

MEGHNA KNOWLEDGE FORUM (MKF II)

Key Messages and Way Forward

Building Community and Ecosystem Resilience to Climate Change

23–25 July 2025

Asian Institute of Technology, Bangkok, Thailand



Co-Conveners



Partners



Supported by



1. Introduction

The second Meghna Knowledge Forum (MKF II), on the theme of *Building Community and Ecosystem Resilience to Climate Change*, was jointly convened by the International Union for Conservation of Nature (IUCN), Asian Institute of Technology (AIT) and South Asian University (SAU) in Bangkok from 23 to 25 July 2025.

Objectives

- Understand climate change risks in the basin and identify the need for additional research
- Explore opportunities to apply NbS for climate resilience and the achievement of Sustainable Development Goals (SDGs)
- Strengthen inclusive management of the basin and amplify the voices of youth, women, and indigenous communities in decision-making processes.

Building on the inaugural MKF held in 2021, MKF II deepened multi-stakeholder dialogue on climate resilience, Nature-based Solutions (NbS), inclusive water governance, and biodiversity conservation in the Barak-Meghna River basin — shared by India and Bangladesh and home to over 50 million people including a significant presence of indigenous communities.

The forum was attended by more than over 130 participants from over 80 institutions across government, academia, civil society, the private sector, as well as youth networks. High-level participation from Bangladesh and India, as well as from the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) and United Nations Economic Commission for Europe (UNECE) Secretariats, highlighted the strategic importance of the forum.

MKF II was structured across three days and 13 sessions. Day 1 opened with a high-level Inaugural Session and the launch of the MKF II Exhibition, followed by two Youth Forums. Days 2 and 3 featured three Thematic Plenaries and six Parallel Side Events, before concluding with the Key Messages Synthesis and Valedictory Session.

Sixteen organisations, including the Youth for Meghna (Y4M) network, supported the forum as knowledge partners and led the design and facilitation of technical sessions. Youth forums, side events and an interactive exhibition, generating a common understanding of challenges and actionable suggestions for the climate resilient development of the Barak-Meghna basin.

Participants explored the vibrant exhibition, which showcased posters, brochures and products from seven partners as well as wetland spotlights organised by members of the Y4M network.

Forum at a Glance

130+

Participants from 80+ institutions



16

Knowledge Partners



10+

Sessions across 3 days



30+

Youth leaders from India and Bangladesh



2

Countries: India and Bangladesh



3

Co-conveners:
IUCN, AIT, SAU

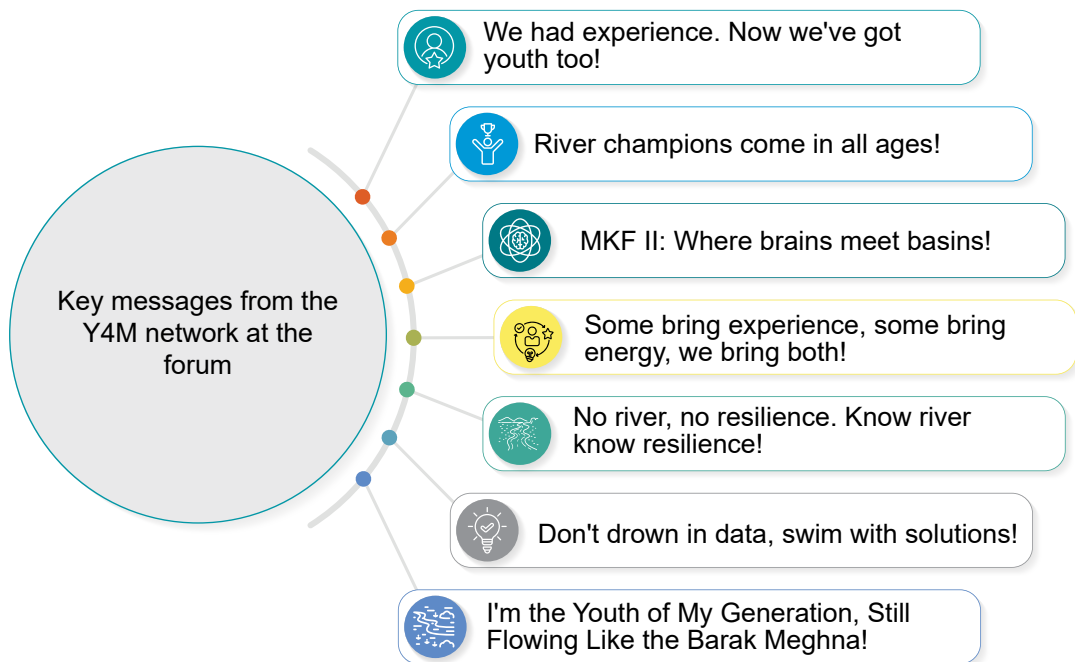




Photo: Y4M Members with the Ambassador of Bangladesh to Thailand showing placard with messages for MKF II © IUCN



Photo: MKF II Exhibit Area - Participants exploring local products from Assam © IUCN

Click [here](#) for detailed agenda of MKF II with information of speakers and sessions.

Click to watch [Meghna Knowledge Forum II highlight video](#)

Knowledge Partners: Asian Confluence, India; Associated Chambers of Commerce and Industry of India (ASSOCHAM), India; Balipara Foundation, India; Bangladesh Youth Environmental Initiative (BYEI), Bangladesh; Bangladesh University of Engineering and Technology (BUET), Bangladesh; Centre for Environmental and Geographic Information Services (CEGIS), Bangladesh; Centre for Natural Resource Studies (CNRS), Bangladesh; CUTS International, India; Down To Earth, India; mekATeam, Bangladesh; North-East Affected Area Development Society (NEADS), India; North-Eastern Hill University (NEHU), India; Oxfam Bangladesh; Stockholm Environment Institute (SEI), Thailand; The Business Standard, Bangladesh; The Green Trial Law Group, India; Youth for Meghna (Y4M) Network.

The forum was supported by the Swiss Agency for Development and Cooperation (SDC) and Swedish International Development Cooperation Agency (SIDA) through the BRIDGE and TROSA Phase 2 programmes.

Citation: IUCN (2025) Key Messages and Way Forward: Meghna Knowledge Forum II — Building Community and Ecosystem Resilience to Climate Change. Bangkok: IUCN Asia Regional Office.

2. Inaugural Session

The inaugural session set the tone for MKF II with a provocation from Dr Niladri Gupta, Regional Water Coordinator, IUCN Asia, to all participants: How far are you willing to go to save the River? This was followed by six welcome addresses and four high-level messages, which framed the forum's agenda around climate resilience and regional cooperation.

Welcome Addresses

Dr Dindo Campilan, Regional Director for Asia and Hub Director for Oceania, IUCN, highlighted MKF II as a strategic forum that is aligned with IUCN's mandate to translate knowledge into action and representative of IUCN's convening power. He noted that today's climate and water-related challenges demand inclusive approach among the different stakeholders and, as the world's largest, oldest and most trusted environment network, IUCN has a unique role in bringing together stakeholders, including the government, civil society, academia, youth, and the private sector, in evidence-based dialogue.

Dr Pai-Chi Li, President, AIT, affirmed the institute's commitment as a regional hub for transformative knowledge and innovation, noting the close alignment between AIT's sustainability agenda and the objectives of MKF II. Dr Indrajit Pal, Associate Professor, AIT, welcomed participants and highlighted AIT's role as a regional hub for multistakeholder dialogue, particularly in bridging academia with youth and community voices.

