



STIMSON

REPORT

Asia & Indo-Pacific

Southeast Asia

Mekong-U.S. Partnership Track 1.5

Policy Dialogue

Mekong-U.S. Partnership Track 1.5 Policy Dialogue on Fisheries, Agriculture, and Food Security

Summary Report



May 2024



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

Local Co-host:

The Diplomatic Academy of Vietnam (DAV) is a prestigious institution that serves a dual purpose - both a leading research and training center in the field of international relations and foreign policy, under the mandate of the Ministry of Foreign Affairs of Vietnam. Serving as a think-tank for the Ministry, the DAV has established relations and actively engaged with more than 80 universities, international studies institutions, and academic networks in the region and the world. The DAV has earned a reputation for excellence, ranking among the top 40 government-sponsored academic institutions in the Asia-Pacific. Learn more at dav.edu.vn.

ABOUT THE POLICY DIALOGUE SERIES

This summary report provides an outline and recommendations derived from discussions on needs and gaps in the Mekong region related to food systems and food security, held as part of the Mekong-U.S. Partnership Track 1.5 Policy Dialogue series. The 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 Mekong sub-region on strategic challenges and shared priorities under the Partnership’s four areas of cooperation (non-traditional security, natural resources management, economic connectivity, and human resource development). The Mekong-U.S. Partnership builds on the strengths of the Lower Mekong Initiative’s development-focused agenda by cooperating on strategic sub-regional issues and challenges. Each area of engagement under the Mekong-U.S. Partnership is supported by a flagship project. The Partnership’s Track 1.5 Policy Dialogue series serves as the flagship program of the Mekong-U.S. Partnership’s human resources development area of engagement.

CONTENTS

Key Acronyms.....	2
A Note from Conference Chairs.....	3
Summary	4
Agenda	6
Thematic Areas and Recommendations	
Fisheries.....	10
Rice Cultivation	12
Regenerative Agriculture and Soil Health.....	14
Supply Chains	16
Innovation	18
Public and Youth Engagement	22
Feedback.....	Inside back page
Next Steps	Inside back page

KEY ACRONYMS

ASEAN Association of Southeast Asian Nations

CSO Civil Society Organization

FAO Food and Agriculture Organization

GMS Greater Mekong Subregion

ICT Information and communications technology

GAP Good Agricultural Practices

INGO International non-governmental organization

IUCN International Union for Conservation of Nature

LMI Lower Mekong Initiative

MRC Mekong River Commission

MUSP Mekong-U.S. Partnership

NbS Nature-based Solution

NGO Non-governmental organization

NMC National Mekong Committee

A NOTE FROM CONFERENCE CHAIR

The eighth Mekong-U.S. Partnership Track 1.5 Policy Dialogue on Fisheries, Agriculture, and Food Security was held in Ho Chi Minh City, Vietnam from March 18-19, 2024. The Partnership Policy Dialogues are a series of eight conferences taking place between 2021 and 2024. These dialogues explore solutions to key policy and sustainability challenges in the Lower Mekong sub-region. This eighth Policy Dialogue focused on food systems and food security challenges in the Mekong River basin, with particular focus on aquaculture, fisheries, climate resilient agriculture, soil health, innovation for agriculture, and supply chains and resilience.

Over one hundred experts and community representatives participated in in-person activities throughout the two days of the Policy Dialogue in Ho Chi Minh City. Approximately 75% of the attendees came from one of the five Mekong countries, with 14% coming from the United States. The remaining speakers came from the Philippines, United Kingdom, Sri Lanka, Australia, Singapore, and the Netherlands. Just under half of the attendees (44%) were women. Government institutions were well represented at 39% of all attendees, with 28% from think tanks and academic institutions, 18% of attendees coming from non-governmental institutions, 9% from the private sector, and the remainder from international organizations. About one quarter of the speakers were under 40.

We deeply appreciate the support provided by the U.S. Department of State and the Mekong-U.S. Partnership for this Policy Dialogue. In particular, the team would like to thank Katie-Jo Younkins, Tracy Taylor, W. Lonnie Ding-Everson, and Holly Thomas at the U.S. Department of State Bureau of East Asian and Pacific Affairs. We also appreciate the substantial support from Marji Christian with the U.S. Embassy in Hanoi and Benjamin Jalowsky with the U.S. Consulate in Ho Chi Minh City. The Diplomatic Academy of Vietnam was the local co-host, and we would like to thank Tu Anh Tuan and Nguyen Dinh Thang for their support in the lead-up to the conference. Finally, we would like to thank Dr. Van Pham Dang Tri from Can Tho University for his networking support with experts across the Mekong Delta.

