water knowledge in the Mekong sub-region, with particular attention to what is needed to ensure that data is turned into actionable information for a diverse set of stakeholders and to support increased uptake of NbS.

Photo: SSRS flooded forest in Cambodia. Photo courtesy of IUCN and taken by Vong Vutthy.

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

- 1. The MRC should better articulate the flood pulse process and impacts through data-driven analyses which emphasize the benefits the flood pulse provides for both upstream and downstream states.** Environmental regulation and infrastructure can be part of the solution to support the Mekong flood pulse, but it would require more coordination to track impacts across multiple sectors, parse out the causes and identify key inflection points for ensuring a healthy flood pulse, and improve messaging to build support for policy change to protect the flood pulse.
 - Analysts at government line agencies (irrigation, water, energy, and construction), academic experts, and other researchers should conduct spatial-temporal analyses on the Mekong flood pulse and the benefits that it brings to local communities and economies.
 - CSOs and non-government institutions should create a platform for local communities to discuss and voice their concerns about changes to environmental flows at the regional scale.
 - NGOs, CSOs, and local communities should collectively communicate the results of their discussions and analysis on the benefits and importance of the flood pulse to decision makers and the public.
- 2. Government agencies and outside researchers should conduct economic and ecological valuations of Ramsar sites in the region.** Wetlands are undervalued and often seen as wasted or unused space, but they provide significant economic and ecosystem benefits. It is often more costly to restore wetlands compared to keeping an ecosystem intact from the beginning. Policymakers often overlook opportunities to use restored wetlands, constructed floating wetlands, or other nature-based approaches due to a lack of awareness and familiarity and an overemphasis on constructed infrastructure and engineering approaches.
 - The Ramsar Convention Secretariat and agencies responsible for wetlands at the national and provincial level should promote the values of wetlands to local communities.
 - Ministries of environment, agriculture, and industry should conduct spatial mapping and zoning which accounts for wetlands protection considerations.
 - Academic experts, think tanks, and other analysts should conduct research into ecological value assessment and identify ways to support its integration into planning processes.
 - Private sector actors—particularly in the tourism sector or agricultural industries, which can directly benefit from NbS—should actively support wetland conservation and restoration and payment of ecosystem services through benefit sharing.
 - NGOs, INGOs, and other researchers should find a way to quantify and message effectively to policymakers and the public on the aesthetic value of wetlands.
- 3. Clarify the benefits from NbS and clearly compare where the impacts and benefits fall from NbS approaches vis-à-vis those of traditional infrastructure projects.** Currently there is a mismatch between stakeholders who benefit from non-nature-based solutions, and those who bear the greatest costs of negative impacts to the environment and ecosystem services from infrastructure and other investments. There is a need for negotiations and legal clarification to establish processes for dam owners or operators and other infrastructure investors to pay for the damages and/or provide incentives to push their investment towards NbS to reduce impacts.
 - Academic researchers, private sector consultants, and government researchers should do more analysis to directly compare the systemwide benefits and costs of NbS and grey infrastructure projects.
 - Government agencies responsible for local development should identify all key actors involved in NbS, using stakeholder mapping to support cost/benefit analysis and identify gaps in understanding for adoption and support of NbS.
 - Disaster relief organizations should work with Mekong government agencies to establish mechanisms to support communities and provide benefit-sharing when they are negatively impacted by grey infrastructure projects backed by private investment.
 - Ministries responsible for land, environment, and water should establish clear lines of legal responsibility for public environmental impacts caused by private investments.



RIVER BASIN ORGANIZATIONS

Growing competition over increasingly unreliable water resources requires stronger cooperation internationally. The MRC's mandate is set by the 1995 Mekong Agreement, which constrains its ability to influence water-related development. At the same time, there is a need for greater accountability among Member countries for implementing the 1995 Mekong Agreement's protocols.

While the Mekong Agreement and other protocols exist for managing transboundary rivers, climate change and increasing pressures for water usage make domestic river management across multiple sectors and provinces equally vital. However, in the Mekong sub-region, only Thailand has legally established domestic RBOs. There is a need for greater coordination among decision makers across sectors within each country, mirrored by a need to ensure greater community engagement by policymakers and implementers inside river basin organizations.