Dr Medha Bisht, Associate Professor, SAU, noted that South Asia has a story to tell about water, communities, and governance, and the need to develop short-term courses on water governance for regional audiences. She highlighted SAU's mission to build regional consciousness, foster research-practice links, and establish a capacity-building network for young and established scholars at the intersection of governance and conservation. Mr John Samuel, Asia Regional Director, Oxfam International, stressed and highlighted that Oxfam's long-standing work in coastal regions of Bangladesh and India informed its commitment to inclusive water governance.

Inaugural Addresses

Ms Syeda Rizwana Hasan, Advisor, Bangladesh Ministry of Environment, Forest and Climate Change, delivered a live video message stressing the recognition of river rights as inseparable from community rights. She highlighted Bangladesh's position as the first South Asian country to accede to the UN Water Convention and called for an eco-centric approach to basin management. She identified illegal sand mining and flash floods as the primary threats to the haor ecosystem on the Haor region of Bangladesh and called for improved early warning systems.

Dr Anil Gupta, Head of Climate Center on DRR, Indian Institute of Technology Roorkee, drew on over 30 years of Disaster Risk Reduction (DRR) experience to call for elevating indigenous knowledge and Eco-DRR into formal techno-legal frameworks. He advocated for viewing water as a system rather than a standalone resource, proposed transboundary climate risks as a starting point for broader cooperation, and the role of MKF II in developing a shared resilience-building mechanism. He stressed that NbS and ecosystem-based approaches are pro-development.

H.E. Faiyaz Murshid Kazi, Ambassador of People's Republic of Bangladesh to the Kingdom of Thailand, emphasised that communities must remain central to all discussions and solutions. He commended the Mekong River Commission as a replicable model of cooperative water governance and called on MKF II to produce policy integration messages capable of influencing government strategies and multilateral dialogues. He noted Bangladesh's focus on water diplomacy and the importance of preserving traditional knowledge systems.

H.E. Indra Mani Pandey, Secretary General, BIMSTEC, affirmed its role as a unique regional platform, highlighting the landmark Sixth Summit held in Bangkok in 2025 and agreements on maritime connectivity, climate resilience, biodiversity, and transboundary water management. He noted BIMSTEC's weather centre for early warning systems and ongoing work by climate resilience experts on agricultural resilience plans, expressing confidence that MKF II would generate knowledge vital for water resource management in the basin.

Key Points

- Rivers are living systems; community rights and river rights are inseparable — New Zealand's Whanganui River being granted legal rights set the precedent.
- NbS and Eco-DRR should be mainstreamed into national and transboundary policy frameworks, supported by indigenous knowledge and joint scientific studies.
- Bangladesh's accession to the UN Water Convention marks a milestone for cooperative governance; India's engagement and a joint Barak-Meghna mechanism should follow
- BIMSTEC offers a strategic platform for regional early warning, climate resilience, and biodiversity cooperation in the Ganges-Brahmaputra-Meghna (GBM) region.
- SAU's planned short-term water governance courses and potential Meghna Research Network anchor role signal strengthened academic infrastructure for the basin.



3. Youth Forums I & II — Meet the Youth for Meghna: Voices and Actions

The Youth Forums were facilitated by the Members of the Y4M network and engaged stakeholders in intergenerational dialogue on the future of Barak-Meghna Basin.

The Youth Forum part one introduced the Meghna Water Futures Programme and showcased the results of youth-led field research. The Session was chaired by Mr Ranjan Panda, Convenor, Water 4 Youth Campaign, India, and moderated by Mr Syed Muntasir Ridwan, Coordinator, Bangladesh Youth Environmental Initiative. Y4M members shared results from the field surveys in Bangladesh and India, including examples of declining fish species and biodiversity loss in Assam's Rupaibali anua wetlands, gender disparities in fisherfolk card distribution and livelihood access at Tanguar Haor and the potential of participatory rural appraisal to fill primary and secondary data gaps. Ms Karishma Ahmed, Balipara Foundation, and Mr Ranjan Panda, highlighted the importance of leveraging local heroes and cultural connection to rivers in building cross-border collaborations. Mr Amancio Melad, International Water Association, Philippines, emphasised on the role youth networks and China's sponge city concept as a transferable model for urban water resilience. Mr Sheikh Rokonzaman, Riverine People highlighted that Bangladesh's Delta Plan 2100 contains no provisions on transboundary river governance — a critical advocacy gap for Y4M to address.

Youth Forum II provided space for intergenerational exchange through roleplay, icebreaker activities, and mentoring. Youth Forums demonstrated that youth are active knowledge producers and advocate for sustainable river governance.

Key Points

- Y4M's 3D framework — Data generation, Dissemination, and Diplomacy — provides a replicable model for inclusive, youth-led communication and advocacy on shared water governance that should be institutionalised and upscaled across GBM.
- Community-generated data — through citizen science, GIS mapping, and memory mapping — must be formally recognised and supported so that what local people observe on the ground can feed into government planning and decision-making.
- Gender equity in fisheries resource access — particularly fisherfolk card distribution in haor communities — must be addressed as a specific policy reform target in Bangladesh's water governance frameworks.
- Wetland restoration, livelihood development, flood insurance, and pollution abatement emerged as the four unanimous basin management priorities across all participant groups in Forum II.

YOUTH FORUM



4. Thematic Plenary I — Strengthening Community Livelihoods Resilience

This session examined climate risks in the Meghna basin with a focus on the haor ecosystem of Bangladesh and the Barak valley of Assam. Dr Niladri Gupta presented the key findings from the IUCN Barak-Meghna climate change analysis. The analysis indicates that more than 50% of the basin faces increasing heat scenarios negatively affecting crop yields. The permanent wetlands are shrinking while seasonal ones are expanding, reducing fishing areas. The Cachar and Sribhum, India, and Sunamganj and Kishoreganj, Bangladesh, are the most climate impacted zones within the basin.

Mr Tapas Ranjan Chakraborty, Senior Programme Manager, BRAC, documented the richness and fragility of haor biodiversity, which includes more than 400 recorded beels – lake-like, shallow wetlands found in the Ganges-Brahmaputra floodplains. He noted that policies focus on conservation but fail to document or integrate indigenous knowledge. He highlighted the conservation value of taboos and religious beliefs, 15% of haor place names are etymologically linked to biodiversity, reflecting the deep ecological consciousness encoded in local language and memory. Similarly, Great Snakehead fish (*Channa marulius*) is considered holy due to its association with Hazrat Shahjalal, and the Ganges River Dolphin is revered as the carrier of Goddess Ganga.

Dr Avishek Datta, Professor, AIT, presented Alternate Wetting and Drying (AWD) as a climate-smart rice cultivation technique reducing water use by up to 40% while minimising methane emissions. Mr Rahul Bist, Founder Partner, M2i Consulting, addressed the financing gap for climate resilience, arguing that microfinance, insurance products calibrated to flood triggers, and diversified livelihoods are important tools in building climate resilience.

Key Points

- Flash floods and early monsoon inundation threaten boro rice, which is a winter-season crop, production in Haor region. Upgraded early warning and forecasting systems which incorporate community-level and upstream data are needed.
- Traditional haor governance systems (Mana, taboos, sacred habitats) offer cost-effective biodiversity conservation models that should be documented and integrated into basin and local adaptation frameworks.
- AWD is a climate-smart agriculture in the basin however, scaling requires agricultural extension and financing support.
- Climate-tailored financial products, such as trigger-based insurance, microfinance for NbS linked agroforestry and ecosystem protection, need to be co-designed with communities and with financial agents trained in production-based risk.
- BIMSTEC's Environmental and Climate Change programme should be engaged for joint data sharing, early warning, and capacity building across basin states.



