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REPORT

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Southeast Asia

Mekong-U.S. Partnership Track 1.5

Policy Dialogue

# Mekong-U.S. Partnership Track 1.5 Policy Dialogue on Nature- based Solutions

## Summary Report



March 2023



**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 [mekongpartnership.org/](http://mekongpartnership.org/).



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# ABOUT THE POLICY DIALOGUE SERIES

This summary report provides an outline and recommendations derived from discussions on Nature-based Solutions held under 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.

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# KEY ACRONYMS

<b>ASEAN</b>	<b>Association of Southeast Asian Nations</b>
<b>CSO</b>	<b>Civil society organization</b>
<b>DRR</b>	<b>Disaster Risk Reduction</b>
<b>Eco-DRR</b>	<b>Ecosystem Disaster Risk Reduction</b>
<b>EIA</b>	<b>Environmental Impact Assessment</b>
<b>IUCN</b>	<b>International Union for Conservation of Nature</b>
<b>MUSP</b>	<b>Mekong-U.S. Partnership</b>
<b>NbS</b>	<b>Nature-based Solutions</b>
<b>NGO</b>	<b>Non-governmental organization</b>
<b>USAID</b>	<b>U.S. Agency for International Development</b>

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## A NOTE FROM CONFERENCE CHAIR

The fifth Mekong-US Partnership Track 1.5 Policy Dialogue on Nature-based Solutions (NbS) took place in Bangkok, Thailand from December 13-15, 2022. The Partnership Policy Dialogues are a series of seven conferences taking place between 2021 and 2023. These dialogues explore solutions to key policy and sustainability challenges in the Lower Mekong. This fifth Policy Dialogue focused on Nature-based Solutions to development and conservation needs and challenges in the Lower Mekong sub-region, with a particular focus on food security, resilience and disaster risk reduction, governance, and financing of NbS.

63 experts and community representatives participated in in-person activities and an additional nine people participated virtually throughout the two-and-a-half days of the Policy Dialogue in Bangkok. Well over half (78%) of the conference registrants came from one of the five Mekong countries, with 18% coming from the United States. The remaining nine participants were from a range of regional partners including Australia, Republic of Korea, India, Singapore, Indonesia, and the Philippines. Just under half of the speakers and participants (47%) were from non-governmental institutions, while 11% were from the private sector or finance institutions and 42% were from government affiliated ministries or organizations. Approximately 56% of attendees were men and 44% were women. Evaluation surveys for this Dialogue indicated that participants learned a lot of relevant new information and developed insights into regional challenges, built connections across sectoral and national barriers, and would strongly recommend participating in a future Policy Dialogue.

The Stimson Center looks forward to building on the progress from this dialogue through two additional dialogues on other topics through September 2023. 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 Nicole Smolinske and Victoria Harrison of the U.S. Department of State, Tom Schmidt from the U.S. Embassy Bangkok, and Aaron Brownell from USAID for their support.

The organizers would also like to particularly thank Ms. Pin Udomcharoenchaikit and Dr. Danai Thaitakoo from the Department of Landscape Architecture at Chulalongkorn University, Mr. Sutanee Sangkla and Ms. Nontaya Nuchanart of the Bangkok Metropolitan Authority, and Ms. Chatchanin Sung from the Landscape Design Department at Arsomsilp Institute of the Arts for their assistance arranging and leading the interactive field tour of urban resilience and green design principles in Benjakitti Park.

All of these and others contributed to the Dialogue being impactful and interactive. We would also like to thank our more than 70 presenters, attendees, and virtual participants for engaging actively during the discussions.

Sincerely,



**Courtney Weatherby**  
The Stimson Center  
Conference Co-Chair



**Raphael Glemet**  
IUCN  
Conference Co-Chair

# SUMMARY

The fifth Mekong-U.S. Partnership Track 1.5 Policy Dialogue took place on December 13-15, in Bangkok, Thailand to explore needs and challenges related to Nature-based Solutions related to climate change, disaster risk reduction and resilience, food security, governance, and finance



This fifth dialogue was a deep-dive into needs and challenges in the Lower Mekong sub-region related to Nature-based Solutions (NbS), with a particular focus on challenges and needs related to food security, disaster risk reduction, urban resilience, governance on NbS, and financing and business case for NbS. Participants explored policy challenges and best practices from the United States, Lower Mekong countries, as well as other ASEAN and partner countries including the Republic of Korea and the Philippines related to fisheries management, agriculture, global financing of NbS, building a business case, governance, and mainstreaming NbS into policy. Cross-cutting values of inclusivity, resilience (including climate), and collaboration framed the sessions and were woven into the key takeaways and recommendations.

