

# Promoting Trade and Tourism in Transboundary Waterways of Meghna Basin





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# Abbreviations

CBT:	Community-based Tourism
DPRs:	Detailed Project Reports
FGDs:	Focus Group Discussions
FPOs:	Farmer Producer Organisations
GBM:	Ganges-Brahmaputra-Meghna
ICP:	Integrated Check Post
ICPDR:	International Commission for the Protection of the Danube River
IWAI:	Inland Waterways Authority of India
IWT:	Inland Water Transport
LCS:	Land Customs Station
NER:	North East Region
NTBs:	Non-tariff Barriers
NW-2:	National Waterway-2
ODC:	Over Dimensional Cargo
PIWTT:	Protocol on Inland Water Transit and Trade
SHGs:	Self Help Groups
TROSA:	Transboundary Rivers of South Asia
WDB:	Water Development Board

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Many other names deserve special mention but prefer anonymity. We thank them all for their support and guidance. This publication has captured the key findings from country-specific studies and drawn conclusion from a sub-regional perspective.

Any error that may have remained is solely ours.

CUTS Centre for International Trade, Economics & Environment

# Preface

**Bipul Chatterjee**  
Executive Director  
CUTS International



**T**he Meghna basin is an emerging hotspot of geo-political considerations for various reasons. It is part of several initiatives of transport connectivity by road and waterways between India and Southeast Asian countries. With a number of hydropower projects in the pipeline, it is also an epicenter of hydro-diplomacy between India and Bangladesh.

The Surma-Meghna River system caters to a number of ecosystem services ranging from agriculture, fisheries, tourism, minerals and navigation. There are numerous opportunities for joint development of this basin to maximise such benefits, as improved resilience to flood and erosion, food self-sufficiency and security, and conservation of cultural and ecological diversity.

Cross-border tourism, trade, transit and transport via inland waterways between India and Bangladesh through the Meghna basin is another exciting prospect for the riverine communities in this region. This is primarily due to two reasons: increasing local trade will enhance economic growth of the region, and involving local communities can ensure the benefit sharing of resources and governance cooperation.

In this context, the present study has been successful in creating evidence of cross-border trade using mechanised boats along the short trans-boundary stretches in Barak, Gumti and Haora rivers of the Meghna basin. It has highlighted the prospects of community-based tourism in supplementing the income of tribal communities in Chabimura (Tripura) and Dawki (Meghalaya).

Previous studies by CUTS on Ganga and Brahmaputra basins indicate that tourism, trade, transit and transport via inland waterways has been successful in creating ownership among riverine communities. These studies have emphasised the need for follow-up through rigorous policy dialogues to ensure consensus on trans-boundary prospects of livelihood generation.

The findings of this study clearly indicate the prospects of cross-border navigation from Sonamura to Daudkandi and linking it to the Protocol Route 3 (Kolkata-Karimganj) in the Meghna basin by providing transshipment facilities at Daudkandi. Also, the current mode of bank-to-bank trade in Karimganj-Zakiganj can be extended up to Ashuganj, Bangladesh once the navigability is improved in this stretch.

I would like to thank Oxfam, Cambodia for supporting this study as part of its Transboundary Rivers of South Asia (TROSA) programme. Our partners – Unnayan Shamannay, Bangladesh, Lord's Club, Karimganj, Assam and Tripura Chamber of Commerce, Agartala, Tripura have been instrumental in facilitating our work in the study locations. I also thank Arun Roy, Expert on River Engineering & Inland Water Transport Operations, and Consultant, CUTS International for his overall guidance to the project and my colleagues who have worked sincerely for its successful completion.

# Executive Summary

**T**ransboundary Rivers of South Asia (TROSA) is a five-year (2017-2021) regional programme implemented by Oxfam which aims to contribute to poverty reduction and marginalisation among vulnerable river basin communities through increased access to and control over riverine water resources on which their livelihoods depend.

Under this project, partners work with communities in the transboundary river basins of Ganges-Brahmaputra-Meghna (GBM) in Nepal, India and Bangladesh and the Salween in Myanmar.

This report captures the findings of a project titled “Inclusive cross-border trade in Meghna basin in South Asia” that was initiated under TROSA programme as part of a series of short-term research to co-produce knowledge and evidence on different issues which will inform the programme’s evidence-based influencing and advocacy work in the region.

The study primarily focussed on Kushiya, Gumti and Haora rivers of India for the prospects of cross-border trade with Bangladesh as well as Umngot river and upstream of Gumti for exploring tourism potential. The study explored on how the riverine communities can benefit from inclusive inland water transport and sustainable river tourism.

The objectives of this study were to:

- create evidences on the economic, social and environmental implications of cross-border trade using mechanised boats in shorter transboundary stretches in Barak, Gumti and Haora rivers of Meghna basin; and
- understand the impact of river cruise tourism on political-economy factors at the local level with special emphasis on community-based tourism in Gumti and Umngot river.

The research team conducted field visits in several locations along the river banks of Kushiya-Kushiya, Gomati-Gumti, Titas-Haora and Piang-Umngot rivers to gauge the perceptions of various stakeholders at the grassroots. The research team conducted field-level focus group discussions (FGDs) and expert interviews with multiple stakeholders in India and Bangladesh to explore the socio-economic benefits of cross-border trade to local communities in several locations in Meghna basin.

The major opportunities identified through this study are:

- With the development of waterways from Ashuganj to Zakiganj stretch, traders in India can expand their markets and also it is likely that commodities are imported from Bangladesh side as well.
- Cross-border trade from Sonamura to Comilla and up to Daudkandi through Gumti is feasible using vessels of capacity 10-25 tonnes.
- Haora river is lean close to the border in both India and Bangladesh and does not have necessary depth for navigation at many places. The navigability can be improved by dredging but being in the proximity of well-equipped Agartala integrated check-post

(ICP), road network and the upcoming rail connectivity, prospects of cross-border trade through waterways is limited. Further, bimodal connectivity (waterways+road) from Ashuganj Port to Agartala is already operational.

- With regard to trade in agricultural commodities, traders in all three locations on the Indian side shared that port restrictions, high duty, lack of quarantine facilities (Karimganj and Srimanatapur) and other non-tariff barriers (NTBs) hinder cross-border trade. If these restrictions are removed, that will help local farmers and consumers.
- Regarding tourism at Chabimura, the Tourism Department of Tripura has already initiated measures to that end. However, guidelines for Community-based Tourism (CBT) are in the process of development. Beneficiary contribution has to be included in all the subsidised interventions proposed for communities to develop a sense of ownership.

Dawki-Jaflong are popular tourist spots across international borders of Bangladesh and India with lots of livelihoods dependant on the same. It is important to explore further the current livelihood scenario and its scope of improvement through promotion of sustainable tourism.

All the proposed interventions revolve around the socio-economic benefits of riverine communities that can be gained through better participation in trade and tourism and are very much in tune with TROSA objectives.

# 1

## Prospects of Trade and Tourism in the Meghna Basin

### Introduction

Transboundary Rivers of South Asia (TROSAs) is a five-year (2017-2021) regional programme implemented by Oxfam which aims to contribute to poverty reduction and marginalisation among vulnerable river basin communities through increased access to and control over riverine water resources on which their livelihoods depend.<sup>1</sup> Under this project, partners work with communities in the transboundary river basins of Ganges-Brahmaputra-Meghna (GBM) in Nepal, India and Bangladesh and the Salween in Myanmar.

Rivers of the North East Region (NER) of India have been an integral part of the life of riverine communities in the sub region. Other than supporting agriculture and fisheries, the network of rivers has been the major means of transport and trade. With the declaration of the Brahmaputra river as the National Waterway-2 (NW-2) in 1988 and with the National Waterways Act in 2016, India has increased emphasis on developing necessary infrastructure for trade, transit and tourism via waterways in the NER.

India has a vision of developing inland waterways by increasing their utilisation for transportation of cargo to about 20 billion tonne km (present level is 4 billion tonne km) by 2020 (GoI, 2011). In realising this vision, the Inland Waterways Authority of India (IWAI) which is the nodal agency for developing national waterways in India has recognised the significance of connecting remote areas of NER by adopting fish bone model<sup>2</sup> of waterways network.

Further to this, IWAI has been promoting river tourism/cruises, encouraging private sector participation in fleet augmentation along with providing incentives for modal shift to inland water transport (IWT) and for modernisation/up-gradation of country boats. These initiatives would definitely improve the connectivity as well as the socio economic status of this land locked region by generating livelihood opportunities in tourism, freight handling and infrastructure development.

Hence, along with Brahmaputra, other rivers of NER are also being developed in order to tap into their potential for trade, transit and tourism across domestic and international borders. One such extension of the river systems is the transboundary rivers of the Meghna basin which support the lives and livelihoods of riverine people in relatively remote locations.

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1 Please refer to more details about the TROSA project here: <https://cambodia.oxfam.org/TROSA>

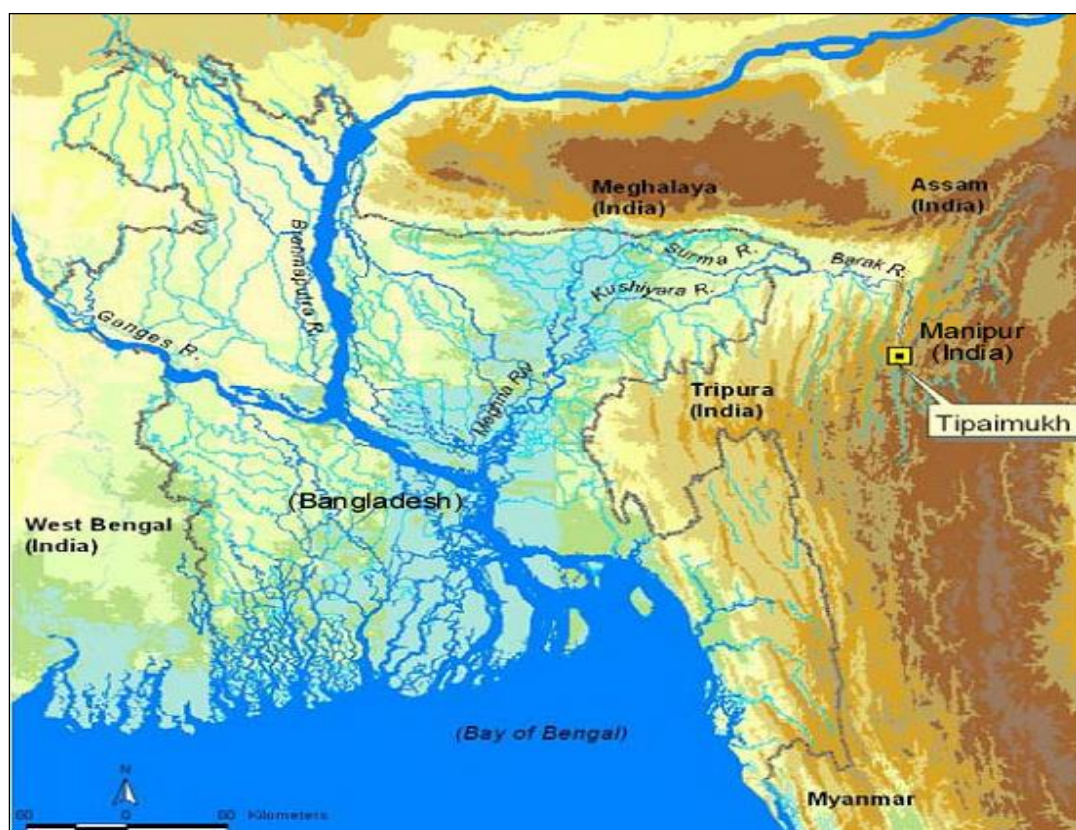
2 In this model, feeder routes are to be developed by respective state governments thereby connecting it to National Waterways. This will look like a fish bone, the laterals being the feeder route which provide connectivity to remote areas.

This report captures the findings of the project titled “Inclusive cross-border trade in Meghna basin in South Asia” that was initiated under TROSA programme as part of a series of short-term research to co-produce knowledge and evidence on different issues which will inform the programme’s evidence-based influencing and advocacy work in the region. The study primarily focussed on Kushiya, Gumti and Haora rivers of India for the prospects of cross-border trade with Bangladesh as well as Umngot river and upper section of Gumti for exploring tourism potential. The study explored on how the riverine communities can benefit from inclusive inland water transport and sustainable river tourism.

