CUTS International

# SDIP Advocacy Brief No4

Sustainable Development Investment Portfolio (SDIP) April 2016

## Development of **Inland WWs** for Trade and Transit in BBIN

### Executive Statement

The signing of the BBIN MVA[1] for the regulation of passenger, personal and cargo vehicular traffic is a contemporary proof of the willingness of sub-region to emerge as a trading hub for overall economic development of the region. Traditionally, inland water ways were used as the means of transportation in Ganges and Brahmaputra rivers. The recent developments have revived interest in inland water bodies as alternative mode of transportation, particularly for trade and transportation towards enhancing the cooperation and connectivity in the region. It is envisaged that this might and should ideally lead to a renewed interest in the navigability of inland waterways with the result that water flow within and across borders will get higher policy focus. It is hoped that with possible dialogues on bettering inland waterways channels, there will be higher traction on overall water sharing issues. Further, it is also expected that inland waterways trade will function as a bridge for greater water cooperation.

In this scenario, following policy recommendations have been proposed:

a) It would be worthwhile to conserve the Chure region in Nepal as the degradation of Chure due to excessive mining has affected the water flow downstream. Maintenance of water bodies and ensuring minimal flow is critical for inland navigation. Stringent laws and regulations to protect Chure will make this happen.

b) Hydropower cooperation between India and Bhutan is win-win cooperation where Bhutan generates revenue by exporting electricity to India. But siltation and landslides in the upstream region of the transboundary river Manas have led to breakages in dams causing devastating floods in the downstream region of Assam. Bhutan has successfully implemented the Payment for Environmental Services (PES) in collaboration with communities in many places, for maintenance and sustenance of the inland water systems, which can be shared and scaled up for the benefit of upstream;-downstream dwellers. Watershed management in the upstream side of hydro projects could reduce siltation of dams and consequent release of excess water. A number of hydroprojects are budding up in the tributaries of the Brahmaputra river. This in turn will require developing inland water ways for the transport of construction material for the proposed power projects. This indicates that given the various aspects of management and planning of shared water resources, a basin-wise planning involving both upstream and downstream communities and governments will help ensure better water flows while lowering threats of disasters and ensuring better preparedness. It will also help to share and exchange good practices amongst communities to this end.

c) Given that India and Bangladesh have recently agreed on higher levels of cooperation on the subject of inland WWs, it will be important to cash in on that undertaking enabling research and connecting agencies, stakeholders and governments that are relevant to its development. It will be useful to brainstorm on how the development of this network could lead to economic benefits for the common man on both sides of the border, how one can include the relevant stakeholders groups by building their capacities on their respective takeaways, thereby creating a higher buy-in and also how the inter-modality between road/railway networks and the inland WWs can be facilitated towards greater connectivity in the region.

### Domains of Change

The 'Theory of Engagement' for this policy advocacy message has been placed under the domain of water to service multiple needs in the Ganges and Brahmaputra river basins of South Asia. The Sustainable Development Investment Portfolio (SDIP) orientation is to promote effective and equitable management of trans-boundary inland waterway systems for trade and transit. A long-term development condition will enhance regional cooperation across the Ganges and Brahmaputra basins for livelihood generation and economic development.

| Impact Area: Water | Basins | CUTS | SDPI, Pakistan | SAWTEE, Nepal | US, Bangladesh | SNV, Bhutan | CRRID, Chandigarh | NEFORD, Lucknow | IGS, Bihar | RGVN, Assam |
|---|---|---|---|---|---|---|---|---|---|---|
| 1. Enabling the (National and Sub-national) policy and regulatory environment for IRWM | Ganges | X | - | - | - | - | - | X | X | - |
| | Indus | X | X | - | - | - | X | - | - | - |
| | Brahmaputra | X | - | - | X | - | - | - | - | X |
| 2. Knowledge management: drivers and effects of climate change on water security in mountain and downstream environments | Ganges | - | - | X | - | - | - | - | - | - |
| | Indus | - | - | - | - | - | - | - | - | - |
| | Brahmaputra | - | - | - | - | - | - | - | - | - |
| 3. Technical partnerships on WRM between local and regional agencies and authorities | Ganges | - | - | - | - | X | - | - | - | - |
| | Indus | - | - | - | - | - | - | - | - | - |
| | Brahmaputra | - | - | - | - | - | - | - | - | - |
| 4. Civil society voice for change, reform and standards for basin wide water management | Ganges | X | - | - | - | - | - | X | - | - |
| | Indus | X | - | - | - | - | X | - | - | - |
| | Brahmaputra | X | - | - | - | - | - | - | - | - |
| 5. Facilitative dialogue regional voices (SAARC) on the need for data sharing and joint analyses on water resource management | Ganges | X | - | - | - | - | - | - | - | - |
| | Indus | X | - | - | - | - | - | - | - | - |
| | Brahmaputra | X | - | - | - | - | - | - | - | - |