## KEY TAKEAWAYS AND POLICY RECOMMENDATIONS INCLUDE:

- **Government ministries and public works departments should promote hybrid solutions as an option over solely gray infrastructure approaches to promote NbS uptake.** While both green and gray infrastructure can tackle societal challenges, gray infrastructure is often seen as a more rapid response, while NbS takes more time to provide outcomes but often leads to more robust solutions through directly tackling climate risk and providing benefits beyond the main objective. Public works departments should develop and enforce building codes to promote environmental benefits and reduce risk. Civil society should work with affected communities to promote knowledge sharing, best practices, and case studies on NbS/hybrid infrastructure.
- **National Mekong governments should ensure new investment decisions integrate eco-goods and services valuation and consider the impacts and benefits across multiple sectors.** Currently project decisions are made largely on economic cost and benefit analysis. However, improved valuation and consideration of ecosystem services and goods is needed to influence major investment decisions and allow for comprehensive consideration of tradeoffs. Economists should invest in innovative approaches and technologies to improve the eco-valuation process.
- **Government actors should create fresh avenues for two-way communication and engagement around Nature-based Solutions. All stakeholders should support a common understanding of what defines NbS across multiple sectors and stakeholder groups.** NbS must be inclusive and centered around people and local communities to enhance ecosystem functions and give agency in the policy-making process. National agencies should work to develop technical guidelines at the sectoral level to demonstrate how to integrate NbS at scale for other ministries. CSOs and NGOs should demonstrate best practices with key studies and field visits to show government stakeholders the value of civil society and local governments in implementing NbS.
- **Governments should unleash capital for SMEs by investing public sector funds in improving the entrepreneurship ecosystem.** When it comes to business financing, SMEs often fall through the cracks because they are too small for commercial banks and too big for micro-credit. Development agencies should share knowledge on working business models for NbS with SMEs. Think tanks, academic experts, and NGOs should support capacity building and build understanding of NbS among local businesses and business associations.

*Photo: Panel Discussion on Aquaculture and Agriculture at the Policy Dialogue in Bangkok on December 14, courtesy of Courtney Weatherby.*



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

<b>DAY 1</b>		<b>December 14, 2022 from 9:00 AM - 8:00 PM ICT Bangkok, Thailand</b>	
<b>8:45–10:00 am</b>	<p><b>Opening Plenary</b></p> <p><b>Conference overview and expectations:</b></p> <ul style="list-style-type: none"> <li>Courtney Weatherby, Stimson Center Southeast Asia Program Deputy Director</li> </ul> <p><b>Keynote Address:</b></p> <ul style="list-style-type: none"> <li>Ambassador Robert F. Godec, U.S. Embassy to Thailand</li> <li>Mr. Chumlarp Tejasen, Director of the Foreign Affairs Division, Office of the National Water Resources, Thailand</li> </ul> <p><b>Opening Plenary:</b></p> <ul style="list-style-type: none"> <li>Raphael Glemet IUCN, on The Global Standard for Nature Based Solutions</li> <li>Tina Hodges, U.S. Department of Transportation</li> <li>Dr. Danai Thaitakoo, King Mongkut’s University of Technology</li> <li>Dr. Heng Kong, Inland Fisheries Research and Development Institute</li> <li>Niwat Roykaew “Kru Tee”, Goldman Prize Winner</li> </ul>		
<b>10:00 - 10:30 am</b>	<b>Coffee Break</b>		
<p><b>CONCURRENT SESSIONS 1</b></p> <p><b>10:30 am–12:00 pm</b></p>	<p><b>A1 Food Security</b></p> <p><b>Panel:Nbs for Food Security</b></p> <p><b>Facilitator:</b> Maeve Nightingale, IUCN</p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>Panitnard Weerawat from Southeast Asian Fisheries Development Center</li> <li>So Nam, Mekong River Commission</li> <li>Chay Krong Kruy, Inland Fisheries Research and Development Institute</li> <li>Sinsamout Ounboundisane, FishBIO</li> </ul>		<p><b>B1: NbS for Climate Adaptation and Disaster Risk Reduction</b></p> <p><b>Panel: Ecosystem-based Disaster Risk Reduction</b></p> <p><b>Facilitator:</b> Chinaporn Meechaiya, ADPC</p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>Tri Can Tho University</li> <li>Apisom Intralawan, Mae Fah Luang University</li> <li>Srey Sunleang, Ministry of Environment of Cambodia</li> </ul>
	<b>Lunch</b>		
<b>12:00 - 1:00 pm</b>	<b>Lunch</b>		



CONCURRENT SESSIONS		
<p><b>1:00 - 2:30 pm</b></p>	<p><b>A2 Food Security</b></p> <p><b>Panel: Agriculture and Aquaculture</b></p> <p><b>Facilitator:</b> Jitendra Jaiswal, Food and Agriculture Organization</p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Niwat Roikaew, Mekong People’s Forum</li> <li>• Daqbir Jupoh, Yayo Coffee</li> <li>• Duy Nguyen Phuong, WWF</li> </ul>	<p><b>B2 NbS for Climate Adaptation and Disaster Risk Reduction</b></p> <p><b>Panel: NbS for Urban Resilience</b></p> <p><b>Facilitator:</b> Rutmanee Ongsakul, Department of Foreign Affairs and Trade of Australia</p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Kotchakorn Voraakhom, Landprocess</li> <li>• Dung Vu Thuy, Keep Vietnam Clean</li> <li>• Helen Santiago Fink, U.S. Department of State</li> </ul>
<p><b>2:30 - 3:00 pm</b></p>	<p><b>Coffee Break</b></p>	
<p><b>CONCURRENT SESSIONS 3</b></p> <p><b>3:00 - 4:30 pm</b></p>	<p><b>A3 Plenary Session: Green and Grey Infrastructure</b></p> <p><b>Facilitator:</b> Dr. Sangyoung Park, KWATER</p> <p><b>Panelists:</b></p> <ul style="list-style-type: none"> <li>• Amanda Trigger, U.S. Army Corps of Engineers</li> <li>• Sompong Luangluexay, Ministry of Public Works and Transport of Lao PDR</li> <li>• Dr. VAN Pham Dang Tri, Research Institute for Climate Change (DRAGON-Mekong), Can Tho University</li> </ul>	
<p><b>4:30 - 6:00 pm</b></p>	<p><b>Free time and networking</b></p>	
<p><b>6:00 - 8:00 pm</b></p>	<p><b>Welcome Dinner</b></p>	

