



CONSOLIDATED REPORT- BRAHMAPUTRA DIALOGUE PHASE II



**The Transnational Policy Dialogue for
Improved Water Governance of
the Brahmaputra Basin: Phase II**



June 2014- June 2015
SaciWATERS

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I. Project Background

Project Name: Transnational Policy Dialogue for Improved Water Governance of the Brahmaputra Basin: Phase II

Project duration: June 2014 to June 2015

Project Partners: South Asia Consortium for Interdisciplinary Water Resources Studies(SaciWATERS), Indian Institute of Technology, Guwahati, (IITG) and Institute of Flood Management (IWFM), under Bangladesh University of Engineering and Technology (BUET), Bangladesh

Project Background

‘Transnational Policy Dialogue for Improved Water Governance of Brahmaputra River Basin: Phase II’ is an initiative by South Asia Consortium for Interdisciplinary Water Resources Studies (SaciWATERS), in association with Institute of Water and Flood Management (IWFM), Bangladesh University of Engineering and Technology (BUET), Bangladesh, and Indian Institute of Technology-Guwahati (IITG) under the grant of The Asia Foundation (TAF), India. This is a continuation of the initiative that started in 2013 by the grant received from TAF in India and Bangladesh towards informing the policies for effective and sustainable co- management of Brahmaputra River. Continuing the dialogue process at a multi-tract mode have been one of the important suggestions emerged during phase I of the project. A highly multidisciplinary expert group suggested a vertical and horizontal integration within and between countries. The most important is to go from tract 3 to tract 2 mode and to bring all the countries sharing the basin into a single platform. Experts also suggested developing a repository of knowledge base and data-sharing portal (like the Wikipedia / Brahmaputra Portal) that can be shared by the co-riparian countries and can be accessed by the common public and researchers as well.

Aforesaid recommendations and suggestions were later deliberated and discussed with the TAF to create pathways of interventions. Based on thorough discussion the project objectives, methodologies and outputs were crafted jointly. The primarily focus was to take the dialogue process from track three to track two diplomatic format within and between India and Bangladesh. Fivefold activity was proposed in this phase. These are:

1. Undertake exploratory studies to understand the issue of conflicts and cooperation towards management of Brahmaputra basin in India and Bangladesh
2. Desk review of international conventions, agreements and protocols on transboundary river governance and management
3. Doing meetings, taking interviews with them (tract 2 diplomacy format)
4. Country level dialogue meeting in New Delhi (India) at track II diplomacy format with specific focus on integrating regional and national approaches of water governance and management of Brahmaputra Basin
5. To have joint dialogue meeting of Bangladeshi and Indian Water professionals at track III and track II diplomatic format to discuss on probable platform for co-management of Brahmaputra Basin

The following midterm narrative report gives a detailed account of the activities covered in the project phase between 2014-2015.

II. Implementation

1. Activity 1.1 Documenting Hydro-case studies:

The case study documentation sought to understand the hydro politics associated with the management of Brahmaputra River particularly between Assam and Arunachal within India. Utilizing a critical hydro diplomatic framework for analyzing the power plays and hydro-power dynamics a case study was taken ahead. This case study is based on the experiences that are shared through interview held within Assam and Arunachal Pradesh. This aspect was chosen for the case study because from the many discussion and dialogues hydropower most often arose as the main bone of contention. To understand this we developed one case study from our experiences in Arunachal and Assam on Hydropower. This case study utilizes multiple stakeholders viewpoint along the diplomatic end that influences actions. This case study is part of a book publication that is underway with Oxford publications. The publication will also include further cases form India and Bangladesh as well.

2. Activity 2.1 Preparing Brahmaputra Protocol

The project also sought to prepare a set of guidelines of do's and don'ts in managing the Brahmaputra River. SaciWATERS team has worked on preparing the protocol in assistance with BUET, Bangladesh. The challenge faced in this effort is obtaining the history and process that dialogues and protocols have involved. The experiential learning are important and moves beyond assessment of existing literature. The learning from different cases around the world at one level has been shared through workshops and has informed discussion and suggestion. Taking this ahead we are working on preparing a learning document that can influence the management strategies of the Brahmaputra Basin. The document is in the process consolidation and refinement. This document will also inform activities that are to be taken ahead within the third phase of the dialogue. The final output will be shared with The Asia Foundation in the next three months.

3. Activity 3.1 conducting meetings, taking interviews (tract 2 diplomacy)

SaciWATERS team attended Assam water week, 2015 on January in Guwahati and meet Government officials from the center and the state of Assam and Arunachal Pradesh. Interviews were conducted with Ministry of Water resources, FREEMA, Brahmaputra board, Ministry of environment and forest. Further bilateral meetings were also held in Arunachal Pradesh with many department head regarding the Dialogue efforts. Our team also met with the Chief Minister of Arunachal and spoke with them of the efforts that have taken forward with the Dialogue. These efforts also built trust among the various actors within the Dialogue process.

Meeting the government department officials and civil servants were facilitated through a reference route. To garner a meeting with the CWC at Delhi we first spoke with their counterparts in Hyderabad with whom we have had a cordial working relationship. This reference from the CWC Hyderabad paved way for meeting with CWC Delhi. The meeting with CWC Delhi further enhanced participation at the dissemination workshop that was later held in Guwahati.

It is through this slow process of one-to-one meetings and bilateral discussion that also the dialogue efforts were further strengthened.

4. Activity 3.2 a. Country level dialogue meeting in New Delhi (India):

Track II diplomacy format with specific focus on integrating regional and national approaches of water governance and management of Brahmaputra Basin.

With a purpose of bringing together key players managing the Brahmaputra River on a same platform so as to ensure vertical integration of voices and interests of policy makers at State and National level a workshop was organized in Delhi on 22nd January 2015, in the Claridges, New Delhi, India. The workshop sought to address the following key questions:

1. What are the issues and challenges that states of Assam and Arunachal Pradesh face towards effective co management of the Brahmaputra River?
2. What are the challenges and opportunities in creating an enabling environment for dialogue amongst state partners?
3. What role and strategies can the central government play to provide the impetus on the center-state dialogue for the management of the Brahmaputra River Basin?

The workshop saw the attendance of political, bureaucratic, and academic sectors from Assam, Arunachal Pradesh, and Delhi. In this workshop the discussion saw sharing of situations and difficulties that are being faced with regard to the Brahmaputra river in both Arunachal and Assam. The workshop also gave space to the Brahmaputra Board and other related institutions to share about the structures that are currently present to address the management and data options.

The workshop was also the rare incidence that brought together political and bureaucratic will from both Assam and Arunachal Pradesh on the same platform for informal discussion on river management.

5. Activity 3.3: Joint dialogue in multitrack mode (Track 3 and Track 2) Dissemination dialogue meeting in Guwahati (India)

The purpose of the workshop in Guwahati was to share information on the process and results that were seen from this initiative in the past two years. It was a dissemination and reflection workshop on what we have achieved so far and where we would like to go from here. This workshop also was to inform about the initiation of a third phase of this dialogue process, which would not be possible without the support of the stakeholders including the government who have been part of this process since the inception of the project.

This workshop was attended by, the director of the Central Water Commission along with the governmental representative from water resource department of both Assam and Arunachal Pradesh. There was also representative from the power companies and NHPC within the region. The director (planning) of the Water Development Board, Bangladesh was also present. Senior level functionaries of civil society organization from both India and Bangladesh were also present at the workshop.

This dissemination of the positive influences of the dialogue within Brahmaputra, and discussion of the challenges shed light on the key elements that need to be taken ahead. It also resulted approval of the effort taken thus far and endorsement by the members present toward initiating further work in this front.

III. Dialogue impacts

The efforts within the phase two of the dialogue resulted for the first time, in an informal multi-track gathering for the Brahmaputra River wherein all riparian country representatives were present. The dialogue has succeeded in creating communication opportunities and further built confidence within water resource divisions not only within states in India but also across countries in track 2 and track 3 mode.

Some of the tangible achievements of this process include:

- The dialogue has managed to move from track 3 to track 2 and even track 1.5 in many regions. To gain political support, SaciWATERS also presented the initiative to the Chief Minister of Arunachal Pradesh and Water Resources Department (WRD) secretary of Assam. Both the states have appreciated the effort and agreed to support and continuing their participation in the dialogue between the riparian countries.
- The members of Central Water Commission of India and water resource departments within both Bangladesh and India have agreed to be on the advisory board for the next phase of the dialogue.
- Review and documentation of case studies for water sharing practices occurring at the regional and local level. Through the case studies we highlight existing local voices of cooperation that has allowed communities to share water for combined benefits.
- The dialogue also provided a platform for sharing concerns that were not normally shared among riparian countries and states. It enabled ease in communication and helped ease tensions and understand different perspectives different stakeholder that never had such a platform.
- This process has generated a demand from the stakeholders for continuation of the dialogue for at least five years so as to create a pathway for formulating a forum on Brahmaputra basin management.
- The dialogue has also resulted in identification of the shared and existing cooperation occurring in terms of sharing hydrological data or exchange of

delegates & professionals between riparian countries. This has bolstered new communication and avenues for cooperation.