River Barak is an important river of the Meghna basin, which originates from the hills of Manipur and bifurcates into Surma and Kushiya rivers in Karimganj district of Assam before entering Bangladesh (Map 1). The Surma and the Kushiya rivers conjoin at Bhairab Bazar in Kishoreganj district in Bangladesh to give rise to the Meghna river. This river also receives water from Gumti and Haora rivers and later merges with Padma (Ganga) and Jamuna (Brahmaputra) near Chandpur in Bangladesh.

The Meghna basin caters to a wide range of ecosystem services other than inland waterway transport ranging from agriculture, fisheries, energy (hydropower), minerals and eco-tourism (Sinha, Glémet, & Mustafa, 2018). The basin is bestowed with immense potential for nature and adventure tourism with several national parks, bio-diversity hotspots and wetlands. Despite having great potential, tourism is a marginal and localised activity in the basin. If equipped with infrastructure and adequate capacities, the communities would benefit from tourism activities.

**Map 1: Overview of the Meghna Basin displaying Meghna, Kushiya, Surma and Barak Rivers**



Source: (RITES, 2011)



## Historical Significance

The concept of the inland water transport connecting India and Bangladesh has been prevalent since the pre-independence colonial rule. Multiple tributaries of the Brahmaputra, Meghna and Ganga basins have been critical in ease of inland waterway movement between major rivers ports and the hinterlands of South Asia.

The Indian Steam Navigation Company and the River Steam Navigation Company were two big steamer companies of British India. They had regular steamer services in the Brahmaputra and feeder services through rivers of Barak, Dhansiri, Kolong, Buri Dihing, Surma etc. The steamers running through these tributaries were mainly established for movement of tea leaves, tea garden labours, jute, coal and other mining products (Figure 1). Even the shallower rivers were connected by smaller size steamers and lastly by row boats since, rivers were the only means of cargo transport due to the absence of good roads and railway connectivity.

The dependency on rivers as a mode for cargo transport prevailed even after the partition of India and Bangladesh. To facilitate trade and inland waterway movement, both the countries established river customs stations at certain nodal points on the transboundary rivers.

**Figure 1: On the River Ganges – "Steamer Waiting"**  
(Watercolor by William Tayler, 1842-1845)



Source: (World Digital Library, 2018)

*Note: This watercolour painting by William Tayler (1808-92), a civil servant (Commissioner of Patna, 1855) in East India Company shows a steamer loading goods on the banks of river Ganges (Calcutta to Allahabad route).*

Some of the pre-independence river ports and customs points still exist along the tributaries of Meghna (Annexure 1). Among these, two customs points – one at Karimganj and another at Dhubri are the sole functional river ports, as on date (Annexure 2). This is primarily due to the fact that most of these river tributaries are seasonal and dry up during lean season. With the development of road connectivity between countries, these routes were ignored later.

## Emerging Developments on the Rivers of the Meghna Basin

### Inland Water Transport

In 2010, IWAI initiated a study to explore the possibility of reviving IWT not only through the major rivers but also through all the tributaries. The study conducted by RITES in two phases was intended for mapping of all navigable rivers in the states, such as Arunachal Pradesh, Assam, Meghalaya, Manipur, Mizoram, Nagaland and Tripura (Map 2) as well as to conduct micro level studies based on the results of Phase I. The study helped in identifying potential waterways in the NER; the priority-wise list of which is given in Table 1.

**Table 1: Priority-wise List of Waterways in NER**

State	River
Meghalaya	Kyansh Simsang Jinjiram
Arunachal Pradesh	Dibang Lohit Subansari Siang
Mizoram	Khawthlangtuipui Tuichawg Tut
Tripura	Gumti Haora
Nagaland	Tizu Dhansiri (Also through Assam) Dikhow (Also through Assam)
Assam	Dhaleswari Jia Bharali Buri Dihing Kopli/ Kalang (Suti) Disang

*Source:* (RITES, 2011)

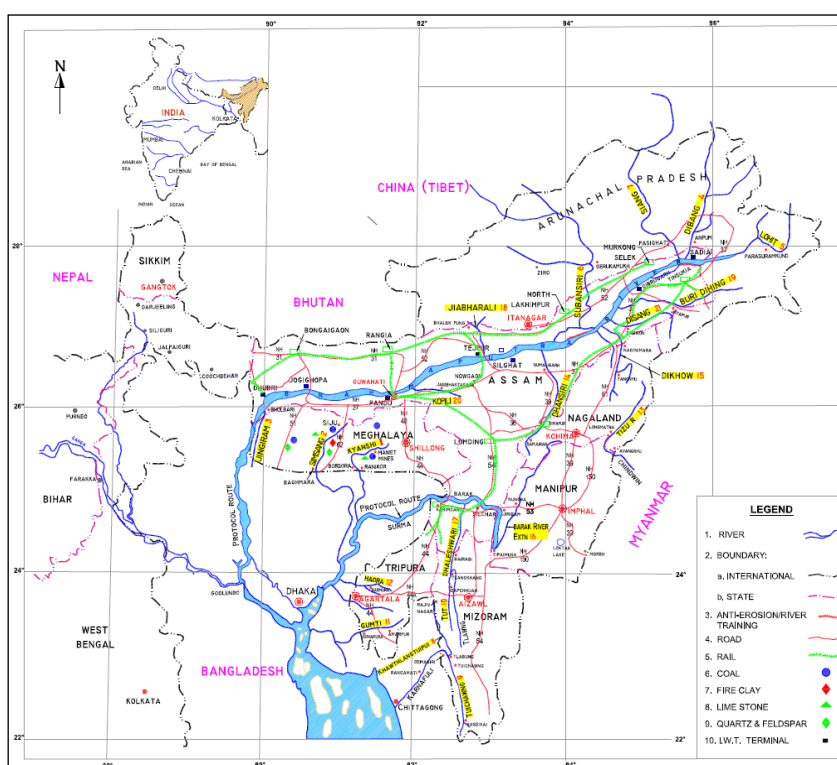
While few state governments like Tripura, Nagaland and Mizoram had already been interested to promote IWT through some of their state rivers, this report provided them an opportunity to look into many other new state rivers also and initiate further actions. It would be interesting to note that land locked states like Assam, Mizoram, Nagaland, Tripura etc. even started looking at their state rivers to provide an opportunity to get connected to sea ports of Bangladesh through Brahmaputra and Meghna. Subsequently, both the Central and



state governments took initiative to undertake hydrographic survey of several rivers in the region to have clear conception on the prospect of IWT through these rivers.

The report on Integrated National Waterways Transportation Grid by RITES (2014) gave several practical specific as well as general suggestions to national and state governments. For example, with regard to River Barak (NW-16), it suggested that the river stretch between Silchar to Bhanga in Assam which has a length of approximately 71 km should be developed and the waterways needs to be operational with some infrastructural facilities such as development of floating terminal at Silchar, and new terminals at Badarpur and Karimganj. A general but very important recommendation of the report was to prepare a grid of four national waterways in the eastern region, i.e. connecting NW-1 (Allahabad to Haldia of Ganges) to NW-2 and NW-16 through India Bangladesh Protocol Routes and then further connecting it with Paradip Port through backwaters of Hooghly and Hijily tidal canal (RITES, 2014).

**Map 2: Potential Waterways of NEER**



Source: (RITES, 2011)

Majority of the rivers (Table 1) in Meghalaya, Tripura and Assam are transboundary rivers which are either flowing from Bhutan to India or from India to Bangladesh. Few rivers, like those flowing from Arunachal to Assam, also link two different states within India. Some of the tributaries also have considerable water flow and hence could allow bigger power steel hull vessels. Many of these rivers are lean and suitable for movement of smaller vessels of even 3 to 5 MT cargo carrying capacities.

The Detailed Project Reports (DPRs) of techno-feasibility of inland navigation in Gumti and Haora rivers underlines the need for patronising inland waterway transport locally and suggests introducing vessels up to 2 to 3 tonne capacity for passenger and cargo movement. It

was proposed that 25 tonne capacity vessels can be introduced at a later stage between Sonamaura and Daudkandi, Bangladesh (on the bank of Gumti) with transshipment facilities at Daudkandi, thereby linking it to the India–Bangladesh Protocol Route till Haldia. The reports make similar recommendations for Haora river, thereby highlighting the need to promote inland waterway transport within the state and then extending it to cross-border. It is to be noted that these DPRs do not have a component for Environment Impact Assessment but supported IWT taking into account of the poor socio-economic background of the project area.

Developing inland waterway transport in the Barak river (Karimganj, Assam) would provide penetration to hinterlands of lower Assam, Manipur, Tripura, Mizoram & Nagaland. Since this river is also part of the Indo-Bangladesh Protocol Route 3 (Kolkata-Karimganj), it can also facilitate export and import cargo movement for key commodities, such as fly ash and food grains.

While India has initiated several actions for identifying potential rivers which could provide an opportunity to the land locked states of North East India (The Economic Times, 2018; Business Standard, 2018), Bangladesh also left no stone unturned to explore possibilities of accessing Indian market through the transboundary rivers like Kushiara, Gumti, Titas (Haora) etc. (The Independent, 2018). Bangladesh has recently completed scoping visits to Gumti River and is planning to undertake similar action for other transboundary rivers.

Though the above studies give an indicative assessment for using the tributaries of Meghna for inland waterway transport operation, in-depth technical study of these rivers along with economic viability as an alternative mode of transport is yet to be initiated.

## River Tourism

With regard to tourism in the Meghna basin, the aesthetic value, ethnic diversity and social ethos offers great scope not only in North East States but also in Bangladesh. Yet, this aspect has maintained a low profile due to insurgency and ethnic conflicts<sup>3</sup> that prevailed in the North Eastern States of India, till recently.

Dawki (Meghalaya, India) which is on the bank of transboundary river Umngot (known as Piang in Bangladesh) is known for its crystal clear river and scenic view of mountain ranges and it transcends across the national border to Jaflong (Sylhet, Bangladesh). Even with immense prospects for economic benefits, tourism (both domestic and cross-border) have not been able to attain its full potential due to lack of tourism-oriented infrastructure, connectivity between the tourist sites and regulatory gaps in the tourism policies for transboundary rivers (Nayak & Mishra, 2013).

Likewise, Chabimura in Tripura, located in the upstream of Gumti River is known for its rock carvings. With the curbing of insurgent activities in the state, this spot has become a popular location for local tourists. Though the tourism activities are managed by the tribal

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3 India's NER remained one of the trouble spots in Asia for a very long time. At one point of time, more than 30 armed insurgent organisations were operating and involved in direct as well as proxy fighting with the Indian states of Assam and Tripura. These groups were primarily fighting for clash of identity, political reasons, malpractices of bureaucracy and elites, non-representations in politics and wide-spread human right violations. The porous border shared with Bangladesh has also led to illegal migrants who had conflicts with ethnic tribal communities. However, in the past decade these armed conflicts have either ended or been declining due to the implementation of various national and state level economic and social programmes and rehabilitation packages.

community with the support of Tourism Department, the actual potential of the location still remains unexplored and undeveloped.

Hence, the present study explored the existing system of CBT in Shnongpdeng (Dawki, Meghalaya) and Chabimura, Tripura to identify gaps and propose suggestions for its management so that the riverine communities can reap the benefits in a sustainable manner.

## **Inclusive Inland Water Transport and Eco-tourism**

Despite being environmental-friendly mode of transport compared to rail and roadways, IWT has certain disadvantages which need to be taken care of at the planning stage. For instance, improper operations very close to unprotected river banks may cause bank erosion due to wave action. Further, IWT is a slow mode of operation and economically viable only if the movement is planned for bulk transport integrated with other modes of transport. It is imperative that a balance between economy and ecology is achieved while developing infrastructure (PIANC, 2003).

The current policy discourse on IWT in the sub region is top driven in the sense that the approach is not integrated and inclusive. Lack of participation of riverine communities, river experts and civil societies in decision making process and the likely impact of navigation on other functions of the river have been highlighted by CUTS in its previous work. Furthermore, the socio economic and ecological assessments for developing waterways are undertaken on scheme/project basis or for individual components without considering the river basin management objectives.

The classic example for sustainable IWT at global level is the Joint Statement on Danube River basin. In 2007, the International Commission for the Protection of the Danube River (ICPDR) linked up with the Danube Navigation Commission, and the International Sava River Basin Commission to conduct an intense, cross-sectoral discussion process to come up with a 'Joint Statement on Guiding Principles on the Development of Inland Navigation and Environmental Protection in the Danube River Basin' through a series of three interdisciplinary workshops.