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

<b>DAY 2</b> December 15, 2022 from 9:00 AM - 4:30 PM ICT Bangkok, Thailand		
<b>CONCURRENT SESSIONS 4</b>  9:00 am - 10:30 am	<b>C1 Finance</b>  <b>Panel: Global Financing of NbS</b>  <b>Facilitator:</b> Christine Wan, U.S.-ASEAN Business Council  <b>Panelists:</b> <ul style="list-style-type: none"> <li>• Suphasuk Pradubsuk, USAID</li> <li>• Katie Bimson, IUCN</li> <li>• Bayuni Shantiko, The Biodiversity Finance Initiative, UNDP</li> <li>• Alyssa Maria Gomes, Adaptation Fund</li> </ul>	<b>D1 Governance</b>  <b>Panel: Governance for NbS</b>  <b>Facilitator:</b> Nhung Sodavy, Cambodia Development Resource Institute  <b>Panelists:</b> <ul style="list-style-type: none"> <li>• Kraithong Ngaonoi, Hill Area Development Foundation</li> <li>• Charlotte Hicks, UNEP World Conservation Monitoring Center</li> <li>• Naw Aye Aye Myaing and Jason Lubanski, Karen Environmental and Social Action Network (KESAN)</li> </ul>
10:30-10:45am	<b>Coffee Break</b>	
10:45 am - 12:15 pm	<b>C2 Finance</b>  <b>Panel: Building a Business Case for NbS</b>  <b>Facilitator:</b> Christy Owen, Pact  <b>Panelists:</b> <ul style="list-style-type: none"> <li>• Matthew Chan, JP Morgan</li> <li>• John Roberts, Anantara</li> <li>• Chris Dickinson, Global Climate Fund</li> <li>• Ms. Rithiny Teng, WCS Cambodia</li> </ul>	<b>B5 Governance</b>  <b>Panel: Mainstreaming NbS into Policy</b>  <b>Session Lead:</b> Saray Samadee, USAID Wonders of the Mekong  <b>Discussion Facilitators:</b> <ul style="list-style-type: none"> <li>• Tran Viet Hung, International Centre for Environmental Management</li> <li>• Le Trong Hai, Ministry of Agriculture and Rural Development</li> <li>• Dr. Renee Lorica, ASEAN Center for Biodiversity</li> </ul>
12:15 - 1:30 pm	<b>Lunch</b>	
1:30 - 4:00 pm	<b>Synthesis Workshop &amp; Survey</b>	
4:00 - 4:30 pm	<b>Closing Plenary</b>	

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## THEMATIC AREAS AND RECOMMENDATIONS

**N**ature-based Solutions (NbS) are defined by IUCN as: “actions to protect, sustainably manage, and restore natural and modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits.” This definition emphasizes that the core strategy of NbS should include the conservation of healthy ecosystems and/or the restoration of degraded ecosystems. It is also important to note that the expected benefits of NbS are two-fold, tackling a societal challenge and providing human benefits, but also simultaneously providing direct biodiversity benefits. NbS acts as an umbrella term for a wide range of more specific approaches that all use approaches of restoring, protecting, and managing ecosystems to address societal challenges.

The key concerns and recommendations related to each NbS theme below were the result of an in-depth workshoping process with Dialogue participants during the synthesis workshop. 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 topics covered during the presentations on Nature-based Solutions: disaster risk reduction and resilience, food security, green/gray infrastructure, governance, and financing.

Attendees voted to identify the top three issues for each of these sub-sets and split into multiple breakout groups to collaboratively identify and draft potential policy recommendations and key actors involved in addressing each of these key issues. The breakout groups collectively drafted policy recommendations and solutions for 17 key 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, are included in this summary report.

**Photo:** Synthesis workshop activities at the Policy Dialogue in Bangkok, Thailand on December 15, 2022. Photo courtesy of Courtney Weatherby.





## DISASTER RISK REDUCTION & RESILIENCE

Ecosystem-based Disaster Risk Reduction (Eco-DRR) is the sustainable management, conservation and restoration of ecosystems to reduce disaster risk, with the aim to achieve sustainable and resilient development. The Mekong countries are among the most climate and disaster prone in the world, and it is critical to enhance the integration of ecosystems within DRR and climate adaptation strategies across the sub-region. Eco-DRR and resilience efforts are particularly needed in urban areas given that more than 40% of the greater Mekong region's population is expected to live in urban areas by 2030.