5. Thematic Plenary II — Ecosystem and Biodiversity Protection for Addressing Societal Challenges

The session explored the status of freshwater biodiversity in the Barak-Meghna basin and the role of NbS in addressing societal challenges. Mr Vishwa Ranjan Sinha, Senior Programme Officer, Water and Wetlands, IUCN Asia, traced the evolution of NbS from ecosystem-based DRR and introduced the IUCN Global Standard for NbS — which includes 8 criteria and 28 indicators. IUCN is applying the standard as a guiding framework in Cachar and Sribhumi in India and Sunamganj in Bangladesh to support the development of a district level NbS strategy that enhances climate resilience and livelihoods.

Dr Khalid Pasha, Regional Coordinator, Protected, Conserved and Heritage Areas, IUCN Asia, highlighted the scale of global biodiversity decline which has seen a loss of 73% over 50 years.

The 30x30 Global Biodiversity Framework target, which aims to conserve 30% of land, waters and ocean by 2030 through community stewardship, Other Effective Area-based Conservation Measures (OECMs), among other critical tools for biodiversity and ecosystem protection.

Dr Syed Ainul Hussain, Scientist, Wildlife Institute of India, highlighted the biodiversity threats from climate change and sand mining and suggested institutionalised coordination on dolphin conservation and joint river management in the Barak-Meghna basin. Mr Arif M. Faisal, Programme Specialist, UNDP Bangladesh, described the global ecological significance of Tanguar Haor and Hakaluki Haor, while highlighting weak enforcement and unregulated tourism as major threats.

Mr Remy Kinna, Legal Affairs Officer, UNECE, introduced the 1992 and 1997 UN Water Conventions as underutilised legal instruments for the protection of shared rivers and ecosystem, citing the Rhine River's four-decade restoration as a success model. Bangladesh's recent accession to the 1992 Convention was cited as a key entry point for advancing a cooperative legal framework for the Barak-Meghna.

Key Points

- The IUCN Global Standard for NbS provides a robust, adaptable framework for mainstreaming NbS in basin and district-level policies.
- Biodiversity is an entry point for cooperation, and charismatic species like dolphins or joint fisheries management in Barak-Meghna can be prioritised through development of the Indo-Bangladesh protocols for river biodiversity monitoring for dolphin and fisheries conservation.
- Tanguar Haor and Hakaluki Haor should be prioritised for increased investment and stronger enforcement of their Ramsar and national protection status.
- Sand mining regulation requires joint government action, and cooperation among actors working at different levels.
- UN Water Conventions (1992, 1997) offer an actionable framework for transboundary cooperation, the Rhine Basin restoration model holds transferable lessons



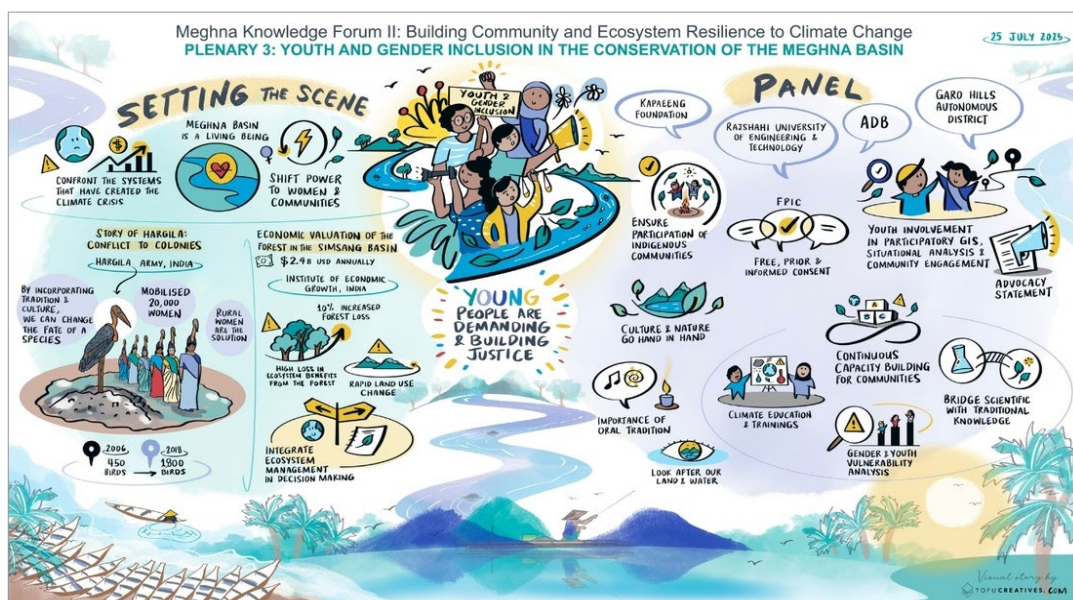
6. Thematic Plenary III — Youth and Gender Inclusion in Conservation of the Meghna Basin

The session discussed the role of women, youth, and indigenous communities in conservation of the basin. Dr Purnima Devi Burman, Founder of the Hargila Army, which is a 20,000 strong women's movement in Assam, shared how the number of Greater Adjutant Stork (*Leptoptilos dubius*) has increased from under 450 individuals (2007) to around 1,800 today. The case study offered a powerful demonstration of how conservation rooted in culture, science, and livelihood incentives can achieve transformative outcomes. As a part of this initiative, Youth trained in GPS tracking have rescued over 500 bird chicks.

Dr Saudamini Das, Professor, Institute of Economic Growth, presented an economic valuation of the Simsang River Basin forest ecosystem services, conducted as part of the BRIDGE programme. The study valued the forest at USD 2.8 billion and found that a 1% GDP increase under current development trajectories links to a loss of 320 hectares of forest. Mr Rangku Sangma, Joint Secretary, Garo Hills Autonomous District Council, highlighted the Garo tribe's conservation ethics which is rooted in reverence for nature. Mr Sohel Rana, Associate Water Resources Officer, ADB Bangladesh, outlined the need to train local youth in GIS and remote sensing for flood mapping.

Key Points

- The experience of Hargila Army model demonstrates that women-led, culturally embedded conservation can deliver measurable biodiversity recovery at scale.
- Economic valuation of ecosystem services should be institutionalised as a standard input into government planning and budgetary processes.
- Local youth and women must be equipped with scientific tools that are integrated with indigenous knowledge for effective resource monitoring.
- Policies must formally recognise the governance roles of women and indigenous communities in forest and water conservation.