- Delegates from China mentioned that the concerns of the lower riparian countries such as India & Bangladesh are to be shared with upper riparian countries – to understand the impact of infrastructure development at the basin level.
- For the first time in the Brahmaputra Basin all the riparian countries (including China and Bhutan) have come together to discussion management of the Brahmaputra River

All this along with the experiences gained in the last two years and the recommendations that came from the multi-stakeholder workshops, SaciWATERS will continue this dialogue process for another two years and initiate a third phase of the dialogue. The phase III will bring together the four riparian countries of Brahmaputra Basin – *Bangladesh, Bhutan, China and India* – for dialogue on co-management of the river basin.



IV. Annex

1. Country level dialogue meeting in New Delhi (India): Workshop Summary

I. Program Schedule

9.30– 9: 45 am	Registration with High Tea
10:00– 10:10 am	Welcome Address Dr. Anamika Barua <i>Executive Director, SaciWATERS, Hyderabad</i>
10:10– 10.20 am	Background of the Project Dr. Poulomi Banerjee <i>Senior Fellow, SaciWATERS, Hyderabad</i>
10.20 – 11:00 am	Panel Discussion: Session I <i>“Issues and Challenges for Co-Management of Brahmaputra River: State Perspective”</i> Introduction: Sumit Vij, <i>Research Fellow, SaciWATERS, Hyderabad</i> Chairperson : Prof. Chandan Mahanta, <i>Professor, IIT, Guwahati</i> Panelist 1. Tomi Ete, <i>Ex-Secretary, WRD, Govt. of Arunachal Pradesh</i> 2. Tapir Gao, <i>Ex- MP, Arunachal Pradesh</i> 3. Eng. Atul Shama, <i>Executive Engineer, Brahmapurta Board</i>
11:00– 11:30 am	Open Discussion and Closing Remarks by the Chair
11:45am– 1:15 pm	Panel Discussion: Session II <i>“Conflict and Possible Cooperation for Co-management of Brahmaputra River Basin: State & National Perspective”</i> Introduction: Sumit Vij, <i>Research Fellow, SaciWATERS, Hyderabad</i> Chairperson : Dr. Sagar Prasai, <i>Country Director, The Asia Foundation</i> Panelist 1. Arun Roy, <i>Chief Engineer, IWAI</i> 2. Joy Borman, <i>Secretary, Brahmaputra Board</i> 3. R.P. Agarwalla, <i>Dept. of Forest & Environment, Govt. of Assam</i> 4. A. K. Mitra, <i>Ex- Secretary, WRD, Govt. of Assam</i>
1:15 – 1:30 pm	Open Discussion and Closing Remarks by the Chair
2:15 pm – 3:15 pm	Synthesis & Way Forward Chairperson: Prof. Sanjoy Hajarika, <i>Director, Centre for NorthEast Studies, Jamia Millia Islamia, New Delhi.</i> Panelist 1. Dr. Partha Jyoti Das, <i>Aaranyak, Assam</i> 2. Dr. M. K. Pandit, <i>CISMHE, Delhi University, New Delhi.</i>

Rapporteur: Safa Fanaian, *Research Fellow, SaciWATERS, Hyderabad*3:15 pm – 3:30 pm **Vote of Thanks**Dr. Aditya Bastola *Senior Fellow, SaciWATERS, Hyderabad***II. Participants List**

Sl. No	Name	Email	Department/Organization
1.	Mr. Tomi Ete	tomiete@yahoo.com	Ex. Secretary, Dept. of Public Health Engineering & Waste Resources, Govt. of AP
2.	Mr. Tapir Gao	gaotapir@yahoo.com	Ex. MP Arunachal Pradesh
3.	Dr. Partha Jyoti Das	partha@aaranyak.org	Aaranyak (NGO), Assam
4.	Er. A. K. Mitra	akmitra48@gmail.com	Former Secretary, Water Resources, Govt. of Assam
5.	Prof. Chandan Mahanta	mahantait@gmail.com	Professor, IIT Guwahati.
6.	Mr. R. P. Agarwalla	rajendra.agarwalla@gmail.com,	Chief Conservator of Forests, Dept. of Forest & Environment, Govt. of Assam.
7.	Mr. Arun Roy	arunroy1@yahoo.com	Chief Engineer -Inland Water Authority of India, Guwahati
8.	Prof. Sanjoy Hazarika	cnesjmi@gmail.com	Director, Centre for North East Studies and Policy Research Jamia Millia Islamia
9.	Mr. Joy Borman	bbrd-ghy@nic.in	Secretary- Brahmaputra Board
10.	Mr. Atul Sarma	atulsarma77@gmail.com	Executive Engineer-II - Brahmaputra Board
11.	Dr. Satya Priya	spriya1@worldbank.org	World Bank
12.	Dr. Sagar Prasai	sagar.prasai@asiafoundation.org	The Asia Foundation
13.	Ms. Mandakini Surie	mandakini.surie@asiafoundation.org	The Asia Foundation
14.	Mr. Vikrom Mathur	vikrom@orfonline.org	Observer Research Foundation
15.	Ms. Sonali Mitra	sonalimittra@orfonline.org	Observer Research Foundation

16.	Dr. M. K. Pandit	mkpandit@cismhe.org	Professor and Director, Centre for Interdisciplinary Studies of Mountain and Hill Environments (CISMHE)
17.	Ms. Paula Hanasz	paula.hanasz@anu.edu.au	Communications Manager, Food Energy Environment Water Network (FE2W), Canberra, Australia

III. Workshop Summary

With a purpose of bringing together key players managing the Brahmaputra River on a same platform so as to ensure vertical integration of voices and interests of policy makers at State and National level a workshop was organized in Delhi on 22nd January 2015, in the Claridges, New Delhi, India. The workshop sought to address the following key questions:

1. What are the issues and challenges that states of Assam and Arunachal Pradesh face towards effective co management of the Brahmaputra River?
2. What are the challenges and opportunities in creating an enabling environment for dialogue amongst state partners?
3. What role and strategies can the central government play to provide the impetus on the center-state dialogue for the management of the Brahmaputra River Basin?

Dr. Anamika Barua, the Executive Director of SaciWATERS welcomed the participants and gave a brief overview of the main events that occurred in the first phase of the dialogue. She stated the importance of having a dialogue that begins with understanding perspectives from each side and forming bonds of goodwill that will enable future action.

Following this Dr. Poulomi presented the highlights of phase II. She stated the four main objectives that are to be covered in Phase II. They are as follows:

1. The first objective is to understand the conflicts and cooperation in the management the Brahmaputra River. This would cover the states of Assam, Arunachal Pradesh and, similarly within Bangladesh.
2. The second objective looks to understand the do's and don'ts within the Brahmaputra basin. This will be brought together through a literature review.
3. Conducting interviews and discussions with water diplomats, bureaucrats and government officials working on governance and management of Brahmaputra basin.

4. Conducting country level dialogues in track II diplomacy with special focus on integrating regional and nation approaches on water management.

She reinstated the importance of vertical integration of perspectives. Also on request, she gave an overview of phase I of the dialogue. It was initiated through track III dialogue among civil society across India and Bangladesh. The first phase brought out several recommendations, many of which have been carried forward to Phase II. After this the sessions of the day began.

Session I-Panel discussion: “Issues and Challenges for Co-Management of Brahmaputra River: State Perspective”

The session’s chairperson and panel members were introduced and invited by Mr. Sumit Vij (SaciWATERS)



Chairperson: Prof. Chandan Mahanta -Professor, IIT, Guwahati

Panelist

1. Tomi Ete, Ex-Secretary, WRD, Govt. of Arunachal Pradesh
2. Tapir Gao, Ex- MP, Arunachal Pradesh
3. Mr. Atul Sharma, Executive Engineer, Brahmaputra Board

Prof. Mahanta welcomed everyone, especially the panel members present. He then went on to further mention his experiences of working with Brahmaputra River as a scientist. He brought out the plight of the people and the river within Assam. Those living on the banks of Brahmaputra spend most of their time coping with floods thereby limiting the time and efforts that can be spent on river bank development projects. He pointed out the need for integrated studies on the river so as to balance development plans.

“It is too late to have this kinds of meetings but not too late to start...” Mr. Tomi Ete, Ex-Secretary, WRD, Govt. of Arunachal Pradesh.