The approach followed was interdisciplinary in nature involving the ministries responsible for environment, water management and transport, scientists and experts in river engineering, navigation, ecology, spatial planning, tourism and economics as well as representatives of other stakeholders, such as environmental non-governmental organisations and relevant private sector representatives. Apart from stating the challenges of basin wide planning and cross-border cooperation in deciding environmental bench marks, it also emphasises the need for looking at alternative solutions and non-structural measures while estimating the costs-benefits (Sava Commission, 2007).

On juxtaposing these guidelines in the context of Meghna basin, it emerges that lean season navigation is a challenge in rivers under this study. These rivers are also source of irrigation, drinking water and fisheries both in the upstream and downstream and supports the livelihood of riverine communities. All these demand a broader perspective in planning and implementing IWT projects. With well-connected network of rivers, IWT could connect the hinterlands of North east with Bangladesh, thus creating a market for agricultural products across the border. TROSA objectives outline policy advocacy, private sector engagement and community participation on transboundary water governance. The proposed study aims to integrate all these with respect to IWT and tourism.

On tourism front, it has been widely acknowledged that CBT is a source of complementary income to the local communities so that they can improve their standard of living and preserve their culture and eco-systems. With the world increasingly coming into the grip of a sustainability driven frame of mind, tourism ethics are gradually transforming from ‘leisure’ to ‘experience’. The tourism sector has been considered as livelihood generator not just in services but also in transportation, small scale manufacturing, cottage industries and retail (Joshi, 2016).

In two locations under the purview of this study viz., Chabimura and Dawki, the tourism activities are managed by tribal/local communities whose livelihood is dependent on river. The study seeks to understand the current mechanism of functioning of these institutions and identify the gaps in accruing higher benefits that too in a sustainable manner.

## Overview of the Regulatory Framework

India and Bangladesh have country-specific institutions for governing inland waterways for domestic as well as international usage. Ministries and Departments within Bangladesh and India have overlapping responsibilities to manage water resources (Table 2).

At the provincial level, India and Bangladesh have different entities to manage inland waterways and rivers. For instance, in Assam there is a separate Department of Inland Waterway Transport but in Tripura the Public Works Department takes care of all infrastructure projects on transportation. In Bangladesh, the water transport is manned by localised offices of the Bangladesh Inland Water Transport Authority (BIWTA).

**Table 2: Institutions in Bangladesh and India**

Administrative Level	Bangladesh	India
Central Level	Ministry of Shipping; Bangladesh Inland Water Transport Authority	Ministry of Shipping; Inland Waterways Authority of India
State Level	Not Applicable	State Level Transport Departments in West Bengal, Assam, and so on.

*Source:* (CUTS, 2018)

**Table 3: Country Specific Framework in Bangladesh and India**

Country	Legal Framework
Bangladesh	<ol style="list-style-type: none"> <li>1. The Inland Water Transport Authority Ordinance, 1958</li> <li>2. Interference with Aids to Navigation Ordinance, 1962</li> <li>3. Bangladesh Inland Water Transport Corporation Order, 1972</li> <li>4. The Inland Shipping Ordinance, 1976</li> <li>5. Inland Shipping (Amendment) Act 1990</li> <li>6. National Water Policy, 1999</li> <li>7. National Tourism Policy, 2010</li> <li>8. Bangladesh Tourism Act, 2010</li> <li>9. Bangladesh Water Act, 2013</li> <li>10. National River Protection Commission Act, 2013</li> </ol>
India	<ol style="list-style-type: none"> <li>1. The Northern India Ferries Act, 1878</li> <li>2. Bengal Ferries Act, 1885</li> <li>3. The Inland Waterways Authority of India Act, 1985</li> <li>4. The Multimodal Transportation of Goods Act, 1993</li> <li>5. The Inland Water Transport Policy, 2001</li> <li>6. Prevention of Collision on National Waterways Regulations, 2002</li> <li>7. National Waterways, Safety of Navigation and Shipping Regulations, 2002</li> <li>8. Inland Vessel Act, 1917/Inland Vessels (Amendment) Act, 2007</li> <li>9. The Regulations on Cargo &amp; Traffic in Inland Ports on National Waterways, 2012</li> <li>10. Draft National Tourism Policy 2015</li> <li>11. The National Waterways Act, 2016</li> <li>12. Draft New Inland Vessel Act/Bill 2016</li> </ol>

Source: (CUTS, 2018)

There are a number of government and semi-government agencies and policies that govern, coordinate and are tasked for the development and smooth operation of inland waterways in both in India and Bangladesh at national and transboundary level. Recently, several bilateral agreements have been signed between two countries on inland /coastal navigation and tourism.

**Table 4: Regional Framework relevant to Inland Waterways**

Treaty	Objectives
1. MoU on use of inland waterways for transportation of bilateral trade and transit cargoes between Bhutan and Bangladesh, 2017	<ul style="list-style-type: none"> <li>• To allow export-import cargo of Bhutan to be handled at maritime ports of Chittagong and Mongla in Bangladesh and same will be transited to the identified destinations in Bhutan through the waterways in Bangladesh</li> </ul> <p>Link: <a href="http://www.moea.gov.bt/wp-content/uploads/2017/07/MoU-on-Use-of-Inland-Waterways-for-Transportation-of-Bilateral-T-Scanned.pdf">www.moea.gov.bt/wp-content/uploads/2017/07/MoU-on-Use-of-Inland-Waterways-for-Transportation-of-Bilateral-T-Scanned.pdf</a></p>
2. MoU between India and Bangladesh concerning cooperation on aids to navigation, 2017	<ul style="list-style-type: none"> <li>• To extend advice on lighthouses and beacons</li> <li>• To extend advice on vessel traffic service and chain of AIS</li> <li>• To impart training as per International Association of Marine Aids to Navigation and Lighthouse Authorities training module to AtoN managers and technicians</li> </ul> <p>Link: <a href="http://www.mea.gov.in/Portal/LegalTreatiesDoc/BG17B3031.pdf">www.mea.gov.in/Portal/LegalTreatiesDoc/BG17B3031.pdf</a></p>

Treaty	Objectives
3. MoU between India and Bangladesh on passenger and cruise services on the coastal and protocol routes, 2017	<ul style="list-style-type: none"> <li>To further develop the friendly relations and to strengthen cooperation in the field of passenger and tourist transportation in the Indo-Bangladesh Coastal and Protocol routes in accordance with principles of equality and mutual benefits.</li> </ul> Link: <a href="http://www.mea.gov.in/Portal/LegalTreatiesDoc/BG17B3033.pdf">www.mea.gov.in/Portal/LegalTreatiesDoc/BG17B3033.pdf</a>
4. MoU between India and Bangladesh on development of fairway from Sirajganj to Daikhowa and Ashuganj to Zakiganj on Indo-Bangladesh protocol route, 2017	<ul style="list-style-type: none"> <li>To develop the navigable fairway round the year (between the stretches of Sirajganj to Daikhowa and Ashuganj to Zakiganj) to enhance the trade and safe passage of goods between the two countries.</li> </ul> Link: <a href="http://www.mea.gov.in/Portal/LegalTreatiesDoc/BG17B3034.pdf">www.mea.gov.in/Portal/LegalTreatiesDoc/BG17B3034.pdf</a>
5. MoU between India and Bangladesh in the field of blue economy and maritime co-operation in the Bay of Bengal and The Indian Ocean region, 2015	<ul style="list-style-type: none"> <li>To ensure the systematic and balanced development of the national capacity in the field of maritime sector.</li> </ul> Link: <a href="http://www.mea.gov.in/Portal/LegalTreatiesDoc/BG15B2419.pdf">www.mea.gov.in/Portal/LegalTreatiesDoc/BG15B2419.pdf</a>
6. Agreement on coastal shipping between India and Bangladesh, 2015	<ul style="list-style-type: none"> <li>To secure harmonious development of the maritime commercial navigation between India and Bangladesh</li> <li>To cooperate actively in the field of maritime commercial navigation</li> </ul> Link: <a href="http://www.mea.gov.in/Portal/LegalTreatiesDoc/BG15B2420.pdf">www.mea.gov.in/Portal/LegalTreatiesDoc/BG15B2420.pdf</a>
7. Addendum to the Protocol on inland water transit and trade between Bangladesh and India signed on June 06, 2015	<ul style="list-style-type: none"> <li>Two Ports of Call at Pangaon (Bangladesh) and Dhubri (India) have been added along with some minor additions.</li> </ul> Link: <a href="http://www.mea.gov.in/TreatyDetail.htm?3445">www.mea.gov.in/TreatyDetail.htm?3445</a>
8. Protocol on inland water transit between India and Bangladesh, 2015	<ul style="list-style-type: none"> <li>To make mutually beneficial arrangements for the use of waterways for commerce and for passage of goods.</li> </ul> Link: <a href="http://www.mea.gov.in/Portal/LegalTreatiesDoc/BG15B2421.pdf">www.mea.gov.in/Portal/LegalTreatiesDoc/BG15B2421.pdf</a>
9. MoU between India and Bangladesh on cooperation in the field of fisheries, 2011	<ul style="list-style-type: none"> <li>To strengthen the existing friendly relations between the two countries through development of cooperation in the fields of fisheries and aquaculture and allied activities.</li> </ul> Link: <a href="http://www.mea.gov.in/Portal/LegalTreatiesDoc/BG11B2548.pdf">www.mea.gov.in/Portal/LegalTreatiesDoc/BG11B2548.pdf</a>
10. Standard Operating Procedure (SOP) of MoU on passenger and cruise services on the coastal and protocol route between India and Bangladesh	<ul style="list-style-type: none"> <li>To promote and facilitate day to day movement of passenger and cruise services between India and Bangladesh along Protocol and coastal routes.</li> </ul> Link: <a href="http://www.mea.gov.in/TreatyDetail.htm?3446">www.mea.gov.in/TreatyDetail.htm?3446</a>

Source: Compiled by authors

Nepal and Bhutan have initiated steps to utilise India's waterways to access Bangladesh's river and sea ports. This will offer them a wider access to Southeast Asian and Western markets which are currently being accessed through other modes of connectivity.

With regard to the governance framework for cross-border navigation, coordination between various ministries within the country and at bilateral levels is of utmost importance. The Protocol on Inland Water Transit and Trade (PIWTT) between India and Bangladesh has been signed under the 'Trade Agreement' which is under the purview of the Ministry of Commerce. While IWAI, Ministry of Shipping is the nodal authority for cross-border navigation, Ministry of Water Resources has the mandate of flood and erosion control. Regarding cross-border tourism, Ministry of External Affairs is the nodal point for regulatory aspects. Coordination among relevant ministries as well as local government, private sector and civil societies would ensure an inclusive approach for governance of waterways.

## Trade through the India-Bangladesh Protocol Routes

The PIWTT has been operational since 1972. In June 2015, the Protocol on Inland Water Transit between India and Bangladesh was signed (Table 4).

The 2015 protocol specified the 'Ports of Calls' in India (i.e. Kolkata, Haldia, Karimganj, Pandu, Shilghat) and Bangladesh (Narayanganj, Khulna, Mongla, Sirajganj, Ashuganj). The protocol also specified the following routes for inland water transit:

1. Kolkata-Haldia-Raimongal-Chalna-Khulna-Mongla-Kawkhali-Barisal-Hizla-Chandpur-Narayanganj-Aricha-Sirajganj-Bahadurabad-Chilmari-Dhubri-Pandu-Shilghat
2. Shilghat-Pandu-Dhubri-Chilmari-Bahadurabad-Sirajganj-Aricha-Narayanganj-Chandpur-Hizla-Barisal-Kawkhali-Mongla-Khulna-Chalna-Raimongal-Haldia-Kolkata
3. Kolkata-Haldia-Raimongal-Mongla-Kawkhali-Barisal-Hizla-Chandpur-Narayanganj-Bhairab Bazar-Ashuganj-Ajmiriganj-Markuli-Sherpur-Fenchuganj-Zakiganj-Karimganj
4. Karimganj-Zakiganj-Fenchuganj-Sherpur-Markuli-Ajmiriganj-Ashuganj-Bhairab Bazar-Narayanganj-Chandpur-Hizla-Bansal-Kawkhali-Mongla-Raimongal-Haldia-Kolkata
5. Rajshahi-Godagari-Dhulian
6. Dhulian-Godagari-Rajshahi
7. Karimganj-Zakiganj-Fenchuganj-Sherpur-Markuli-Ajmiriganj-Ashuganj-Bhairab Bazar-Narayanganj-Chandpur-Aricha-Sirajganj-Bahadurabad-Chilmari-Dhubri-Pandu-Shilghat
8. Shilghat-Pandu-Dhubri-Chilmari-Bahadurabad-Sirajganj-Aricha-Chandpur-Narayanganj-Bhairab Bazar-Ashuganj-Ajmiriganj-Markuli-Sherpur-Fenchuganj-Zakiganj-Karimganj



Figure 2: Protocol Routes between Bangladesh and India



Source: (IWAI, 2018)

Out of various routes, routes 1 to 4 are currently operational and routes 3 and 4 fall in the Meghna basin. The transit trade volume through these routes during the past five years is given in Figure 3.