All of these and others contributed to an interactive and impactful Policy Dialogue. We would also like to thank our 108 presenters and attendees for engaging actively during the discussions. In addition to this Policy Dialogue event series, the Stimson Center and IUCN have been engaged on Mekong food-water-energy issues for over a decade and plan to build on the progress and insights gained from these events through ongoing programming

Sincerely,

Brian Eyler
The Stimson Center
Conference Co-Chair

Jake Brunner
IUCN
Conference Co-Chair

EXECUTIVE SUMMARY

The eighth Mekong-U.S. Partnership Track 1.5 Policy Dialogue took place on March 18-19 in Ho Chi Minh City, Vietnam to explore food system and food security needs across themes such as aquaculture, freshwater and marine fisheries, climate resilient agriculture, soil health, innovation, and supply chains.



Photo: Conference photo taken on March 18, 2024, in Ho Chi Minh City, Vietnam.

This eighth dialogue was a deep dive into needs and challenges in the Mekong sub-region related to food systems and food security, with a focus on aquaculture, fisheries, climate resilient agriculture, soil health, innovation for agriculture, and supply chains and resilience. Aspects of these topics were covered by previous Policy Dialogues, and this March 2024 Policy Dialogue built on previous explorations of fisheries through an environmental lens with discussions of implications for food systems and livelihoods. 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:

- Regional governments and international research organizations should produce authoritative assessments of climate impacts on food systems. Currently there is no up-to-date, publicly available, and authoritative assessment of climate risk for coastal areas and marine fisheries. Mekong governments should partner with research institutions to provide targeted assessments on climate risk. Scientists and relevant academic institutions should work across disciplines and perform joint research with local people to inform policymakers of potential interventions.
- De-intensify rice production to reduce fertilizer and pesticide use and improve soil and water quality. Intensive rice production uses a lot of fertilizer and pesticides, which causes soil degradation. Government authorities should encourage alternative farm systems in areas of resource scarcity. Farmers and local enterprises should explore less resource-intensive crops. International development partners, vocational training organizations, and the private sector should provide technical and financial support for farmers looking to adopt improved irrigation or other sustainable approaches.
- Center farmers and their needs in efforts to scale up regenerative agriculture. Without starting with farmers' needs as a baseline, it is difficult to scale up more sustainable approaches. Researchers should work with local authorities to survey needs and use these as a direct input for new policies and interventions. Development partners and investors should support demo projects and train-the-trainer programs to expand technical expertise among farming communities
- Authorities and communities should diversify food products at the local level to improve resilience to extreme weather events and supply chain disruptions. Researchers should map critical infrastructure for specific commodities important to the Mekong region to inform priority investments. National governments should strengthen infrastructure to ensure local resilience to disruptions. Agricultural companies, CSOs, and local farmers should invest in self-sustaining food-feed systems to improve resilience and build local integration.



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

<h2>DAY 1</h2> <p>March 18, 2024 from 8:30 AM - 5:00 PM ICT Ho Chi Minh City, Vietnam</p>		
8:30–10:00 am	<p>Opening Plenary</p> <p>Opening Remarks</p> <ul style="list-style-type: none"> • Jake BRUNNER, Stimson Center Conference Co-Chair • Susan BURNS, U.S. Consul General for Ho Chi Minh City, Vietnam • TO Viet Chau, Deputy Director General, Department for International Cooperation at the Ministry of Agriculture and Rural Development • NGUYEN Hung Son, Vice President of the Diplomatic Academy of Vietnam <p>Plenary Panel: Emerging Trends in Food Security and Food Systems</p> <ul style="list-style-type: none"> • Brian EYLER, Stimson Center Conference Co-Chair • Kees SWAANS, Senior Advisor on Climate Action, CIAT and CGIAR • NGUYEN Huu Thien, Independent Expert • Lyndal HUGO, Chief Impact Officer, Orlar 	
10:00 - 10:30 am	Coffee and Tea Break	
<p>CONCURRENT SESSIONS</p> <p>10:30 am–12:00 am</p>	<p>A1: Aquaculture and Protein Transition</p> <p>Moderator: Lyndal HUGO, Orlar</p> <p>Speakers:</p> <ul style="list-style-type: none"> • Duncan WILLIAMSON, Forum for the Future • Somony THAY, Department of Aquaculture Development, Fisheries Administration • David DUMARESQ, Australian National University 	<p>B1: Rice Intensification: Promises and Perils</p> <p>Moderator: SIM Sokcheng, Cambodia Development Resource Institute</p> <p>Debaters:</p> <ul style="list-style-type: none"> • NGUYEN Thanh Phong, IUCN • NGUYEN Dang Khoa, Cam Chau Agricultural Group • Jonaliza L. SIANGLIW, National Center for Genetic Engineering and Biotechnology • Christopher HOWE, WWF
12:00 - 1:30 pm	Lunch	