Two DRR sessions focused on ways that ecosystem services can mitigate and address threats of climate change, best practices and ways to scale up NbS for disaster risk reduction, and NbS within urban planning approaches. These sessions highlighted one major takeaway that was echoed throughout all the themes: the challenges of siloed planning processes and the need to view challenges and solutions in an integrated manner to appropriately consider the tradeoffs and the value of NbS. Other key takeaways included that a lack of agreement across sectors leads to conflict between policy; that many ecosystem services are outside the market economy and are thus difficult to value and account for in planning processes; and that climate factors require a shift from being reactive to being proactive.

**Photo:** Kaper Estuary in Laemson Marine National Park. Photo by Sirachai Arunrugstichai courtesy of IUCN.

## PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

- 1. Government ministries and public works departments should promote hybrid solutions as an option over solely gray infrastructure approaches to promote NbS uptake.** For decades, gray infrastructure has been the main approach for governments to tackle local issues or support development. With growing recognition of the potential of NbS and green infrastructure, the question of compatibility has become a key topic for developers and decision-makers. While both approaches can tackle societal challenges, gray infrastructure is still often seen as a more rapid way to solve issues, while NbS usually takes more time to provide outcomes but often leads to more robust solution through directly tackling the climate risk and providing a diversity of benefits beyond the main objective.
  - Ministries of interior, environment, and finance should support tax incentives for hybrid NbS infrastructure to help improve the business case for alternative options.
  - Public works departments should develop and enforce building codes to promote environmental benefits and reduce risk.
  - Civil society should work with affected communities to promote knowledge sharing, best practices, and case studies on NbS/hybrid infrastructure to improve understanding of the concept.
  - International financing institutions and investors should include public targets and standards for green and hybrid infrastructure approaches when determining funding priorities.
- 2. Policymakers in each Mekong country should mainstream Nature-based Solutions as a proactive strategy to prevent and mitigate natural disasters.** Climate change factors can strengthen impacts of natural disasters such as intensity of rainfall or severity of typhoons, requiring more urgent responses. Governments are currently stuck in a reactive mode, putting planners and implementers in a passive role. Siloed decision-making processes cannot manage risks across multiple sectors.
  - National planning agencies—such as the Office of National Economic and Social Development Council in Thailand—should ensure adequate resources are set aside to conserve healthy ecosystems.
  - Researchers including environmental economics, socio-economists, and others whose analysis influences policy should increase public messaging on and promote the restoration potential of degraded habitats and NbS options.
  - Government agencies should develop climate change committees at multiple levels of government with representatives from all relevant sectors. This will require cross-agency collaboration between the ministries of interior, environment and natural resources, agriculture and irrigation, economy and finance, and others with relevant obligations.
  - Local and international NGOs should explore the potential for buy-backs of areas that are disaster prone but could be restored for damage risk reduction or as a buffer zone.
  - Local actors—business leaders, community leaders, professional organizations, and NGOs—should collectively demand increased attention to these issues and build capacity to identify and implement policies at the local level.
- 3. All stakeholders should strengthen the public and policy recognition of the need for healthy ecosystems as a disaster mitigation strategy.** Many ecosystem services are outside of the market/economy, undervalued, and/or serve as a common good. This makes it difficult to value in planning processes and effectively manage to conserve ecosystem services.
  - NGOs, local professional organizations and interest groups, and local community leaders should collect and document local and indigenous knowledge.
  - Researchers and government analysts should quantify and value the costs of disasters and crises and highlight these values in policy analysis and public messaging.
  - Environmental economists, socio-economists, and other economic analysts should develop and enhance ecosystem services valuation methods to support sustainable planning.
  - National planning agencies and line ministries (interior, natural resources and environment, agriculture and irrigation) should develop payment for ecosystem services schemes and taxes and re-invest the funds in management and conservation.



## URBAN RESILIENCE FIELD TOUR

How cities manage their growth amid increasing climate risks and pressures will determine the future health, wealth and wellbeing of communities and environments across the region. Conventional approaches to urban management relying on large scale ‘gray’ infrastructure solutions alone cannot deliver the social, environmental, and economic outcomes that communities desire at a cost that they can afford. Urban resilience issues were covered in two activities during the Policy Dialogue, including a field engagement on December 13 as well as targeted discussions on Day 1.

To lay the groundwork for productive policy discussions, on December 13 approximately 16 attendees joined a guided walking tour of Benjakitti Forest Park to explore an example of sustainable urban landscape design. Benjakitti Forest Park is a new 41-hectare addition to a central park in downtown Bangkok, connected via a green bridge to the famous Lumpini Park. The park has been designed as a large wetland area to help store rainwater and naturally filter wastewater, which significantly contrasts most previous park designs in Bangkok structured around a central reservoir surrounded by a running track. The space was also designed as an example of resilient green space which can help city dwellers reconnect with the natural world.