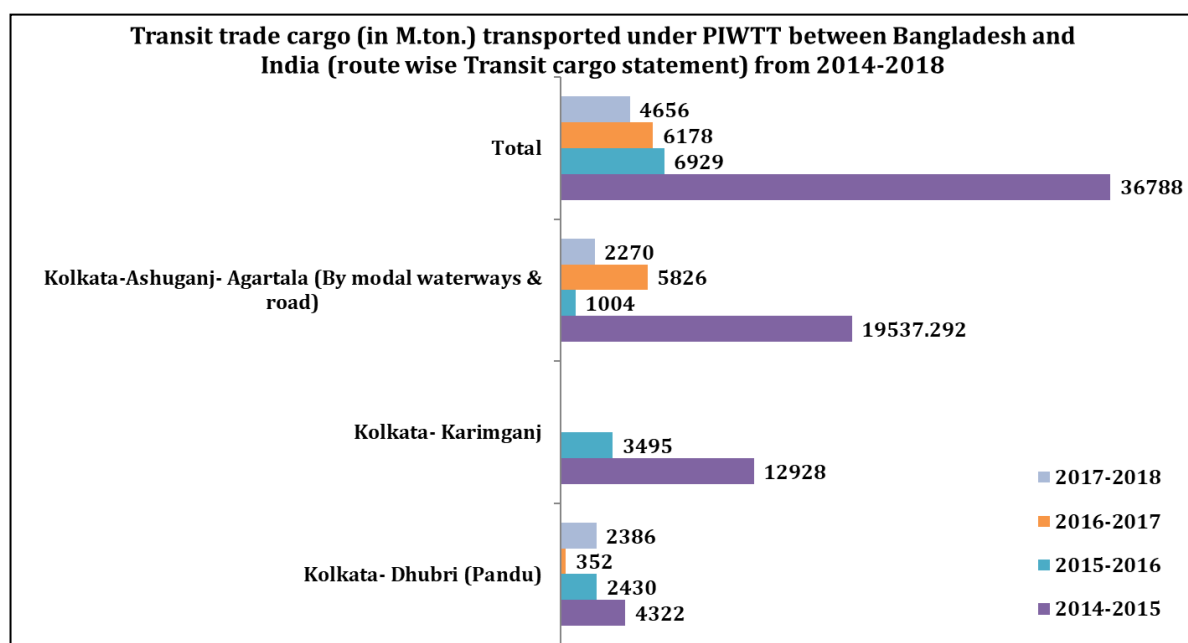
The main commodities that are traded through the Protocol Routes are coal, fly ash,<sup>4</sup> steel coil, mild steel wire rod, iron ore, container cargo, over dimensional cargo (ODC) such as heavy machinery goods, wheat and food grains, steel grader, steel plate and stone chips etc. (IWAI, 2016). The details of transit cargo transported via Protocol Routes are shown in Figure 3. The surge in the year 2014-2015 is accounted for the Over Dimensional Transit Cargo consisting of heavy turbines and other heavy machines for the Palatana power project in

4 Fly ash is an industrial by-product produced from the burning of pulverised coal, during electricity generation in the thermal power plants. The fly ash exported to Bangladesh from India is being used in the manufacture of cement. Earlier these fly ash loaders were simple hold loading barges, loading loose fly ash in the holds. Many of them were not having hatch covers and covering the fly ash loaded hatches with tarpaulin. Loading of fly ash leads to leakage of fly ash in the atmosphere and the operation was stopped at GR Jetty 2 of IWAI owing to intervention of State Pollution Board. Later the operation was resumed on the usage of browser loading using compressed air and pipeline with back filter which reduced pollution. There were also incidences of few fly ash ships capsizing in Protocol route. This was caused by grounding of poor conditioned ships or ships getting drifted to shallow areas where due to load and poor conditions the ships got deformed and damaged with river water entering the holds. In all such cases the fly ash got mixed with river water. However, due to very low volume of movement no noticeable damage to river water or environment was observed (physically).



Tripura which is transported from Haldia (India) to Ashuganj through waterways and from there to Agartala by road (Ministry of Shipping, 2016).

**Figure 3: Transit Trade Cargo Transported through Protocol Routes (metric tonnes)**



Source: (BIWTA, 2017)

As evident from the data in Figure 3, Indo-Bangladesh Protocol (IBP) Route 1 (Kolkata-Silghat) remains the active route with fly ash constituting more than 95 percent of the cargo transported, that too up to Narayanganj. Beyond Narayanganj, the lean season navigability is very poor and hence dredging operations are being undertaken jointly by India and Bangladesh on 80:20 cost sharing basis.<sup>5</sup> It is expected that improving navigability up to Karimganj will provide better transit connectivity between Kolkata and North East States of Assam, Tripura, Nagaland Manipur and Mizoram.

<sup>5</sup> Joint dredging is financed jointly by governments of India and Bangladesh and not with the support of multilateral agencies

## 2

## Key Findings

Previous work by CUTS on inland navigation in Brahmaputra basin has indicated the need for an inclusive approach for cross-border navigation so that the local communities can benefit from cross border trade making use of the infrastructural development. CUTS study highlighted that cross border trade through shorter stretches of waterways close to border areas along transboundary river will have positive implications on the local economy.<sup>6</sup> Hence, keeping this in view, CUTS undertook an evidence based research study on the prospects of cross border trade and eco-tourism in the rivers of Barak, Haora and Gumti as part of the TROSA initiative.

The objectives of this study were to:

- create evidences on the economic, social and environmental implications of cross-border trade using mechanised boats in shorter transboundary stretches in Barak, Gumti and Haora rivers of Meghna basin; and
- understand the impact of river cruise tourism on political-economy factors at the local level with special emphasis on CBT in Gumti and Umngot river.

### Location and Methodology

Barak river is part of the Kolkata-Karimganj Protocol Route between India and Bangladesh as well as part of the proposed National Waterway-16 from Bhanga to Lakhipur. Similarly, Haora and Gumti are two westward flowing rivers that flow via Agartala and Sonamura, respectively to Bangladesh. The significance of these rivers in local livelihoods and the prospects of cross-border navigation needs to be explored and has to be brought under bilateral water governance framework.

The research team conducted field visits in several locations along the river banks of Kushiya-Kushiya, Gomati-Gumti, Titas-Haora and Piang-Umngot rivers to gauge the perceptions of various stakeholders at the grassroots. The survey locations have been noted in Table 5.

The research team conducted field-level FGDs and expert interviews with multiple stakeholders in India and Bangladesh to explore the socio-economic benefits of cross-border trade to local communities in several locations in Meghna basin.

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<sup>6</sup> Please refer to CUTS previous work on expanding tradable benefits of transboundary rivers here: [www.cuts-citee.org/IW/Projects.htm](http://www.cuts-citee.org/IW/Projects.htm)

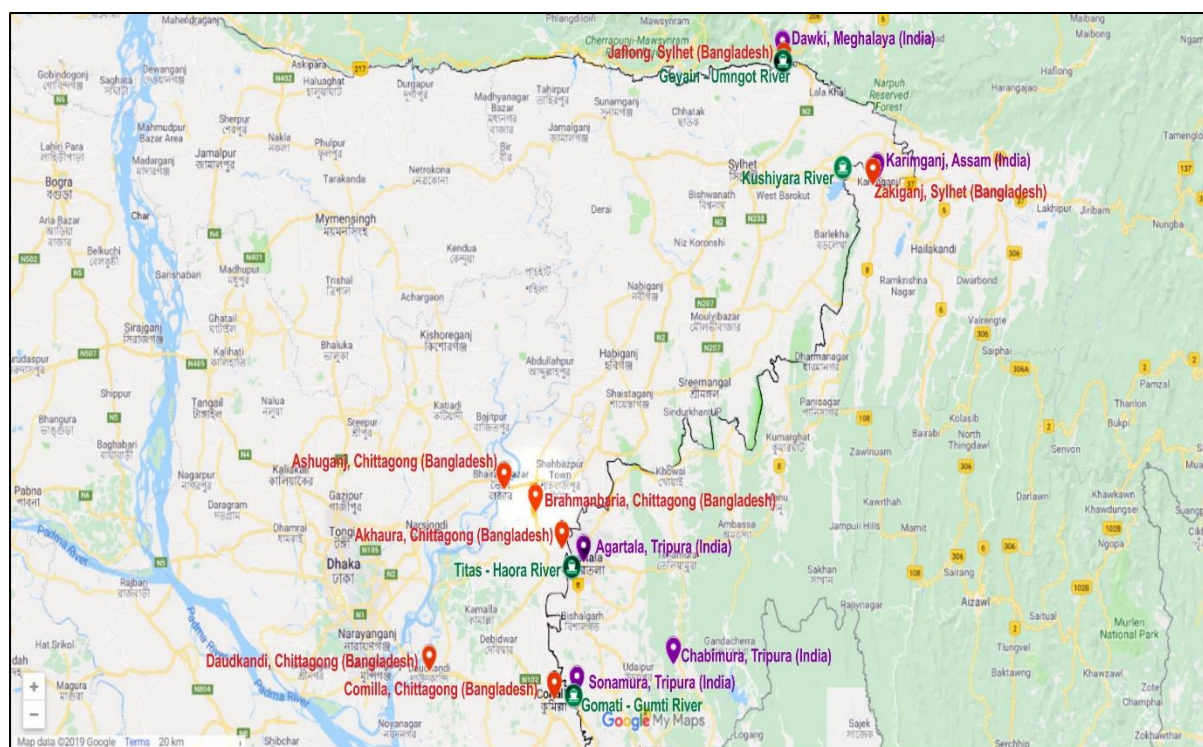
The categories of stakeholders interviewed included:

- Government officials from Inland Waterways Authority of India, Department of Inland Waterway Transport, Department of Tourism
- Traders Association, Transporters Associations and Business Chambers local transporters
- Boatmen, local vendors and farmers

**Table 5: Study Locations in Bangladesh and India**

Transboundary River (Bangladesh-India Name)	Study Location on the Bangladesh Side	Study Location on the Indian Side
Kushiyara-Kushiyara	1. Zakiganj, Sylhet	8. Karimganj, Assam
Piang-Umngot	2. Jaflong, Sylhet	9. Dawki, Meghalaya
Gomati-Gumti	3. Comilla, Chittagong 4. Daudkandi, Chittagong	10. Sonamura, Tripura 11. Chabimura, Tripura
Titas-Haora	5. Akhaura, Chittagong 6. Ashuganj, Chittagong 7. Brahmanbaria, Chittagong	12. Agartala, Tripura

**Map 3: Study Locations in Bangladesh and India**



Source: Compiled by Authors from Google Maps

## Insights from the Kushiya River

Karimganj and Zakiganj are located on the banks on Kushiya River and are the last customs stations in India and Bangladesh along the IBP Route 3. Currently, India and Bangladesh have initiated joint dredging from Ashuganj to Karimganj to improve the navigability of this entire stretch. To understand the potential of cross-border trade through waterways, CUTS visited the customs station in Karimganj Steamerghat. The nearest land custom station (LCS) to the steamerghat is at Sutarkandi.