## Theory of Change

**Table 1: Need of Inland WWs in Ganges and Brahmaputra Basin**

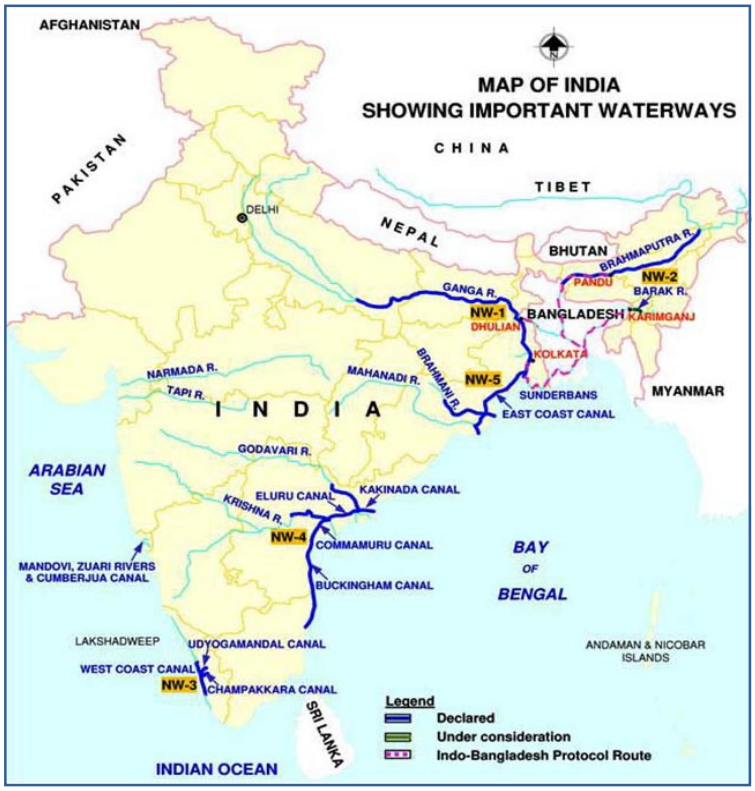
| *Direct Benefits – Economic dividend/smaller picture (Key drive to push this policy)* | *Indirect Benefits – Social dividend/bigger picture (Actual aim of the policy)* |
|---|---|
| A. Employment generation in three phases – Construction, Operation and Maintenance of Inland WWs → | (i) Net increase in social and economic welfare for the local population constrained by natural disasters |
| B. Non-transport functions like integrated water resource management (IWRM) → | (ii) Rejuvenate traditional informal trade links<br>(iii) Revive traditional water dependent livelihoods<br>(iv) Water-based tourism<br>(v) Flood control by removal of surface rain and storm water<br>(vi) Maintenance of ground water-levels in *char* areas |
| C. New investment options in the backward areas of the basins → | (vii) Harnessing water supply/transfer/drainage for harnessing hydroelectric power across mini and micro hydro-grids |

## Context

Lately, renewed focus in regional cooperation among the SASEC countries in trade and development has been initiated. The infrastructure funding for Indian transport systems has always focussed on road and rail systems than waterways routes. However, some initiatives like the BBIN Motor Vehicle Agreement[2] for the regulation of passenger, personal and cargo vehicular traffic and signing of a draft Memorandum of Understanding (MoU) on passenger and cruise services on coastal and protocol route have been the ground stones for these mutual cooperation.[3] Moreover, instances from China like that of the Shanghai port off of the Yangtze river has been an exemplary example of how realigning the objectives will encourage higher regional trade and transportation and eventually profit.