“There is a need for regional cooperation... where we can sit together, share the knowledge, share the experience...” - Mr. Tapir Gao, Ex- MP, Arunachal Pradesh

Following this, Mr. Tomi Ete spoke of the need for such talks to be held, even though he mentioned “...it is too late to have this kinds of meetings but not too late to start.” He mentioned that in Arunachal Pradesh there are 157 dams planned to be constructed on the river. However, none of these have been built due to traditional land right issues and their resulting conflicts. He also further stated that there is need for Arunachal Pradesh to develop and water resources are its

main natural capital. However, he iterated that any development on the river has to be thoroughly studied along with its potential social and environmental impacts downstream. Because we are all stakeholders of the river and all need to be considered including Bangladesh and Nepal.

Mr. Tapir Gao mentioned in his talk about the importance of development in Arunachal Pradesh however not at the expense of the environment or downstream users. He mentioned that floods, erosion and earthquakes are prevalent in the region and any dam construction needs to take all these factors into consideration. Otherwise the damage that can happen will be enormous not only for Arunachal Pradesh but also Assam, downstream states and nations. He further also stated that these dams have been agreed on and money has been paid for them, if they are not taken further, who will bail Arunachal Pradesh from this debt?

Mr. Atul Sharma mentioned that the Brahmaputra Board was put together through an act of parliament and given authority to bring together master plans for the Brahmaputra River. He pointed out that within India, water is a State subject. However, when cross boundary issues arise there is a provision within the constitution which provides a clause stating, if the number of states involved is large then it is deemed for the Center to intervene. He also pointed out toward adopting a basin wide approach for managing the river. He indicated the main challenge upstream states face is hydro-power whereas downstream users grapple with floods, erosion and sedimentation therefore individual approach to management of the river is not efficient. He applauded talks on treating the river basin as a whole unit. He further stated that in the same spirit then "... the benefits of the river should also be shared on equitable basis rather than territorial."

Following this Prof. Mahanta summed up the learning and mentioned that we need to build capacities at the local level to be able to overcome difficulties, study and coordinate the challenges that arise.

Open Discussion

Q: Ms. Mandakini Surie (The Asia Foundation) directed a question to the representatives from Arunachal Pradesh about the importance of China and its hydropower development potential for Arunachal Pradesh.

Mr. Tomi mentioned of the clause in international policy where each riparian's right to utilization of the river has to be acknowledged. He further indicated importance of the Centre communicating with the State, to increase awareness of the Centre on issues the State considers important. He also mentioned that currently the laws in Delhi are made without consultation of the state.

Another question was about China and its new development projects near the boundary along with possibilities of Arunachal Pradesh constructing near border. To this Mr. Gao and Mr. Ete mentioned that Arunachal Pradesh has not even constructed the proposed dams, new ones near the border would require long tension lines which altogether is too expensive to construct. However, they also mentioned that if such a power project is done in collaboration with China for power to be sold to China, this can contribute to new arrangements and chances for cooperation over common business interests.

“... this type of dialogue participation, it takes time to come to a conclusion. The Mekong River Commission took 39 years to come to a mutual consensus” – Mr. A. K. Mitra, Ex- Secretary, WRD, Govt. of Assam

Q: Dr. Anamika Barua raised a questions toward the traditional property rights and how are those issues handled?

To this Mr. Gao and Mr. Ete mentioned that each village has an administrative council that has power and authority and this councils gives the final verdict. These councils are respected and their decisions carry influence over the community.

Q: A question raised towards the Brahmaputra Board representative queried about the preparation of master plans for the basin and if states are consulted during the plan preparation? There were also questions raised about the real-time data, data availability and data sharing for flood forecasting and what the Brahmaputra Board is doing in that regard?

To this Mr. Sharma stated that the Board collects data and secondary information from different agencies and States creating a draft and sends it to the riparian states. Including these inputs a final draft is made and circulated to the concerned states. This draft is sent to the Government of India for the final approval which together makes the master plan. Regarding flood forecasting, he mentioned that the Government of India has taken up flood forecasting and there are probably many interior areas they can cover. Hydrological data should cover the entire basin and the Central Water Commission (CWC) has taken up this responsibility.

Dr. Satya Priya (World Bank), stated that the CWC needs further information on flow for more accurate flood forecasting. The World Bank, he also mentioned is moving towards a hydrology phase III of data generation and collection with major focus on Ganga and Brahmaputra. He also stated that this data is to be placed in the public domain with a push to states to share their data as well. He stated that data generated from this avenue can be further utilized as deemed for the Brahmaputra basin studies, and forecasting.

Q: Another question was raised regarding the communities in Arunachal Pradesh and their response towards hydro-power developments occurring, especially with some communities agreeing to these developments?

To this Mr. Ete and Mr. Gao, shared that the communities are being educated by hydro-power companies regarding the benefits that they can avail along with the compensation packages that they can receive. The communities' perspectives are slowly changing towards hydro-power developments, many are becoming pro hydro-power. Confidences of communities are being raised through information and also observation of other areas where compensation and developments have been made.

With these questions and after thanking the panel members the first session concluded.



**Panel Discussion: Session II-
“Conflict and Possible
Cooperation for Co-
management of
Brahmaputra River Basin:
State & National
Perspective”**

Chairperson: Dr. Sagar Prasai, Country Director, The Asia Foundation
Panelist

1. Arun Roy, *Chief Engineer, IWAI*
2. Joy Borman, *Secretary, Brahmaputra Board*
3. R.P. Agarwalla, *Dept. of Forest & Environment, Govt. of Assam*
4. A. K. Mitra, *Ex-Secretary, WRD, Govt. of Assam*

Mr. Arun Roy initiated his presentation with an overview of the Brahmaputra basin along with its specialties and its peculiarities that makes it so unique. He stated that volatility of the river with its floods and erosions adds another point of conflict and contention among states and countries. He mentioned of the plans for development projects that were to be designed by the banks of the river. However, due to the volatility of the river those plans had to be put aside, as even the existing roads and projects within Assam are being washed away by floods.

Mr. Roy further mentioned that we all work in isolation which does not allow sustainable development of the river. Since 1972, there has been a treaty between India and Bangladesh

for ships to traverse. This is one example of fruitful utilization of the river and till date it is working well. He suggested that if we plan for the river in an integrated manner through one nodal agency which oversees, hydro-power, navigation,

transport, irrigation, etc. this can facilitate effective utilization and expenditure towards the River. This would require a study of the river along with a nodal agency that will decide allocation utilization and management.

Following this, Mr. Mitra gave his inputs on his work on the Brahmaputra since 1975. He stated that Assam which is downstream faces the problems of erosion, floods and sediment transport. Then, there are the earthquakes that also deposit massive amounts of sediments. Most work done in Assam on the river till date has been on erosion and flood management. All through, Assam did not know that Arunachal Pradesh also faces problems with the river, in terms of traditional ownership, development and growth. The problems of Arunachal Pradesh then move on to Assam, then Bangladesh. The idea of co-management then requires much work.

Mr. Mitra, applauded the effort for a Dialogue but then also reminded everyone that, "... this type of dialogue participation, it takes time to come to a conclusion". The formation of Mekong River Commission took 39 years. He reinstated the importance of an apex body governing the river basin, as there are many opportunities for cooperation over the river. One such opportunity is navigation however, due to sediment transport this needs much attention within Assam.

He also mentioned that the Brahmaputra Board is a good effort but lamented that this body has not been given enough statutory powers, hence it remains a watchdogs of the activities that take place on the Brahmaputra. He also stated an avenue for cooperation can be flood forecasting, there are possibilities of saving more lives by arriving at more precise predictions through non-structural equipment and modeling. There are efforts being taken to learn and build capacity from experiences across other basins such as Mekong Basin. He ended his talk by stating that States are doing as much as they can. Now, further actions have to be taken by a high power body with enough finance which can bring tangible and sustainable solution to this perpetual problem.

Mr. Borman from the Brahmaputra Board also shared his experiences. He spoke of utilizing the river in a manner that conserves it for our future generations. He mentioned that the Brahmaputra board was established in 1980 by an act of Parliament and it started functioning since January 1982. All the northeastern States including Sikkim and northern part of West Bengal are under the Brahmaputra Board. The Board he mentioned is already empowered and mandated by the act prepared by the Central Government and the National Water Policy. He mentioned that there is no conflict between national water policy and, the aims and objectives of Brahmaputra Board. There are enough powers given to the Brahmaputra Board that have not yet been utilized.

Till date, he mentioned that the Board has prepared 60 master plans. Each master plan addresses the problems of erosion, floods, sediments along with solutions and requirements of hydroelectric stations within the basin. He also stated that there is no lack of studies, there are about 46 different studies carried out by esteemed institutions. He also mentioned that until now there have been several efforts by the Board to bring States and countries together for planning. He concluded by saying “...if we learn from nature, in the same way that the Brahmaputra river is formed by joining different tributaries, so can all the riparian States can come together to form an authority to manage the Brahmaputra”.