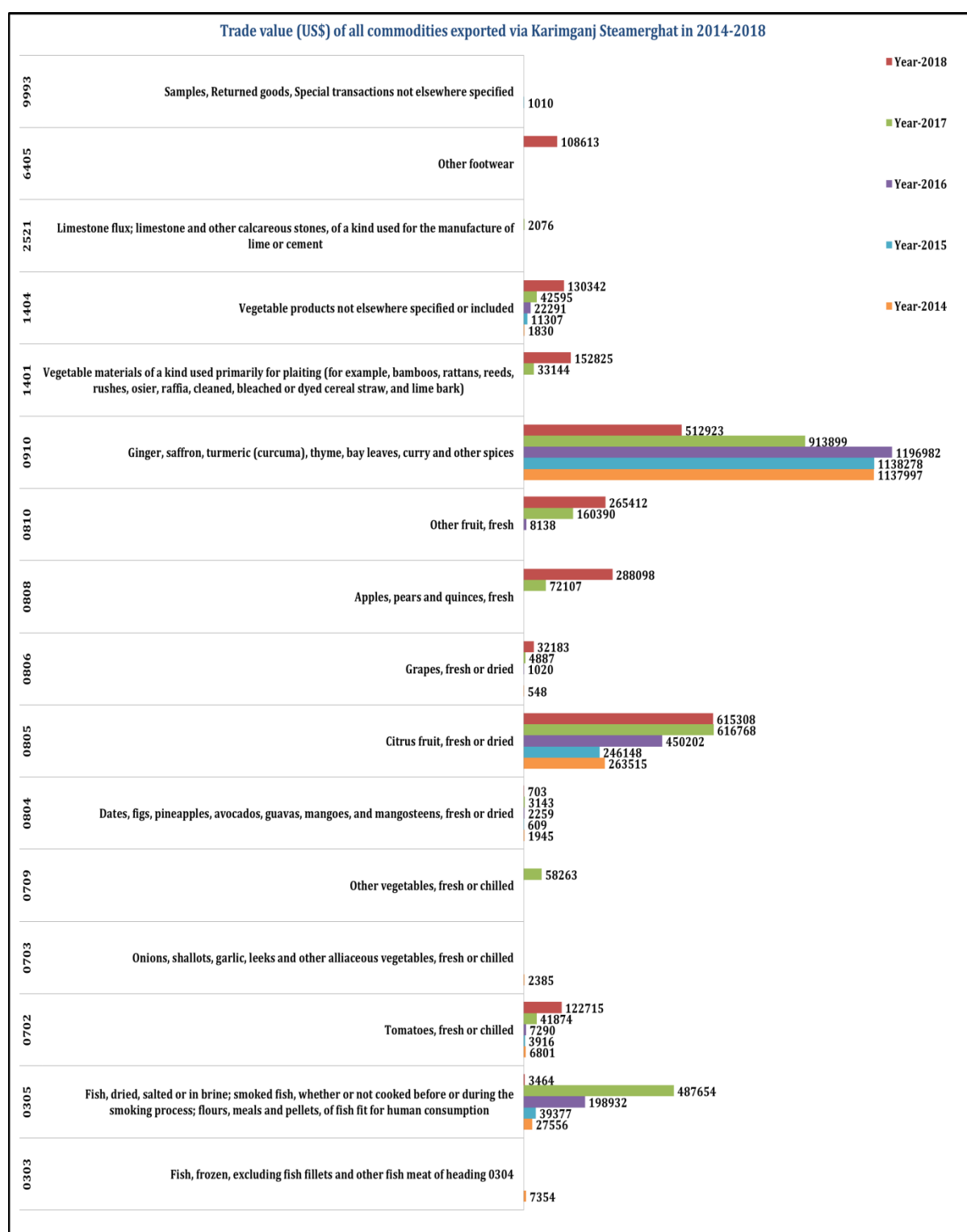
**Location: Oranges being carried as headloads from Karimganj steamerghat to the boats**

The current mode of cross-border trade via waterways in Karimganj is across the bank of Kushiya River to Zakiganj (Bangladesh) which is hardly 300 m away from the bank on the Indian side using row boats. This arrangement is actually supporting the livelihoods of locals, who are engaged in loading, unloading and transportation of the products from the warehouse. Mostly fruits like apples, citrus fruits, grapes, oranges, kinnows, pomegranate, betel nuts and ginger are exported to Bangladesh after customs formalities.

Interestingly, except oranges, citrus fruits, betel nuts and ginger which are locally produced in Meghalaya and Manipur, other fruits come from North Indian states of Rajasthan, Himachal Pradesh and Maharashtra. The trade is mostly based on the local demand across the border in Sylhet, Bangladesh which traders come to know through their network. Figure 6 shows the revenue from exports (in US\$) through Karimganj steamerghat from 2014-2018. The data in the figure indicates that ginger exports earn prime value followed by citrus fruits and other fresh fruits. The total export value for the year 2018 is US\$2232586 which is approximately Rs 15.40 crores.



Figure 4: Trade value (US\$) of all commodities exported via Karimganj Steamerghat during 2014-2018



Source: (DGCIS, 2018)

### Box 1: Blooming Local Economy

Jamaluddin is a boatman from Zakiganj who carries goods from Karimganj to Zakiganj. He has been into this cross-border transport for the last 22 years. He owns this boat and earns about Rs 1200 per day on an average. The cross-border movement of trade commences at 8 AM every morning and extends till 5 PM. During flood season, the business comes down and he has to take a slightly longer route along the bank due to the water current.



There are 12 such boats registered in Bangladesh which are permitted to ply across border. All the boats are Bangladeshi boats but the cargo movement is from India to Bangladesh. This cross-border trade supports the livelihood of 400-500 people in each country. There are about 40-50 small trucks/pick-ups which collect



the products from the warehouse and transport it to the ghat. There are labourers who are engaged in loading/unloading who are paid an average of Rs 300-400 on daily basis based on the volume transported. Customs officials will verify the commodities at the ghat. There is a post of Border Security Force as well which oversees the transportation and keeps record.

Source: Compiled by Authors

CUTS' interactions with traders in Karimganj revealed that further scope for expansion of cross-border movement of goods is very limited as Bangladeshi side does not have many local products to offer. Exported commodities from India include betel nuts, tomato, radish, cabbage, oranges, kinnow, ginger, apple, grapes, pomegranate and bamboo.

The traders also shared that the removal of transport subsidy by Agricultural and Processed Products Export Development Authority (APEDA) has increased the cost of transportation. *"Indian ginger is not fetching premium price in Bangladesh compared to products from China and Thailand, because our products are not cleaned and graded properly,"* they added. Similarly, oranges from Bhutan that are exported to Bangladesh through LCS Dawki, (Meghalaya) are exempted from tax whereas Indian products have to pay taxes which add the cost of trade and hence are non-competitive. This is mainly for oranges which come from Meghalaya. Further, the traders suggested that the government should provide some incentives to farmers for primary processing of agricultural products.

A major issue here is lack of quarantine facilities particularly for the export and import of agricultural products. The Sanitary and Phyto-sanitary (SPS) certificates that are required for agricultural exports have to be obtained from Guwahati which takes three-four days. From Guwahati the samples are sent to Jorhat (which is another 250 km drive from Guwahati) for

testing. In peak season, processing and testing of large number of samples cause further delays and increases trade costs and time.

On a positive note, local traders expressed that if river is made navigable till Ashuganj and they are given necessary permission to trade through rivers it will expand their market. As of now, the depth of river is not sufficient to support navigation due to sedimentation and reduced water flow during lean season. Goods from in Assam, Meghalaya and Manipur can reach Sylhet's market which is a main hub of trading in Bangladesh.

Our interaction with agricultural officers in Zakiganj, Bangladesh revealed that rice (BRRI Dhan 28 and 29) and tomatoes are produced in excess quantity in this area. Though this variety of rice has a high demand in Indian side due to lack of proper linkages with traders on the Indian side, trade is not happening through waterways.<sup>7</sup>

Team's interaction at Karimganj LCS (Kushiyara river, NW-16) revealed that there is substantial movement of passengers through this customs station. The passenger traffic details for the past few years has been provided Table 6.

**Table 6: Passenger Traffic at Karimganj Steamerghat and Ferry Station LCS**

Year	Incoming	Outgoing	Total
2010	3042	3002	6044
2011	3488	3396	6884
2012	3860	3870	7730
2013	4101	3782	7883
2014	5057	5036	10093
2015	5180	5016	10116
2016	5117	4861	9978

*Source:* Karimganj Steamerghat LCS

Only one boat from each side is allowed to carry passenger, which is risky at times, especially without any life jacket, emergency help and other facilities for the passengers who cross border. The bank on Indian side has a steep slope without any infrastructure, which becomes slippery during rainy season and poses a challenge to senior citizens and even to others. Immigration office, customs office and border security offices are located in



**Location: Zakiganj ghat, Bangladesh**

<sup>7</sup> Please refer to CUTS previous work on informal trade of rice seeds between India and Bangladesh, here: [www.cuts-citee.org/RISTE/](http://www.cuts-citee.org/RISTE/)

different buildings and are not connected by rain covered pathway raising problems during rainy season. Indian passengers will board on Indian boat marked with national flag to cross the river, similar action also need to be taken by Bangladeshi citizens for river crossing and have to use only Bangladeshi boat marked with a Bangladesh flag.

Table shows that the passenger traffic has increased in the recent years. The cross border passenger movement is primarily for religious tourism, family reunion, medical tourism, and business purposes. With direct flight connectivity from Silchar to Chennai, medical tourism has been flourishing in recent years. But the road connectivity from Karimganj to Silchar which is less than 60 km may take almost three hours due to poor road condition.

Interestingly, the Indian Postal Service provides services to Bangladesh in this border location. One postman from Indian side deliver mails to Zakiganj crossing the river which will be checked at the customs station at Zakiganj before distribution. He will then return to Karimganj, with mails from Bangladesh to the Indian residents and similar procedure is repeated in Karimganj (India) also.

### Insights from Gomati/Gumti River

Gumti is a transboundary river originating from the hills of Tripura and flows to Bangladesh to join the Meghna river system. Gumti river is the source of irrigation, drinking water, hydropower and tourism in Tripura. Extraction of huge amount of water from the Gumti River for irrigation purpose has reduced the discharge and velocity considerably and increased sedimentation towards downstream thereby impacting navigation (Ahmed, 2015). Gumti enters Bangladesh at Sonamura in West Tripura close to Srimantapur, Integrated Check Post (ICP).



Location: Srimantapur, Sonamura, Tripura



**Map 4: Gumti River from Sonamura (West Tripura, India) to Daudkandi (Comilla, Bangladesh)**



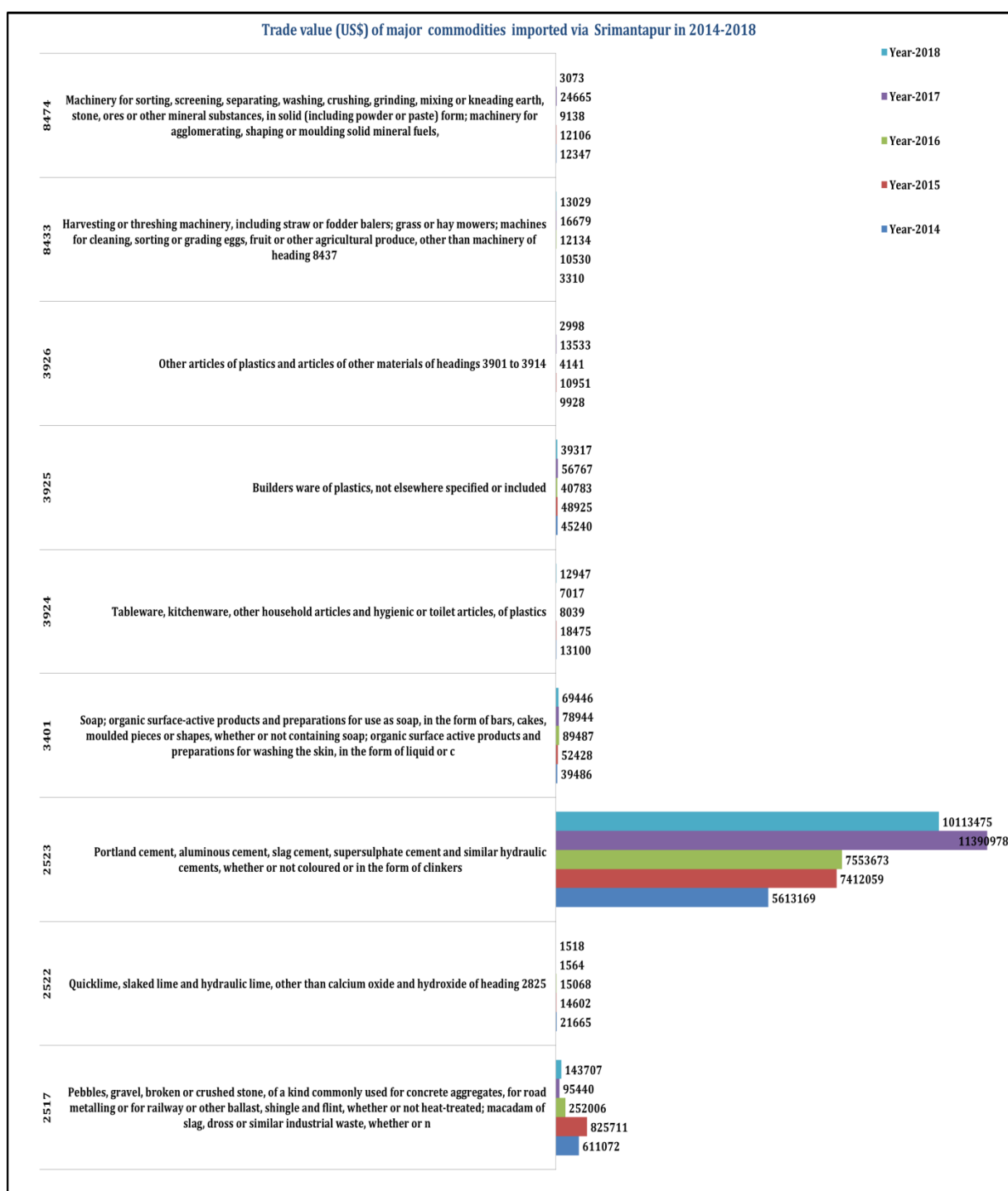
Source: Compiled by authors from Google Maps