Two deep-dive sessions focused on river basin organizations, although RBOs such as the MRC came up in many other discussions. The first deep-dive session focused on case studies for approaches and best practices which work well in other river basins around the world and explored who is responsible for policing regional developments. The second deep-dive session focused on the challenges related to establishment of local river basin organizations in Mekong countries, successful models of cooperation with local stakeholders, and ways to design RBOs to be inclusive.

Photo: Mekong River Commission Secretariat and USAID engagements on improving transboundary coordination and management in line with the Basin Development Strategy in September 2023. Photo courtesy of the Mekong River Commission.

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

1. **The 1995 Mekong Agreement is out of date and needs to be modernized to meet the needs of today.** The last few decades of operation have highlighted potential gaps in the MRC’s mandate, including that it does not fully cover tributaries and groundwater, and that there currently is no enforcement mechanism or conflict resolution mechanism.
 - The national Mekong governments should supplement the 1995 Mekong Agreement with articles from the 1997 U.N. Watercourses Convention, which is the “gold standard” for international water law and which all five of the Lower Mekong countries voted in favor of at the U.N. General Assembly.
 - MRC Secretariat and NMCs should strengthen the joint platform and monitoring mechanisms and do more work to engage local communities in monitoring processes.
 - The MRCS should increase accessibility for data downloading and uploading in multiple languages, allowing two-way data sharing with communities.
 - Development partners should support further capacity-building with the MRCS and NMCs to integrate innovative technology such as remote sensing and satellite imagery into monitoring processes.
 - Development partners, think tanks, and international NGOs should support regional capacity-building on application of technical data in the policy space.

2. **National Mekong governments should increase bilateral cooperation to address specific transboundary water challenges.** Transboundary cooperation on water and energy is difficult even within different provinces within a country, let alone across national boundaries. Successful cooperation may require starting with adoption of shared principles at the national level with targeted and specific bilateral projects that can be scaled up to the basin-scale.
 - All national and subnational river basin organizations should incorporate transboundary water considerations into their plan.
 - The MRCS should increase the accessibility of the Procedures for Notification, Prior Consultation, and Agreement (PNPCA) technical reports for non-technical experts by simplifying and providing visualizations to share key takeaways in multiple languages.
 - National governments should increase resources to the NMCs so that they can take the lead on targeted bilateral projects.
 - The government of Vietnam should work with the government of Cambodia to expand and implement the Mekong Delta Masterplan beyond national boundaries given the shared floodplain and shared reliance on the flood pulse.
 - The ADB, World Bank, and other regional development partners should support regional energy planning and infrastructure processes with consideration to water governance concerns.



INCLUSIVITY

Inclusivity was a recurring theme across all the Policy Dialogue sessions, and so while there was no single session dedicated to addressing it, there were recommendations that emerged from across all the themes linked to expanding the number and range of stakeholders who are involved in policymaking processes. In particular, the two sessions oriented around river basin organizations included discussion about inclusivity: the first session focused on accountability and inclusivity, and the second RBO session explicitly included discussion on how to ensure that basin management processes are designed to be inclusive from the beginning. One of the sessions on NbS for water governance also directly tackled questions of how to ensure that NbS approaches are inclusive of all stakeholders and provide meaningful benefits to local communities.

Some key takeaways and references related to inclusion and accountability throughout the sessions included that conservation approaches must be inclusive of local communities and voices to build buy-in because communities know best what problems they face. Multiple commentators pointed to the need for engagement approaches that are not linear, but rather should be more reactive, responsive, and continue engagement with the public even when there is not a consensus. Finally, many stakeholders pointed to the challenge of building trust and the need for local voices to be listened to and not just heard.

Photo: Wetlands education programming in Vietnam. Photo courtesy of Kathryn Bimson.

