



# Governance of the CSO Network and regional cooperation for improved flood resilience

BRIDGE GBM CSO Network meeting report  
06-08 February 2018, Guwahati, India



Building River Dialogue and Governance (BRIDGE)



The designation of geographical entities in this report and the presentation of the material do not imply the expression of any opinion whatsoever on the part of IUCN concerning the legal status of any country, territory, or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

The views expressed in this publication do not necessarily reflect those of IUCN, Oxfam, The Asia Foundation, TROSA programme partners or the Government of Sweden.

This report has been made possible in part by funding from The Asia Foundation and the TROSA programme.

Published by: IUCN, Bangkok, Thailand  
Copyright: ©2018 IUCN, International Union for Conservation of Nature and Natural Resources

Reproduction of this publication for educational or other non-commercial purposes is authorised without prior written permission from the copyright holder provided the source is fully acknowledged.

Reproduction of this publication for resale or other commercial purposes is prohibited without prior written permission of the copyright holder.

Citation: IUCN BRIDGE GBM, 2018. *Governance of the CSO Network and regional cooperation for improved flood resilience: BRIDGE GBM CSO Network meeting report*. Bangkok, Thailand: IUCN. 25pp.

Cover photo: Workshop participants ©BRIDGE 2018  
Available from: IUCN (International Union for Conservation of Nature)  
Asia Regional Office  
BRIDGE Programme  
63 Sukhumvit Soi 39  
Wattana, 10110 Bangkok  
Thailand  
Tel +66 2 662 4029  
Fax +66 2 662 4387  
asia@iucn.org

## Table of contents

<b>1 About BRIDGE GBM and the objectives of the workshop</b>	<b>4</b>
<b>2 Workshop proceedings</b>	<b>5</b>
2.1 Highlights from the welcoming remarks	5
2.2 Current activities and governance of the GBM CSO Network	6
2.2.1 <i>Current activities and priority issues</i>	6
2.2.2 <i>Priority actions and wish list for the GBM CSO Network activities</i>	7
2.2.3 <i>Governance of the GBM CSO Network</i>	8
2.3 Floods in the GBM: opportunities and challenges	12
2.3.1 <i>Big data analytics and end-to-end flood early warning systems</i>	12
2.3.2 <i>Gender and social inclusion issues in the Brahmaputra Basin</i>	14
2.3.3 <i>CSO-led initiatives to strengthen community flood resilience</i>	14
2.3.4 <i>Legal and institutional response to flooding in the GBM</i>	16
2.3.5 <i>BRIDGE GBM project work plan and strategy for sub-basin dialogues and capacity building</i>	16
2.3.6 <i>Learning outcomes: visit to a flood affected area and interactions with local communities</i>	18
<b>Annex 1: Agenda</b>	<b>21</b>
<b>Annex 2: List of participants</b>	<b>23</b>

## 1 About BRIDGE GBM and the objectives of the workshop

Building River Dialogue and Governance, or BRIDGE, is a global programme implemented by IUCN in more than 15 shared river basins across Asia, Africa and the Caribbean. The goal of the programme is to support capacities of countries and stakeholders sharing river or lake basins to implement effective water management arrangements through the development of a shared vision, benefit-sharing principles, and transparent and coherent institutional frameworks.

In the Ganges-Brahmaputra-Meghna (GBM) River Basin, the BRIDGE GBM project initiated its activities in July 2016 (Phase 1) supported by The Asia Foundation. The project facilitated the development of a regional network of more than 25 civil society organisations (CSOs) from the five GBM countries (Bangladesh, Bhutan, China, India and Nepal). This network also developed a common vision and actions to promote cooperative governance of the GBM basins. For the project's second phase, funded by Oxfam Novib's Transboundary Rivers of South Asia (TROSA) programme, BRIDGE GBM is supporting activities aimed at institutionalisation of the network through the development and adoption of clear governance mechanisms and continued capacity building on water governance and river basin management issues. The goal of the BRIDGE GBM project is to build regional cooperation for sustainable and inclusive governance of the shared rivers in the GBM region, promoting poverty reduction and healthy ecosystems.

From 6-8 February 2018, BRIDGE GBM facilitated a three-day learning exchange workshop for the members of the GBM CSO Network, in Guwahati, India.

The workshop aimed to:

- Initiate the development of the governance mechanism for the GBM CSO Network;
- Gather inputs for the implementation of the project work plan and capacity building activities; and
- Share experiences on the flood and river basin management issues and assess the efficacy of current flood control measures and impacts on communities.

More than 30 participants, including members of the GBM CSO Network and resource persons from academic and research institutions, participated in the workshop. (Please see Annex 2 for the list of participants.)

## 2 Workshop proceedings

The workshop was divided into sessions with presentations, plenary discussions, and group activities. On the last day, workshop participants visited flood-affected communities in the outskirts of Guwahati, in the state of Assam, India to gain first-hand knowledge about the flood control measures adopted by local governments, as well as community preparedness to flooding. This report gives a summary of the presentations and key discussions and the action points identified during the workshop. (Please see Annex 1 for the workshop agenda.)

### 2.1 Highlights from the welcoming remarks

Mr Raphaël Glémet, senior programme officer for Water and Wetlands, IUCN Asia Regional Office, shared the objectives of the GBM CSO Network. He said that South Asia is considered one of the least integrated regions in the world, with very limited dialogue and cooperation at the government level on shared water governance. CSOs provide a good entry point for integration: they are working on a variety of water governance issues at different levels. The cooperation among CSOs at the regional level will help build trust and catalyse cooperation between governments. The BRIDGE GBM CSO Network has been developed with the vision of fostering regional cooperation for the sustainable governance of the GBM Basins.

Ms Sharmeen Murshid, executive director of Brotee, Bangladesh, and a member of the country's National River Conservation Commission (NRCC), said that the network has provided a platform to share ideas and opportunities, and develop a common vision for the rivers of the GBM Basin. Talking about the spirit of the network, she described it as an "embryo for regional togetherness" as it has helped members recognise commonalities and shared challenges they face as a region. Ms Murshid said that regional cooperation is the key to solving water governance challenges, and she hoped that the workshop will take the network a step ahead in this direction, as it works on defining its governance and discussing important issues on flooding which affects millions of vulnerable people every year in the GBM Region.