12:00 - 1:30 pm	Lunch	
<p>CONCURRENT SESSIONS</p> <p>1:30 - 3:00 pm</p>	<p>A2 Freshwater Capture Fisheries</p> <p>Moderator: Ms. Pinida Leelapanang KAMPHAENGTHONG, Mekong River Commission</p> <p>Panelists:</p> <ul style="list-style-type: none"> • HENG Kong, IFRDI • Sunita KWANGTA, KESAN Karen Women's Research Group • Khemaksone PHETPASAK, WWF 	<p>B2 Climate Resilient Agriculture</p> <p>Moderator: Alvin LOPEZ, Asian Development Bank</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Dr. Kanokwan CHODCHOEY, East West Seeds • LONG Hoang, Wageningen University • Prelia MOENANDAR, Corteva Agriculture • Dr. Bich TRAN, Tra Vinh University
3:00 - 3:30 pm	Coffee and Tea Break	
<p>CONCURRENT SESSIONS</p> <p>3:30 - 5:00 pm</p>	<p>A3 Sustainable Marine Fisheries</p> <p>Moderator: Nguyen Viet NGHIA, Research Institute for Marine Fisheries of Vietnam</p> <p>Panelists:</p> <ul style="list-style-type: none"> • LENG Phalla, Marine Conservation Cambodia • NGUYEN Thu Hue, Marine Conservation & Development • HTE Wint, IUCN Myanmar • Worawit WANCHANA, SEAFDEC 	<p>B3 Agricultural Chemicals and Soil Health</p> <p>Moderator: Douglas SNYDER, Keep Vietnam Clean</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Dr. Thieu THI PHUONG THU, Vietnam National University of Agriculture • Siya UTHAI, Chiang Mai University • Mike KUCERA, USDA Natural Resource Conservation Services (ret.) • Paranee ADULYAPICHET, Bayer
6:00 - 7:30 pm	Welcome Dinner	

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

DAY 2

March 19, 2024 from 8:45 AM - 5:00 PM ICT
Ho Chi Minh City, Vietnam

<p>CONCURRENT SESSIONS</p> <p>8:45am - 10:15 am</p>	<p>C1 Scaling Up Innovation</p> <p>Moderator: James YIN, V-Plus Agritech</p> <p>Panelists:</p> <ul style="list-style-type: none"> • NGUYEN Nhut, Research Institute of Agriculture 2 (RIA2) in HCMC • NGUYEN Minh Quang, Can Tho University & Mekong Environment Forum • Dr. Boonyanath (Nong) NATHWONG, Thailand Seed Trade Association 	<p>D1 Supply Chains and Connectivity</p> <p>Moderator: Vu Le Thai Hoang, Diplomatic Academy of Vietnam</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Jose Ma Luis MONTESCLAROS, S. Rajaratnam School of International Studies, Nanyang Technological University • HO Long Phi, Independent Expert • Daovy KONGMANILA, National University of Laos
<p>10:15-10:30 am</p>	<p>Coffee Break</p>	
<p>10:30 am - 12:00 pm</p>	<p>C2 New Technologies for Water and Crop Forecasting and Analysis</p> <p>Moderator: Brian EYLER, Stimson Center</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Regan KWAN, The Stimson Center • Susantha JAYASINGHE, Mekong SERVIR • Chenda LAI, Institute of Technology of Cambodia 	<p>D2 HADR and Food Security</p> <p>Moderator: Aprilia Nidia RINASTI, AIT</p> <p>Panelists:</p> <ul style="list-style-type: none"> • Mya Win, FREDA • BINH Nguyen Thanh, Can Tho University • Dr. Mohammed MAINUDDIN, CSIRO Australia (virtual)
<p>12:00 - 1:30 pm</p>	<p>Lunch</p>	
<p>1:30 - 4:30 pm</p>	<p>Synthesis Workshop & Survey</p>	
<p>4:30 - 5:00 pm</p>	<p>Closing Plenary Panel</p> <ul style="list-style-type: none"> • Tracy Taylor, U.S. Department of State, Bureau of East Asian and Pacific Affairs • Vu Le Thai Hoang, Diplomatic Academy of Vietnam 	