Unlike Assam, inland navigation is not popular in Tripura. Other than boating services in tourist spots, inland waterway transport is not operational in the Indian side of Gumti river; but it is prevalent in Bangladesh. To explore cross border trade prospects through waterways, CUTS conducted interviews with representatives of Tripura Chamber of Commerce and visited Srimantapur ICP, Tripura and Bibir Bazar Customs Station, Comilla Bangladesh. The values of commodities exported through Srimanatapur is given in Figure 5.

A ban by Bangladesh on some Indian products such as cumin, spices, etc. that are exported through this ICP (under port restriction) has reduced the volume of export through this port significantly. Trade of dry chilli and ginger is allowed from this ICP. Local traders shared that earlier bamboo used to go to Bangladesh through waterways which has been stopped by the border security as there were cases of smuggling sagwan (teak) wood with bamboo.

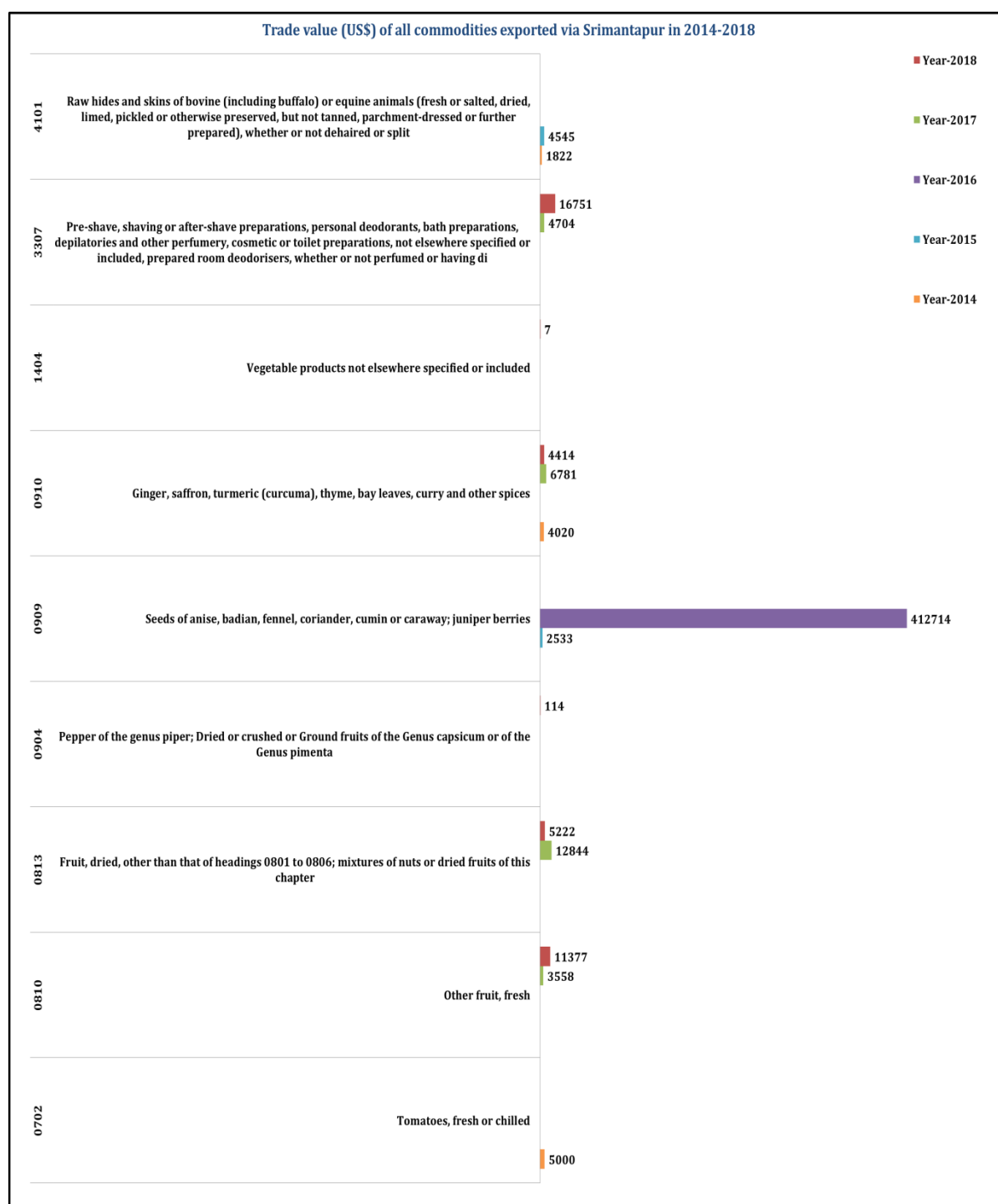
Figure 5 depicts those commodities that are regularly traded since 2014. As evident from the data, cement is being imported regularly and constitutes on an average more than 84 per cent of the trade value of last five years. Interestingly, in the year 2018, coal was imported from Bangladesh for a value of US\$350801. Following the ban of coal mining in Meghalaya, Tripura's requirement of coal for its brick kilns has been met through these imports which come from Indonesia, South Africa and Australia through Bangladesh's Payra and Chittagong port. Figure 6 depicts the trade value of all commodities exported through Srimanatapur.

Figure 5: Trade value (US\$) of major commodities imported via Srimantapur during 2014-18



Source: (DGCIS, 2018)

Figure 6: Trade value (US\$) of all commodities exported via Srimantapur during 2014-2018



Source: (DGCIS, 2018)

A meeting held with local fishermen below the Gumoti Bridge at Comilla revealed that few boats are engaged in transportation of groceries items from Dhaka/Daudkandi to Comilla by the river route. The fishermen who accompanied the Water Development Board (WDB) officials for river survey indicated that the WDB members had observed that at least 4 feet (1.20 meters) of water is available from Daudkandi to Comilla during the dry season. There are only few shallow locations between Comilla (Gumti Bridge) to the border, however boat movement also takes place almost up to the border. From the water marking it was noticed

that the water level during flood season goes up by 15 feet from the date of visit. There was also visible discharge in the river and surface velocity below the Gumti during the time of visit which was checked by using a float and observed to be around 0.4 meters/second.

Officials of BIWTA officials shared that an inspection of Gumti river between Comilla to Daudkandi using mechanised boats was conducted. It was noted that Gumti is navigable between Daudkandi to Comilla during the whole year. However, the loaded draft of the vessel needs to be restricted to 3-4 feet considering the presently available navigable depth. Simultaneously, the air draft of the vessels also has to be kept low as there are some low lying bridges over the river between Comilla and Daudkandi. According to the authority, the few shallow locations existed between Comilla and Bangladesh border could be cleared with the help of a small dredger.

At present, Daudkandi-Sonamura stretch is not part of PIWTT route. But the coal traders in India have expressed their interest in using this route, if allowed. The depth of river is sufficient between Daudkandi and Bibir Bazar for the movement 20-25-tonne capacity vessels, thus making it good case for movement through river using small boats instead of trucks.

While so far the Indian brick field owners of Sonamura and the adjoining areas were using coal procured from rat hole mines of Meghalaya, with the recent ban imposed by the Indian Authorities on mining in Meghalaya, more and more coal is being imported to Tripura from Bangladesh. The coal imported from Indonesia/Australia and other coal sourcing countries are is unloaded at Chittagong Port by sea going vessels, and is ferried to Daudkandi by medium sized IWT vessels/barges. From Daudkandi the coal is transported to Sonamura, India via Bibir Bazar by trucks.

There are many brick kilns on the bank of Gumti both in India and Bangladesh. Even the brick kilns lying within Bangladesh in Comilla district are also supplied by the same way. As brick kilns need cheap land for sourcing their basic material, i.e. clay and also need water, they are mostly located far away from developed areas or highways and are mostly around the river bank.

Coal traders in Tripura were quite interested to use waterways for importing coal from Daudkandi to Sonamura via Gumti, to meet the demand of coal in brick kilns and tea estates. In tea factories, coal has been used widely for heating and drying. Due to shortage coal, the industry is looking for alternatives like biomass briquettes<sup>8</sup> (biofuel substitute for coal) and natural gas (Indian Express, 2018).

Though coal is a commodity of immediate interest of the traders in India that can be transported via IWT, waterways can serve as a mode of transportation of vegetables and other agricultural products provided the NTBs associated with its trade are addressed. In any case, River Gumti stands a very good mode of transport not only for transboundary movement but also for intra country trade.

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<sup>8</sup> Biomass briquettes are low cost organic substitute to coal made of recycled sawed wood dust, bamboo dust, incense stick waste and other waste products, See Also (Indian Express, 2018).





Location: Daudkandi, Bangladesh



Location: Daudkandi, Bangladesh

## Insights from the Titas-Haora River

The Haora River originates in Boromura hills of central Tripura and traverses about 28 km from Jirainia to Joynagar in Tripura where it enters Bangladesh and runs for about 40 km and meets Meghna river near Ashuganj, Bangladesh.

The river is wide and shallow and is the main source of drinking water for the population near capital city. Due to increased urbanisation, the river has high bacterial contamination (coliform) ranging from 210 to 1800 most probable number per 100 ml against the standard limit of 500 (TSPCB, 2018). The river meets Meghna in Brahmanbaria district in the downstream of Ashuganj port which is part of Protocol Route.

Agartala ICP is located near Haora River is well equipped and has most of the necessary facilities like banking, customs, plant quarantine, storage, immigration, etc. But the port restrictions imposed by Bangladesh act as a major NTB to trade between India and Bangladesh. The issue was also raised in the meeting of India-Bangladesh Joint Working Group on Trade.