The two-hour guided walking tour was led by Dr. Chatchanin Sung, who is the architect of Benjakitti Park and the director of the Department of Architecture at Arsom Silp Institute of Art, and supported by Mr. Sutane Sankla and Ms. Nontaya Nuchanart, both Agricultural Technical Officers within the Public Parks Office the Bangkok Metropolitan Authority. While the park is an outstanding example of urban wetlands in Thailand, there are currently conflicting policies at the municipal and national level that promote filling-in wetlands to make them more productive landscapes. These initiatives are contradictory and there is an opportunity to harmonize these policies. Dr. Sung also mentioned a need for increased social awareness and education amongst Bangkok residents to ensure visitors understand that although it is not carefully manicured, the ecosystem provides a number of benefits including recreation and biodiversity. The park is now one of the highlights for Bangkok residents, who can visit to observe wildlife that isn’t usually found in Bangkok’s central metropolitan area.

## PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

The discussions during the DRR and Resilience subtheme drew linkages between challenges of urban planning and challenges of siloed and narrow planning processes more broadly. However, there was one policy recommendation which emerged and specifically targets urban resilience:

- **Planners need to integrate cities into the broader natural landscape and not treat them as separate and siloed systems.** Urban landscapes do not exist in a vacuum, but rather impact surrounding water and land and are impacted by natural processes that bring seasonal rainfall.
  - Architects, civil engineers, and urban planners should build public awareness on how cities fit into the broader landscape and the ecosystem-services that natural landscapes like wetlands provide for the urban economy.
  - National ministries and municipal authorities should work with environmental economists to conduct detailed cost-benefit analysis and research which consider full life-cycle costs of land-use changes and ecosystem-service valuation.
  - Community-based organizations, NGOs, and youth should encourage participation in consultation and planning processes and support bringing nature back into urban spaces.
  - Government authorities should provide further opportunities for the public to participate in such processes.
  - Municipal authorities should incorporate the benefits of conserving natural land and local ecosystems to address urban development challenges into the development of city master plan and related plans.

Photo on Left: Raised Walkway on Benjakitti Forest Park in Bangkok, Thailand on December 13. Photo courtesy of Courtney Weatherby.  
Photo Below: Dr. Chatchanin Sung presenting on urban design principles in Benjakitti Park on December 13. Photo Courtesy of Courtney Weatherby.





## FOOD SECURITY

Fisheries and agriculture are major contributors to livelihoods, food security and nutrition, and trade in the Mekong sub-region and broader ASEAN member states. However, even as the Mekong region's agriculture sector modernizes and industrializes in ways that increase output and efficiency, environmental degradation and climate change are driving increased uncertainty over risks and impacts of weather patterns, water security, temperature, and soil quality. Applying a NbS lens can improve agricultural and fisheries production and resilience, support nature conservation and biodiversity, and mitigate or manage impacts of climate change. An ecosystem approach to fisheries management shifts from looking solely at regulating fisheries techniques to integrating and investing in fish habitat conservation, balancing environmental, human and social well-being within improved governance frameworks.

The first food security session focused on challenges related to fisheries and aquaculture, exploring best practices on ecosystem and nature-based approaches to fisheries management and considering case studies in both coastal and freshwater environments. The second session focused on agriculture, with particular attention paid to the capacity, technical, and financial challenges that small-holder farmers face in shifting towards Nature-based Solutions. Key takeaways included the need for better communication and conflict-management between local communities and governments about how to effectively manage resources; the need to raise awareness and understanding of how individual activities impact ecosystems; and the need to improve data collection processes to ensure that decision makers have basic information in hand when formulating policy.

**Photo:** Fish Catch in Vientiane Province, Laos. Photo taken by Jim Holmes and courtesy of IWMI Flickr account under a Creative Commons License.



## PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

- 1. Government actors should create fresh avenues for two-way communications and engagement around Nature-based Solutions.** NbS must be inclusive and centered around people and local communities to enhance ecosystem functions and give agency in the policy-making process. Without local buy-in, it is hard to eliminate drivers for unsustainable approaches that bring short-term benefits at the expense of nature.
  - Youth groups, NGOs, and CSOs should raise public awareness and understanding of Nature-based Solutions among local communities and explain how they help address resource challenges to build local support.
  - Government actors such as the ministries of commerce, agriculture, and health should ensure effective communication mechanisms leading to actionable feedback on ongoing or proposed NbS approaches.
  - Regional platforms such as ASEAN, MUSP, and MRC should take account of best practices, including integrated approaches with community-based conservation, and mainstream them in policy guidance.
- 2. CSOs, NGOs, and consumers should encourage and stimulate demand for environmentally friendly agricultural products through private sector engagement.** Private sector and market shifts can motivate government regulators and farmers at various levels of the supply chain to reduce the use of chemicals in agriculture production.
  - NGOs and CSOs should raise public awareness among consumers about the benefits of environmentally-friendly agricultural products and the true life-cycle and external costs of high chemical uses in agriculture.
  - Buyers associations and destination markets should require verification for products which are organic, pesticide-free, or otherwise meet reduced thresholds for chemicals.
  - The ministries of agriculture, environment, health, and commerce should provide incentives—both financial and non-financial—to the adoption of environmentally friendly agricultural practices.
  - Regulatory authorities and consumer protection agencies should provide processes for verification such as independent audits or certification processes.
- 3. Government stakeholders should account for the time and scale needed for NbS implementation in the agricultural sector.** As with green infrastructure, the returns from NbS approaches to agriculture may take years to decades to materialize. This often exceeds the timelines used in government strategies or plans or otherwise conflict with targets.
  - Ministries of commerce, agriculture, and health should review policies to determine whether they account for the long-term benefits of NbS approaches to agricultural production.
  - Farming cooperatives should build understanding among all levels of farmers about the long-term benefits of NbS approaches to build broad buy-in.
  - Government agencies should ensure inclusivity for consultations and ensure multi-sector integration when implementing planning processes.
  - Development programs and financial institutions should improve access to finance for farmers, particularly smallholder farmers who may have interest in transitioning to NbS approaches but lack resources to support the transition.