“... we should pool our minds together as to how we can go for a strong institution... the perspective of conservation simultaneously with the development.” Mr. R.P. Agarwalla,

Mr. R.P. Agarwalla in his talk stated that the Brahmaputra Board plays an important role in maintaining the economy of Assam, as this is closely linked to the Brahmaputra River. The Brahmaputra River is not only essential to people but also wildlife, especially Kaziranga National Park. The Park requires small floods and dry periods to maintain wildlife. However, the high floods also cause damage to wildlife as they drown in the river during floods. Beside the main river, there are also the tributaries which need all disciplines to work together. He stated that even though the Brahmaputra Board may have prepared 60 plans many of them may not have

“...if we learn from nature, same way that the Brahmaputra river is formed by various tributaries joining so can all the riparian States can come together to form an authority to manage the Brahmaputra”- Mr. Joy Borman,

been properly implemented which can be due to lack of resources or takers.

Perhaps this requires better coordination between departments of water resource of States and the Brahmaputra Board. He stated that “...the development of Brahmaputra basin in the North-East States is important and we should pool our minds

together as to how we can go for a strong institution and also take on stakeholders with the perspective of conservation simultaneously with the development.” He said that we need a balance of both conservation and development.

Open Discussion

Q: Questions were raised about the regularity with which States met with the Brahmaputra Board and about the kind of discussion that took place before master plans were made? It was also asked if there were any conflict of interest between the State and Centre.

Mr. Mitra stated that there were regular meetings and close interaction of the ministry with the Brahmaputra Board along with exchange of ideas and discussion. Regarding the conflict of interest, he mentioned that the complexity of the problem makes it difficult to be handled by the State alone and need Centers' assistance in terms of funding and resources.

Q: The Brahmaputra Board reconstitution that is set to occur was questioned? Whether there would be much reconstruction or this would simply result in changing the name only?

“...desertification and climate change are huge problems they are not restricted to borders of Arunachal Pradesh and Assam or west Bengal or Bangladesh” - Prof. Sanjoy Hajarika

To this it was answered that the Board already has many provisions and powers that have not yet been used. Mr. Borman stated that the Brahmaputra River Valley Authority was conceptualized with some modification of the earlier rules and regulations. Then last cabinet note was circulated in 2013 with a name of Brahmaputra River Basin Authority also more power was proposed towards this body. However the main challenge he mentioned is that, water is a State subject and if the States don't come together to work on these plans even with its new powers the Board will not be able to yield results.

Q: A question was raised for clarification of the whether Brahmaputra Board will become a regional authority within the river basin? There was also a question raised about the functionality of the Brahmaputra Board and whether it would be better if another authority altogether was created?

To this it was answered that there is much provision within the master plan of the Brahmaputra Board that is not being used. There is about one lakh crore rupees provisions within the master plan that has already been approved by Government of India and circulated to concerned States. The States have to come forward with their proposals, which has not been happening except for few. Within the plan they have approved; 1000 crore for flood management activities and a sanctioned 8000 crore floods plans to which only States such as Assam, Sikkim and Arunachal Pradesh has so far come forward with plans. State agencies are only eligible to come forward with proposals.

Mr. Ete, to this suggested that if there was a session or dinner organized after parliament sessions to educate the Members of Parliament of these provision and budgets then there would be more possibilities of proposals coming forward.

Summing up the session Dr. Sagar stated that this issue is a multilayered, involving local, state, national and transboundary interests. Addressing all these interest

could require a nodal agency, however if the people collaborating in this agency are not involved then regardless of its powers it will crumble. Addressing this would then require finding new ways of collaboration and working principles.

Session III: Synthesis & Way Forward

Chairperson: Prof. Sanjoy Hajarika

Panelist

1. Dr. Partha Jyoti Das, *Aaranyak, Assam*
2. Dr. M. K. Pandit, *CISMHE, DU, New Delhi*

Dr. Das summarized the learning from the discussion. He stated that there are multiple dimensions and avenues related to Brahmaputra, main among them is lack of information



and knowledge. Along with the lack of data there is a lack of access to data and mechanisms of data sharing. This he stated is nothing new. However, what is new is that although there is a paucity of knowledge, there exist pockets of substantive knowledge. The Brahmaputra Board and the Central Water Mission are storehouses of knowledge and there needs to be

mechanisms where we can access the knowledge from these sources. This access and sharing of knowledge can lead to cooperation on several fronts.

From the previous sessions he summarized that everybody agreed that resources of the river needs to be used sustainably and go hand in hand with development. At the same time, the ecosystem cannot be compromised. This understanding is present at every level. There are frequent references to Integrated Water Resource Management (IWRM) and basin level management. These ideals are good to pursue, and require instruments to follow. Environmental consideration needs to be taken up and it should form the core principle in management of the basin.

Dr. Das phrased that the whole region suffers from water-induced hazards, hence the mitigation of these hazards should form an important part of management options. Flood forecast has to be understandable and has to happen at every level. There was reference to resources that are available however; utilization and exploitation of these resources can in addition lead to undermining of traditional institutions in the long run. To take ahead the discussion and cooperation on Brahmaputra there is a need to bring in political actors and executives to this sector of water management. Involving government officials of different states and center through increasing spaces for sharing and exchanging perspective can be beneficial for further collaboration.

He further shared that the river is one continuous body and there is necessity for upstream and downstream collaboration. One avenue for collaboration that is presently obvious is that on flood and erosion mitigation between Arunachal and Assam. He also mentioned that other avenues for collaboration is through cultural exchange and sharing by means of arts.

Following this, Prof. Sanjoy Hajarika shared his view on importance of having discussions on the Brahmaputra River. He stated that the problems are not always within borders, many times they originate elsewhere and are only going to increase. He stated that “...desertification and climate change are huge problems they are not restricted to borders of Arunachal Pradesh and Assam or west Bengal or Bangladesh.” This requires discussion of states with a view of how track 2 can evolve into track 1. He mentioned that the one thing that unites us is the lack of information and what each is doing about the problems they face. The only way, he mentions to solve this is through sharing of information. Prof. Hajarika mentioned one common thing that requires least work and least resistance, and each feels a partner in, is music and culture. This integration should be done in a way that strengthens each other but not create greater wall of suspicion and distrust.

Prof. Pandit took the stand and mentioned about the balance that needs to be made between dams for development and conservation. On one hand he mentioned that around 30% of the Indian population does not have electricity and one of the best way, for now, is stated as hydro-power. However, research has found that through the construction of dams roughly 25% of biodiversity will become extinct. He emphasized the distinct need to look at the pros and cons in this developmental processes.

The conflict he stated arises because of information asymmetry. He also suggested that the decision-making should necessarily include domain experts who know and have data. He questioned as to how can we still continue to say we don't have good data? He

“...the villagers do not understand the language of forecasters, it has to be converted into very simple, very simply explained”- Dr. Partha Jyoti Das, Aaranyak, Assam

brought out two main concerns first being, how do we bring information into the system. Second, there is a source sink relation between riparian and catchment states. The sources in relation need to be understood clearly.

About the sedimentation he stated that from his experience, sediment is required for building landmass however, on the flip side sediment also blocks rivers. He then further stated that we must treat the river as an ecological system, the same way we treat the forest. He ended his talk with a gentle warning, stating that is are going to be more rains, more floods, and more trouble on the Brahmaputra River and that the river is difficult to tame.

Prof. Hajarika concluded the session by stating that even though the river provides for growth and development, the river in itself has a right. The river has a right to flow and

survive. Further he stated that we need to help the government overcome its reluctance to share data and information. There is a growing consensus, however there also needs to be an understanding of the broader picture. This could require an agency that assists States in coordinating their activities on Brahmaputra.

IV. Conclusion

Dr. Aditya Bastola from SaciWATERS along with Prof. Mahanta made some concluding points on what needs to be done next. Dr. Bastola mentioned of the need for an integrated ecosystem based approach to study the Brahmaputra basin. Along with this, the knowledge that gets generated needs to be shared, right from the local community leading up to policy makers. Sharing makes the dialogue process better in the long run. Towards this he stated a required stronger coordination between state and national governments. In this process the dialogue is a continuum.

Two important things that we need to take to consideration then is recognizing institutions at local level along with their knowledge systems and capturing those local knowledge. Along with this also recognize that there are social councils that have ownership rights. Much culture is shared between these states, it is then also important to recognize this and integrate it into the dialogue.

Prof. Mahanta added that from now on we need to bring more specificity to the dialogue. As previously mentioned, if there is enough power with the Brahmaputra Board, the changing the name will not make a difference. We need to bring in more cross-disciplinary studies and integration of North-East onto one platform, we need to bring an understanding of how to collaborate together. Comprehend what is wrong with what was previously done and how do we go forward from there. Bring in very specific suggestions on the role of the Brahmaputra Board before its reconstitution. Also bring in a review of the entire water resource and development paradigm and conduct a truthful review of it.