Mr Sabyasachi Dutta, director of Asian Confluence, said that the GBM CSO Network has given a sense of common identity and understanding among the members due to continued interactions and the development of a common vision. He talked about the "window of opportunity" provided by on-going government-led regional initiatives, such as the Bay of Bengal Initiative for Multi-Sectorial Technical and Economic Cooperation (BIMSTEC), and the grouping Bangladesh, Bhutan, India, and Nepal (BBIN). The CSOs could use these regional platforms and support governments to broaden the agenda of regional cooperation.

Mr Jyotiraj Patra, regional manager of TROSA for Oxfam Novib, said that constructive engagement of governments in a dialogue process is critical, and that economics is an important factor influencing regional cooperation across all sectors. He also talked about the sustainability of the GBM CSO Network. The Asia Foundation funded the development of the Network, but members now need to think about its financial sustainability, how to make it relevant for governments, and how to build trust with governments. He added that CSOs

should not forget that governments are key actors when it comes to shared water negotiations and decision making processes. In this regard, he highlighted that the objectives of the TROSA programme have a very strong focus on government and private sector engagement, in addition to a central focus on civil society.

## **2.2 Current activities and governance of the GBM CSO Network**

### **2.2.1 Current activities and priority issues**

Before the workshop was held, a survey was conducted to identify current activities of the GBM CSO Network members, the challenges they face, and specific actions under the GBM CSO vision they would like to prioritise in the coming years. The analysis of responses from 22 different organisations was presented at the workshop. Below are some key highlights from the analysis of the survey.

- **Main themes and strategies for CSO engagement**
  - Campaigns for inclusive water, land and agriculture management, and community water rights
  - Research and documentation around themes of disaster risk reduction (DRR), gender, and social inclusion
  - Flood early warning systems and shelters for flood affected communities
  - Support to local governments for the implementation of Sustainable Development Goals (SDGs)
  - Cross border peoples' movements and experience sharing
  - WASH (water, sanitation and hygiene)
- **Major challenges**
  - Absence of long-term projects and financing
  - Developing the right institutional collaboration, such as finding a suitable organisation for collaboration in another country for joint projects
  - Poor access to governments and their reluctance to engage CSOs in planning and decision making on issues affecting communities
  - Low capacity to advocate shared water governance issues particularly at the regional level
- **Priority actions for implementation under the GBM CSO vision**
  - Joint researches with community participation
  - Building CSO capacity to facilitate grassroots engagement
  - Capacity needs assessment and training modules on transboundary water governance
  - Cross border exchange and peoples' involvement in dialogues facilitated by CSOs
  - Institutionalisation of the GBM CSO Network

## **2.2.2 Priority actions and wish list for the GBM CSO Network activities**

Following the presentation of survey results, participants were divided into country groups to discuss priority actions for operationalising the GBM CSO vision. Below is a consolidated summary of group work outcomes.

### **1. Support for the development of regional CSO cooperation mechanisms**

- Build on already existing networks and mechanisms (such as the GBM CSO Network and Indo Nepal Joint Action Forum or INJAF) and initiate activities to build trust at all levels.
- The China group identified research and documentation of water governance knowledge as a prerequisite for initiating the development of transboundary cooperation mechanisms.

### **2. Develop regional guidelines based on best practices**

- Identifying gaps in knowledge and initiating joint action research projects for the development of regional guidelines were key themes during the discussion.
- Despite the reality that the GBM is one of the most disaster-prone regions of the world, there are no regionally agreed guidelines to jointly prepare for and manage disasters.
- Early warning systems were cited as good entry points for the development of regional guidelines to deal with disasters such as floods and erosion.

### **3. Review existing legal and policy frameworks**

- The need for better understanding of the status of the implementation of the current legal policy regime and the impact on communities was discussed.
- There is also a need to understand if the policies and plans take into account future water conflicts that may result from the projected increase in water demand.
- Discussions also centred on how well policies integrate principles of equity and internal water law principles.
- The Nepal group highlighted the need for better understanding of the implications of the current legal policy framework on the newly adopted federal governance mechanism in their country.
- Also, the network needs to ensure that indigenous local knowledge and eco-friendly practices are documented and used to support decision making processes on the sustainable development of the GBM Basins.

### **4. Facilitate grassroots engagement in water governance**

- CSOs have the capacity to advocate for grassroots issues, but they need to build better understanding of local-level water governance issues and its linkages with regional process and shared water governance challenges.

### **5. Develop regional GBM CSO communication and awareness strategy**

- Transboundary water governance is a sensitive geopolitical issue, traditionally not an area for CSO activities. Therefore, the development of a communication and awareness strategy for specific target groups will be a good guidance document, and will contribute to effective advocacy and efficient communication.

The strategy will also help promote the innovative use of multi-channel communications using tradition, culture, and social media.

- The Bangladesh group emphasised the need for a national-level influencing strategy because different countries have different cultural and political contexts. The first step is to prepare national actors for effective regional dialogue and cooperation.

#### **6. Support for cross-border exchange visits for local communities**

- This is needed to build trust at the civil society-level and support their engagement in dialogue facilitated by the GBM CSO Network members.
- Examples of cross border community interactions and trust building activities at community level in Koshi, Mahakali, and Brahmaputra River Basins by the members of the GBM CSO Network were cited as examples.

### **2.2.3 Governance of the GBM CSO Network**

The workshop initiated the development of the governance mechanism for the GBM CSO Network to ensure transparency in its governance and day-to-day operations. Below is a summary of key discussions and inputs received from participants on the proposed framework for the development of the network's governance mechanism.

#### ***A. Managing networks: key challenges and learning points***

This session started with the presentation of experiences from the following three CSO Networks working in the GBM region:

- The **Indo-Nepal Joint Action Forum (INJAF)**, established in 2003, is a coalition of like-minded civil society organisations enhancing cross-border cooperation among people and organisations in India and Nepal on a broad range of human rights and community issues.
- The **Conservation Network for the Lancang/Mekong Watershed** in China is facilitated by Shan Shui Conservation Centre, a Beijing-based non-government organisation (NGO). This network has been implementing more than 60 small grant projects on capacity building on conservation issues, policy advocacy, scientific decision making, and generation of primary data through biodiversity surveys and health assessments of the river basin.
- The **SaciWATERS-CapNet Network (SCaN)** is a network of autonomous regional and national institutions and individuals committed to capacity building in the water sector. SaciWATERS Hyderabad (India) hosts the network and acts as its legal, administrative, and financial umbrella.