## GREEN AND GRAY INFRASTRUCTURE

Gray infrastructure is often seen as a more rapid way to improve socio-economic outcomes than green infrastructure (or NbS) approaches, which usually take more time to provide outcomes. However, NbS can lead to more robust solutions and provide a diversity of benefits beyond the main objective for which they have been developed. Evidence also highlights that in the long term, NbS are often more cost-effective as they do not require heavy maintenance costs, and cost-effectiveness studies may find that NbS have fewer externalized costs, such as pollution, when compared to traditional approaches.

One plenary session focused specifically on gray-green infrastructure, but the concepts were echoed in numerous discussions, particularly those focusing on disaster risk reduction and resilience. This session explored data gaps in analyzing the cost-effectiveness of NbS as compared to traditional gray infrastructure approaches, criteria and approaches for deciding when to apply hybrid gray/green infrastructure approaches, and case studies of how green infrastructure has been utilized in the United States and across the Mekong sub-region. Key takeaways included that it is difficult to quantify the costs and benefits of NbS compared to hard infrastructure; improved valuation of ecosystem services will be key; and governments prefer hard infrastructure solutions because of their mandates and responsibility they bear when commissioning infrastructure projects. As with other themes, there was an emphasis on the need to break down silos between different actors and government bureaucracies.

**Photo: Rebuilt sand dunes with native vegetation for coastal defense infrastructure at Kennedy Space Center. Photo taken by Ben Smegelsky and used courtesy of NASA.**

## PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

- 1. National Mekong governments should ensure new investment decisions integrate eco-goods and services valuation and consider the impacts and benefits across multiple sectors.** Currently project decisions are made largely on economic cost and benefit analysis. However, improved valuation and consideration of ecosystem services and goods is needed to influence major investment decisions and allow for comprehensive consideration of tradeoffs.
  - National governments should develop clear regulations to require integration of eco-goods and eco-services valuation into feasibility studies and investment decision-making processes.
  - National and local government should engage with key political actors and economic champions to promote the valuation of goods and services within planning and decision-making processes.
  - Project developers should complement purely economic cost and benefit evaluations with other types of assessments such as avoided losses, lives saved, intrinsic values, indigenous and gender lens, as well as the socio-economic and environmental benefits provided by NbS.
  - Economists should invest in innovative approaches and technologies to improve the eco-valuation process.
  - Provincial and municipal authorities should downscale natural capital accounting from the national level to apply it at the local level, thereby building local buy-in and understanding for the process and its benefits.
- 2. Governments should ensure inclusivity and participatory processes in the selection of options, design, implementation, and monitoring and evaluation of green and gray infrastructure.** Many infrastructure projects include some level of consultation, but it is often limited in scope and at a stage of design after initial decisions about the type and site for a project have already been made. Integration of a wide range of stakeholders throughout the project planning and implementation process could lead to improved outcomes.
  - National governments should review regulations and policies to identify avenues for inclusivity and transdisciplinary participation beyond consultation processes in the development and adoption of enabling policies and mechanisms.
  - Local associations and communities should work with governments to identify green & grey infrastructure initiatives that can be led locally.
  - Local government agencies and companies doing EIAs and feasibility studies should promote transparency by ensuring the sharing of information and communication/discussion with communities, because they know more about local needs and challenges than outside experts or stakeholders.
  - The scientific community and ecologists should provide guidelines for inclusion of local communities in EIAs and feasibility study processes.
- 3. National ministries of planning, construction, and interior should assess the benefits of financial incentives for Nature-based Solutions and disincentives for traditional infrastructure and pilot a good mix between the two.** Rapid unplanned growth has increased vulnerability to natural hazards and constrained the availability of historical eco-system services.
  - Urban planning professionals, academic experts, and civil society organizations should organize public information and education campaigns on the constraints of available eco-services and value of expanding Nature-based Solutions.
  - National governments should strengthen public procurement processes to require efficient assessment of benefits and risks.
  - Development partners should provide capacity-building on best practices for resilience planning and support for standardizing assessment plans and processes.
  - Development corporations and multinational development banks should encourage the public sector to explore options for 'basket' funds for cross-sectoral work on NbS.



## GOVERNANCE OF NBS

NbS interventions need to be designed and managed with a view to long-term sustainability and in a way that accounts for and aligns with sectoral, national and other policy frameworks. While there are various approaches to mainstreaming NbS, all rely on strategic communications and outreach. NbS development needs to acknowledge and respond to the concerns of a variety of stakeholders. Good governance arrangements are proven to not only reduce risks to an intervention's long-term sustainability, but also to enhance its social 'license to operate' and build local buy-in. Conversely, inadequate governance provision for otherwise well-intended actions can adversely affect the legitimacy of benefit and cost sharing arrangements.