***Indian Scenario***

The national policy atmosphere in India has also been drifting in tune to the winds of regional and sub-regional treaties. The proposed National Waterways Bill 2015 (after three failed attempts of introduction in *Lok Sabha*) aims to "*to make provisions for existing national waterways and to provide for the declaration of certain inland WWs to be national waterways and also to provide for the regulation and development of the said waterways for the purposes of shipping and navigation*". The Bill identifies additional 101 waterways as national waterways. The Bill also repeals the earlier Act under which five national waterways (NWs) existed. They are also currently covered under the Bill.[4]




The revamped Sagarmala Project, 2015 also aims to "*promote port-led direct and indirect development and to provide infrastructure to transport goods to and from ports quickly, efficiently and cost-effectively*" and to develop port infrastructure along the country's 7,500 km coastline. It is also likely to see an investment of more than ₹70,000 crore in the coming years.[5] All of these initiatives would act as cushioning agents for the Indian government's ambitious US$168bn river-linking-project that includes diversion of water from *Ganges* and *Brahmaputra* for irrigation and inland transport.[6]

These developments should be seen in view of the existing transportation of fly-ash on Indo-Bangladesh Protocol Routes. Pilot movement of fertilisers on NW-1 by Indian Farmers Fertiliser Cooperative Limited (IFFCO) and TATA Chemicals has shown success. Fertilisers and Chemicals Travancore Limited (FACT) has also transported Liquefied Ammonia on NW-3. Food Corporation of India has also finalised protocol routes for pilot movement of food grains to North-east through NWs. The Inland Waterways Authority of India (IWAI) has prepared a ₹4,200-crore project to be executed with the World Bank's assistance to remove silt from the *Ganga* between *Varanasi* and *Haldia* to develop 'integrated river water freight corridor' with road and rail links at crucial points.

The *Dhubri* port in Assam being developed is called Free India Ghat and its distance to the nearest river port in Bangladesh (*Shishumara*) through the riverine route is only 32 km. It is being developed by IWAI with support from Ministry of Shipping, Government of India, and is expected to be completed sometime in mid-2016. This port will be connected with NH-31, which is around 15 km away. Other important ports on the Indian side are *Pandu*, *Silghat*, *Neamati* and *Karimganj*, out of which the port at *Pandu* has also been developed by IWAI. These case studies establish that inland WWs are also contributing directly to enhancing connectivity within India also.

One of the main issues that face inland WWs trade in BBIN is availability of vessels for transport. For example, IWAI does have two vessels operating in NW-2, but they are mostly for demonstrative purposes. Private operators are sceptical about investing due to two main reasons. Firstly, inland waterways protocol between nations is renewed for only short time periods (one-two years). Unless longer timeframe of at least 10 years is considered and uncertainties surrounding Trade and Transit protocols are done away with, it will be difficult to attract private investment. The second reason, which in a way follows from the first, is that due to uncertainties of the routes,

assured cargo is also not available all through the year. Also, not many vessel repairing facilities are available along the route, which adds on to the total operation cost of vessel builders and operators.

Taking into account, the geographic advantage of India, the BBIN nations have reported different issues. Water sharing rights and land boundary disputes, aside, India has always maintained a strategic position with Nepal, Bhutan and Bangladesh. India has been on the lower riparian end on Nepal and Bhutan and on the upper riparian side of Bangladesh. Hence, India's 'big brother' stance has sometimes worked in favour and sometimes invited backlash.

## Policy Implications

Inland WWs have certain decided advantages when compared with land-based transport system, like those pertaining to traffic congestion, unnecessary administrative hassles and carrying capacity problems. Also, the coefficient of friction on water is small, so in the European and American countries, inland water transport has established itself as the cheapest mode of transportation. For instance, the total transportation cost through waterways comes to barely 30 paise per km against ₹1 per km through railway and ₹1.5 per km through road. Use of water ways for transportation also has the low carbon advantage when compared to roads. But, India's IWT relationship to each of its neighbours has also had its ups and downs, primarily because of riparian conflicts.

### Indo-Nepal Scenario

The Chure mountain range, one of the youngest and most vulnerable ranges situated between the middle hills and the *Terai* of Nepal, has been greatly affected by the prospect of trade between Nepal and India. One of the main causes for destruction of the Chure is the mining of sand, stone and gravel in the region, mainly for export to India. The depletion of Chure range has a significant bearing in the water bodies that originate from it. Due to the young age of the mountains and the steep slopes, the conglomerates and sandstones that make up the region are easily erodible; and the rivers originating in Chure carry high volume of silt. This is a cause of concern not only for Nepal, but also India. This could have had significantly affected, among others, water resources in Nepal and also India, because as water flows from the higher belt in Nepal to the lower belt in India, effects on water resources in Nepal could have an impact on water resources also in India.