Presenters:

- Mr Komal Niranjan Bhatt, national coordinator, Nepal, Indo Nepal Joint Action Forum (INJAF)
- Mr Hu Ruocheng, project assistant, China Nature Watch, Shan Shui Conservation Centre
- Mr Adiya Batsola, programme manager, SaciWATERS Hyderabad

Learnings from the management of the above three networks highlighted by presenters are listed below.

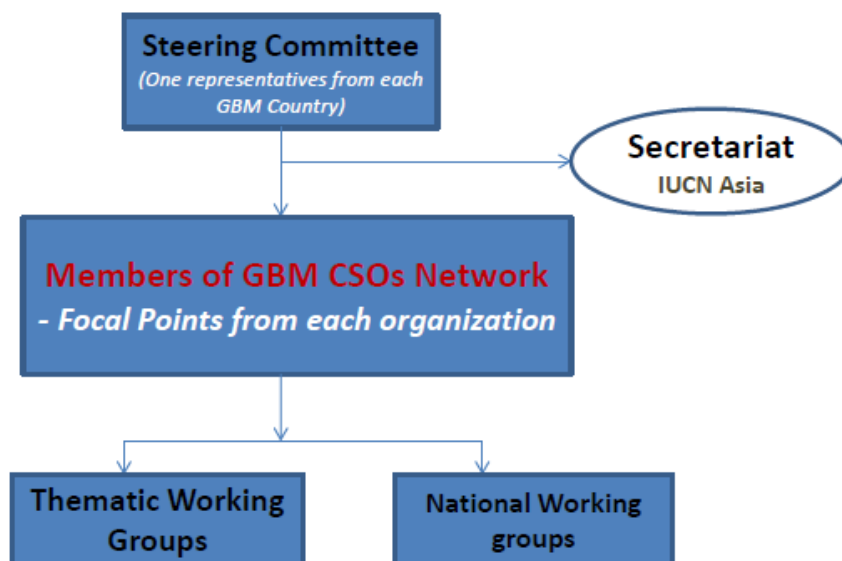


1. *Networks should be fluid and not guided by too many rules and regulations.*  
The governance mechanism should provide this flexibility and allow the network to engage and work with other networks.
2. *It is important to effectively utilise the skills and expertise of members.*  
The diversity of members within a network provides a good opportunity for learning exchange and capacity building, which should be considered when defining the role of individual members. For example, in the Lancang Conservation Network, members share responsibilities based on their strengths: the research institutes are mostly working on data analysis and research on biodiversity, NGOs are working on green agriculture, ecotourism and community livelihoods issues.
3. *Managing diversity is a challenge*  
Good internal communication and use of social media, and mobile internet can help create and strengthen the identity of the network.
4. *The financial sustainability of the network is vital.*  
A long-term strategy for raising resources for sustaining network activities should be developed. Generally, networks are not themselves registered, but rather it is a conglomeration of registered organisations. This leads to difficulties in receiving funds due to lack of clarity on legal status of a network as identified by the INJAF experience.
5. *Common identity and behavioural issues can pose a challenge.*  
The experience from SCaN indicates that managing behaviour and egos of network members becomes more challenging as the network matures. There are always issues such as: big NGO-small NGO; who is generating knowledge and who is benefiting more; who shall have more influence on the governance of the network and identification of its priorities; and other similar issues.

#### ***B. The proposed framework for governance of the GBM CSO Network***

Mr Raphaël Glémet presented a framework for development of the governance mechanism for the GBM CSO Network. The network would be an informal and voluntary regional platform on shared water governance issues guided by actions identified under the GBM CSO vision. A three-layered governance structure was proposed with: a Regional Steering Committee, a Core Network with official focal points from each member organisation, and a National Working Group or Thematic Working Group in each country. IUCN will serve as the Secretariat and will support activities such as the development of annual work plans and funding for the continued functioning of the network.

Figure 1: Proposed framework of governance for the BRIDGE GBM CSO Network



### **C. Comments and inputs on the proposed governance framework**

The proposed framework for the governance of the GBM CSO Network was agreed by the members. Key discussions points and suggestions for the finalisation of the framework are summarised below.

#### **1. Stated objective of the network**

“To cultivate a sustained culture of transboundary cooperation among the countries of the GBM Basin, with the aim of creating an enabling environment for enhanced cooperation for the conservation, long-term economic growth, livelihood security, and sustainable management of the GBM Rivers through an ecosystem-based approach.”

The participants discussed if the term ‘ecosystem-based approach’ shall be mentioned as a primary approach in the objective. Some participants felt the network needs to go deeper into aspects of politics. Rather than focusing on ‘ecosystem based approaches’, the network could focus on the issues of equity and resolution of water sharing conflicts.

Consensus was reached after the discussions, and participants decided to keep the term ‘ecosystem-based approach’ as the prime approach or strategy of the network to foster regional cooperation and sustainable governance of the GBM Basins. This is important because the network is dealing with geopolitically sensitive issues of transboundary water governance, which provides limited space for CSO engagement. Ecosystem-based approaches provide a soft entry point, and shall therefore be highlighted by the network.

Additionally, private sector was recognised as an important player and shall be mentioned explicitly as one of the main stakeholders for CSO engagement.

2. *Discussion on the TORs of the proposed governance structure*

The Regional Steering Committee (RSC) will include, instead of one, at least two representatives from each country, totalling 10 members from five countries.

The Core Network or the Regional Council of CSOs will have one representative: the designated organisational focal points.

