

**Teesta Basin Case Study**  
**Anumita Raj**  
**Strategic Foresight Group**

The Teesta River is shared by India and Bangladesh. It is a tributary of the Brahmaputra River and falls under the Brahmaputra sub-basin in the Eastern Himalayan region. The river begins its journey in the glacial mountains of the Northeast Indian state of Sikkim. It subsequently enters Bangladesh, flowing through Jalpaiguri and then the Rangpur Division. In Bangladesh, the Teesta joins the Brahmaputra at Fulcherry.

India and Bangladesh share a total of 54 rivers between them. Of these, only the Ganges and Brahmaputra have a higher annual runoff than the Teesta. The Teesta River has an average annual runoff of 60 billion cubic metres (BCM). 90% of the river's flow occurs during the monsoon or wet season i.e. between June and September. The importance of the flow and seasonal variation of this river is felt during the lean season (October to April/May) when the average flow is about 500 million cubic metres (MCM) per month.

Nearly 30 million people reside in the Teesta River basin. The population density in the river basin is high and is growing at a fast pace. The population mostly resides in rural areas (around 78%) but is urbanizing at a rapid rate. Poverty is high in both the Indian and Bangladeshi part of the basin. The basin is primarily agrarian. Crops grown include rice, wheat and maize with other supplementary crops like rubber and tea. Other economic sectors are tourism and small-scale industries dependent on agricultural raw materials.

The Teesta River's joint management falls under the India-Bangladesh Joint Rivers Commission (JRC). Signed into effect in 1972, the Commission liaises with governments to ensure joint efforts in the management of all 54 transboundary rivers. Since then, India and Bangladesh have entered into protracted negotiations over basin-wise treaties to manage shared rivers. In 1983, India and Bangladesh entered into an ad hoc agreement over the Teesta, but were unable to implement it. Since then, negotiations over the Teesta have continued and have sometimes turned contentious. In 2010, the two countries arrived at a draft of an agreement to be implemented the following year. The draft stipulated that India and Bangladesh would each get 40 per cent of the actual flow available at Gazaldoba Barrage in West Bengal while 20 per cent of the actual flow available at Gazaldoba would be reserved as environmental flow. The draft deals with the lean period, i.e. between October and April.

Despite resolve from the central government of India and the Bangladeshi government, the treaty was opposed by the state government of West Bengal in India, which has asserted that water is a State Subject under the Indian Constitution.

Strategic Foresight Group has proposed that India and Bangladesh need to move past negotiating a water allocation treaty and instead look to improve overall bilateral security through water co-operation. SFG has presented a three-dimensional formula to be applied for the Teesta Basin; first, the current iteration of the Teesta Treaty must be signed, second a Joint Investment Plan for the integrated Teesta basin to augment water flow in winter months, favour drought-resistant crops and introduce non-agrarian livelihoods must be implemented and third, the Joint Rivers Commission that governs the transboundary water resources management between the two countries must be restructured. If achieved, this move will benefit the nearly 250 million people who live in West Bengal and Bangladesh. At present,

due to recent elections in both countries, the process is on standby. It is expected that SFG's 3-D formula will be adopted later this year.

*Benefits:*

Presently, perhaps the most vital benefit accrued from the Teesta Basin agreement is the informal trade-off between the Indian and Bangladeshi governments which is essentially a water-for-peace deal. The Indian government as the upper riparian has agreed to a water sharing agreement during the lean season in exchange for the present Bangladeshi administration's cooperation in addressing some of India's security concerns regarding violent extremist groups operating from the Bangladeshi territory.

Once a treaty on the Teesta is signed, there is significant potential for benefits that will impact not only the 30 million people that live in the Teesta basin itself, but also nearly 250 million people from India and Bangladesh. Future types of benefits considered include environmental, economic, social, bilateral and human-security related. These benefits were assessed using Strategic Foresight Group's 'Blue Peace' framework which has been successfully applied in various regions around the world.

Environmental benefits include emphasis on the maintenance of 'environmental flow' of the Teesta River, augmentation of river flows during lean season through means such as rainwater harvesting, fog water harvesting and wastewater treatment; and prevention anthropogenic pollution.

Potential social benefits include the reduction of cross-border migration which is a significant issue as Bangladesh and India have a fairly porous border. With the introduction of a Joint Investment Plan and improvement of access to economic activities, social conflict as a result of migration may be reduced.

Economic benefits within basin include the introduction of drought-resistant crops, development of alternative industries and income-generating activities and development of eco-tourism in the region which could prove to be highly lucrative (similar to the model of the Sunderbans in the same region). Economic benefits beyond the basin include large-scale economic co-operation through a Joint Investment Plan for the entire basin from the Indian and Bangladeshi Governments.

Regionally speaking, transboundary water co-operation between India and Bangladesh over the Teesta could lead to broader bilateral security that could potentially expand gradually to include China, Nepal and Bhutan (Eastern Himalayan River Basins).