*Source: Field Study, SAWTEE, Nepal*

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|---|---|
| **Policy Recommendation (s)** | • More concrete and stringent regulations on Chure region, with regard to exports of sand, gravel and stone from Nepal to India and declaring the Chure region as a conservation zone |
| **Change Agent(s)** | • CSOs, Research Bodies, Private Sector, iNGOs, IDAs, Institute for Policy Research and Development (IPRAD), Federation of Nepalese Chamber of Commerce & Industry (FNCCI), Centre for Economic Development and Administration (TU, Nepal), Nepal Transit Warehousing Co. Ltd. (NTWC), Nepal Intermodal Transport Development Board (NITDB), |
| **Action Point (s)** | • Op-eds in leading newspapers<br>• Local stakeholder meetings in Indo-Nepal Inland WWs ports<br>• National workshop in Kathmandu on Chure destruction<br>• Regional workshop on food, water, energy in New Delhi |
| **Outcome** | • Policy makers are more aware of issues on Chure destruction and show interest in policy reforms to conserve the Chure region |

***Indo-Bhutan Scenario***

Bhutan and India demonstrate an association of 'beneficial bilateralism' based on reciprocated deference. This might also be because of India's non-confrontational attitude in water sharing rights for exchange of electricity import from Bhutan. The four major rivers in Bhutan – *Torsa*, *Sankosh*, *Wangchu* and the *Manas* finally join *Brahmaputra* in India and carry an estimated potential of 30,000 MW of hydropower.

### Box 1: Payment of Environment Services, Bhutan

SNV has established a **Payment for Environment Services** (PES) on protecting the drinking water source for four companies and other water users in Pasakha area under Samphelinggeog of Chukha Dzongkhag in Bhutan. The environmental service (ES) is the protection of the drinking water source at Devithan at the bottom of Burkhey village. The ES providers are the Burkhey Community Forest Management Group (CFMG) consisting of 25 households from Burkhey village. The ES buyers are the four companies (Tashi Beverages Ltd. – Coca Cola, Bhutan Board Products Ltd., Druk Cement, and Majur Oxygen and Gases) and two private water users. .

The focus of the project is catchment protection for a water source that four major companies rely on, including a number of other water users. The surrounding communities and all of the CFMG members actively participate in agriculture for their primary source of livelihoods. While 'energy' is not directly within the scope of this project, in aggregate, a number of similar projects will have a significant positive impact on regulating water flow and limiting sedimentation in the rivers, thereby lowering the operational and maintenance costs for the only electricity source in the country –hydropower. Also, demonstrations of functioning PES schemes provide great reference points for the country in scaling-up the use of PES project in numbers, scope and size. A hydropower-related PES is envisaged in the near future for Bhutan. The Chukha approach can be used as a great example of how small-scale catchment protection activities via PES can have a strong impact on energy generation and the economy.

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| **Policy Recommendation (s)** | • Scale up payment of ES through knowledge sharing and national level policy advocacy |
| **Change Agent(s)** | • CSOs, Research Bodies, Private Sector, iNGOs, IDAs, Water User Associations (WUA) Representatives, Community Forest Management Group (CFMG), Department of Forests and Park Services (DoFPS, GoB), Ministry of Trade and Industry, Bhutan Chamber of Commerce and Industry (BCCI), |
| **Action Point (s)** | • Op-eds in leading newspapers<br>• National workshop in Thimphu<br>• Knowledge sharing seminar in Bhutan |
| **Outcome** | • Create consensus among policy makers to work around the bottlenecks in payment of environmental service<br>• CSOs raise their voice for PES |

***Indo-Bangladesh Scenario***

India's inland waterway transit routes with Bangladesh are generating a lot of interest of late.. All the waterways from the landlocked countries Nepal and Bhutan are also connected to Bangladesh via India. So, there are close to 54 common rivers that crisscross through the two countries. Apart from the *Ganges* and *Brahmaputra*, the other major rivers that flow between the two countries are the *Teesta* and the *Barak*. Despite having similar demographic requirements for the shared waters of *Ganges* and *Brahmaputra*, India and Bangladesh have been at cross fires numerous times. The Ganges water treaty in 1996 reduced some of the friction, but issues relating to the *Teesta* waters, the *Gozaldoba* Barrage and the *Tipaimukh* Hydro project had opened up a new box of riparian troubles. But, recent interventions from both the governments have initiated a couple of friendly transactions.