Regarding the National Working Groups (NWG), the members were divided on the need to establish a national working group as a part of the governance structure of the GBM CSO Network:

Nepal groups strongly argued in favour of setting up permanent National Working Groups (NWGs) as part of the governance structure. The NWG will be hosted by members on a rotational basis (five-year terms) and will coordinate national-level activities. It was argued that the formation of the NWG will allow local CSOs, and those working under the TROSA programme, easy access to engage with the network. Since it is frequently difficult to bring national issues into multi-country discussions, the NWG will help bring country perspectives into the regional water discourse.

However, some participants argued that the network needs to keep the regional vision and structure strong while defining the governance mechanisms, since the prime objective of the network is to catalyse regional cooperation for joint planning and sustainable development of the shared rivers in the GBM Basin. The national structure is more of an operational convenience and members can decide to form a NWG based on specific country needs and resource availability.

It was felt that the Technical Committees or Thematic Groups could be useful and may be established based on specific needs and on an *ad-hoc* basis. Flooding, community livelihoods, and ecosystem management were cited as some of the themes for the establishment of Technical Committees with members from more than one country.

3. *Membership of the GBM CSO Network*

Founding members were defined as: CSOs who have shaped the network and participated in the vision building process (i.e. consensus building workshops) and who regularly provide information for the assessments of members' activities.

On membership of new organisations, it was discussed that all networks need to collaborate and coordinate with other networks and different stakeholders to achieve intended objectives. The participants were divided on whether membership of the GBM CSO Network should be opened to all interested organisations and individuals at this stage.

The National Working Group can take the role of identification and nomination of new CSOs based on agreed criteria. Organisational profiles will be shared with all the existing members, and if no objection is given and the CSO is vetted by members, the nominated CSO will be formally admitted to the network.

A minimum five years of experience in shared water governance and other related activities relevant from the point of view of implementation of the GBM CSO vision were suggested as criteria for a CSO to qualify for network membership. Nepal and Bangladesh groups insisted on the need to include CSOs who are working for the poor and marginalised.

Participants agreed to keep the governance mechanism simple, with a focus on the regional dimension of shared water governance. The participants acknowledged that the network is still at a nascent stage, and fragile. As a group, the network needs to have a common understanding and consensus before forming an elaborate structure and membership base. At this stage, a small group is better. Once the network has matured and created a strong identity for itself, it can think about opening membership and the formation of the NWG in each country.

#### 4. *Suggestion on a logo for the network*

It was suggested that the network's logo can depict five people representing five countries holding hands, while in the background, a river/ basin can be depicted, together with the words "Ganges-Brahmaputra-Meghna".

## **2.3 Floods in the GBM: opportunities and challenges**

Day two and three of the GBM CSO Network workshop were used for discussions on flood problems in the GBM Basin, with particular focus on the Brahmaputra Basin. Day two started with a presentation from CSOs and academic institutions. The major highlights of the presentations and the subsequent discussion points are summarised below.

### **2.3.1 Big data analytics and end-to-end flood early warning systems**

Dr Chandan Mahanta, professor at the Indian Institute of Technology, Guwahati, India, provided an overview of flood and basin management challenges. He said that the Brahmaputra is a dynamic river seeking dynamic solutions. More than 2.5 million hectares of the Brahmaputra Basin is flood-affected, and despite huge investments on structural measures (such as the development of dikes and embankments) the problem of flash floods persists. There is a need to shift to non-structural measures, such as the development of robust flood forecasting and warning systems, flood plain zoning, and adoption of smart technologies.

He said big data analytics could help improve flood forecasting and data dissemination by supporting the development of models and visualisation systems needed to deliver water information and decision support tools to the communities. Further, in India, rivers are considered a state subject and are managed by multiple institutions (e.g. Central Water Commission, Central Pollution Control Board, Central Ground Water Board) and smart

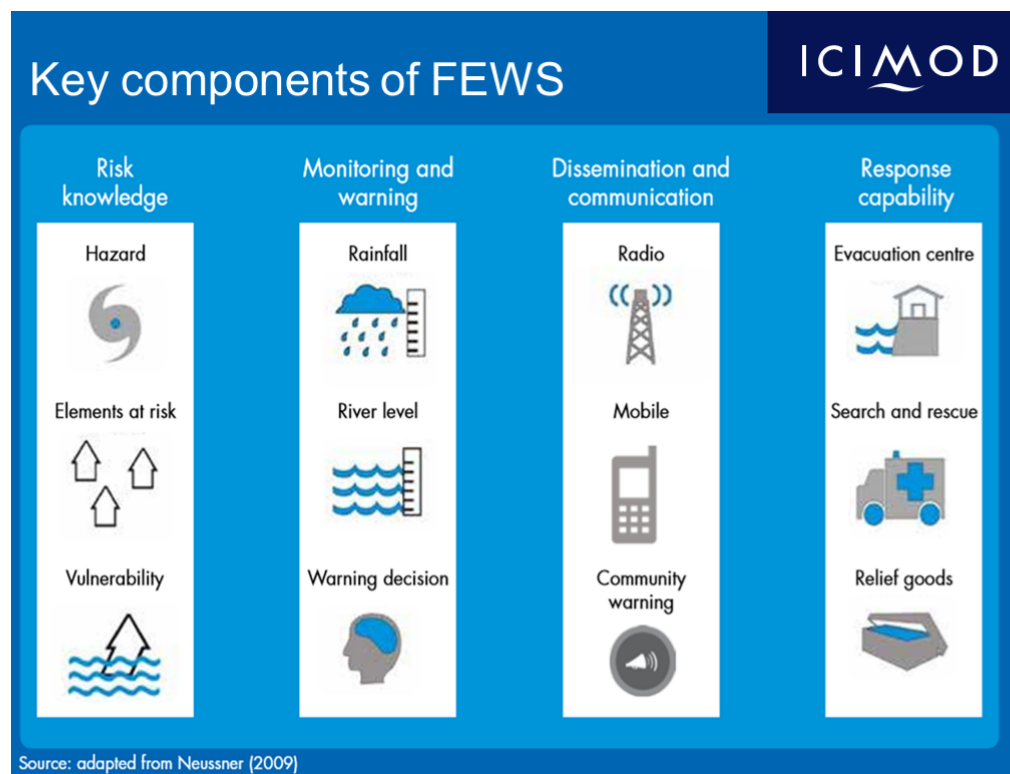
digital systems can help improve coordination among agencies as well as independent performance appraisals.