The first governance session explored obstacles at the legal, regulatory, and community-level to implementing NbS programs and opportunities for development partners to share best practices for legal and regulatory updates. Key takeaways from this session included the need to balance NbS approaches with the rights of local communities, build shared understanding of how to define Nature-based Solutions, and emerging funding gaps. The second governance session focused on mainstreaming NbS and ecosystem-based adaptation approaches into national policy, exploring ways to effectively build buy-in and support integration across sectors for NbS approaches. Key takeaways from this session included the need for sufficient local evidence to demonstrate the effectiveness of NbS, that government officials often prefer traditional methods, and that the science behind NbS needs to be more effectively translated for policymakers and community stakeholders.

**Photo:** Climate change vulnerability assessment mapping at Stung Sen Ramsar Site in Cambodia. Photo of Photo taken by Vong Vutthy and used courtesy of IUCN.

## PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

- 1. Government actors should support a common understanding of what defines NbS across multiple sectors and stakeholder groups.** Currently, decision makers prefer tried and tested gray infrastructure methods for dealing with a variety of environmental challenges and view NbS approaches as high-risk, hampering innovation and transition to NbS. No country in the region has a finalized national NbS strategy, and the NbS approach is not mainstreamed outside the environmental sector and often misunderstood by key sectors like agriculture, fisheries, planning and investment.
  - National agencies responsible for environmental issues should work to develop technical guidelines at the sectoral level to demonstrate how to integrate NbS at scale for other ministries' programming and budgets.
  - National governments should work with subnational authorities, think tanks, NGOs, and civil society should hold dialogues with a range of broad stakeholders to help build buy-in for a common understanding of NbS and their multi-faceted applications.
  - Think tanks and research organizations should provide short and targeted policy briefs for specific sectors and avoid providing broad or over-general advice.
  - Scientific researchers should help interpret science on ecosystem services and climate change vulnerability and make it accessible to governments stakeholders.
  - National governments should mainstream NbS into national decisions and strategies through tailored communication with support from development partners and embassies.
  - CSOs and NGOs should demonstrate best practices with key studies and field visits to show government stakeholders the value of civil society and local governments in implementing NbS.
  - International development partners and international NGOs should provide technical assistance in reviewing policies, strategies, legal framework and plans to ensure better integration of NbS into government policy.
- 2. Break down silos on NbS through simultaneously mainstreaming NbS into top-down approaches for decision-making as well as building inter-sectoral dialogue.** Planning and management processes in all Mekong countries still happen in sectoral silos, and government strategies to support NbS are not integrated across these silos. Countries in the Lower Mekong region also tend to be very centralized with top down decisionmaking processes, inhibiting innovation at the implementation level.
  - Government ministries should ensure that NbS is mentioned in high level resolutions and public statements, up to and including at the head of state level.
  - International development partners should work with government advisors, members of steering committees, and other partner institutions such as the UNFCCC or UNCCD to mainstream NbS concepts.
  - National line ministries should develop NbS strategies which detail how their managed sector needs to engage with NbS.
  - National governments should establish multi-sector working groups and organize cross sector learning events to help define joint strategies and institutionalize communication.
  - CSOs and NGOs should demonstrate through case studies how governance and inter sectoral collaboration for NbS works at the local or project level.
  - All stakeholders should explore opportunities to apply the Salween Peace Park model in areas where there is already strong cooperation between local authorities and communities and ongoing efforts to restore or maintain ecosystems for human benefits. The national governments should support these local initiatives and use them as demonstration sites.



## FINANCE FOR NATURE-BASED SOLUTIONS

The key determinants of success for a NbS intervention are tied to the return on investment, the efficiency and effectiveness of the intervention, and equity in the distribution of benefits and costs. To ensure long-term sustainability of NbS approaches, sufficient consideration needs to be given to the economic viability of the intervention at both the design stage and through monitoring and implementation. Without long-term economic feasibility, NbS risks being a short-term or temporary project which may leave the landscape and local communities worse off than before interventions. Long-term feasibility is also key for unlocking financing support for developing countries that goes beyond grant assistance and allows for long-term implementation of climate commitments and adaptation needs.

The two finance-themed sessions at the Dialogue explored challenges related to international financing for NbS and building a business case for NbS. The international finance session focused on how international donors and financing organizations prioritize NbS projects within their portfolios, focusing on challenges related to risk, bankability, and local policy support. The business case session explored approaches from existing projects to balance long-term gains and economic goals with short-term costs and activities. Key takeaways from these sessions included the need to de-risk NbS approaches, ensure clear and enabling policy at the national and local level, shift away from overreliance on donor funding, and improve the valuation of co-benefits of ecosystem services.

**Photo:** 50th Annual Meeting Launch of the Asia-Pacific Climate Finance Fund and the Future of Climate Finance in Asia. Photo courtesy of the Asian Development Bank Flickr account and used under Creative Commons license.

## PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

### 1. **Unleash capital for SMEs by investing public sector funds in improving the entrepreneurship ecosystem.**

When it comes to business financing, SMEs often fall through the cracks because they are too small for commercial banks and too big for micro-credit.

- Development agencies such as USAID, the U.S. International Development Finance Corporation (DFC), and JICA should share knowledge on working business models for NbS with national and local governments as well as SMEs.
- Think tanks, academic experts, and NGOs should support capacity building and build understanding of NbS among local businesses and business associations.
- Investors should support cost-benefit analysis capacity-building and accreditation for SMEs so that their business proposals are attractive and eligible for international financing.

### 2. **Mekong national governments should create an enabling environment for NbS implementation through multi stakeholder engagement and coordination.** Currently a key barrier to NbS implementation is the lack of an enabling environment or policy inconsistency across different ministries.

- Encourage harmonized policy frameworks for NbS across government, DPs, NGOs
- Think tanks should provide clear policy recommendations to government agencies.
- Local communities should identify and support champions in local government to advocate for NbS at the provincial level.
- Civil society organizations should advocate for NbS locally, building buy-in and support among a range of local stakeholders.
- Businesses and private sector actors should hold regular forums with policy makers to encourage consideration of the benefits and support public-private partnerships for NbS.

### 3. **National governments should reduce private sector concern about investing in NbS by creating a favorable environment for blended finance.** Private funds currently consider NbS as a relatively risky and unproven approach. Public funding, blended finance, and risk guarantees can reduce risk and attract higher levels of private financing.

- National government planning agencies should produce clear policy and guidelines to promote investment by the private sector in NbS.
- Development finance institutions such as the DFC and multinational development banks like the Asian Development Bank and World Bank should provide capacity building in implementing and managing public-private-partnership (PPP) projects.
- Private funders (Net Zero Alliance Banks) should prioritize NbS approaches when considering which initiatives to fund.
- The international community should create and publicize agreed-upon standards for NbS, benefiting from momentum from 2022 to clearly define NbS at the fifth session of the United Nations Environment Assembly.
- Finance departments and national budgeting agencies should set aside public funds to support pilot projects and scale-up of NbS approaches.
- Local communities should collaborate with academic institutions and development partners to identify specific and appropriate NbS.
- National ministries should work with an outside accredited party to do Cost-Benefit Analysis (CBA) for NbS and infrastructure projects.



## YOUTH 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 dialogues to expand on the in-person workshops. This fifth Policy Dialogue included a follow-on engagement to share key takeaways on nature-based solutions, focusing particularly on urban resilience and disaster risk reduction. This was held as a hybrid meeting with the Mae Fah Luang University School of Law and had 16 students and local community members in attendance. The presenters explored the definition of Nature-based Solutions, key elements from their own work on issues related to governance, building a business-case for NbS, and urban resilience, and answered questions about how the legal and regulatory regime could support integration of NbS.

**Photo:** Word cloud for key terms from recommendations and brainstorming session.



# FEEDBACK

Approximately one third of the attendees shared feedback in a survey following the dialogue, and most attendees indicated that the dialogue was a productive experience.

Key takeaways from the anonymous evaluation surveys are:

- All attendees indicated that they learned some or a lot of new information through participating in the Dialogue, with 72% indicating they learned a lot of new information. 89% indicated that they would definitely or probably use the knowledge gained in their work.
- 95% of attendees said they would recommend participating in a future Dialogue to a colleague.
- 89% felt that they developed insight into a relevant policy or sustainability challenge facing the region.
- 96% said that the Dialogue helped them identify a local Mekong stakeholder(s) with whom they shared common interest.

Many survey respondents emphasized the value of meeting participants from across the Mekong region, the benefit of hearing from those in other sectors or disciplines, and the inclusive nature of the engagements. The most popular sessions were the synthesis workshop—which many attendees liked because they were able to rank key issues and explore policy solutions—and the Governance session. Numerous participants emphasized that they valued the participatory and interactive aspects of the workshop design.

There were a few areas of improvement identified which could be considered for future Policy Dialogues. Three respondents pointed to the value of more time to socialize and network with other attendees, and one respondent suggested adding a third day to the program to facilitate this. Two attendees suggested there could be value in hosting optional mini sessions on the side to showcase approaches or tools. While most attendees indicated that the right people were in the room to participate in the Track 1.5 Policy Dialogue, five attendees suggested that more government representation would be beneficial, with particular emphasis on bringing in speakers at the senior and sub-national level.

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## NEXT STEPS

This was the fifth of seven Mekong-U.S. Partnership Track 1.5 Policy Dialogues. The final two thematic workshops will be held as in-person events in Laos and Vietnam in 2023 with approximately 50 in-person attendees at each. A virtual attendance option will be provided for those who are unable to travel as needed. The Policy Dialogues will continue to serve as an opportunity 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.

In order for the Track 1.5 Dialogues to continue strengthening the Mekong-U.S. Partnership at large, participants at these thematic conferences will continue to be drawn from a wide range of government and non-government sectors. Emphasis will be placed on encouraging gender balance, youth participation, and inclusion of under-represented stakeholder groups at the Dialogues.



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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 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.