Given the huge amount of cargo that will be generated due to construction needs of the proposed hydropower projects in the North Eastern states of India, the possibility of furthering FCI utilisation of inland WWs, and also the potential for transport of mutually beneficial cargo (limestone, coal, raw materials for cement industry, fly ash, etc.) between Bangladesh and India (particularly North Eastern states of India), the inland WWs needs a higher thrust from both governments. Though bilateral relations are on the positive side, both Indian and Bangladesh inland WWs still face teething issues with fairway (sufficient depth and width of channels), connectivity with road-railways networks and environmental degradation issues, such as siltation, flooding and migration from the deserted riparian. However, the recent renewal of the Protocol on Inland Waterways Transit and Trade (PIWTT) between the two countries (with clauses for automatic renewal after every five years), the Memorandum of Understanding (MoU) between India and Bangladesh[7] on use of Chittagong and Mongla Ports for movement of goods to and from India, probably indicate that the inland waterways network is finally getting its due importance to help it become even more instrumental and beneficial in terms of connectivity and transport facilitation in the entire region.

**Dhubri,** the gateway of western Assam, has historically been a meeting place of different racial and cultural groups in the region. The present Dhubri District has inter-state borders with the Indian states of West Bengal and Meghalaya and an international border with Bangladesh. It extends for an area of 2,838 sq. km including forests, riverine and hilly tracts. Dhubri Steamer Ghat forms an important part of the inland waterways network that exists between India and Bangladesh.

The Brahmaputra has a lot of potential of boosting connectivity and trade through its myriad tributaries. Dhubri is well connected with other part of Assam (Mainly Upper Assam – till Tezpur), Arunachal Pradesh and Meghalaya (West Garo Hills). At present, small passenger boats are plying, connecting people living on the islands of Brahmaputra river with the mainland and also river ports in the states of Assam and Meghalaya.

However, transport becomes unpredictable depending on the time of the year as shared by locals. This is especially true during the monsoons due to heavy water flow in the Brahmaputra river. Operating boats, particularly smaller passenger ferry boats, during this time are risky. Similarly, between December and March, big vessels are unable to move along certain stretches of the river due to low water-levels. While small-scale in-country trade does take place through the waterways, its potential to boost international trade and transit trade is largely untapped.

*Source: CUTS Assessment of Bangladesh-India Trade Potentiality Need for Cross-border Transport*

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| **Policy Recommendation (s)** | • Develop and rejuvinate the inland water ways to boost trade and transboundary cooperation in the region, through greater public-private dialogues |
| **Change Agent(s)** | • CSOs, Research Bodies, Private Sector, iNGOs, IDAs, Bangladesh Inland Water Transport Authority (BIWTA), Inland Water Authority of India (IWAI), Bureau of Indian Standards, Ministry of Road Transport and Highways (GoI), Department.of Commerce (GoI), North Eastern Council (GoI), Bangladesh Standards and Testing Institute, Bangladesh Road Transport Authority, Ministry of Development of North Eastern Region, National Thermal Power Corporation (NTPC), National Hydro Power Corporation (NHPC) |
| **Action Point (s)** | • Consultations in Assam, Bihar<br>• National Workshop in Dhaka<br>• Regional Workshop on food, water, energy in New Delhi<br>• Op-eds in leading newspapers |
| **Outcome** | • The national and regional workshops will aim to build policy consensus on boosting IWWs towards greater connectivity and trade in the region<br>• The workshops will also provide platforms for a higher public-private dialogue on relevant issues concerning the IWWs |

## Endnotes

1 Bangladesh, Bhutan, India & Nepal Motor Vehicle Agreement
2 The BBIN MVA was signed on June 15, 2015 at the BBIN Transport Minister's meeting in Thimpu, Bhutan. CUTS had actively participated in the advocacy of the MVA for regional integration in South Asia. More information can be accessed at: *http://www.cuts-citee.org/IBTA-II/*
3 *http://pib.nic.in/newsite/PrintRelease.aspx?relid=122416*
4 *www.prsindia.org/uploads/media/Waterways/Waterways%20bill,%202015.pdf*
5 http://pib.nic.in/newsite/PrintRelease.aspx?relid=117691
6 *www.nwda.gov.in/index2.asp?slid=108&sublinkid=14&langid=1*
7 http://mea.gov.in/bilateral-documents.htm?dtl/25344/List_of_Agreements_MoUs_and_other_Documents_concluded_during_the_visit_of_Prime_Minister_to_Dhaka_June_06_2015

This document is the output of the study undertaken by CUTS International which contributes to the South Asia Sustainable Development Investment Portfolio (SDIP) and is supported by Department of Foreign Affairs and Trade (DFAT), Government of Australia. The views expressed here are those of CUTS International and can therefore in no way be taken to reflect the position of DFAT.



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