The presentation by Ms Mandira Singh Shrestha (ICIMOD) titled “Regional flood information for informed decision making and CBFEWS in the GBM Basin” explored the issue of end-to-end flood early warning systems and the achievements of the Hindu Kush Himalayan Region (HKH) - HYCOS project funded by the World Metrological Organisation. There is an increasing trend of disasters in the HKH, which is threatening the sustainable development of the region. This problem is further accentuated by the low level of investments on technologies, weak institutions and governance arrangements, and lack of preparedness to deal with disasters.

The project Establishment of a Regional Flood Information System in the Hindu Kush Himalayan Region (HKH-HYCOS) involved setting up monitoring stations and establishing real time flood information systems across the HKH Region to strengthen flood forecasting and early warning systems for the communities (i.e. community-based flood early warning systems or CBFEWS).

The four components of CBFEWS are: a) clear understanding of risks; b) monitoring and warning; c) dissemination and communication; and d) response and capability. (See Figure 2). More than 38 hydrometeorological stations have been set up in Nepal, Bangladesh, Pakistan, and Bhutan, and real time data is available to all partner countries.

**Figure 2: Key components of community-based flood early warning systems (CBFEWS)**



Partnerships with key agencies and active engagement of the communities and CSOs, and the use of low cost technologies, and strengthening upstream-downstream communication were important factors leading to the successful implementation of the HKH-HYCOS programme.

However, there are also challenges linked to the procurement of data. For example, in Bangladesh the cost of data is high, data is handled by the government agencies and many times the information is not very reliable.

In closing, Ms Mandira highlighted that CSOs have on-the-ground knowledge and they can support the effective functioning of end-to-end early warning systems by building on the trust CSOs have already established with communities at the grassroots level. CSOs can identify existing data and information gaps and initiate research to fill these gaps in collaboration with other stakeholders. Evidence from the ground is very powerful. This could be a means to influence governments to enhance cooperation.

### **2.3.2 Gender and social inclusion issues in the Brahmaputra Basin**

The presentation by Mr Adiya Batsola, programme manager at SaciWATERs, India, showed the outcomes of a research on gender and social inclusion issues across the Brahmaputra Basin. Three sites each in Bhutan and Assam (in India), and two sites in Bangladesh were selected to understand community issues, and more than 30 women in each location were interviewed. The outcomes of the research highlight that the poor and marginalised are the ones mostly living close to the river: “they live on the river, with the river, and face its uncertainties as a matter of inevitability”.

Although in Bhutan, the gender divide is not very apparent with women actively engaged in locally relevant economic activity, there are issues around traditional norms such as property ownership, and decision making in private and public matters is dominated by male members of society. In downstream areas in Assam and Bangladesh, women’s economic roles are confined to the agricultural and fisheries sectors.

One of the interesting insights emerging from the research is that the gender gap in terms of the division of labour is reduced during actual disasters, as compared to most other periods (when women take care of the livestock and carry out household chores). For example, since floods tend to bring good quality fish from the rivers to the inundated regions, fishing becomes a popular activity for both men and women. However during disasters, women face increased work burden (reduced time for household work) and children frequently drop out of school during and after floods since they need to support the family to recover from the impacts of flooding.

### **2.3.3 CSO-led initiatives to strengthen community flood resilience**

Mr Dev Narayan Yadav, from the Koshi Victim Society, discussed the problems in Koshi River, a transboundary river shared by India and Nepal. There are issues of transboundary flooding and conflicts over water sharing between the two countries. The Koshi Agreement signed on 25 April 1954 (amended in December 1966) provides a framework for cooperation on the management of the river. The main objective of the agreement is to foster cooperation between Nepal and India in the areas of flood control, irrigation, and hydropower generation. However, the implementation of the treaty has been challenging and there are

concerns regarding the scope and provision of treaty in Nepal, particularly among communities.

To deal with the issues, the Koshi Victim Society has been facilitating joint coordination meetings by bringing citizens from across the border to discuss and resolve local-level water conflict and build trust between the communities. These efforts have also helped build capacity and improved the preparedness of the community to deal with flood-related disasters.

Mr Md. Abdus Salam, chief executive of Gono Unnayan Kendra (GUK), Bangladesh, described the life and livelihood issues faced by communities in the northern part of Bangladesh in the Brahmaputra Basin. GUK is supporting local communities in 11 districts to deal with floods, river erosion, and drought. Livelihood enhancement activities initiated by GUK include capacity building of local communities in cage fishing in the homestead, vermicomposting, ponds in fallow lands, establishment of agriculture service centres, floating vegetable farming, goat rearing, improved irrigation practices for maize cultivation, and boat campaigns to improve local community awareness on the impacts of climate change.

Mr Salam also highlighted that the failure of the embankment approach in dealing with flooding, the absence of robust early warning systems, limited government ability to provide necessary emergency assistance during disasters, inadequate number of flood shelters, lack of medical coverage, and absence of social safety nets, are some of the challenges that need to be addressed to improve flood resilience and coping strategies of communities.

The presentation of Dr Md. Manzoorul Kibria, professor at the University of Chittagong, Bangladesh, highlighted the issues and challenges in the Halda River and the role of research and information, as well as information communications technology (ICT) in creating a mass movement for the conservation of the river. The Halda River is the only natural carp spawning ground in Bangladesh, and a source of fertilised carp eggs (labeo rohita and catla) for local fishermen and communities between April and June. However, due to increasing pollution, over-extraction of water, and illegal sand extraction by mechanised dredgers, river biodiversity has been damaged. This is evident from low fish spawning populations and the death of charismatic dolphin species inhabiting the river. To address these concerns, research was initiated on the different aspects of river biodiversity and water quality parameters. A dedicated website, [www.haldariver.org](http://www.haldariver.org), was developed to consolidate data and knowledge on various biological parameters of the river. Also, seminars and capacity building workshops were organised for the local communities, and a project was initiated for the restoration of the natural breeding habitats of the Halda River. The results are improved river health indicators and increased engagement of local communities in the governance and monitoring of the river.