To the Brahmaputra Board, Prof. Mahanta stated, there needs to be given specific bullet points on what can be done along with requirements. Then only, he stated, can things be done and credibility of further work be gained. He also suggested that there be cost benefit analysis and assessment of what can be better options towards development. A

“...people continue to look at the problem like a blind looking at an elephant. Somebody holds the tail, somebody trunk and everybody tries to justify it that this is what I feel.”- Prof. Chandan Mahanta, IIT-Guwahati.

status report of where we stand right now in terms of resource and where do we want to go, would add a road map. We should create and develop models of the Brahmaputra.

River based on which judgments can be made on feasible

developments that can be done on the river. All of this, Prof. Mahanta stated needs technical support which is currently lacking. Much of the work and development on the Brahmaputra River is currently based on the ‘rule of thumb’, there is a need for a more

scientific approach. He mentioned if we continue with the rule of thumb it will become like “... people continue to look at the problem like a blind looking at an elephant. Somebody holds the tail, somebody trunk and everybody tries to justify it that this is what I feel.” He also emphasized that the Brahmaputra is too big for one person or a set of persons to understand. There is a need for collective scientific action and there is much traction towards it already.

He raised a joint call for ownership of the process of research and bringing collective research into the picture. The population within Brahmaputra Basin he stated also faces several formidable issues of health and education.

A vote of thanks was given by Prof. Sanjoy Hajarika and further Dr. Aditya Bastola specially thanked the participants for their time and presence and also the coordination team from SaciWATERS for its efforts.

2. Dissemination dialogue meeting in Guwahati (India) : Workshop report

Brahmaputra Dialogue, Dissemination Workshop, 5th August 2015

Table 1 Program Agenda

Time	Agenda	Panelists
10:00am–10:30 am	Registration & Tea	Dr. Anamika Barua
10:30am–10:45 am	Welcome address & Introduction	Dr. Poulomi Banerjee
10:45 am – 11:15 am	Keynote 1. Shri. Likar Angu, Chief Engineer, WRD, Arunachal Pradesh 2. Shri. Rishi Srivastava, Director (Reservoir Operations), Central Water Commission (CWC), New Delhi. 3. Shri. Fazlur Rashid, Directorate of Planning-1, Bangladesh Water Development Board(BWDB) Dhaka	
11:15 am – 12:15 pm	Open session: Moderated by Dr. Aditya Bastola & Dr. Anamika Barua	
01:00 pm– 1:25 pm	Way Forward & Vote of thanks	Dr. Anamika Barua/ Dr. Poulomi Banerjee
01:30 pm onwards	Lunch	

Table 2: Participants List

Sl No	Name	Designation	Organization/Department
1	Mirza Zulfiqar Rahman	PhD Scholar	HSS, IIT Guwahati
2	Biren Basty	GIS Expert	ASDMA
3	All Gupta	Sr JT.Coman	MOWR,RD & GR
4	A K Mitra	Sr JT.Coman	TAC/WR/Assam
5	Rachna Yadav	HSS	IIT Guwahati
6	R K Chaudhary	Chief Engineer	NHPC
7	Sanchita Baruah	Assistant Professor	DHSK Guwahati
8	Rishi Shrivastava	DIR, CWC	Central Water Commission
9	Dr Rabindra Kumar	ENVS Forest	PCC, Arunachal Pradesh
10	PP Changkakah	CEWR Assam	WRD Assam
11	Ravi Shankar	SE HUE, CWE	Central Water Commission
12	Dr.Monowar Hussain	Executive Director	IWM, Dhaka
13	En.Pura Tupe	Chief Engineer Hydro Power	Hydro Power Development Arunachal Pradesh
14	Fazlur Rashid	Director Planning-1	Bangladesh (Water Development Board)
15	Partha Jyothi Das	Program Head	Aaranyak
16	AK Baruah	Secretary	Water Resource Department
17	Likar Angu	CE WRD	WRD Arunachal Pradesh
18	Dr. Anamika Barua	Executive Director	SaciWATERS
19	DrPoulomi Banerjee	Senior Fellow	SaciWATERS
20	Dr. Aditya Bastola	Senior Fellow	SaciWATERS

Agenda: This workshop was the third dissemination-cum-dialogue meeting, of the three-year initiative on Brahmaputra Dialogues. This workshop then focused on the common grounds of cooperation and roles of different stakeholders in informing institutional transformation at regional, national and local levels along with the dissemination of our findings.

Welcome address & Introduction

Dr. Anamika Barua, Executive Director of SaciWATERS, welcomed the delegates and thanked them for accepting the invitation to participate in the dissemination workshop of the Brahmaputra Dialogue project. She extended her gratitude to the participants from government departments of India and Bangladesh (WRD of Assam and AP, CWC, New Delhi and Water Board, Bangladesh) for attending the workshop. She then briefed the participants about SaciWATERS, the thematic areas where SaciWATERS work and the type of projects that SaciWATERS is presently involved. She informed the participant that among all the projects BD is a project, which is very close to her heart, as she belongs to Assam and she has grown seeing the river. She also mentioned of the huge potential that social and economic development has for the region but that is only possible if the river is co-managed by the riparian countries.

“Unlike negotiation, in a dialogue forum there is no winner or loser and hence it provides an opportunity to all the stakeholders to raise issues, concerns and also to find common grounds for corporation”

She then highlighted that BD is a project that realizes this potential and believes that a dialogue is the first step towards cooperation. Unlike negotiation, in a dialogue forum there is no winner and loser hence it provides an opportunity for all stakeholders to raise issues, concerns and

also to find common grounds for corporation. With this understanding SaciWATERS initiated the project in 2013 with support from The Asia Foundation (TAF) through two phases, between 2013 to 2015. She mentioned that while much research, particularly joint research has been conducted to understand the river they have been mostly academic in nature and are hardly shared with the policy makers. Hence, there is a need to start a dialogue to facilitate discussion among multiple stakeholders before any negotiation happens.



Dr. Barua explained that a Dialogue is an inclusive process, which provides a platform to different stakeholders to be a part of the process and identify new approaches to address

a common problem. It is different from negotiation as it provides an opportunity to identify and consult as well as understand the constraints and opportunities in managing the issues in hand. It was emphasized that dialogue is also not about just sitting around a table, but it is about changing the way people talk, think and communicate with one another. It is with this objective in mind, SaciWATERS initiated the BD project, which initially started with mostly track 3 stakeholder but today she is happy to see a very good participation from track 2 diplomats along with track 3 participants. To be able to bring track 2 participants from India and Bangladesh, she said, itself is a big achievement to SaciWATERS.

Dr. Barua mentioned that the purpose of this workshop is to inform all the participants in detail how this initiative started two years back, what we have achieved so far and where we would like to go from here. She emphasized that SaciWATERS would like to take this initiative to the third phase, which would not be possible without the support of the stakeholders including government who have been part of this process since its inception.

Dr. Barua concluded by thanking all the participants again for attending the workshop and then requested Dr. Poulomi Banerjee, who is a senior fellow at SaciWATERS and also the principle investigator of the project to provide the background of the project and disseminate the findings of the project.

Dr. Poloumi Banerjee gave a brief description of the project and shared SaciWATERS experience in moving from track 3 to track 2 level, and also about the vertical (bringing Assam and Arunachal together) and the horizontal integration (India and Bangladesh), and the challenges faced in the last two years. She mentioned that different stakeholders across India and Bangladesh have pointed out that lack of dialogue has led to raising tension, speculation and apprehension among the riparian countries and hence SaciWATERS effort to facilitate a dialogue between the riparian countries have been appreciated by all.



She highlighted that, while discussing with different stakeholders about the River, most felt that there are robust engineering solutions to the river but what is missing is the social-economic underpinning. There is therefore a strong need for Environmental Impact Assessment (EIA) before any intervention takes place and these should be of trans-boundary nature. It was also emphasized during the dialogue process by different stakeholders that there is a need for a basin level approach while conducting EIA too as the River needs to be viewed as a whole. While joint research like the one conducted by IUCN are good initiatives, but there is need to have more such studies and the research findings should be translated into the language of the community and policy maker. This gap needs to be bridged and dialogue could be one medium.

Similarly stakeholders pointed out that while data sharing through different agreements between the riparian countries is happening but these are bilateral in nature and data is shared only for the during monsoon period but not during lean season. Although it is possible to generate scenarios using satellite data, but satellite data cannot substitute the ground level, such data also helps in building trust with the community as well as between riparian countries.

Dr. Banerjee mentioned that stakeholders expressed their concern related to erosion, as erosion seems to be larger issue than flood management. She cited an example from Majuli, where during discussion most of them said that they are happy with flood as it makes their land fertile, but the concern in more about erosion and sedimentation. The stakeholders also mentioned that management of erosion and sedimentation has to be understood in the context of the trans-boundary nature of the river.