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

- 1. Academics and policymakers should maximize local knowledge by promoting collaborative and community action-oriented research.** Local communities know best what is happening directly around them, but there is a limited translation between their ideas and policies adapted at the national or provincial scale.
 - CSOs and NGOs should establish and empower community networks to share experiences among themselves.
 - Academic researchers and universities with ties to local communities should create a freely accessible knowledge management platform with resources for community researchers in multiple languages.
 - Community leaders should actively engage with policymakers, local citizen reporters, and the media to effectively amplify local knowledge.
 - CSOs and academic researchers should do outreach to build active connections with community representatives, village heads, women's groups, youth unions and farmer associations to support collaborative research and uptake of information by local actors.
 - Development partners and funding agencies should prioritize projects which have a substantive local engagement component.
- 2. Policymakers, project developers, and outside researchers should conduct stakeholder analyses which consider power dynamics whenever engaging with local communities on planning processes or research.** Without engagement of local community leaders, women's groups, community networks, and local experts as well as high levels of transparency, local communities are reluctant to accept outside analysis and recommendations.
 - NGOs, CSOs, and local communities should develop strategic engagement plans considering how to empower and engage stakeholders and socialize such concepts with river basin organizations and other planning agencies.
 - National government planners and project developers should engage communities in formal and informal ways throughout the process by holding multi-stakeholder consultations to share and exchange information, accept feedback and listen to opinions, and empower communities with new knowledge.
 - Community representatives should establish clear expectations for transparency and inclusion with outside actors and support engagement with people who are directly impacted by development and research initiatives.



PUBLIC ENGAGEMENT

The Policy Dialogues were originally designed to include an additional series of side events featuring on-the-ground engagement with rising scholars and students in the host country alongside each of the core policy dialogues to expand on the in-person workshops. This seventh Policy Dialogue included a follow-on engagement to share key takeaways related to nature-based solutions, data and extreme events, and river basin organizations. This was held as a hybrid meeting with Mae Fah Luang University on September 12, 2023, with in-person attendance from more than 50 students and local community members in Chiang Rai as well as virtual participation from 13 additional people, including a group of experts from Can Tho University and other young professionals, students, and other interested stakeholders from around the Mekong region.

Image: Wordcloud of key words from recommendations.

FEEDBACK

Over half of the 95 attendees shared feedback in a survey following the Policy Dialogue, and most attendees indicated that the Policy Dialogue was an extremely positive and productive experience.

Key takeaways from the anonymous evaluation surveys are:

- All 100% of attendees indicated that they learned some or a lot of new information through participating in the Policy Dialogue, with 78% indicating they learned a lot of new information. 91% indicated that they would definitely or probably use the knowledge gained in their work.
- All attendees said they would recommend participating in a future Policy Dialogue to a colleague.
- 92% felt that they developed insight into a relevant policy or sustainability challenge facing the region.
- 96% said that the Policy Dialogue helped them identify a local Mekong stakeholder(s) with whom they shared common interest, and 87% said the same for identifying US-based and international development partner stakeholders.

Many survey respondents emphasized the value of meeting and interacting with participants from across the Mekong sub-region and the United States to network and build partnerships, the benefit of learning from those in other sectors or disciplines, inclusion of both local community members and youth, and the forward-looking and highly interactive and collaborative nature of the workshop design. Nearly a third of survey respondents said that they learned a lot about sand mining and the scale of the problem, indicating there is an opportunity for more public awareness on this issue set. The most popular session was Debate 4 on fish ladders, with respondents emphasizing the diplomatic approach among debaters to a sensitive topic. This was closely followed in popularity by Session A1 on Fisheries Regulation and session B1 on Optimization for the Water-Energy-Food Nexus.

There were a few areas of improvement identified. While most attendees indicated that the right people were in the room to participate in the Track 1.5 Policy Dialogue, about a third of respondents felt there should have been more private sector participation, and six people pointed specifically to dam developers. Six participants noted that China needs to be part of the discussions. Seven emphasized the value of local community members in addition to professional experts and recommended more local voices. Recommendations for improving future conferences included extending by an extra day or reducing the number of topics to allow for more engagement on individual themes and considering translation into local language to enhance participation from local stakeholders.

NEXT STEPS

This was the seventh Mekong-U.S. Partnership Track 1.5 Policy Dialogues planned in the series of eight workshops. One final Policy Dialogue will be held focusing on food security in early 2024. In order for the Track 1.5 Policy Dialogues to continue strengthening the Mekong-U.S. Partnership at large, participants at the final thematic conference will continue to be drawn from a wide range of government and non-government sectors, and the invite list will consider gender balance, youth participation, and inclusion of under-represented stakeholder groups to ensure a diversity of voices.

While the Policy Dialogue series is nearing its conclusion, the Policy Dialogues have served as an opportunity for stakeholders from the Lower Mekong sub-region, the United States, relevant NGOs, and development partners to identify lessons-learned, build collaborative partnerships, transfer best practices, and identify joint-pathways to meeting policy needs.



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ABOUT THE POLICY DIALOGUE SERIES

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 eight conferences taking place between 2021 and 2024 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 Lower 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.