THEMATIC AREAS AND RECOMMENDATIONS

The key concerns and recommendations related to the thematic categories discussed in this report were the result of an interactive workshoping process conducted with Dialogue participants during a synthesis workshop on Day 2. Throughout the conference the organizing team took detailed notes on the specific concerns, challenges, and gaps that were identified during session presentations and discussions. Key problems were identified across five thematic categories covered during the conference sessions: fisheries, rice, supply chains, innovation, and regenerative agriculture and soil health.

Attendees ranked the top problems among these sub-sets through an interactive Mentimeter poll and then split into thematic breakout groups to collaboratively identify and draft policy recommendations and key actors involved in addressing each of the top three to five key issues identified in the poll. The breakout groups collectively drafted policy recommendations and solutions for nineteen individual issues and presented them to the group for a final voting process. The top three recommendations for each 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 Ho Chi Minh City, Vietnam on March 19, 2024.





FISHERIES

Fisheries have been a recurring topic across many Policy Dialogues because they are so significant to the Mekong sub-region's food security. Freshwater fishing is central to the history, culture, and food security of all Mekong countries. Much of the Mekong region's protein need has traditionally been met by wild capture fisheries: fish provides approximately 81% of protein in Cambodia and 48% in Laos. Looking to the marine environment, most of the two million fishers in Vietnam depend on inshore fishing, which has been increasingly under pressure due to government subsidies for boat building and international pressure to deter illegal fishing outside of Vietnam's EEZ.

Sessions at the fifth Policy Dialogue on Nature-based Solutions and the seventh Policy Dialogue on Transboundary Water Governance explored challenges and needs related to fisheries within the context of ecosystem-based fisheries management and community-based fisheries. This Policy Dialogue built on those previous discourses with three sessions on fisheries. The first focused specifically on aquaculture within the context of rising protein demand, with speakers presenting on rising demand for animal protein, challenges of industrial food and protein production, and the need for humans to review aquaculture practices to ensure sustainability and for support of biodiversity conservation. The second session focused on exploring the climate and human pressures on freshwater fisheries, data and governance gaps, and ways to establish and scale up successful community-level interventions. The third session focused on ways to restore and protect near-shore fisheries, with experts discussing approaches for sustainable transboundary fisheries management and sharing effective community interventions to improve fish stock in the Gulf of Thailand and the Gulf of Mottama in Myanmar.

Photo: Casting a net in Cambodia. Photo taken by Finn Thilsted and provided courtesy of WorldFish Flickr account.

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

1. Regional governments and international research organizations should produce authoritative assessments of climate risks to fisheries. Currently there is no up-to-date, publicly available, and authoritative assessment of climate risk for coastal areas and marine fisheries.
 - Mekong governments should partner with universities and research institutions to provide targeted assessments on climate risk for affected communities and ecosystems.
 - Government agencies in the Mekong and in ASEAN should prioritize cross-sectoral cooperation and coordination to respond to identified risks.
 - Scientists and relevant academic institutions should work across disciplines and perform joint research with local people to inform policymakers and communities of risks and potential interventions.
 - Key national ministries should work with international development partners and investors to implement results-based action to mitigate climate risk.

2. Mekong region governments should collaborate to protect freshwater fish habitats from destruction and pollution. Currently, the destruction of key habitats like wetlands and mangrove forests threatens breeding grounds and the ecological balance of fish in river basins in all Mekong countries. Pollution—including agricultural runoff, industrial discharge, and untreated sewage—is also a significant threat to water quality and the health of fish populations.
 - The MRC Secretariat and NMCs, particularly in Laos and Cambodia, should integrate data on fisheries into existing information-sharing platforms and support the identification of minimum flow to ensure fisheries health.
 - Mekong governments should maintain minimum flows on transboundary rivers.
 - Line agencies responsible for urban development, mining, wastewater management, and agriculture should limit pollution and other impacts on water quality and thus key fish habitats.
 - Governments should partner with international investors and international development partners to support habitat restoration.
 - Local authorities should enforce pollution and overfishing rules and policies.
 - NGOs and academic institutions should build buy-in among farmers and private sector actors and build consumer demand for pollution control efforts.
 - Providing incentives to promote Good Agricultural Practices (GAP) and other national and international food quality standards.