“There has to be a political will too which can lead to cooperation at the trans-boundary level and that is what this Dialogue aims to achieve”

Dr. Banerjee also emphasized the need of constituting an apex body or a trans-boundary institutional structure, which can be created through dialogue. Stakeholders suggested this during the Dhaka Dialogue in Bangladesh. She

emphasized that continuing the dialogue is important to push the agenda as far as possible. There has to be a political will too which can lead to cooperation at the trans-boundary level and that is what this Dialogue aims to achieve.

Unfortunately in the Brahmaputra basin nothing much has happened and whatever treaties have been signed they are all at the bilateral level. Hence it is important to push for multilateral agreements between the riparian countries. It may take time, as it took 37 years for Mekong to come up with a treaty, which is an outcome of successful dialogue process. Hence with this aim SaciWATERS is initiating this Dialogue with multiple stakeholders in the Brahmaputra Basin.

Dr. Banerjee gave a quick background of how the project initially started with Assam (India) and Bangladesh, and at track III level and now we have been able to bring in Bhutan and China as well. India, Bhutan and Bangladesh have involved representation from track II, however representation from China has been mostly from academicians. However initiating discussion with academicians from China for SaciWATERS is one major achievement. Moreover, this may be the first time all the four riparian countries have come together in an informal setting to discuss about the Brahmaputra Basin.

Key Session

The main objective of this workshop is to get everyone’s suggestion on what we have achieved so far, to understand if we are on the right track and how to move ahead from here. She then invited Mr. Likar Angu, additional Chief Secretary, WRD, Arunachal Pradesh (AP) to give his opening remarks.

Mr. Angu, began by stating that he would like to share his personal views on the subject and not the views of Govt. of Arunachal. He appreciated SaciWATERS initiative of facilitating a dialogue between the riparian countries. He started by emphasizing that water is a complex issue. The share of AP is about 14.5 % and China's contribution is about 25% and the total flow is about 35% which is a significant volume of water between China and AP contributing together to the Brahmaputra River which flows from China to India and Bangladesh. Because AP shares a huge basin area, it has to play a significant role in basin management. Any good work AP does in basin management will also be beneficial to lower riparian countries (India and Bangladesh). He further emphasized that with the challenge of climate change which will have an impact on the water resources, it is very important on each State to promote basin and forest management. He therefore, fully endorses the initiative taken by SaciWATERS to continue this dialogue. He stated that there is a need for generating international consensus about the River, among different countries irrespective of the country being a part of the basin or outside the basin. He mentioned that it is important to generate awareness about the river through the support of Media. SaciWATERS can definitely play an important role here.

He reminded all the participants that the agenda of this workshop and the dialogue process is to bring in international cooperation in the sound management of the river. He added that "I as a representative of Govt. of Arunachal Pradesh fully endorse the agenda and that the dialogue should be taken forward". He also recommend that along with the dialogue, joint research should be conducted at the basin level by bringing in all the riparian countries on issues related to the river basin.

"I as a representative of Govt. of Arunachal Pradesh, fully endorse the agenda and that the dialogue should be taken forward"

Dr. Aditya Bastola thanked Mr. Angu for his encouraging words and also for endorsing the dialogue process on behalf of the Govt of AP. He also thanked him for setting the questions for the participants of the workshop to discuss which includes international cooperation, climate change impacts and joint research. He mentioned that in the last two years SaciWATERS also realized that the project is not devoid of challenges, there are different views from different stakeholders and therefore this workshop aims to bring in these different perspectives & experiences into one platform so that SaciWATERS can raise the concerns at international level. With that he requested everyone to share their views and invited Mr. AK Mitra and Mr. Changkakoti from WRD Assam, to share Govt. of Assam's perspective

Mr. A. K Mitra stated that Brahmaptura river system is now in his blood as he has been working on issues and challenges related to the river in the last 40+ years. His experience tells him that it is not correct to look at the river system in isolation, apart from the river, there are various social, economic and environmental challenges which needs to be looked at too when we talk about the sustainability of the River.

As far as Assam is concerned, he mentioned that the most dangerous part of the river flows through Assam. Brahmaputra starts from Kobo where the 3 rivers join; it has as many as

126 sub tributaries. Apart from that there is also the problem of sedimentation, which is a huge challenge for the river. For the last 60 years, since 1954 Govt. of Assam has come up with various short & long term measures to control natural disasters caused by the river, which are implemented with the help of Center. One of the natural disasters, which occurs every year and is the sorrow of Assam, is flood. In spite of so many efforts every year flood occurs and there is loss of life and livelihoods. Although the state government has made its best efforts to reduce the flood related disasters but both in Assam and Arunachal in the recent years the intensity of water related disasters have increased manifold. Hence, there is a need for a comprehensive solution to this problem. Various suggestions have come like – holistic and basin level approach, integrated water resource management, regional cooperation etc. but according to him, all these will not succeed without dialogues and consultations between riparian countries.

Mr. Mitra mentioned that he has been attending all the dialogues that SaciWATERS have organized since 2013 and that for the first time he has seen some positive direction where riparian countries are coming together to share their views. He therefore endorses this initiative that SaciWATERS has taken, and if such an initiative is not taken by someone then the system of no discussion and no dialogue between riparian countries will continue forever, will not lead anywhere. Hence a platform is definitely needed for dialogue and consultation, in order to arrive to some consensus and as it is not possible to address all problems at one time so it is also important to prioritize some of the issues.

“Various suggestions have come like – holistic and basin level approach, integrated water resource management, regional cooperation etc., all these will not succeed without dialogues and consultations between riparian countries”

He emphasized that this is definitely not going to be smooth and easy. It took 36 years of rigorous dialogue to come up with Mekong River Commission (MRC).

The dialogue for MRC started in 1959 and eventually it was setup in 1995. They have a conflict solving mechanism in place because they are also not devoid of conflicts. But their attitude towards conflicts is different, they hold the view that brothers sharing the same house will have conflicts but the conflicts need to be sorted before it grows out of proportion. The way with trust, confidence, dialogue and consultation a major trans-boundary river like Mekong has come up with a commission, similarly it is wrong to believe that it is impossible for Brahmaputra to come up with some kind of consensus with its riparian countries, it may take 10 -15 years but it is definitely possible through such dialogues. So, SaciWATERS has a long journey ahead to get this dialogue accomplished.

He reminded the participants that in the Dhaka Workshop there was a daylong deliberation with all the stakeholders representing India, Bhutan, Bangladesh and China. He mentioned that it was interesting to see that Chinese delegates very openly expressed their views and have also invited SaciWATERS to organize a workshop in China just for the percolation of ideas.

He then requested all the delegates coming from different background with varied experience such as Shri. Ravi Shankar from CWC to share their ideas so that SaciWATERS

could come up with a vision and a mission for the next 2 - 5 years. He stated that we all together should be able to come up with some policy level achievement by the end of 2 years and then we should plan further for the next 3 years. During these 5 years we should move from track 3 to track 2 to track 1.5. He also reminded everyone that although in the Dhaka workshop participants had different views and opinion related to the River, but one thing to which everyone agreed is that the dialogue should continue. He emphasized that we all need to keep in mind the bigger issues of water related hazards and disasters which brings sufferings to all. Let this mutual suffering led to common solution so that all the riparian countries sharing the basin suffer less, which will eventually benefit the people.

He then requested Mr Changkakoti to express his views and opinion on the subject.

Mr. Changkakoti started by narrating his experience in the flood control department where he joined as an assistant engineer in 1970. He shared his personnel experience of working in Brahmaputra Board – Flood Control Division and that he was in charge of Dihan/Siang and Subansri River. During his term in 1980 the act of parliament was passed to constitute the apex body as Brahmaputra Board and in 1982 the Brahmaputra Board was functional. Based on his experience he feels that there is enormous potential in the region due to its vast water resources. If the potential of the river could have been explored in a manner, which is beneficial to all, today Assam could have been economically in the similar position like UAE. Nevertheless, he mentioned that, he can start dreaming again of a

“If the potential of the river could have been explored in a manner, which is beneficial to all, today Assam could have been economically in the similar position like UAE”

Brahmaputra Commission, which may take 40-50 years but he definitely appreciates SaciWATERS efforts. He also mentioned that he is very happy that this dialogue process will involve multi-stakeholders at multiple level from all the basin countries, which will ultimately lead to wellbeing of

the common people. He requested SaciWATERS to find a way to involve common people too in this dialogue process, who are the main stakeholders of this mighty river system.

Response-

Dr. Aditya Bastola thanked the representative of Govt of Assam – Mr. Mitra and Changkakoty – for sharing their valuable insights and also for appreciating SaciWATERS effort to continue the dialogue. He then invited Mr. Ravi Shankar to get the centre’s perspective on the subject.