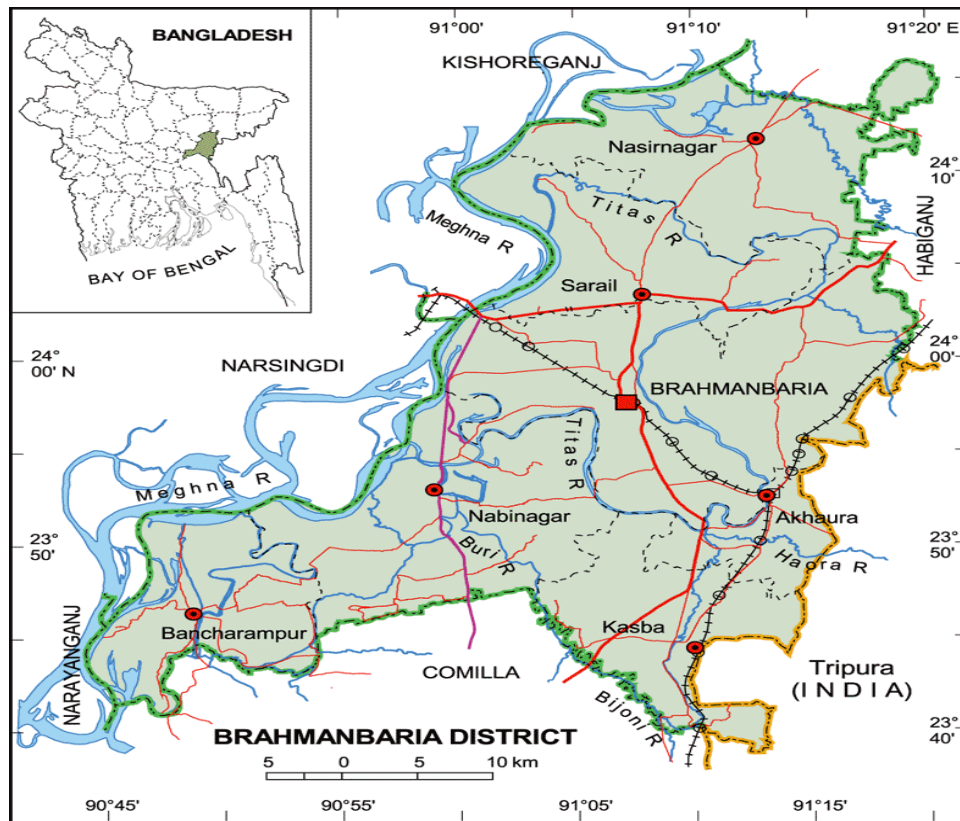


Location: Joynagar, Agartala, Tripura

Restriction has been imposed by Bangladesh in importing rubber, yarn, local fish, potato and sugar from India from this ICP though the same is allowed via sea. Therefore, the total value of exports through this port has been meagre; in 2018 it was US\$ 192432 which is just 5.8 per cent of the import value US\$33,092,045. Fish, cement, stones, plastics and cotton waste constituted the major imports whereas rice, fish and brooms constituted the major exports in 2018.

Another concern of traders was the high duty on Indian products such as sugar, rice and oranges. Customs duty has to be rationalised on the basis of reciprocity as opined traders in Agartala. All these issues have reduced the export volume through Agartala ICP.

**Map 5: Titas River Merging with Meghna in Brahmanbaria**



Source: (Maps of Bangladesh, 2018)

Even though the business is over Rs 3.3 crores through Agartala ICP during 2018, 99 per cent of this is due to imports from Bangladesh. A main observation by the team is that, despite having quarantine and testing facilities at this ICP, trucks loaded with locally produced fish coming from Bangladesh has to wait for hours for inspection which ultimately affects the quality of fish.



**Location: Truck carrying fish from Bangladesh waiting at ICP, Agartala, Tripura**



With regard to trade through waterway/river, the river has become a drain due to dumping of garbage and hence is not navigable at various stretches particularly close to the border. However, with road connectivity from Ashuganj to Agartala, bi-modal transit is feasible from Ashuganj port to Agartala.

Considering the proximity of well-developed existing infrastructure at Agartala ICP and the rail connectivity that is being developed between two countries through Akhaura, there appears to be no opportunity for any viable river transport through Haora river which not only is very lean but also not having navigable depth.

### Insights from Chabimura, Tripura

To explore the potential of inclusive eco-tourism at various locations in Meghna basin, CUTS selected two locations along Gumti and Umngot river, respectively. The former was Chabimura, in the upstream of Gumti while the latter was at the transboundary location of Umngot River-Dawki in India and Jaflong in Bangladesh.

Chabimura is located in Amarpur Subdivision which is 87 km away from Agartala. It is famous for its panels of rock carvings on the steep mountain wall on the bank of Gumti. Huge images of Shiva, Vishnu, Kartika, Mahishasurmardini Durga and other gods and goddesses are carved in the rock. These images date back to 15<sup>th</sup>-16<sup>th</sup> centuries A.D. The stagnant water over here is a popular location for nature and adventure tourism for local tourists.



Location: Chabimura, Tripura

The tourism activities in Chabimura is managed by the Jamatia tribe, which is a local tribal community of Tripura. A group of 32 members of Jamatia tribe has formed a Self Help Group (SHG) namely Yakhwlui Motha which has taken the area on lease from the Tourism Department for a period of five years. This group manages the tourist cottages (five in no.), boats, a small museum, rest room and restaurant at the location.

The present group got the administrative control of the tourism activities recently after the state elections in 2018. Before that, another group of the same community was managing the tourism activities. The current government in Tripura is taking a lot of interest in developing infrastructure and facilities. The government is building road for access to the spot, developing



landscape of the open area on the bank and is also providing boats and accommodation and other basic facilities for the tourists. Right now, they have three boats with 25-30 passenger capacity. However, there is a demand for more boats. Other than motor boats, row boats and rafts are also plying in the stretch.

Regarding the revenue generated, there is no entry fee. For a boat ride for one and half hour which includes visiting the rock cave, Rs 100 is charged per person. The charge for the cottage is Rs 500 per night. On public holidays/Sundays the tourist count may go even up to several thousands.

Women are also engaged in selling local delicacies at the tourist spot. Mostly they are involved in agriculture and weaving. Only very few women were found in the spot who were selling pickles and other local foods. They are also engaged in the restaurant and in cleaning and maintaining the rest rooms.



**Location: Chabimura, Tripura**

Molsom is another tribal community who lives in the hills on the bank of the river. About 37 families of this tribe are living in this location but are not involved/interested in tourism activities. They mostly relied on Jhum cultivation, fishing and hunting and came to the fortnightly market just to buy kerosene and salt. This shows that there is a strong belief of protecting traditions and culture among these tribals and they are least interested in the economic opportunity of eco-tourism unlike the Jamatias.

Overall, it was observed that the area had great potential for nature and adventure tourism. Tourists can spend their time in boat ride, nature watching, angling, and take a small trek to see the caves and even visit the Molsom community. But there is a need for capacity building of this group on safe navigation, hospitality, protecting river ecosystem and sustainability. Women can be encouraged to set up small stalls of traditional handicrafts which would add to their income. Tourism Department of Tripura has to take initiative on this and work closely with communities.

## **Insights from the Piang-Umngot River**

Dawki is a small town in Meghalaya which is close to Bangladesh border and about 95 km away from Shillong, the state capital. Dawki has been a popular tourist attraction owing to its pristine green surroundings, magnificent view of hills and crystal clear water of the river

Umngot. Downstream of the river across the border is Jaflong which is situated in Sylhet, Bangladesh. Both the locations are favourite tourist spots for national and international tourists. Boating is the main activity here, but within the national borders. To cross the border, one has to go through Dawki-Tamabil LCS located nearby.



**Location: Jaflong, Bangladesh**

Most of the tourists are local who come from Sylhet and nearby areas. Foreign tourists also come in occasionally. The view of the river near the border in the Indian side is splendid. The crystal clear deep pool of waters in this section of the river attracts many tourists not only from India and Bangladesh but also from other places of the world. Nevertheless, it is very difficult to quantify the revenue because all activities are informal. Local boatmen, vendors, artefact shops etc. have created a local ecosystem around which the livelihoods of many locals are dependant.

As reported by an official in Tamabil LCS, the opportunities created by stone crushing industry have tempted a large number of impoverished and landless people to participate in this business. Previously there were a few people living here. But now the settlement has enlarged with both men and women are engaged in stone procurement and crushing works. *“Unhealthy practice of stone processing in this locality inflicts a huge cost on the environment and human health as well”* shared an official in Tamabil LCS.

While the boulders sucking machines deployed in the river have created deep pools in the river and made the flow erratic creating very strong whirlpools all over the area. The stone crushers also pollute the atmosphere with very fine dust, The Bangladesh Apex Court has already banned the activity but the operation of stone procurement and crushing goes on uninterrupted using corrupt practices. The extraction and crushing of stone boulders from the river bed is undertaken hardly 2 km from the international border on the Bangladesh side.

During field visit on Bangladesh side of Umngot river, which is known as Jaflong, it was noted that 70 non engine boats (row boats) and 28 engine boats are engaged in boating services; both managed by different cooperatives. More than 100 people are engaged in boat business and more than 50 men are engaged in boat making and maintenance. An engine boat costs, on average, about BDT 80,000.

A boat maker named Adityanath shared that he earns BDT 800 per day for boat repairing. Boatman Hosen Mia said that rainy season is the peak season for travellers. During dry



season, especially after the winter months prior to monsoon, the tourist has to travel to the river front as well as to the boats walking across the hot sandy river bed on foot due to which tourist foot fall reduces and the boatman cannot earn much in that time. He gets 30 passengers per day in the dry season. “If we are allowed to trade locally produced goods to Indian bazars then it will be beneficial to us,” claimed a local boatman.

Taking into account of the hydrological conditions of the river and its proximity to road network and land ports, the river and the location seemed to be very much suited for river tourism. Promoting sustainable river tourism and keeping the river mining activities strictly banned seem to be the only way to save the river and the environment in this border area.



**Location: Downstream of Piang river**

### Box 2: Shnonpdeng Tourism Development Society

Shnonpdeng is small village in the Jaintia Hills which is about 8 km north west of the border town Dawki, Meghalaya. River Umngot flows through Dawki and enters Bangladesh. Water of Umngot River is so clear that the river-bed can be seen even from a suspension footbridge high above. For adventure tourists, Shnongpdeng also offers scuba diving experience, kayaking,<sup>9</sup> snorkelling<sup>10</sup> and cliff jumping. The best time to visit is October-April. The water gets muddy during rains.



<sup>9</sup> A kayak is a low-to-the-water, canoe-like boat in which the paddler sits facing forward, legs in front, using a double-bladed paddle to pull front-to-back on one side and then the other in rotation.

<sup>10</sup> Snorkeling is the practice of swimming on or through a body of water while equipped with a diving mask, a shaped breathing tube called a snorkel, and usually swimfins.

There are 114 families in the village belonging to the Khasi community who manage CBT in the locality. One member from each family is the member of the Shnongpdeng Tourism Development Society. There are 50-60 boats for boating purpose. About 15 homestays are being managed by members of the society in private properties. The community land on the banks of the river is cleaned everyday morning by the members voluntarily. Fishing is done by women; some of them also own petty shops and home stays. The villagers have adopted a sustainable use of the river for their livelihood. They use homemade fishing pole instead of nets. They are quite aware that the pristine nature of the river attracts tourists and hence are keen to preserve nature. Tent facilities are also made available to tourists on request.

The joint secretary of the society shared that there are constraints related to infrastructure. The approach was developed about three years back following which the tourist flow has increased. As per the land regulations of tribal communities there are common land as well as private land in the village. Widening of roads is a challenge as there are private land on both sides of the road. Also, near the bank the common land area is limited which limits in developing facilities for tourists.

Meghalaya Tourism Department provides subsidies for developing homestays and cottages and organises capacity building programmes for the communities. However, there is scope for further skill development particularly with respect to language and other etiquettes. Unlike Chabimura (Tripura), tourists from all over India and even foreign countries visit this place. Promotion of tourism has happened mostly through social media.

## Role of Tourism in Improving Riverine Livelihoods

The two cases presented in the study are managed by tribal communities who live by the side of river traditionally engaged in agriculture and fishing. Other than supplementing their livelihoods, CBT also leads to conservation of the fragile ecosystems. Nevertheless, there has to be proper guidelines for communities to follow sustainable tourism. As shared by the committee members and based on field-level observations, need for capacity building on safety measures, etiquettes and hospitality was sensed.

CUTS' interaction with official at Tourism department Tripura revealed that the government is in the process of developing those guidelines for CBT in Tripura. Meghalaya government has progressed in the sense that the regulations for safety measures and CBT are in place. There is more ownership among the community in Shnongpdeng compared to Chabimura (Tripura). Beneficiary contribution is mandatory even in the government subsidies in Meghalaya whereas in Chabimura, the community is totally dependent on Tourism Department for all kind of support. However, with specific developmental plans for Chabimura for the government to introduce beneficiary contribution.

Apart from boating which is a main activity in riverine tourism, it also provides opportunities for nature guide, fishing, adventure sports, promotion of artisans, local culture and cuisines.

### 3

## Conclusion, Recommendations and the Way Forward

### Conclusion

Unlike developed countries of the West, the economies of developing nations like India and its neighbouring are predominantly agrarian. The GBM basins supports the livelihoods of riverine communities through provision of ecosystem services like agriculture, fisheries, navigation, tourism etc. However, with enormous pressure of population coupled with frequent natural disasters like flood and drought migration has been a common phenomenon in most of the rural areas. The young members of the family venture out to nearby cities and towns for engagement as skilled/semiskilled/unskilled labours and send money to their family as a support.