3. Fisheries management agencies in the Mekong countries should prioritize reversing the decline of fish stocks. Wild freshwater fish stock is on the decline, and the fish cannot be locally and sustainably replaced by alternative protein sources.
 - Fisheries agencies and other local authorities should invest in efforts to restock and support stock enhancement of indigenous species.
 - The MRC and development partners should dedicate annual funding to standardize monitoring of daily fish catch, fish larvae, fishers' income, and economic valuation of freshwater fisheries across the Mekong countries.
 - Academic institutions should work with local authorities and communities to build capacity to collect scientific quality data and buy-in for how to use the data.
 - Power generation authorities in all Mekong countries should require dam developers to implement natural fish passages for up and downstream movement for migratory fish, referencing designs for existing dams such as Xayaburi and Don Sahong.
 - Dam developers should consider alternative dam and fish pathway designs which allow for some natural flow, such as avoiding reservoir dams.



RICE CULTIVATION

Starting in Thailand in the 1980s, Vietnam in the 1990s, and Cambodia in the 2010s, the Lower Mekong countries have invested heavily in rice intensification to secure domestic supplies and increase exports. Thailand and Vietnam are now the world's first and second largest rice exporters. But the costs of rice intensification, particularly under a changing climate and reduced freshwater, are rising. Starting in 2017, Vietnam officially shifted policies to prioritize de-intensifying rice production in the Mekong Delta as laid out in Resolution 120, which seeks to reduce over-engineering of the Delta and provides support for alternative sources of income for farmers.

Three sessions focused on rice and sustainable agriculture at this Policy Dialogue. The first session on rice intensification explored overproduction of rice, with speakers sharing insights into challenges related to resource-intensive third rice crop in the Mekong Delta in Vietnam, soil salinity in Thailand and issues of monocropping, and alternative income options for local farmers. The two other sessions explored broader issues of climate resilience and soil health, but relevant takeaways related to rice included that crop rotation and diversification can improve overall farmer outcome, that some bio-stimulants and non-fertilizer components can improve sustainability of rice farming, and that sharing success stories from other farmers rather than outside interventions from scientists is key for building buy-in.

Photo: Two Farmers Planting Rice in Paddy Field. Photo courtesy of Ho Truong via Pexels.

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

1. Farmers and agriculture companies should intensify rice production in ways which reduce fertilizer and pesticide use to improve soil and water quality. Currently, intensive rice production uses an excess of fertilizer and pesticides, which causes soil and water degradation.
 - Governments should explicitly support and permit alternative farm systems in areas of resource scarcity and soil degradation, including allowing dry season crop rotation and adjusting export policy targets to support alternative crops.
 - NGOs, CSOs, and private sector networks should expand market links for organic farming and generate consumer demand for products.
 - Local authorities in the Mekong Delta should support adoption of alternative crops through providing policy guidance for farmers.
 - Farmers, local farmer collectives, and local enterprises should explore alternative crops like floating rice which save time and resources.
 - Development partners, INGOs such as Oxfam, vocational training organizations, and the private sector should provide technical and financial support for farmers looking to shift to more sustainable approaches such as improved irrigation and crop diversification.
 - Governments and development partners should invest in technical systems for early warning systems and improve management responses for disaster response.
 - Small-holder debt is an immediate issue which can disincentivize farmers' attention to longer-term challenges, so interventions from ministries of agriculture and environment should coordinate short and long-term benefits and provide support for adoption.