Mr. Ravi Shankar began with a critical insight that usually when we talk about Brahmaputra Basin we forget about the other basin Yarlung Tsangpo, which is in China. So if we talk about Brahmaputra Basin then we will have to confine our dialogue between India and Bangladesh only, else we need to bring Yarlung Tsangpo basin if we want to include China into the dialogue. But at the same time we have to also remember that most of the water for Brahmaputra is generated in Arunachal Pradesh.

He emphasized that although for Assam due to water related disasters, Brahmaputra becomes the river of sorrow, but the river is also a very important resource of the state. Flood is a natural process, which is needed to keep the land fertile. So it not possible to stop flood but it definitely needs to be managed. We can talk about horizontal and vertical integration for dialogue, which is good and is required too but there is also a bigger need to sort out the problems between Arunachal Pradesh and Assam as there is a lot of water issues between these two states. He also mentioned that water is unidirectional it moves from upstream to down steam so any intervention made by the upper riparian will have to keep in mind about the impacts that may lead to in the lower riparian states/countries. He added that if Assam objects to any intervention AP makes which is beneficial to AP, Assam also has to understand that AP has been asked to make that sacrifice for the benefit of the lower riparian states without getting anything in return.

He also emphasized that China being the upper riparian usually is reluctant to come for a discussion. But if SaciWATERS is able to bring them onboard he said that he appreciates that effort. He added that it is also important that SaciWATERS involve other States of India including West Bengal. He feels that it is important that the issues need to be sorted first within India before taken it to the international/trans-boundary level. While Basin wise approach is good, there is a lot of things that needs to be worked out first within the country before talking about basin.

Regarding Data sharing, he mentioned that CWC has all the relevant data related to Brahmaputra, but this is a policy decision that data is not available in public domain. He also added that while data is shared but it is not shared for all the seasons, it is only shared for the monsoon season. He then posed the question that why do we need data for the lean season? He also added, such questions come from China to India and similarly India also questions Bangladesh.



He said that in Assam the main problem is erosion than flood. Erosion is caused by both natural and man-made factors. Various engineering solutions have been provided but many a times they have also failed. Another problem he added is the sedimentation of the river that is caused by the developmental activities in upper riparian states such as AP (e.g. roads construction, building houses) this leads to the sedimentation in the river. But the problem is, it does not mean that we can ask AP not to develop. He emphasized that even within Assam due to unplanned development the flood has started to occur very frequently. Due to construction of houses in the hills, it has led to sedimentation within

Assam itself. Therefore the issues needs to be perceived from a holistic manner, piece-meal solutions are not enough. When disasters happen short terms measures are taken to reduce the loss or to cope with the disaster but no permanent solution is devised because after a few months everyone forget about it.

Mutual dialogue as initiated by SaciWATERS is happening and is a good initiative, but there has to be a strategy in place and it has to be well designed. It has to move step-by step, as bringing all the stakeholders together at one go in one platform may not help too much. Mekong is a good example, but Brahmaputra and Mekong are two different rivers that cannot be compared. He acknowledged Brahmaputra has high potential but the question is how to harness it. It has to be resolved with mutual understanding between the states. Central govt. is trying to find ways, to come up with North-East Water Authorities, but it is not devoid of challenges.

“Mutual dialogue as initiated by SaciWATERS is happening and is a good initiative, but there has to be a strategy in place and it has to be well designed”

He then emphasized that while SaciWATERS is trying to initiate the dialogue between the riparian countries, there is a need to ensure that upper riparian also get a

chance to put their points on table. It is not right to always question upper riparian when due to any development activities the lower riparian lose water. Both upper & lower riparian has the equal right to use the water.

He concluded by stating that for such negotiations to be successful, there has to be a political will, engineers and bureaucrats, all needs to come together and only then useful conclusion can be drawn. This is needed because most of the issues that are discussed in such platforms are policy level issues. He cited the example of data sharing. He mentioned that “data at the moment is confidential because of a policy decision and only a signature is needed to put in public domain”.

Response-

Responding to the points raised by Mr. Ravi Shankar, **Dr. Anamika Barua** mentioned that SaciWATERS is not looking at this platform as a platform for negotiation. It is a platform where representatives from riparian countries come to talk, share their views and there is no winner or loser as it is platform only for dialogue. SaciWATERS experience shows that if it is termed as negotiation, representatives are not willing to participate, as they feel there is nothing to negotiate but participants do feel that there is lot to share and talk. SaciWATERS looks at it as a very positive move because many issues, which are otherwise not discussed and shared, are discussed in this platform. She quoted Mr. Ravi Shankar’s remark on data sharing that to bring the data to the public domain is a matter of one signature and that SaciWATERS looks at it as a positive sign because it may be challenging but not impossible.

She emphasized that as Mr. Ravi Shankar mentioned, SaciWATERS also understand Mekong and Brahmaputra are completely different rivers, and has different usage too. But

she mentioned that it is important to understand that SaciWATERS is not trying to compare these rivers, but SaciWATERS is trying to understand through international treaties like Mekong and other treaties, the process that they went through, 37 years what they discussed, what were the challenges, how did overcome the challenges, who were the stakeholders etc.

She appreciated the idea that first issues needs to be resolved within the country and she mentioned that SaciWATERS is providing that platform too, as dialogues have moved to the international level from the country and regional level. She also informed the participants that, SaciWATERS was very happy to have representation from China, although it was a challenging task but SaciWATERS could bring academicians from China who are working closely with the Chinese government. To understand more on China's behavior, SaciWATERS is also going through international treaties where China is a party to understand Chinese way of getting into a formal agreement. SaciWATERS feels that such understanding will help to bring China on board.

She then invited Mr. Fazlur Rashid from Bangladesh Water Board to share his thoughts on the subject.

Mr. Rashid first thanked SaciWATERS for inviting him for the workshop. He then mentioned that feelings of common people whether it is Bangladeshis Indians or even Chinese are the same, they can hear the heart beat of the common people. Such forums provide an opportunity to express our feelings. Many issues, which are usually not discussed in the political forum, can be discussed in these informal forums. For example, data sharing is one such issue which now know why it is not in the public domain and that it is a matter of signature. Also there are different layers of diplomacy but it is also important that we invite

“It may take 72 years for Brahmaputra River Commission to come up but process has to start, and I am very optimistic that it will definitely happen”

politicians to such platforms as observers; they will then understand the language and the feelings of the common people. River is not only about sharing of water, it is also about sharing our joy and sorrow; it is

also about sharing every problem like erosion or any other ecological problem. But to do so we need more such dialogue platforms and so he appreciated SaciWATERS initiative of providing such a platform. Agreeing with Mr. Mitra he mentioned that this dialogue needs to have a vision as there are two many compartments, we can discuss about one compartment and after we resolve that we move to the next, otherwise it will be an endless process.

He added that even though we are not able to bring in bureaucrats from Chinese, it is fine we can have Chinese academicians or common people on board as they can disseminate the discussion in their country, what is need is involvement does not matter who is involved. He also mentioned that the dialogue needs to be strengthened through research work and a regional knowledge base network can be created under the onus of SaciWATERS. He added that SaciWATERS should become the permanent office, who will ensure the continuity of the dialogue and the outcome of such dialogue meetings should

be developed as published reports and it should be distributed in the relevant government departments of all the riparian countries

Responses-

Mr Ravishankar responded by emphasizing that we have to keep in mind the river, the ecology, the politics around the Brahmaputra River system is a very dynamic one and this dialogue is a long drawn process. During this time the needs of the community, the thoughts on the river may itself change, so we have to keep space for such dynamism in the dialogue process. Ravishankar also suggested that one way of involving center could be by SaciWATERS approaching the center with the affected party. It is also a good idea to ask JRC to include both India and Bangladesh.

Mr Rashid, from Bangladesh, then suggested that all these will follow eventually but this dialogue is a good way to break the ice, even if it takes 72 years as he stated earlier.

Prof Monowar Hossain, from IWM, Bangladesh, reacted to this by saying that this dialogue can also reduce the time scale to 18 years too as through this dialogue we all are learning and also getting educated on issues which were not very clear earlier. He appreciated SaciWATERS initiative in facilitating this dialogue and also taking this initiative.

Mr. Mitra mentioned that this dialogue has been able to increase the level of understanding between the riparian countries. He has been a part of IUCN project too and he can see the trust building is taking place and this process therefore needs to be continued.



Dr. Ravindra Kumar emphasized the need to have a knowledge and research aspect into the project. He also suggested that it would be a good idea to invite opinion papers from stakeholders, which could be useful for common people, will also sensitize policy makers on the issue. There has to be some mechanism to disseminate the knowledge generated through this dialogue to multiple stakeholders

Dr. Aditya Bastola informed the participants that for the next phase we have proposed a dedicated interactive website and blog where everyone can share and express their views.