7. Parallel Side Events (PSE)

PSE 1 — Role of Private Sector and Markets in Building Community Resilience

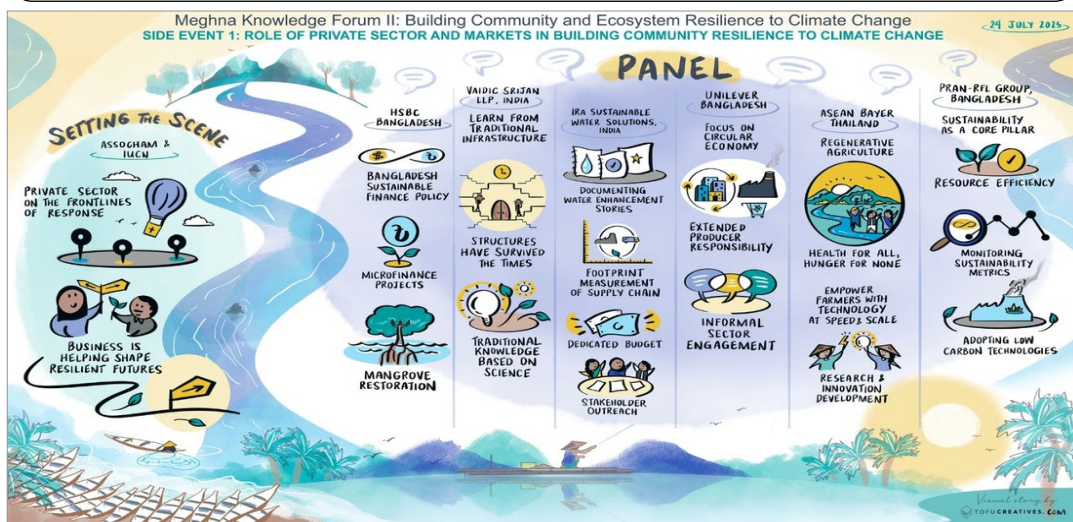
Facilitated by ASSOCHAM and chaired by Ms Bipasha S Hossain, Country Representative, IUCN Bangladesh, this session convened private sector actors from HSBC Bangladesh, Unilever Bangladesh, Bayer ASEAN, PRAN-RFL Group, Ira Sustainable Water Solutions and Vaidic Srijan LLP.

Ms Syeda Afzalun Nessa, Head of Sustainability at HSBC, highlighted the bank's approach of blending climate finance with gender inclusion, supporting microfinance institutions and environmentally conditioned lending. Ms Shamima Akhter, Director - Corporate Affairs at Unilever Bangladesh presented a circular economy model in waste management with UNDP and city corporations in Chattogram, which empowered over 3,000 informal waste workers with insurance coverage. Similarly, Ms Paranee Adulyapichet, Head of Public Affairs and Sustainability ASEAN at Bayer, Thailand, highlighted Bayer's investment of 10% of its turnover in research and development (R&D) for climate-resilient biotech crops and 'Rice Carbon' schemes, which create new income opportunities for farmers. Ms Sumaiya Tabassum Ahmed, Head of Sustainability, PRAN-RFL Group, emphasized the company's focus on green energy transition, solar energy deployment, and water-efficient dyeing practices as key pillars of its sustainability strategy.

Mr Swapnil Potdar, Founder and Director of Ira Sustainable Water Solutions, India, presented three community-centred case studies such as tree planting for groundwater recharge in drought zones, creation of a waterbody to prevent village flooding, and restoration of traditional ponds by removing plastic waste.

Key Points

- Private sector engagement in NbS requires a clear understanding of return on capital, and integration of inclusive stakeholder processes and environmental impact assessments into corporate lending criteria.
- Traditional ecological knowledge must inform corporate infrastructure planning and development should align with ecological cycles (flood pulses, fish breeding and migration).
- Finance institutions should design green entrepreneurship products tailored to basin-specific production risks, including for women entrepreneurs in aquaculture, agro-forestry, and wetland enterprises.



PSE 2 — Building Resilience Through Trade and Tourism

Led by CUTS International (Consumer Unity and Trust Society) and chaired by Dr Veena Vidyadharan, Feminist Influencing Lead, Oxfam in Asia, this session drew on a series of field studies conducted across the Meghna basin on cross-border trade, agri-fisheries value chains, gender dimensions of trade and tourism, and flood dynamics in transboundary rivers. The session brought together traders, economists, inland waterway experts, women entrepreneurs, and youth activists from both India and Bangladesh to identify priority policy actions for community-centred, gender-inclusive resilience in the basin.

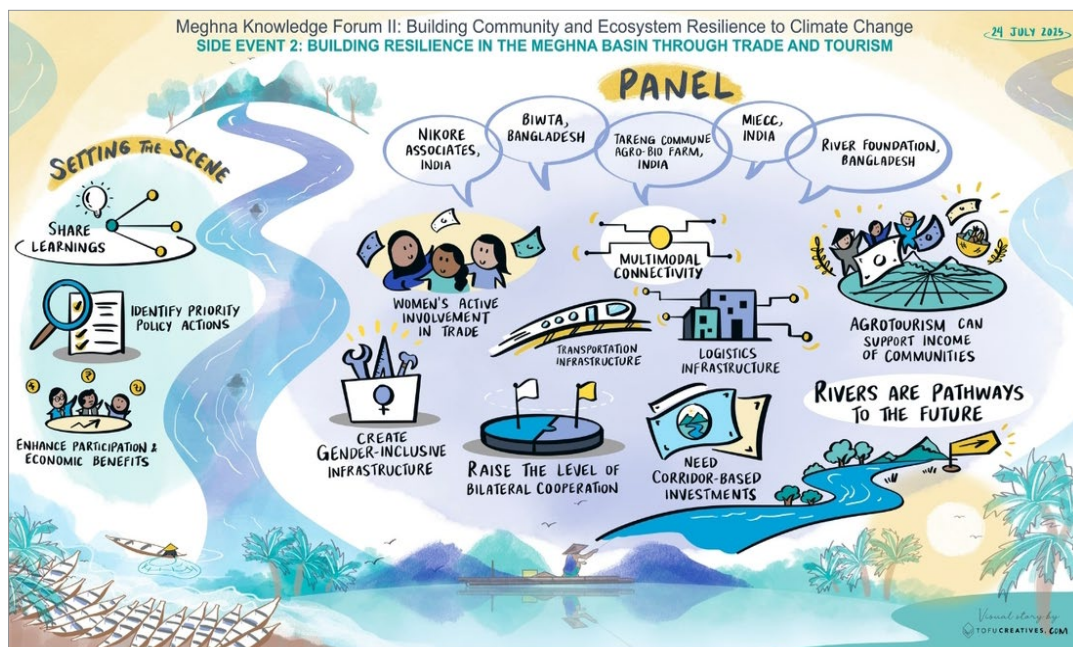
Mr Sumanta Biswas, Assistant Director, CUTS, highlighted the role of border haats, which are informal local trading platforms along the India-Bangladesh border, as economic lifelines for communities, particularly women. Bangladeshi processed foods, garments, and aquaculture has demand in India, and Indian fruits, spices, Lakadong turmeric (Meghalaya), Karbi Anglong ginger (Assam), and bamboo products are needed in Bangladesh, and these are the main items traded through these haats. Women are primary beneficiary engaged in these supply chains as the vendors, fish cage weavers, and agri-tourism hosts.

Ms Dolly Khonglah, Secretary, Meghalaya International Exporters Chamber of Commerce, identified five structural constraints for women traders: limited access to finance, complex regulatory barriers, inadequate infrastructure, social and cultural restrictions on mobility, and absence of capacity development. Mr Syed Munawar Hussain, former Director, Bangladesh Inland Water Transport Authority (BIWTA), highlighted that over 70% of agricultural activity in the basin depends on river-based logistics, and that a long-standing India-Bangladesh agreement on passenger traffic via inland waterways remains unimplemented — a missed opportunity for both trade and tourism connectivity.