2. Establish market links that incentivize farmers to adopt more sustainable agricultural practices. It is often difficult to convince farmers to change approaches and make significant upfront investments in more sustainable agriculture solutions given uncertainty over market interest and immediate benefits. National laws should require information disclosure on sand mining and monitoring.
 - Governments and local authorities should establish clear policy directives for clean (zero pesticide) rice, such as the one-million-hectare target in the Mekong Delta.
 - Private sector and government education efforts should seek to build consumer demand and willingness to pay for clean or organic rice.
 - Agriscience companies and scientists should specifically breed rice and crop varieties to meet consumer demand for clean rice.
 - Ministries responsible for planning and investment, agriculture, and rural development should adopt a risk-based regulatory framework to reduce farmer risk and support rapid adoption of new technologies and approaches.
 - Community organizations and the private sector should collaboratively build capacity among smallholder farmers to use digital technologies to access forecasting, data-sharing, and targeted advisories which support climate smart agriculture.



REGENERATIVE AGRICULTURE AND SOIL HEALTH

Soil health is key to food quality and production, and optimization of the physical, chemical, and biological properties of soil can both reduce the need for chemical inputs such as fertilizer and pesticide as well as reduce offsite environmental impacts. Approaches such as using a diverse cropping system, maintaining canopy cover, and careful use of the four R's—right source, right rate, right time, and right place—in application of fertilizers can lead to a range of benefits including improved resilience, better crop yield and nutrition, and improved water management. As the impacts of climate change are increasingly felt across the Mekong region through rising temperatures, reduced rainfall, and extreme events, many localities will see reduced productivity and nutritional value. Regenerative agriculture and climate-smart approaches provide opportunities to address some of these challenges, but currently are not widely used across the region.

The Policy Dialogue included two sessions focused specifically on climate-smart agriculture and soil health. The first focused on how small-scale farmers can build resilience to climate change and included examples of successful interventions related to crop diversification, improved information access and use by farmers, and science-based solutions like genetically modified crops for improved resilience. The second session explored ways that regenerative agricultural practices can be adopted and scaled up, exploring gaps in the adoption of organic farming techniques, ways to improve knowledge-sharing and networking among farmers, and financial and market incentives for changes in behavior.

Photo: Smallholder Development Project in Lao PDR. Photo courtesy of ADB Flickr account and used under a creative commons license.

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

1. National and local authorities must place farmers and their needs at the center of efforts to scale up regenerative agriculture. Without starting from farmers' needs and understanding their starting interest and capacity, it is difficult to incentivize widespread adoption and commitment to change..
 - Researchers and social organizations should work with local authorities to survey farmer needs, and local authorities should use surveys as a direct input for new policies and interventions.
 - Research institutions, international development partners, and investors should support demo projects and train-the-trainer programs to expand technical expertise among farming communities.
 - Local authorities and the private sector should incentivize champion farmers to provide demos on soil health practices, water management, and other sustainable approaches.
 - Local authorities, NGOs, and champion farmers should work with communications experts to disseminate lessons-learned and relevant information to farmers in local language and through accessible mediums like Line, Zalo, and WhatsApp.
 - Local authorities should provide policy support and initial investment for waste segregation for compost, train people on how to collect and manage compost, and promote organic fertilizer to support local market creation.

2. Support the transition from conventional agriculture to farmer during regenerative agriculture. Moving to higher value crops, circular systems, or organic farming usually requires a multi-year transition period that may translate into a temporary loss of income for farmers. Technical and income concerns push many farmers to revert to familiar practices and abandon alternative approaches altogether.
 - Civil society and community groups should support knowledge-sharing groups to help farmers with adoption of new approaches.
 - Financial institutions and government authorities should provide transition financing support for smallholder farmers.
 - Technical experts from the government and private sector should provide training for local authorities and smallholder farmers, particularly multi-step initiatives to ease the transition and allow for slow building of expertise and familiarity.
 - International development partners and private sector experts should provide technical follow up and support for farmers as they move through the transition process.
 - Local farmer associations and agricultural extension staff should develop farmer support groups.

3. Development partners and NGOs should build government capacity to implement regenerative agriculture More Despite supportive policies, regional governments have taken limited steps to implement regenerative agriculture approaches.
 - International NGOs, development partners, and multinational food and agriscience companies should provide policy recommendations and funding to improve technical capacity among local government agencies.
 - The Food and Agriculture Organization (FAO) should announce global action on regenerative agriculture.
 - Universities, research institutions, and CSOs should host training workshops for government employees on regenerative agriculture techniques and connect them to current policies to support implementation.
 - Public and private partnerships and local farmer cooperatives should establish clear implementation and action plans related to regenerative agriculture.