The presentation by Mr MB Akhter, programme director at Oxfam Bangladesh, highlighted the importance of 'index-based flood insurance' in improving the resilience of the most vulnerable flood-affected communities. Traditional flood insurance schemes only cover instances where floods have destroyed home and livelihoods of the affected communities. But in reality, the number of flood days, the level of water during flooding, and real impacts on individual households are variable and need to be considered when designing a compensation mechanism. An index-based flood insurance product considers this aspect

and the compensation pay-out is triggered on the basis of water depth and duration of flooding. For example, if there is flooding for more than nine days, affected households automatically get USD 35 as compensation. With the increase in number of flood days and increasing depth of floods, the amount of compensation also increases. Mr Akhter argued that similar indexed-based flood insurance has been effectively implemented by Oxfam in Sirajganj, Bangladesh.

#### **2.3.4 Legal and institutional response to flooding in the GBM**

Mr Shawahiq Siddiqui, from the Indian Environmental Law Organisation (IELO), Delhi, shared five broad observations on current legal and policy responses to flooding. His points are summarised below.

- Since many rivers that cause devastating floods, such as the Brahmaputra, Gandak, Koshi, and Teesta, move in or out of a country, floods can most effectively be managed through regional cooperation. However, the current policy and institutional mechanisms do not provide such a space. For example, the Kohsi Agreement signed by India and Nepal in 1966 is primarily a treaty for bilateral cooperation on flood control, but does not provide enough space for the development of regional-level mechanisms for flood control or preparedness. There are no provisions on fixing responsibility and compliance in cases where damages are due to failure of strategies and flood control structures.
- Current treaty regimes do not provide spaces for the development of basin-level institutional coordination mechanisms to deal with floods. Formal water cooperation and data sharing is limited to the five months of the monsoon season when flood vulnerability is highest.
- Policies and institutional capacities of different GBM countries on DRR are at different phases of evolution. This makes development of regional cooperation mechanisms difficult. Also, the current national policies are geared toward dealing with post-disaster situations, and there are no clear mechanisms to assign responsibilities and account for the indirect losses due to flooding.
- There is a need for grassroots diplomacy and community engagement in bilateral water discourse. In India, *Panchayats* (local self-governance systems) are a constitutionally created body and have the mandate to prepare local development plans on issues such as the sharing of water and natural resources, integrated development of local infrastructure, and environmental conservation (See Article 243ZD of the Indian Constitution). Despite these opportunities, attempts to engage local communities in the development of village-level water and environment management plans have not been adequate. Engagement of communities provides important input in fostering inclusive and integrated planning at district and basin levels.

#### **2.3.5 BRIDGE GBM project work plan and strategy for sub-basin dialogues and capacity building**

For this session, the objective was to gather input on proposed activities under the BRIDGE GBM work plan for 2018. The work plan was presented to the participants and following questions were asked:



- How do we structure regional water governance trainings? Which topic and ministries or agencies do we engage?
- Which sub-basins, where there are opportunities to demonstrate cooperation, should be prioritised?
- On research topics, the project is planning short, targeted action research. What can make a change? What do we need in order to operationalise cooperation at the transboundary level?

The inputs received from the group are summarised below.

**1. Important thematic issues for capacity building**

- Transboundary Flood Risk Management (TFRM), early warning systems, and eco-friendly strategies for flood management
- Cumulative and social impact assessment of development projects in the river basins
- Sensitisation on grassroots water governance issues
- Confidence building mechanisms for transboundary cooperation
- Understanding the concept and management of e-flows
- Knowledge of legal frameworks and bilateral water cooperation mechanisms
- Disaster risk reduction (DRR), climate change, and UN Sustainable Development Goals (SDG) linkages

**2. Focus ministries or government agencies for engagement**

- Joint River Commissions and bilateral platforms on shared water governance issues
- Ministry of Home Affairs (MoHA)
- Ministry of Foreign Affairs (MoFA)
- Ministries of Energy, Tourism, Environment and Forestry
- Ministry of Water Resources
- Ministry of Commerce
- Planning agencies such as Niti Aayog in India
- Ministry of Federal Affairs and Local Development (MoFALD), Nepal
- Members of Parliament from the specific basin areas
- National Environment Commission, Bhutan
- Gross National Happiness Commission, Bhutan

The groups also discussed engaging the provincial or sub-basin-level government agencies, as well as provincial-level ministries related to or working in the area of DRR; the District Coordination Committee (DCC); and irrigation departments.

**3. Priorities for research to feed into the regional capacity building and dialogue workshop**

- Impacts of dams and infrastructure on community livelihoods
- Strategies for establishment of data sharing mechanisms specific to sub-basin areas (e.g. Sharada and Gandak Basins)
- International laws on rivers and existing policies and mechanisms for transboundary cooperation in the GBM Basin

- River health, watershed management, biodiversity, fisheries resources in the GBM, and opportunities for joint protection
- Documentation of good water management practices and community perceptions on river governance and management issues

#### 4. Sub-basins to prioritise

- Manas and Sunkosh Basins (Bhutan group)
- Koshi and Mahakali Basins (Nepal group)
- Meghna Basin (India group)
- Teesta Basin (Bangladesh group)

### 2.3.6 Learning outcomes: visit to a flood affected area and interactions with local communities

On day three, 8 February 2018, IUCN organised a field study with support from Dr Partha Jyoti Das of Aaranyak, Guwahati, Assam, a member of the GBM CSO Network. The objectives of the field study was to enable participants to:

- a) observe and learn about the impacts of flood and erosion caused by the Brahmaputra River on people's lives and local livelihoods;
- b) assess the efficacy of embankments, as well as anti-erosion and food protection measures; and
- c) identify factors contributing to peoples' vulnerability to floods, erosion and water-related hazards.

#### Description of field site

The site is located along the southern banks of the Brahmaputra River, between the towns of Palasbari and Futuri in Kamrup District, Guwahati City, in the state of Assam, in Northeast India.

Changes in the morphology of the Brahmaputra River due to a 1950 earthquake made Palasbari very vulnerable to riverbank erosion and floods. Thousands of people lost their homesteads and farmlands and migrated to other parts of Assam. Recently, a new embankment was constructed by the Flood and River Erosion Management Agency of Assam (FREMAA), with financial support from the Asian Development Bank (ADB). Local communities supported the development of embankment. The construction of the 4.9 kilometre long embankment was completed in July 2017. According to FREMAA, a total area of 68,000 hectares, and a population of 300,000 benefit from the embankment.