Mr. Angu mentioned that a discussion is going on to come up with a regional level Brahmaputra Basin authority (NEBRRA). Arunachal Pradesh has shown some opposition is accepting the terms and conditions laid in the document. He would like to clarify the reason for this opposition in this forum. He stated that any regulatory authority in some or other way try to restrict the wider access to water. So AP fears that it may have an impact on its access to water resource. While Mr. Angu appreciated the effort made and also commended the initiative taken by the center to have such regional authority but he felt that they would like to seek some clarification from the central government on certain

clause that has been laid down in the document. He emphasized that it is not true that AP is vehemently protesting it, as they are very much in favor of having dialogues with Assam as well as Centre on this so that this initiative can be taken forward carefully and with a positive approach. Hence he expects that MoWR will take the lead in drafting it in a manner that it is doable and will not take away the water rights of the citizens of AP. He also mentioned that in national forums where such decision is taken, AP's representation is usually very low, as such their voice is not heard. He there suggested that center must ensure that the representation from all the NE states should be there and in equal proportion.

The participants from both Assam and Arunachal Pradesh deliberated on NEBRA and the challenges associate with it. There was also a discussion on how to elect the co chair and the vice chair for NEBRA and if it is possible for states where the water resource lies to have veto power.

Dr. Ravinder Kumar reacted to this by bringing in the challenges related to Environmental Impact Assessment. He mentioned that it is important that we study the cumulative effect of dams, usually EIA is confined to a state and downstream states and upstream states do it within their political boundary. But it is important that for issues like dams we should not confine to political boundaries and this needs to be coordinated by the centre. If it is not possible to have an international body immediately but at least national level body under JRC can be created to conduct such assessment to understand the impact at the basin level.

“EIA should be conducted at basin level and is not confined to political and administrative boundary of the state”

Dr. Bastola then asked Mr. R.K Choudhury, from NHPC to let us know his view on the subject.

Mr. Choudhury started by stating that the most important issue in front of Assam is how to use the water in the most beneficial way. Water management is the major challenge, hence a decision was taken that there should be a storage in Arunachal Pradesh for Assam. The problem was that the monsoon discharge is high and it is low during the lean season. So the only way to manage this is through construction of big reservoirs in AP as it is in the upstream. He emphasized that with such reservoirs we will be able to manage the water flow as well as it will bring economic benefit to the region as a whole.

“While flood is considered important to enhance the fertility of the agricultural field, but when impact of flood become devastating, it does not do good to anyone, and we then need to think strategies to get rid of it”- Mr. R.K Choudhury

We all need to together think how best we can utilize the water so that we can be make most of it. This will not only resolve the problem of flood but also erosion problem will be taken care of.

He mentioned that while flood is considered important to enhance the fertility of the agricultural field but when impact of flood become devastating that it does not do good

to anyone, and we then need to think strategies to get rid of it. It calls for planning and implementation of flood management projects. To address all these issues, CWC and Brahmaputra Board together came up with the implementation plan for hydro-power projects in Arunachal Pradesh. CWC is one of the pioneering institutions of India. Mr. Choudhury mentioned that when he joined NHPC he saw Chinese engineers coming to CWC to take training, around 20 people used to come for 3-4 months for the training programs.

He emphasized that CWC has so much knowledge we need to use this knowledge to find local solutions to manage water resources. Using CWC and BB's knowledge it was decided that the reservoirs should be constructed in AP to control excess floodwater and the place of construction was also identified.

Before Subhansiri project started, a lot of studies were done to understand the impact of the project; these studies were done for years before it was actually implemented. Mr. Choudhury said AP raised the objection that because of the height of dam, some areas of AP will be submerged. He mentioned that we engineers studied the dam further to find a solution to this problem. Hence it was decided that in order to save the submergence of the area as highlighted by AP, it will be better to go for cascading development i.e. three (3) dams will be developed – Subhansiri lower, middle and upper. This was done with CWC's approval. Such construction will lead to flood moderation and will reduce erosion and siltation too.

Construction of Subhansiri Dam started in 2005, it continued till 2011 Dec, 8000 crore which is the tax payer's money has been invested already. But in 2011 work stopped, the problem of downstream and benefit sharing came up. So many experts committee has given their views on the safety of the Dam, CWC which is the supreme authority has also approved it, geological survey of India which is the constitutional arm of the government has also given go ahead but the work is still under hold.

Dr. Ravindra Kumar intervened and mentioned that more than technology; the issue is more of benefit sharing and employment.

However **Mr Mitra** did not agree to this and mentioned that the major issue is of downstream impact

Mr. Choudhury reacted to this and said that experts did a basin wise study, if downstream impact is a concern then we must look for a solution too – **“ if there is an impact there must be a solution”**. He also mentioned that he endorses that sharing of benefit between the riparian states is an issue, and then both the states should be brought together by CWC, SaciWATERS so that the states can sit together and find a way out. He mentioned that if this is not done we will lose out and no one will benefit or gain anything, neither Indians nor Bangladesh and the water will just flow into the sea. On the other hand China will reap all the benefits of the river.

Aditya invited Dr. Partha Jyoti Saikia to express the view of the civil society on the subject.

Dr. Partha Jyoti Das started by appreciating the concerns raised by Mr. Choudhury and that everyone including civil society also wants a resolution to the problem. However, there are some issues, which are of concern, particularly the downstream impact, benefits distribution and mainly dam safety.

“People from diverse discipline are expressing concerns in different ways related to the safety of the dam and we cannot ignore their concerns”

Although CWC is an expert and had ensured the safety of the dam, but still people from diverse discipline are expressing concerns in different ways related to the safety of the dam and we cannot ignore their concerns, as they are well known personalities in their fields. After going through these concerns there are quite a few experts who have changed their minds on the dam safety. Hence dam safety is definitely the major concern and debate is still going on and the 8 member expert committee who is looking into it has yet not come to any conclusion.

Anamika Barua intervened and emphasized that the purpose of such dialogue is to provide a platform to make people aware of these issues related to dam and remove these kind of apprehension.

Mr. Das mentioned that he has been a part of the SaciWATERS dialogue process and this is the third workshop he is attending. He appreciated SaciWATERS effort in continuing the dialogue. He also emphasized that such dialogue can remove many misunderstanding and is a very good experience for all. He asked SaciWATERS to take the dialogue to the next level by bringing different stakeholders on board so that knowledge sharing can take place. He also emphasized the need for the states to strengthen their data management, as there are many tributaries of Brahmaputra for which no data is collected. This is something the states can take initiative to collect data of numerous tributaries of Brahmaputra.

Emphasizing the need of data, **Mr. Ravishankar** mentioned that CWC has data on Brahmaputra but since it is classified so it is not available online. But there is a request they provide the data but they do need to know the purpose for which the data will be used. But such questions are usually not answered and data sharing between state and center has also become a sensitive issue.

“Ecological needs to be taken into account when we talk about development and therefore a multi-dimensional approach is needed”

Dr. Sanchita Barua brought in the need to understand the ecosystem as a whole and the services they provide. She mentioned that river species are getting extinct and fish like Hilsa are getting reduced in number as there is no way for them to breed as the natural channels have been cut off. There are no alternative provisions made for

them to breed or to relocate them. The minimum river flow, which is required to sustain these species, is not maintained. Hence she emphasized that these are additional issues,

which needs to be taken into consideration when we talk about development and a multi-dimensional approach is needed.

Everyone unanimously agreed that such studied needs to be discussed in the dialogue forum as it would be enlightening for all.

Anamika informed all that SaciWATERS in the next phase has proposed to organize workshops, which will provide a platform to all to share knowledge through presentations and deliberations. She then asked Mr. Pura Tupe from Arunachal Pradesh to share his thoughts on the subject.

Mr Pura Tupe started by emphasizing that Brahmaputra is a big river with a huge volume of water flowing, which flows through different states and country, hence a holistic approach is needed as it is also a life line for many people. He mentioned that there could be a lot of economic benefits coming from the river and India's position is very crucial in the international platform. Hence, such dialogue helps to discuss many things and to ease the tension between the states. But he emphasized that this forum should move beyond internal issues and bring Bhutan China Myanmar too, and more so for China as it is very difficult to understand what they have in their mind and such informal dialogues provides an opportunity to discuss many things openly. Hence we should focus at the river as a whole and not focus only from a state perspective.

“Such dialogue helps to discuss many things and to ease the tension between the states”

Conclusion

Dr. Anamika Barua thanked all the participants for their active participation and for the thought provoking discussion. She requested all of them to ensure the continuity of the dialogue by participating in all the upcoming dialogues. She informed that the next dialogue meeting would be scheduled in the early next year and SaciWATERS will send invite to all the participants requesting their participation.