SUPPLY CHAINS

Major disruptions ranging from the COVID pandemic to the Ukraine war have drawn attention to challenges associated with global supply chains and food security. Increases in food prices in Thailand, Indonesia, the Philippines, and other Asian countries has been a driving factor in inflation rates in recent years, posing a particular risk to food affordability and accessibility for low-income families and economies which rely on imports. At the same time, Southeast Asia also suffers high rates of food loss in the local supply chain, with 17% of total food available lost or wasted, often due to mishandling and storage mistakes. In September 2023, the ASEAN leaders issued a joint statement which included a focus on sustaining food supply through improved supply chain logistics and trade. Short-term disruptions from major events such as major droughts or damaging typhoons can also cause immediate crises for vulnerable populations. Within this context, planning and the capacity to respond to local and supply chain disruptions and coordinated action across sectors is vital.

Two sessions focused on supply chain issues, although the topic of dependence on global supplies also came up frequently in session A1 on Aquaculture and Protein. The first session included presentations on COVID's impacts on local farmers and their reactions and ways that digital technology and communications can support systemic improvements to supply chains and livelihoods. The second session focused on disaster impacts on food security, opportunities to shift away from high-input and supply chain vulnerable approaches, and multi-crop approaches to improve local resilience to shocks.

Photo: A busier section of the Mani Sithu market in Nyaung U, Myanmar. Photo courtesy of Flickr user Claire Backhouse and used under a Creative Commons license.

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

1. Authorities and communities should diversify food products and infrastructure at the local level to improve resilience to extreme weather events and supply chain disruptions. Singular extreme events such as typhoons can rapidly deteriorate food security and accessibility in specific areas, and longer-term disruptions like the COVID pandemic or repeating storms lead to cumulative impacts to broader groups of people.
 - Think tank and university researchers should map critical infrastructure for specific commodities important to the Mekong and ASEAN region to inform priority investments.
 - National governments should strengthen key infrastructure to ensure local resilience to disruptions—including locally available renewable energy and food storage.
 - Agricultural companies, CSOs, and local farmers should invest in self-sustaining food-feed systems to improve resilience and build local integration.
 - National authorities and the private sector should invest in transportation diversification, specifically cold storage.
 - Agricultural companies and local farming communities should support crop diversification to build resilience to individual shocks.

2. Provide long-term sustainable, easy to use, and accessible communication platforms for data applications connecting farmers to the market. Information and communication technologies and intellectual property are often difficult for farmers to take advantage of given cost and access issues. Many are adapted from larger services rather than designed specifically for smallholder farmers.
 - Private sector and government designers for advisory services should only include necessary features to make things easier for farmers to learn, use, and maintain them.
 - National governments should develop ASEAN harmonized standards for data applications to ease market integration and access.
 - Government, technical experts, and local communities should invest in pilot projects for suitably financing such platforms, and the private sector should scale up those which are competitive.



INNOVATION

Half of all habitable land globally is now used for agriculture, and the agriculture sector accounts for nearly seventy percent of all freshwater use. Such rates are unsustainable. Adaptation and innovation will be key to ensuring sustainability of future agricultural production as the impacts of climate change are increasingly visible alongside growing pressures from resource competition, growing population, and demand. Increasing availability of innovative technologies such as remote sensing and mobile applications is reshaping how crop yields and water availability are forecasted and analyzed and could intersect with and support broader innovation. Currently much of this technology is developed and rapidly deployed in the West, creating an equity gap in the Mekong and broader global south and thus creates a need to explore how to scale up innovative approaches and new technologies in developing countries.

Innovation was interwoven across numerous discussions at the Policy Dialogue, but two sessions focused specifically on innovation to ensure a sustainable and resilient future food system. The first session focused on specific technologies and approaches, including localized circular crop and aquaculture models as well as seed breeding and gene editing to diversify crops. The second session explored innovative approaches and emerging opportunities in the digital technology and remote sensing sector, with specific case studies on existing models which support rice yield forecasting, river levels and climate analysis, and monitoring of crop growth.

Photo: Wetlands education programming in Vietnam. Photo courtesy of [Orlar](#).

PRIORITY ISSUES AND POLICY RECOMMENDATIONS:

1. The government should track and identify climate smart holistic solutions and work with smallholder farmers to scale them up. Currently, uptake of climate smart agriculture is slow as farmers lack technical support and uncertainty about market value of alternative products.
 - The government should work with start-ups through public-private partnerships to support pilot projects of existing initiatives and coordinate on data collection to identify the most promising technologies for specific localities.
 - Private enterprises should support clear certification of sustainably produced products to support market creation and justify price differentials.
 - Insurance companies should improve crop insurance programs to explicitly include and support climate smart solutions.