Ms Mitali Nikore, Founder and Chief Economist, Nikore Associates, made the case for multimodal connectivity — combining river, rail, and road — noting that India has invested approximately USD 8 billion in rail connectivity in the Northeast. Ms Shahjia Shahrin Anika, River Foundation, Bangladesh, flagged that Bangladesh's 43 operational river routes remain underutilised due to siltation, poor navigability, plastic pollution, safety risks, and lack of integration with road and rail networks. Ms Sanalembi Devi, President, Tareng Agricultural Services Group, Assam, made a compelling case for agri-tourism as the most viable near-term opportunity for rural women, centred on indigenous seed varieties, local produce — with the caveat: “Stick to your uniqueness instead of copying others.”

Key Points

- Border haats need to be formalised as official trade and people-to-people connectivity platforms, with gender-responsive design including lighting, sanitation, and digital payment infrastructure.
- Multimodal connectivity — integrating river routes, railway links, and road networks — is essential. The revival of historical river trade routes such as the Simsang River corridor and the Wah Umngi–Surma route is needed.
- Non-tariff barriers, particularly quarantine restrictions on fish and agricultural products, must be reviewed and simplified to legalise informal trade flows that currently sustain thousands of women's livelihoods.
- Agri-tourism and fishing-based tourism offer the most immediate and scalable resilience opportunity for rural women in the basin, requiring capacity building, exposure visits, and PPP-based investment in homestay infrastructure.



PSE 3 — Tools, Data and Dialogue for Scenario-Driven Planning

The session presented practical tools and data systems developed for wetlands tracking in Barak-Meghna River Basin led by the Stockholm Environment Institute (SEI) Thailand. The session was supported by Centre for Environmental and Geographic Information Services (CEGIS), Bangladesh and Asian Confluence, India, and moderated by Dr Thanapon Piman, Senior Research Fellow, SEI Asia.

Mr Satish Prasad, Research Fellow, SEI Asia, presented the wetland monitoring tool developed by SEI using remote sensing and an AI-powered Random Forest algorithm to track perennial and permanent wetland dynamics across the Meghna basin from 1994 to 2024. The tool, hosted on the Asian River Monitoring platform, provides interactive and downloadable data with approximately 90% accuracy. The analysis highlighted wetland loss in both India and Bangladesh due to conversion to croplands and identified the absence of updated historical wetland data and non-cloud-based monitoring systems as critical barriers.

Mr Sabyasachi Dutta, Co-Founder and Executive Director, Asian Confluence, introduced the concept of the “Third Space” — a collaborative opportunity beyond formal diplomatic and business frameworks, as the most productive site for community-driven basin governance. He said local cultures, foods, seeds, and traditional knowledge are foundational assets routinely overlooked in formal agreements. Mr Md. Mostafizur Rahman, Director, CEGIS, noted that the Barak-Meghna basin is particularly flood-prone in its mid-region, with the 2017 and June 2022 pre-monsoon floods causing severe crop damage in the haor areas. He introduced the Integrated Haor Development Portal, developed by CEGIS as a geospatial planning and management tool for haor ecosystem management.

Dr Sudip Mitra, Professor, IIT, shared IIT Guwahati’s recent collaboration with the Japanese government to develop disaster management tools for northeastern Indian states. He called for collaborative approaches to shared climate and ecosystem challenges across the Northeast and

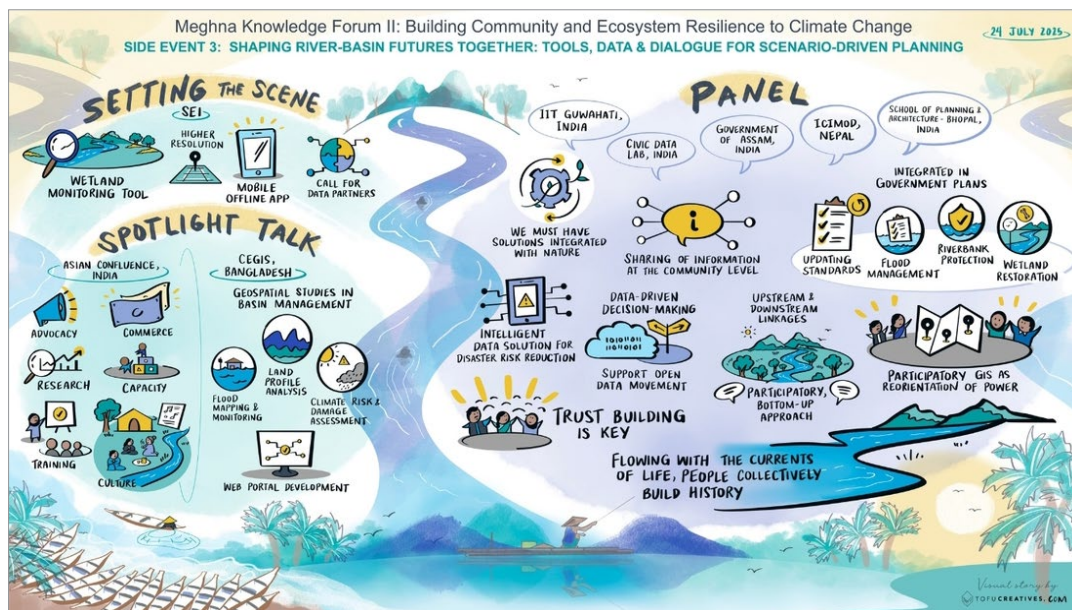
Bangladesh. Dr Suchita Lavant, Civic Data Lab, presented her organisation's work on co-creating open-access data platforms with Assam government support — including Loss and Damage datasets used for monsoon planning — emphasising the need for easy-to-use, AI-driven tools.

Mr Rajib Kumar Goswami, Additional Chief Engineer, Water Resources Department, Assam, shared that Assam has a network of embankment spanning over 500 km in the Brahmaputra and Barak rivers, however, it is not a long-term solution to floods and bank erosion, and highlighted the government efforts to mainstream NbS, with restoration of wetlands as important entry point. The work is funded by World Bank and being implemented in partnership with local governments and IIT Guwahati.

Dr Shubhuti Ghimire, Water Resource Management Analyst, International Centre for Integrated Mountain Development (ICIMOD), presented ICIMOD's integrated river basin initiative for the Hindu Kush Himalaya region, which uses SWAT modelling and the Water-Energy-Food (WEF) nexus framework to connect upstream and downstream communities and build departmental cooperation. Mr Devrishi Bharadwaj, one of the young professionals attending the forum, called for updated master plans and land zoning using modern GIS tools, proposed Transferable Development Rights (TDR) as a land-use mechanism for sustainable floodplain development.

Key Points

- Wetland monitoring tools need to be made available on mobile phones and in local languages so that communities — not just researchers, can access and use basin data.
- Open data movement, cloud-based data platforms and AI are opportunity for bridging fragmented departmental systems.
- Participatory GIS and land use planning are strategies to ensure all vulnerable communities — including women, youth, and indigenous groups — are included in scenario-driven planning processes.