The participants were divided into three groups and given a set of questions for consideration. Each group interacted with the local communities and discussed these questions. Below is a summary of key observations highlighted by the groups.

#### 1. What are the main impacts of floods on the community, and what is the community's level of preparedness?

- Migration, water logging, loss of agricultural land due to heavy erosion (see Figure 3) are the major impacts on the communities.

- Currently, the level of preparedness is greater than in the past. The district disaster management authorities regularly organise trainings on how to deal with water disasters. The communities also mentioned that the government provides compensation to communities so that they can deal with flooding and erosion. However, it is not enough to cover losses.

**Figure 3: Erosion along the Brahmaputra River**



## **2. How are communities adapting to floods? Are the strategies sustainable?**

- The communities are supportive of the structural measures implemented by the government, such as the construction of embankments. But they also recognise that these are not permanent solutions. There was not much awareness within the communities about the long-term impacts of embankments on floods and erosion caused by increased sedimentation in the river systems.
- The communities apply strategies such as constructing houses on raised platforms. The most vulnerable members are forced to live on the embankments because they have lost their land and have not received much support from the government.
- There was consensus that current flood control measures adopted by both the government and communities are reactive—there is overdependence on the structural solutions. Also, holistic basin-level planning approaches are missing.

## **3. What are the main gender-related issues, and how can these be addressed?**

- Women are mostly involved in household work and weaving. During the interaction with local women self-help groups (SHGs), the members mentioned the challenges linked to accessing credit, and high interest rates. Not many women SHGs are active in the region.

- Women who are marginalised (such as the landless) suffer the most during flooding, particularly lacking access of drinking water, sanitation, and health care. The women complained about the higher number of snakebite cases and deaths during the floods.
- Since men mostly migrate to nearby cities for daily wage work, the women have to take the responsibility in terms of preparedness, and caring for the family when disasters strike.

### **Plan of action for building the resilience of communities**

From the group work, several suggestions emerged from the participants. These suggestions are listed below.

1. The establishment of a regional platform dedicated to cooperation on flood management can be considered. This platform could initiate joint studies, as well as support the coordination between CSOs and the government to develop transboundary data sharing and end-to-end early warning systems.
2. CSOs could initiate projects to demonstrate good practices linked to flood management and nature-based solutions.
3. Improved insurance products could also be developed. Groups can learn from the Oxfam Bangladesh experience. Local people will be insured against the differential impacts of flooding, and insurance should sufficiently cover losses.

## Annex 1: Agenda

**Agenda**  
**GBM CSO Network Meeting**  
**6-8, February 2018, Guwahati, India**

Day 1 – Tuesday, 6 February 2018 <i>Venue: Radisson Blue, Guwahati</i> <b>Working on our identity and network structure</b> <b>Output/outcomes:</b> Improved understanding of the functioning the regional networks and agreement on a governance framework for the GBM CSO Network	
08:30-09:00	Registration
09:00-09:30	Welcoming remarks and meeting objectives
<b>Session 1: Profile of the GBM CSO Network</b>	
09:30-09:45	Introduction of participants
09:45-10:30	BRIDGE GBM results and work plan Q & A
10:30-10:50	Coffee break and group picture
10:50-12:45	CSO Network and identified priorities <i>(Presentation based on participants' questionnaire survey)</i> Plenary discussions on the five actions of the GBM CSO vision identified for priority implementation
12:45-13:00	Activity Elevator pitch (present GBM CSO Network to the Minister of Natural Resources in one minute)
13:00-14:00	Lunch
<b>Session 2: Governance mechanism and operation guidelines</b>	
14:00-15:00	<b>Learning from the experiences of managing regional and national networks</b> <ul style="list-style-type: none"> <li>• Indo Nepal Joint Action Forum (INJAF)</li> <li>• SaciWATERs, Hyderabad, India</li> <li>• Conservation alliance in the Lancang watershed (Shan Sui)</li> </ul>
15:00-15:20	Coffee break
15:20-17:00	Group Work Developing operational guidelines for the GBM CSO Network
18:00-20:00	Networking dinner

<b>Day 2 – Wednesday, 7 February 2018</b> <i>Venue: Conference Centre, IIT Guwahati</i>	
08:30-09:00	Registration
09:00-10:00	Presentation on the outcomes of the group work: Operational guidelines for the governance of the GBM CSO Network
<b>Managing floods and DRR in the GBM</b> <b>Output/outcomes:</b> improved understanding of entry points, and strategies for CSOs to improve flood management	
<b>Session 3: Improving community resilience to floods: approaches and strategies</b>	
10:00-11:00	<b>Big data analytics and end-to-end flood early warning</b> <ul style="list-style-type: none"> <li>• Indian Institute of Technology (IIT), Guwahati</li> <li>• International Centre for Integrated Mountain Development (ICIMOD), Kathmandu</li> </ul> <i>Q and A</i>
11:00-11:15	Coffee break
11:15-13:30	<b>Testimonials from CSOs: ground realities and initiatives</b> <ul style="list-style-type: none"> <li>• Kohsi Victim Society, Biratnagar, Nepal</li> <li>• Gender perspective, SaciWATERS, Hyderabad, India</li> <li>• Gono Unnayan Kendra (GUK), Dhaka, Bangladesh</li> <li>• Oxfam Bangladesh</li> </ul> <i>(Coffee break included)</i>
13:30-14:30	Lunch break
14:30-15:00	Legal aspects and challenges linked to cooperation and flood management
<b>Session 4: Engaging governments on transboundary water issues at the sub-basin level</b>	
15:00-16:00	<i>Group discussions on the sub-basin activities planned under BRIDGE/TROSA</i> Identification of the sub-basin and strategies for BRIDGE project activities
16:00-16:20	Introduction to the field exercise (Aaranyak)
16:20-16:40	Coffee break
16:40-18:00	Tour of IIT Guwahati, Department of Civil Engineering