2. Researchers and international organizations should familiarize remote sensing inputs and techniques used in forecasting and DRR with local Mekong stakeholders and localize the outputs. Remote sensing uses for forecasting and disaster risk reduction are novel in the Mekong region, and the nature of such information means it is technically complicated and can also be politically sensitive. For non-technical users, the information must be turned from data to actionable information.
 - Research and academic institutions should actively work to translate or interpret highly technical or complicated data to local language and actionable information accessible to local stakeholders.
 - Scientists and international development partners should train local community leaders, NGOs, and civil society networks on how to interpret and access remote sensing information.
 - Local government authorities should support technical and communications skills building among employees working in sectors which will increasingly rely on remote sensing data.

3. Chambers of commerce, international development partners, and NGOs should encourage buy-in by promoting benefits and providing clear steps for certification to farmers. As global markets value sustainability and quality products, there needs to be a clear process and a system of regulation to certify the quality of products to create financial incentive.
 - Successful businesses—both from global corporations and local champions—should demonstrate the financial value of certification and sustainable approaches at all levels to build buy-in.
 - Local government regulators should establish protocols for sustainable production certification and enforcement



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 dialogues to expand on the in-person workshops. This eighth Policy Dialogue included a follow-on engagement to share key takeaways from the Policy Dialogue with students, young professionals, and other stakeholders in Can Tho, Vietnam. This was held as an in-person meeting with the Mekong Environment Forum and staffers from Can Tho University on March 23, with in-person attendance from seventeen students and local community members. Participants from the Dialogue provided an overview of the Mekong-US Partnership and how the United States is constructively engaging in food security issues throughout the Mekong Region. Panelists also gave overview to key food security challenges and solutions discussed at the Dialogue and linked key issues experienced in the Mekong Delta to other parts of the Mekong and the United States. Participants engaged in a discussion of key food security, water, and environmental issues facing the region, and then took part in an interactive exercise to develop multi-media presentations on how they value the Mekong Delta and are committed to the development of sustainable solutions.

Image: Mekong Environment Forum participants brainstorming content for presentations on the Mekong Delta's importance in Can Tho, Vietnam, on March 20, 2024. Photo courtesy of Brian Eyer.

FEEDBACK

Nearly half of the 108 attendees shared feedback in a survey following the dialogue, and most attendees indicated that the dialogue was an extremely positive and productive experience.

Key takeaways from the anonymous evaluation surveys are:

- 100% of attendees indicated that they learned some or a lot of new information through participating in the Dialogue, with 70% indicating they learned a lot of or all 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 Dialogue to a colleague.
- 92% felt that they developed insight into a relevant policy, human resources, or sustainability challenge facing the region.
- 98% said that the Dialogue helped them identify a local Mekong stakeholder(s) with whom they shared common interest, and 85% said the same for identifying US-based and international development partner stakeholders.

Many survey respondents shared appreciation for the multi-sectoral and comprehensive picture of the challenges faced by the region, the diversity of viewpoints and approaches to pursue shared goals, and the opportunity for in-depth engagement with new and diverse actors compared to other conferences. Many participants particularly valued the focus on digital and technology innovation and the interactive and the interactive and solution-oriented format. Over a quarter of the respondents said their favorite session was B2 Climate Resilient Agriculture, with respondents emphasizing the diverse views, comprehensive presentations, and interaction between panelists.

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, just under a third of respondents felt more government officials should have attended. Four people specifically flagged the need for intergovernmental organizations like the FAO and U.N. bodies to participate. Four other respondents suggested including farmers or farmer cooperative groups. Recommendations for improving future conferences included more targeted time for working group discussions throughout the Policy Dialogue, including field visits for firsthand experience of the case studies under discussion, and pushing for more active guidance of individual sessions.

NEXT STEPS

This was the eighth Mekong-U.S. Partnership Track 1.5 Policy Dialogues planned in this multi-year series of workshops. 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 suggest joint-pathways to meeting policy needs. The 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 and analysis related to the food-water-energy nexus, sustainable fisheries and agriculture, and innovative uses of data to support regional development.



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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.