*Derivation of Benefits:*

Important decision makers in Bangladesh and India have shown keen interest in SFG facilitating a resolution of the Teesta issue by identifying comprehensive benefits of cooperation. Strategic Foresight Group convened a meeting of leaders and advisers of ruling and opposition political parties from India and Bangladesh in Mumbai in July 2013. In addition to the roundtable meeting of stakeholders, SFG undertook scientific research and bilateral consultations to determine the benefits. In October 2013, SFG presented its conclusions in a report, '*Rivers of Peace: Restructuring India Bangladesh Relations*'.

### *Communication and Reception of Benefits:*

Strategic Foresight Group has taken efforts to ensure that its benefits assessment has been communicated at the highest level possible in both countries' political infrastructure by not only by presenting them with its report 'Rivers of Peace: Restructuring India Bangladesh Relations' but by also involving them directly in the assessment process itself.

Strategic Foresight Group presented the report to the Prime Minister's Offices of India and Bangladesh and to various stakeholders in Dhaka and New Delhi. SFG held direct one-on-one meetings with the National Security Advisor to the Prime Minister of India as well as the Chief Foreign Policy Advisor to the Prime Minister of Bangladesh. Strategic Foresight Group also held separate, individual meetings with Members of Parliament from both countries and from all major political parties including the opposition to present them with the report.

Stakeholders SFG has met with during the assessment and dissemination process include government officials at the highest level, elected representatives and Members of Parliament (especially from affected districts), academic and water experts, foreign policy and security experts and members of the press.

SFG has also communicated its analysis and recommendations to general public at large through the media. Several hundred articles appeared in the mainstream media in India and Bangladesh about SFG's key messages. Leading newspapers of Bangladesh carried an Op Ed by SFG on the same day in order to mobilise public opinion.

In 2014, both India and Bangladesh held general elections and as a result, the process of applying SFG's 3-D formula will be resumed once there is political stability. Since the consultation process has involved the entire political spectrum, the process will not need to start from scratch again when it resumes. However, internal political equations will have major bearing on the process. In the case of Bangladesh, opposition parties did not participate in elections and hence it is unclear how they will react to any Government initiative, even though they are positive to the SFG formula. In case of India, this is a relatively low priority issue and the new Government, elected in late May 2014, will take several months before it addresses it.

### *Key Messages:*

As the benefits assessment was done in a manner that included all the major stakeholders of the transboundary water co-operation process, it has been viewed as being credible and actionable. SFG's 3-D formula clearly illustrates the steps that need to be taken in order to strengthen water co-operation. Once the first step, i.e. the signing of the current draft of the Teesta takes place, there is confidence that the next two steps will also be put into action. The most crucial of these steps is the revamping the Joint Rivers Commission to manage all 54 transboundary rivers in a holistic and forward-thinking manner. The current functioning of the Joint Rivers Commission is extremely inadequate as there are in effect two parallel national river commissions, instead of one joint commission. It is necessary to establish an India Bangladesh Joint Rivers Commission headed by a prominent Indian or Bangladeshi leader, elected on an alternating basis. The Commission will need to have a team comprising of nationals from both the countries who can undertake necessary activities for sustainable management of shared water resources in a joint and collaborative manner. It is also important for the Joint Rivers Commission to have an arbitration clause with a well-defined mechanism to resolve differences and conflicts of interest.

Some key messages and lessons for the countries involved as well as the South Asian region can be gleaned from this benefits assessment. First, a water-for-peace trade-off is a potential benefit of transboundary co-operation and can be used successfully to move water co-operation beyond simple water sharing or water allocation. Instead, water can become an instrument for establishing regional security and peace. In many cases, there is a short-sighted view of cross-border water issues as being a straight-forward problem that can be resolved by finding the right formula to share the water. Agreements like this show that there is water is already being used informally to establish regional security and water security can be leveraged towards broader peace. On the other hand, assessments of this kind can also prevent water-based rhetoric from escalating.

Second, this type of benefits assessment can be used as a model to examine other regional relationships. This has already been done through Strategic Foresight Group's 2010 report 'The Himalayan Challenge: Water Security in Emerging Asia' for the Eastern Himalayan river basins. Through the Blue Peace framework, countries are asked to look beyond immediate results from water allocation and instead look towards future issues such as climate change, migration, economy and health.

Possibly the most important lesson is that of creating political consensus for successful transboundary water co-operation. Often, water is thought of as an environmental issue but the reality is that water security cannot be divorced from the politics of the day. By including the ruling government and opposition parties from both countries, as well as major regional players such as Jatiya Party-Ershad from Bangladesh (whose members are a majority of the elected officials in the districts in which the Teesta flows in Bangladesh), Strategic Foresight Group's assessment has created a sense of ownership across the political aisle over ensuring that not only is this treaty signed, but the other steps of the 3-D formula are also enacted. Thus, even if there are setbacks or delays in the process, it need not be re-started each time. As a result, while at present the process is on standby due to elections, it will be picked up towards the end of the year when both governments have had time to settle in.