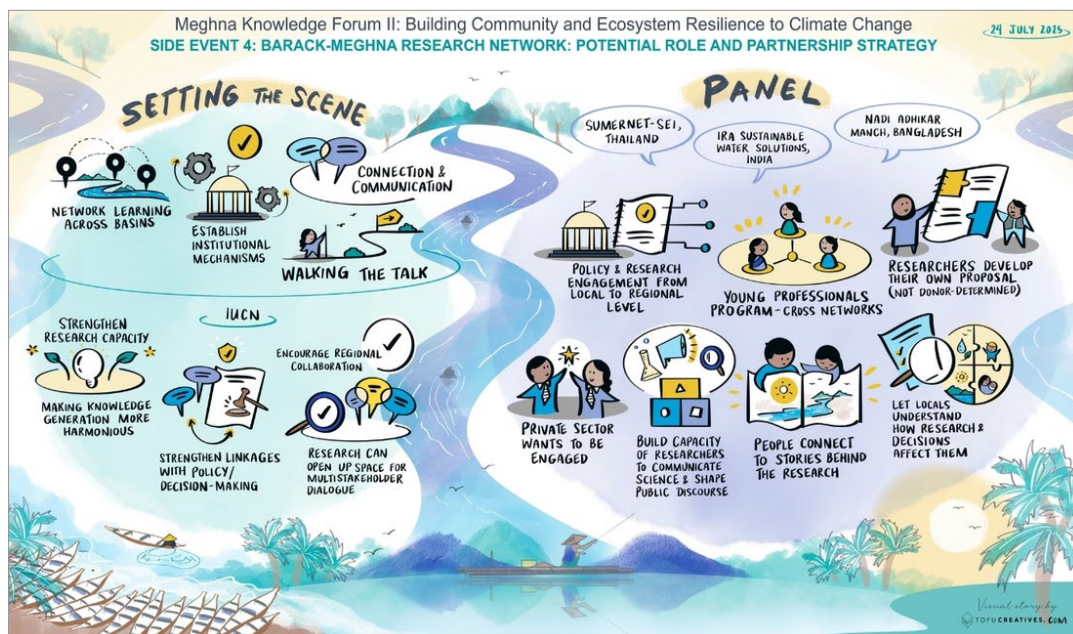
PSE 4 — Barak-Meghna Research Network: Potential Role and Partnership Strategy

Co-led by AIT, SAU, Y4M, and IUCN, this roundtable explored the concept of a Barak-Meghna Research Network modelled in part on SEI's Sustainable Mekong Research Network (SUMERNET) experience in the Mekong. Dr Indrajit Pal emphasised transdisciplinary scope and the value of joint fellowships across India and Bangladesh. Dr Medha Bisht proposed that the network prioritise NbS integration and youth centrality.

Key elements for operationalisation identified included: a clear research framework; community co-production of knowledge; open-access publication; administrative structure; strong science-policy-practice linkage; and strategic donor and private sector engagement for financial sustainability.

Key Points

- The Barak-Meghna Research Network (MRN) should be initiated with Y4M as lead, AIT and SAU as anchor institutions and IUCN as facilitating partner. The Secretariat should be hosted initially at one of the anchor institutions, with a clear governance structure and Steering Committee.
- The MRN's three-objective framework will include strengthening research capacity, science-policy linkages, and regional collaboration, and it should be operationalised through a phased work plan with SMART indicators, beginning with 2–3 priority research themes to be co-defined with Y4M and government partners.
- A Meghna Youth Fellowship Programme, modelled on SUMERNET - Mekong Thought Leadership and Think Tanks Network (MTT) fellowship with explicit gender equity and inclusion targets, should be launched in the MRN's first operational year, with mentoring support from senior researchers across AIT, SAU, Assam University, BUET, and IIT Guwahati.
- SUMERNET's offer of cross-network collaboration provide good opportunities for knowledge exchange, joint events, co-funded projects, and Mekong-Meghna youth engagement. Participants welcomed exploring formal collaboration between the two networks and suggested that a memorandum of understanding between MRN and SUMERNET/SEI could facilitate knowledge exchange, institutional learning, and joint programme development during MRN's formative years.
- Research translation for non-academic audiences must be built into MRN's design from the outset, with dedicated policy brief development, media engagement, and communications support as core network activities. Participants emphasised that MRN should function as a platform that co-produces knowledge with communities and decision-makers, ensuring research addresses policy priorities and implementation challenges across the basin.
- For financial sustainability, a diversified funding strategy from the start is suggested with outreach to donor engagement (SDC, Sida, and other bilateral and multilateral partners), strategic engagement with private sector and an explicit resource mobilisation plan. Universities were also encouraged to explore co-funding arrangements, in-kind institutional support, and collaborative proposal development to strengthen long-term ownership and sustainability.



PSE 5 — Community-Led Adaptation Strategies for Resilience

The session was jointly facilitated by NEADS, India, CNRS, and Oxfam Bangladesh. The session highlighted grassroots NbS in practice. Community mobiliser, Mr Swapan Ashangbam from Cachar, Assam, presented the Rupabali Anua Panchakira model of community engagement, which links biodiversity conservation, dairy, agro-biodiversity, and micro-credit approaches to livelihoods enhancement and poverty reduction. Currently, 720 families are participating with demonstrable livelihood and is now supported by the Assam State Biodiversity Board, NABARD, and allied departments.

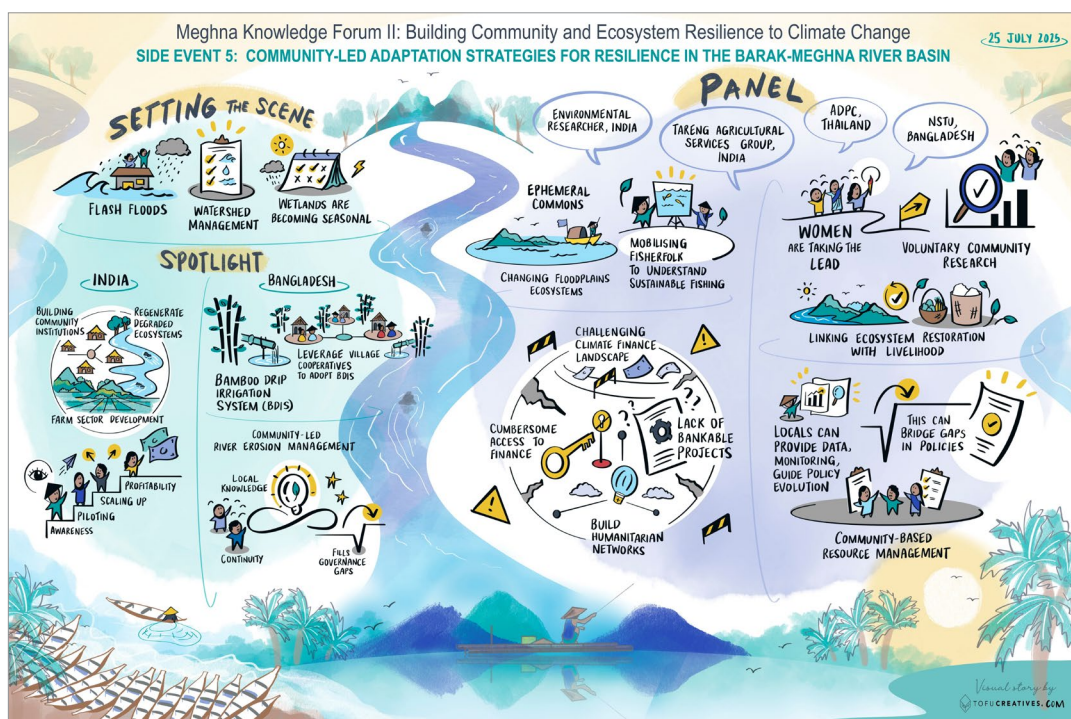
Students from South Asian University documented and shared the Bamboo Drip Irrigation System of Meghalaya as a climate-adaptive, eco-friendly traditional technology under threat. Oxfam Bangladesh and CNRS shared community-led river erosion management and fisheries habitat restoration experiences, all highlighting the criticality of community engagement to build stewardship.