The border areas of third world countries are marked with poor infrastructure, poverty and insurgencies and Indo Bangladesh border is no exception. With little or no industrialisation, these border areas are free heavens for smugglers, illegal migrants, and border forces. Improving transport and digital infrastructure in border areas would alleviate the illegal activities and provide opportunities for the local communities.

If the rivers passing through remote border areas are frequented by vessels engaged in regular cargo/tourist operation, they will need support from the local villagers in several fronts, few of which are put in the following table:

**Table 7: Local Participation in the Meghna Basin**

Activity	Participation by Locals
Supply of fresh vegetables, fish, poultry products	Can be participated both by men and women
Engagement in ports and terminals in near vicinity if any as skilled/semiskilled labours	Mostly by men and depending on type of work by women also to certain extent
Engagement as tourist guides and escorting tourist to nearby places of attraction	Can be participated both by men and women
Operating Battery rickshaws/rickshaws for ease of movement of tourist to nearby tourist locations through village roads	Can be participated both by men and women
Working as naturalist to tourist and taking them around the village for bird watching, sight-seeing etc.	Can be participated both by men and women



Activity	Participation by Locals
Operating small home stay and local cuisines for tourist and vessel crews	Can be participated both by men and women
Manufacturing and selling local handicraft items to the tourist/vessel crew	Can be participated both by men and women
Running small shops near the border crossing areas where crew and tourist are expected to disembark during processing time by Customs/Immigration	Can be participated both by men and women
Increased movement of small boats across border carrying cargo	Opportunities for boatmen, boat building sector, traders, transporters and farmers
Increased dredging operations thereby facilitating year round navigation	Traders, boatmen,

## Recommendations

The main opportunities identified for sub regional and regional policy initiatives that came out of the study with regard to cross border navigation and tourism are listed below:

At Karimganj, cross-border trade happening across the bank is supporting local livelihoods in both India and Bangladesh. However, currently the cargo movement is one sided, i.e. from India to Bangladesh. Joint dredging operations are being carried out from Ashuganj to Zakiganj. With the development of waterways in this stretch traders in India can expand their markets and also it is likely that commodities are imported from Bangladesh side as well. Lack of proper infrastructure at ghats and poor market linkages were the major concerns of traders. Also, a ramp near the current *ghat* could have made loading/unloading easier.

Cross-border trade from Sonamura to Comilla and up to Daudkandi through Gumti is feasible using vessels of capacity 10-25 tonnes. Coal and cement from Daudkandi can be imported to India through waterways. The existing infrastructure at the custom station at Srimanapur which is on the bank of Gumti, can be utilised in the Indian side.. The customs station at Bibir Bazar, Comilla Bangladesh is also located nearby the river. Cross border movement of coal can be initiated on pilot basis in this stretch. Consequently, the stretch can be declared as part of Protocol Route with transshipment facilities at Daudkandi.

Haora river is lean close to the border in both India and Bangladesh and does not have necessary depth for navigation in many places. The navigability can be improved by dredging but being in the proximity of well-equipped Agartala ICP, road network and the upcoming rail connectivity, prospects of cross border trade through waterways is limited. Further, bimodal connectivity (waterways+road) from Ashuganj Port to Agartala is already operational.

With regard to trade in agricultural commodities, traders in all the three locations on the Indian side shared that port restrictions, high duty, lack of quarantine facilities (Karimganj and Srimanapur) and other NTBs hinder cross border trade. If these restrictions are removed, then it will help local farmers and consumers.

To fetch a premium price of the product and to make it competitive in the international market, farmers have to be sensitised to follow primary processing cleaning and grading, which will enhance the value of products.

The Haora river in India is highly polluted and has become a drain due to dumping of garbage. Better management of the river at the upstream would definitely improve the quality

and flow of water thereby assuring better navigability in the border areas. The Public Works Department and Pollution Control Board in Tripura have to act on this.

Regarding tourism, Chabimura has great potential to be developed as tourist spot. The Tourism Department of Tripura has already initiated measures to that end. Apart from this, capacity building has to be undertaken with the communities on safety measures, hospitality, pollution control, etiquette etc. to promote sustainable tourism. The Tourism Department has to develop a package for Chabimura under its promotional programme. Though there are very limited cottages with basic facilities, home stay can be encouraged with the communities. The area being a vegetable growing belt, promoting organic products can also create a nice market for the farmers as well as attract the tourists.

Most importantly, a guideline has to be developed for CBT specifying the kind of incentives that will be provided by the government with beneficiary contribution. While the Government of Tripura is in the process of developing these guidelines, Meghalaya government has already progressed in this end.

Dawki-Jaflong is already a popular tourist spot with a lots of livelihoods dependant on the same. Illegal mining is quite prevalent in this area which fetches quick money to the locals but at the cost of the river. This necessitates the development of alternate livelihood options and tourism rightly fits in. It is important to explore further the current livelihood scenario and how it can be improved through promotion of sustainable tourism.

The Ministry of Human Resource Development (HRD) and the Ministry of Tourism have to be actively involved in community and village level and put up facilities for training the concerned local youths, communities, women welfare trusts etc. However, to ensure that necessary training and skill development is imparted to all field level participants, the HRD Ministry has to engage civil societies, local government bodies and non-government organisations (NGOs) so that all communities, women SHGs and villagers can participate in these programmes. The local government bodies also need to ensure that the locations are tourist-friendly, clean and attractive. They also have to look after the safety and security of tourists by deploying volunteers to supervise.

Thus, the study concludes that short haul trade across border through waterways in Gumti and Barak rivers can support the livelihoods of riverine communities who are engaged in farming, fisheries and navigation. Further, it also highlights the role of riverine tourism in improving the livelihoods of local communities of Chabimura and Dawki, if guided and supported with suitable policies and equipped through capacity building programmes.

## Way Forward

The governments of India and Bangladesh are undertaking joint dredging operations between Ashuganj and Zakiganj along Protocol Route 3. The present study has also come up with the need of dredging in Gumti in areas close to the international border. A business sustainability analysis would enable us to understand the economic viability of these dredging operations.

Even while promoting trade via waterways between India and Bangladesh, it is important to work on trade facilitation measures and removal of NTBs. Both countries being agrarian economies, there is a scope for developing cross-border agricultural value chains. It is important to identify these potential value chains and explore the role of waterways in promoting these value chains.

Sensitising farmer/producer organisations to undertake primary processing, cleaning and grading, organising cross-border traders meet and analysing the business prospects through studying the potential of cross-border value chain would make a strong business case for traders and earn profits for farmers.

Khawthlangtuipui (or Karnaphuli as known in Bangladesh) is a trans-boundary river between India and Bangladesh which originates in Mamit district of Mizoram and flows through the Chittagong tract. Since it is located in a remote area, the local communities residing by the river engage in trade with the other side of the bank which is in Bangladesh and that is mostly through exchange of commodities (barter system). The border trade facilitation centre in Tlabung (Mizoram) enables trade operations between India and Bangladesh. This will be an ideal case study on how the communities living across border can cooperate with each other as the nearest market is many miles away for both of them.

All the proposed interventions revolve around the socio-economic benefits of riverine communities that can be gained through better participation in trade, transit and tourism and are very much in tune with TROSA objectives.

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# Annexes

## Annexure 1 Pre-independence Customs Points along the Meghna Basin

Land Frontiers	Land Customs Stations	Routes
Cachar District	(27) Karimganj Ferry Station	(A) Kusiya River (B) Longai River (C) Surma River
	(28) Karimganj Steamerghat	(A) Kusiya River (B) Surma River (C) Longai River
	(29) Mahisasan Railway Station	Railway Line from Karimganj to Lutu Railway Station
	(30) Silchar R.M.S. Office	---
	(31) Sutarkandi	Sylhet-Karimganj Trunk Road
Jaintia Hills District	(47) Dawki	(A) Piyon River (B) Shillong-Sylhet Road
Lunglei District	(53) Demagiri	Karnaphuli River
Tripura North District	(73) Dhalaighat	(A) The River Dhalai from Halhali to Dhalai Checking Station (B) The Road from Halhali to Kamalpur
	(74) Manu (Kailasahar Sub-Division)	(A) Motorable Road from Kailasahar to Murtichera Leading to Samshernagar. (B) Motorable Road from Kailasahar to Muraichera (C) Motorable Road from Kailasahar to Samshernagar (D) River Manu from Fatikrai to Manughat
Tripura South District	(75) Old Raghna Bazar	Road From Dharmanagar-Old Raghna Bazar to Betuli-Fultala (Bangladesh)
	(76) Muhurighat	(A) The River Muhuri up to Muhurighat (B) The Road from Muhurighat Leading to Belonia Railway Station
Tripura West District	(77) Agartala	The Road Between Agartala and Akhaura Road Police Outpost
	(78) Khowaighat	(A) The River Khowai from Teliamura to Khowaighat (B) The Road from Kalyanpur to Khowaighat
	(79) Srimantapur	(A) The River Gumti (B) Udaipur-Comilla Road

Source: (CBIC, 1994)

## Annexure 2

### Currently Functional Customs Points along the Meghna Basin

Total Numbers of Land Customs Station = 34 Nos

Functional = 23 Nos

*Export/Import/Passengers movement only* = 22 Nos

*Passengers movement* = 1 Nos

Non-Functional = 11 Nos

Sr. No.	Name of the Land Customs Station	Status
1	Agartala	Functional
2	Baghmara	Functional
3	Balat	Non-functional LCS/Functioning as Border Haat
4	Bholaganj	Functional
5	Borsora	Functional
6	Dalu	Functional
7	Darranga	Functional
8	Dawki	Functional
9	Demagiri	Non-functional
10	Dholaighat	Functional (passenger movement only)
11	Dhubri Steamerghat	Functional
12	Ghasuapara	Functional
13	Golakganj	Functional
14	Guwahati Steamerghat	Functional
15	Hattisar	Functional
16	Kalaichar	Border Haat
17	Kamalasagar	Border Haat
18	Kamardwisa	Functional
19	Karimganj Steamerghat and Ferry Station	Functional
20	Khowaighat	Functional
21	Mahendraganj	Functional
22	Mahisasan Railway Station	Non-functional

Sr. No.	Name of the Land Customs Station	Status
23	Mankachar	Functional
24	Manu	Functional
25	Moreh	Functional
26	Mhurighat	Functional
27	Nampong	Non-functional
28	Old Ragnabazar	Functional
29	Ryngku	Non-functional
30	Sabroom	Non-functional
31	Shellabazar	Functional
32	Silchar RMS	Non-functional
33	Silghat	Non-functional
34	Srimantapur	Functional
35	Srinagar	Border Haat
36	Sutarkandi	Functional
37	Ultapani	Non-functional
38	Zokhawthar	Functional

*Source: Compiled by Authors*

## About the Project

The Meghna basin caters to a wide range of ecosystem services ranging from agriculture, fisheries, energy (hydropower), minerals, navigation and eco-tourism. The Barak river which falls in the Meghna basin, is part of Kolkata-Karimganj Protocol Route between India and Bangladesh and National Waterway-16 from Bhanga to Lakhimpur. Haora and Gumti are two west flowing rivers of Tripura that merge into the Meghna river system in Bangladesh. These trans-boundary rivers though vital in supporting the livelihoods of riverine communities, were neglected in terms of water governance. This report explores the prospects of cross border trade through transboundary waterways and its impact on riverine communities. Furthermore, it also identifies community based tourism as a supplementary source of livelihood through the cases of Chabimura (Tripura) and Shnongpdeng, Dawki (Meghalaya).

For more information, please follow:

[http://www.cuts-citee.org/IW/IW-Inclusive\\_cross-border\\_trade\\_in\\_Meghna\\_basin\\_in\\_South\\_Asia.htm](http://www.cuts-citee.org/IW/IW-Inclusive_cross-border_trade_in_Meghna_basin_in_South_Asia.htm)

## CUTS International

Established in 1983, CUTS International (Consumer Unity & Trust Society) is a non-governmental organisation, engaged in consumer sovereignty in the framework of social justice and economic equality and environmental balance, within and across borders. More information about the organisation and its centres can be accessed here: <http://www.cuts-international.org>.

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