<b>Day 3 - Thursday, 8 February 2018</b> <b>One day learning visit to a flood-affected area</b>	
07:30	Report at registration
08:00	Leave hotel for the field study site and interact with flood affected community
13:00-14:00	Lunch
14:00-15:00	Reporting back on the experiences from the field visit - facilitated by IUCN (fun exercise)
17:30	Back to base location

## Annex 2: List of participants

S/n	Title	Name	Designation	Organisation	Base location
<b>Bangladesh</b>					
1	Ms	<b>Sharmeen Murshid</b>	Executive director	Brotee, and member of the National River Commission (NRCC), Dhaka	Dhaka
2	Mr	<b>MB Akhter</b>	Programme director	Oxfam Bangladesh	Dhaka
3	Dr	<b>Tuhin Wadud</b>	Director of Riverine People, and professor	Begum Rokeya University	Rangpur
4	Dr	<b>Md. Manzoorul Kibria</b>	Professor, Department of Zoology, and coordinator, Halda River Research Laboratory	Chittagong, Bangladesh	Chittagong
5	Mr	<b>Md. Abdus Salam</b>	Chief executive	Gono Unnayan Kendra(GUK)	Gaibandha
<b>Bhutan</b>					
6	Ms	<b>Rebecca Pradhan</b>	Senior ecologist	Royal Society for the Protection of Nature	Thimphu
7	Mr	<b>GK Chhopel</b>	Chairperson	Bhutan Water Partnership	Thimphu
8	Mr	<b>Jamyang Phuntsho</b>	Programme officer	Tarayana Foundation	Thimphu
<b>China</b>					
9	Mr	<b>Hu Ruocheng</b>	Project assistant, China Nature Watch	Shan Shui Conservation Centre	Beijing
10	Mr	<b>Zhang Yongfei</b>	Office of International Affairs	China Biodiversity Conservation and Green Development Foundation	Beijing
11	Ms	<b>Zang Jie</b>	Deputy director	Guangzhou Green City Environmental Development Centre	Guangzhou
<b>India</b>					
12	Mr	<b>Adiya Batsola</b>	Programme manager	SaciWATERS	Hyderabad
13	Ms	<b>Veena Vidyadharan</b>	Fellow and centre head, CUTS CITEE	Consumer Unity and Trust Society (CUTS) International	Jaipur
14	Mr	<b>Sabyasachi Dutta</b>	Director	Asian Confluence	Shillong

15	Mr	<b>Ashish Kumar</b>	Project manager	Nav Jagriti	Patna
16	Dr	<b>Partha J Das</b>	Head, Water, Climate & Hazard Division	Aaranyak	Guwahati
17	Ms	<b>Vinuthna Patibandla</b>	Project officer	Oxfam India	Delhi
18	Ms	<b>Ayesha Dsouza</b>	South Asia programme coordinator	International Rivers	Delhi
19	Mr	<b>Syed Abdul Aziz Ishaqi Farhan</b>	Programme manager	Development Alternatives Group	Delhi
20	Mr	<b>Shawahiq Siddiqui</b>	Legal expert on water governance issues	Indian Environment Law Organisation (IELO), New Delhi	Delhi
21	Mr	<b>Jyotiraj Patra</b>	Regional manager, Transboundary Rivers of South Asia (TROSA)	Oxfam Novib	Phnom Penh, Cambodia
22	Mr	<b>Raju Narzary</b>	Executive director	North East Research and Social Work Networking (NERSWN) Kokrajhar	Dhubri & South Salmara
23	Mr	<b>Dahal Narzary</b>	Programme coordinator	NERSWN Kokrajhar	Dhubri & South Salmara:
24	Mr	<b>Wilfred Topno</b>	Secretary	People's Action for Development (PAD)	Lakhimpur
25	Mr	<b>Wilson Hansda</b>	Director	PAD	Lakhimpur
<b>Nepal</b>					
26	Mr	<b>Komal Niranjana Bhatt</b>	National coordinator, Nepal	Indo Nepal Joint Action Forum (INJAF)	Kathmandu
27	Mr	<b>Robin Ghimire</b>		Union for Culture, Human and Environment Protection (UCHEP)	Biratnagar
28	Mr	<b>Dipendra Raj Karki</b>		Abhiyan Nepal	Biratnagar
29	Mr	<b>Balendu Hamal</b>		Association for Protection of Environment and Culture (APEC)	Biratnagar
30	Mr	<b>Dev Narayan Yadav</b>		Koshi Victim Society	Biratnagar



31	Ms	<b>Mandira Shreshtha</b>	Senior water resource specialist, programme coordinator, Establishment of a Regional Flood Information System in the Hindu Kush Himalayan Region (HKH-HYCOS)	International Centre for Integrated Mountain Development (ICIMOD)	Kathmandu
32	Mr	<b>Rajan Subedi</b>	Project manager, Transboundary Rivers of South Asia (TROSA)	Oxfam Nepal	Kathmandu
33	Mr	<b>Dinesh Gurung</b>	DRR, climate change and humanitarian response coordinator	Actionaid Nepal	Kathmandu
<b>IUCN Staff</b>					
34	Ms	<b>Anu Adhikari</b>	Programme officer	Climate Change, Gender and Social Inclusion, Nepal Country Office	Kathmandu
35	Mr	<b>Zang Cheng</b>	Programme manager	IUCN South China Programme	Guangzhou
36	Mr	<b>Raphaël Glémet</b>	Senior programme officer, Water and Wetlands	IUCN Asia Regional Office	Bangkok
37	Mr	<b>Archana Chatterjee</b>	National coordinator, Mangroves for the Future (MFF)	IUCN India	Delhi
38	Mr	<b>Vishwa Ranjan Sinha</b>	Programme officer, Natural Resources Group	IUCN Asia Regional Office	Bangkok
39	Mr	<b>Vishnu Sharma</b>	Administrative assistant	IUCN India	Delhi



INTERNATIONAL UNION  
FOR CONSERVATION OF NATURE

ASIA REGIONAL OFFICE  
63 Sukhumvit Soi 39  
Wattana, 10110 Bangkok  
Thailand  
asia@iucn.org  
Tel +66 2 662 4029  
Fax +66 2 662 4387  
www.iucn.org/asia