Key Points

- Community institutions — cooperatives, producer companies, credit societies are legitimate actors in NbS governance. Their recognition with formal legal status will allow easy access to government financing channels including Rural Development Banks, State Biodiversity Boards, and climate funds.
- The Panchakira model of five interlocked community institutions in Cachar, covering biodiversity, dairy, agro-production, credit, and wetland governance, is a replicable model that should be documented and scaled across the Barak basin.
- The Bamboo Drip Irrigation System of Meghalaya should be formally documented, piloted under Jal Jeevan Mission, and integrated into state-level NbS water management

programmes — with the Darbar (traditional community institution) and integrated village cooperatives as institutional anchors.

- Promote community stewardship and cross-border people-to-people cooperation, peer-to-peer restoration networks, as a part of the UN Decade on Ecosystem Restoration goals.
- Ephemeral floodplain commons — seasonal wetlands, oxbow lakes, and fishing grounds along the Barak — are critically under-protected. Community-led fishing regulations and wetland conservation plans, as demonstrated at Madarpur and Rupaibali, must be formalised through local governance frameworks.
- Local organisations must be equipped to develop bankable climate finance proposals. ADPC's guidance on aligning proposals with donor priorities, national frameworks, and measurable outcomes indicate a need for dedicated capacity building programme for CSOs and community led institutions.



PSE 6 — Water Conventions and Cooperative Governance of the Barak-Meghna Basin

Chaired by Dr Yash Veer Bhatnagar, Country Representative, IUCN India, and led by UNECE. The Green Trial, Y4M, and IUCN, this roundtable examined the utility of 1992 UNECE Water Convention and 1997 UN Watercourses Convention in the Barak-Meghna basin. Mr Shawahiq Siddiqui, Environmental Lawyer, TGT, discussed existing legal instruments — the 1996 Ganges Water Treaty, the 1972 India-Bangladesh Joint Rivers Commission Statute, the 2011 Framework Agreement, and recent MoUs. He opined that lack of institutional clarity,

ecosystem-focused provisions, and benefit-sharing mechanism are either absent or weak across the river agreements.

Mr Remy Kinna highlighted the recent Bangladesh accession to the 1992 Convention in June 2025, as a milestone for the region and will facilitate mobilisation of resources for capacity building on climate adaptation as well as the Water-Energy-Food-Ecosystem (WEFE) nexus, among other emerging environmental issues. The Senegal-Mauritanian Aquifer Basin (SMAB) agreement — in which four countries established a multilateral legal and institutional framework to jointly govern a shared aquifer on which 80% of their populations depend — was cited as a transferable model for building cooperative shared water governance in the Barak-Meghna basin, particularly given Bangladesh's recent accession to the 1992 UN Water Convention. Dr Medha Bisht emphasised that water governance must serve local women and vulnerable groups, not merely state interests, and that wetland restoration must be integrated into transboundary agreements.

Key Points

- Bangladesh's June 2025 accession to the 1992 UN Water Convention creates an entry point for structured dialogue and capacity building on data sharing, no-harm principles, and ecosystem management.
- Joint River Commissions must be empowered beyond an advisory/reporting role to enable active management and dispute resolution.
- Wetland restoration and Ramsar site protection explicitly integrated into future water agreements negotiated at local and basin scale.



8. Valedictory Session and Key Messages Synthesis

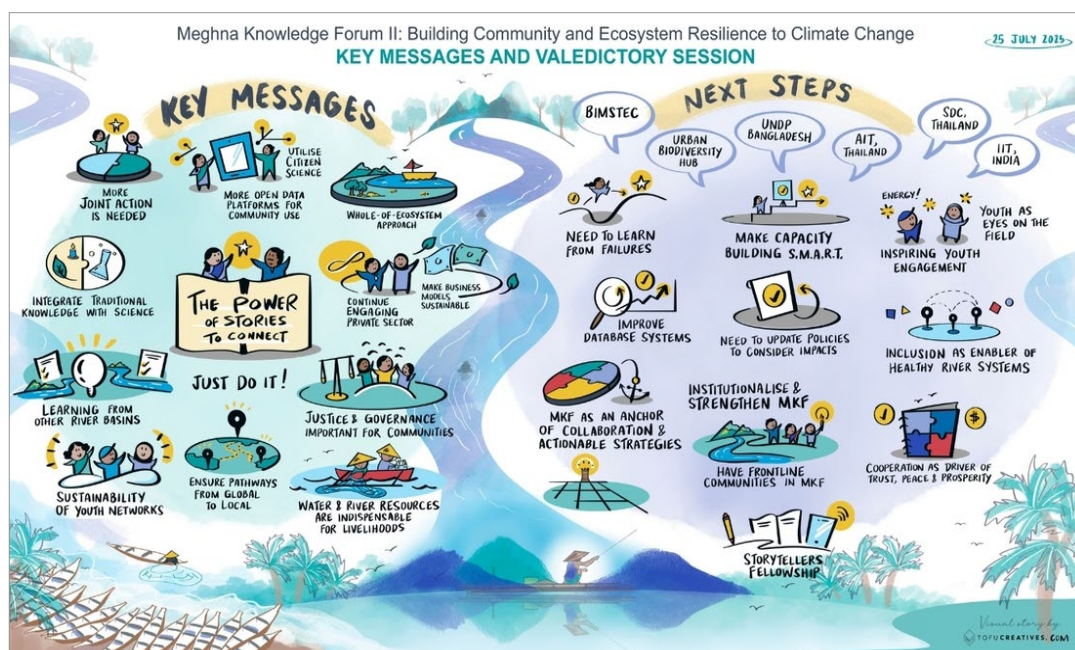
The closing sessions on 25 July synthesised outputs from all three days. Moderators of all the sessions shared 3–4 key messages per session (which are included in the session narrative), and special invitees from Bangladesh, India, BIMSTEC, SDC, UNDP, ADB, and AIT provided perspectives to refine and sharpen action points for wider dissemination.

Mr Tshewang Dorji, Director, BIMSTEC, highlighted the need for documenting failures and successes of ongoing initiatives as these provide institutional learning. There is a need to pursue solutions that balance community needs with ecosystem health while accepting necessary trade-offs. There is also a need for a SMART approach to capacity building with cross-ministry, cross-sector financing. Anushri Tiwari, member of the the Y4M in India, proposed deepening joint research and evidence, and value of operationalising ideas like Meghna Research Network and urban NbS planning, with youth as the connector between field evidence and governance.

Mr Rangku Sangma requested IUCN support on NbS for his council, highlighting Reducing Emissions from Deforestation and Forest Degradation (REDD+) as a mechanism for alternative livelihood projects, and called for policy reform for strengthening engagement of communities in forest co-management.

Dr Mokbul Morshed Ahmad, Professor, AIT, positioned the institute as a coordination hub for data systems and multi-partner collaboration. Dr Anil Gupta reiterated the need for adaptive, eco-centric strategies and stressed the importance of joint research and intellectual consortia like MKF II in advancing these. Nadine Antenen, from the Swedish Development Cooperation (SDC), expressed confidence in the collaborative spirit and affirmed SDC's continued engagement with the BRIDGE programme.

Co-Chair Ms Nazma Begum, Joint Secretary, Ministry of Water Resources (MoWR), Bangladesh, provided closing reflections emphasising the need for policy reforms that centre community voices and ecosystem rights.



Six Messages from MKF II – Valedictory session

1

Rivers Are Pathways to Our Future

MKF II emphasised the 'rights of rivers' as a foundation for securing human rights and ecological integrity. The health of river ecosystems is inseparable from the wellbeing of communities who depend on them. Legal recognition of river personhood — as demonstrated by New Zealand's Whanganui River — was cited as a precedent worth exploring in the South Asian context.

2

Climate Risks Demand Science-Policy Integration

Climate projections indicate a 5–6% pre-monsoon rainfall increase in the southern Meghalaya catchment and that 22% of agricultural land in the basin could face very high climate risk by 2040. Fragmented data, weak early warning systems, and limited knowledge translation must be addressed through joint research, integrated monitoring tools, and scenario-driven planning.

3

Nature-based Solutions (NbS) are Central to Resilience

NbS approaches — from wetland restoration for flood buffering to bamboo drip irrigation, AWD for rice, and community seed banks — combined with traditional knowledge offer cost-effective, scalable strategies for climate adaptation and SDG achievement. Structured mechanisms and guidance on NbS blended finance and private sector engagement opportunities are needed for overcoming the financing barrier that remains one of the NbS primary constraint.

4

Youth Engagement and Inclusive Governance

Voices of youth, women, and indigenous communities must be institutionalised in decision-making at all levels. The Y4M network's leadership at MKF II — through citizen science, storytelling, intergenerational dialogue, and exhibition facilitation — demonstrated the transformative potential of youth-centred, bottom-up governance models. The Hargila Army's conservation success and Garo matrilineal societies provide tested strategies of women's leadership and cultural entry points that projects need to leverage.

5

Private Sector as a Catalyst for Climate Resilience

From regenerative agriculture and circular economy models to water stewardship and NbS financing, businesses can bridge the gap between innovation and community needs. MKF II brought established corporations and startups into shared dialogue, highlighting inclusive business models, green finance instruments, and microfinance as scalable tools for climate resilience — with the caveat that traditional ecological knowledge must anchor corporate development plans.

6

UN Water Conventions Provide a Framework for Regional Cooperation

Bangladesh's accession to the UNECE Water Convention (1992) has created a demand for awareness and dialogue on the benefits and application of the International Water Law principles and procedure in building cooperative governance of the Barak-Meghna and other river basins in the GBM region. Wetland restoration, indigenous community rights, and gender inclusion must be explicitly integrated into any cooperative governance framework for the GBM region.

9. Further Readings – MKF II Stories and YouTube Videos

Stories

Over 100 voices unite to address climate impacts in the Barak-Meghna River basin at the Meghna Knowledge Forum (MKF II)

Story, IUCN, 25 July

[Over 100 voices unite to address climate impacts in the Barak-Meghna River basin at the Meghna Knowledge Forum \(MKF II\) - Story | IUCN](#)

Call for collective action as Meghna Knowledge Forum II concludes in Bangkok

The Business Standard, Jannatul Naym Pieal, 25 July 2025,

[Call for collective action as Meghna Knowledge Forum II concludes in Bangkok | The Business Standard](#)

Monsoon rains declining in Barak-Meghna basin as climate change alters flood cycles, Three-day India-Bangladesh dialogue highlights urgent need for community-led resilience and nature-based solutions

Down To Earth, Himanshu Nitnaware, 1 August 2025

[Climate Impact: Declining Monsoon in Barak-Meghna Basin Raises Flood Risks](#)

Experts to assess climate risks and find ways to build resilience in Meghna river basin

Down To Earth, Himanshu Nitnaware, 21 July 2025

[Climate Resilience: Experts Tackle Meghna River Basin Challenges](#)

MKF II opens in Bangkok, focuses on cross-border climate resilience in Meghna Basin

The Business Standard, Jannatul Naym Pieal, 23 July 2025

[MKF II opens in Bangkok, focuses on cross-border climate resilience in Meghna Basin | The Business Standard](#)

AIT: Meghna Knowledge Forum II spotlights River Resilience and Community Leadership

Asian Institute of Technology, By Disaster Preparedness Mitigation and Management (DPMM), SET, 25 July 2025

<https://ait.ac.th/2025/07/meghna-knowledge-forum-ii-spotlights-river-resilience-and-community-leadership/>

IUCN Asia Facebook — Opening day post

<https://www.facebook.com/iucn.asia/posts/the-meghna-knowledge-forum-mkf-ii-commenced-on-23-july-2025-with-over-100-partic/1179304480906289/>

MKF II Event Page, IUCN Story, February 2025, updated post-event

<https://iucn.org/story/202408/meghna-knowledge-forum-mkf-ii>

YouTube — MKF II key messages film & Session Recordings

Meghna Knowledge Forum II highlight video

[Meghna Knowledge Forum II highlight video](#)

Day 1 — MKF II Inaugural & Youth Forums (23 July 2025)

<https://www.youtube.com/watch?v=m6h4Y-irRVw> YouTube

Day 2 — Thematic Plenary I, Strengthening Community Livelihoods Resilience - Meghna Knowledge Forum (MKF II), (24 July 2025)

<https://www.youtube.com/watch?v=h1vU-LGB0sY> IUCN

Day 2 — Thematic Plenary II: Ecosystem and Biodiversity Protection (24 July 2025)

<https://www.youtube.com/watch?v=DsEM6cmAOq0>

Day 2 - Role of the Private Sector and Markets in Building Community Resilience to Climate Change

<https://www.youtube.com/watch?v=Cwwil11H5Fg&t=5677s>

Day 3 - Youth and Gender Inclusion in the Conservation of the Meghna Basin at MKF II
[Youth and Gender Inclusion in the Conservation of the Meghna Basin at MKF II](#)

Day 3 - Community-Led Adaptation Strategies for Resilience in the Barak-Meghna River Basin

<https://www.youtube.com/watch?v=7t7D1igPEZc&t=6s>

Day 3 - Key Messages and Valedictory Session Synthesis of MKF II Key Messages (245) Key Messages and Valedictory Session Synthesis of MKF II Key Messages (Part I) at MKF II - YouTube

Day 3 - Valedictory Session MKF II, 25 July 2025

[Valedictory Session \(Part II\) at MKF II](#)



The Ambassador of Bangladesh to Thailand visits the MKF II Exhibition Area. © IUCN

For further information visit: <https://iucn.org/story/202408/meghna-knowledge-forum-mkf-ii>



Youth for Meghna (Y4M) members with the Ambassador of Bangladesh to Thailand, displaying placards carrying key messages of the MKF II. © IUCN



Youth participants capturing a memorable moment during the MKF II event. © IUCN



Professor Dr. Sara Nowreen, representing the Institute of Water and Flood Management (IWFM), BUET, shares her insights during a session. © IUCN



One of the Y4M members representing youth voices during a panel discussion at MKF II. © IUCN



Participants networking with distinguished guests during the MKF II event. © IUCN



Dr Purnima Devi Barman sharing her inspiring journey of Hargila conservation and women's empowerment through the Hargila Army initiative. © IUCN



Dr Dindo Campilan, Regional Director, IUCN Asia, and Hub Director for Oceania, delivering his welcome address during the MKF II event. © IUCN



Participants engaging in a parallel side event session held alongside the MKF II event. © IUCN

