

## CONTENDING WATER USES

# Bridge over the Brahmaputra

*The island of Majuli on the river Brahmaputra has been under constant threat from floods as well as rising erosion levels. Tension has simmered between development agencies responsible for flood control and the local people who have opposed the structural measures. The proposed Bogibeel bridge has evoked concerns that the conflict will see an escalation.*

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### **I Islands in the Stream**

**T**he mega two-tier Bogibeel bridge is the fourth to be constructed under the National Rail Vikas Yojana and also the fourth to be built on the river Brahmaputra in India. The bridge is meant to connect Dibrugarh in the south to Lakhimpur in the north; the rail link will join Chaulkhowa station and Sisibargaon-Siripani located on the river's opposite banks. The construction is expected to be completed by 2009. The bridge will fulfil a long-felt need of the people of Upper Assam and Arunachal Pradesh. The hitch is the Majuli Island, located downstream of the proposed bridge.

Majuli used to be the largest inhabited river island in the world—its area is 875 sq km and population, 1,60,000. It is located in the mid-reaches of the Brahmaputra in Assam, about 630 km upstream of the Assam-Bangladesh border. Majuli is located in the broadest part of the Brahmaputra valley, where the river divides the erstwhile district of Sibsagar and Lakhimpur. The island is tucked into an isolated block with Mikir hills on one side and Dafla hills on the other; both ranges are not too far from the river. At a few places the hills actually

intrude on the river but for the most part the Brahmaputra flows between sandy banks that are subject to many changes in its course [Goswami 2001].

The physiography of Majuli is characterised by an extremely dynamic flow system; the ecology is unique and there is a constant threat of flood and erosion. The island forms a significant part of the vast alluvial flood plain of the Brahmaputra, dominated by a profusion of depositional land forms including sandbars, bed-forms, and abandoned channels, not to mention vast lengths of wetland. The danger from floods and erosion has intensified significantly after the great Assam earthquake of 1950 that measured 8.7 on the Richter scale. It triggered extensive sediment transport, accelerated the rate of erosion, caused the riverbed to rise and is responsible for frequent channel changes. The threat from erosion has been particularly severe in recent times and the size of the island has shrunk from 1,246 sq km in 1950 to 875 sq km at present.

### **I Turbulent Waters**

Water has always been associated with progress; the world's greatest civilisations have sprung up on the banks of rivers. But in this instance life-giving water has

jeopardised life and development in Majuli, even as the island is vying for recognition as a world heritage site. Flood management here is carried out entirely by government agencies. Due to a sustained loss of fertile land to the river, there is a simmering tension between the local people and these agencies about the merit of the structural measures taken for erosion control until now. People's apprehension has been fuelled by worries over the construction of the Bogibeel bridge less than 100 km upstream. Therefore, instead of welcoming the bridge as essential infrastructure that will lead to better connectivity for the people of the island, people are afraid that it will escalate erosion. There has been growing concern over the lack of special environmental impact assessment including hydraulic modelling or a sound environmental management plan for mitigating the adverse impact of the bridge prior to its construction. It is this issue that has emerged as a major cause of conflict.

The feasibility study carried out by the railways was reportedly restricted to the structural safety of the bridge and did not cover its impact on the Majuli island or other vulnerable areas in Dhemaji and Lakhimpur districts. The Majuli Suraksha Samity, a local NGO, asserted that the design of the bridge is based on Parker Stability Analysis; for a stable river course, this is applicable only in the case of streamlining watercourses within the guarded reach below the bridge. Pointing to the devastation already caused by erosion the people say that it was not the forces of nature that were responsible for loss of land mass as much as erroneous decisions to close natural flood-ways like the Kherkatia Suti and the Tuni river; construction of multiple dykes; building of roads that crisscross the island with scant regard for flood water storage etc. There is growing discontent over the indifference of the project authority with the result that the issue is snowballing into a major conflict involving the entire population of the island.

### III Question of Compensation

The conflict over the issue of erosion is at an early stage; there are protests by the local population and local NGOs like the Majuli Suraksha Parishad. The people have not yet taken the matter to court, apparently for lack of sufficient outside support and hard scientific evidence. The government too has not perhaps gauged

the gravity of the problem and till now no attempt has been made to undertake a detailed technical survey either to corroborate or disprove the stand taken by the people. In a related development villagers were evicted near the bridge construction site without adequate compensation; this triggered a year long agitation by the Mishing Students Union. However even that dispute has been dormant due to the extremely slow pace of construction. Ironically, erosion and floods at the project site forced railway authorities to halt construction work twice last year.

It appears as if the construction of another rail-cum-road bridge was of more importance to the government than the people of the island. The state administration did propose to set up a strategic planning system but no concrete steps have been taken in that direction so far.

Unfortunately, though the issue has been covered in some local and regional language dailies it has not received the kind of media attention it deserves. Though there is no activism at this time, things might take an ugly turn in the future. The Majulis are essentially a peace-loving community and have remained remarkably restrained until now in spite of a lack of political support.

The problem with the Mishing tribe arose after the railways had completed the rail approach through a 23.6 km stretch that covered 19 villages in three mouzas. A total of 19 cases of land acquisition were framed for acquiring about 1300 bighas of land from these villages. But the Mishing Students Union began their agitation from February 2002 and the eviction drive has not yet been executed. The railway authorities had released around Rs 5 crore to district officials to initiate the compensation procedure. The Assam government fixed the value of land at Rs 70,000 per bigha but there was discrepancy in calculations; the amount fixed for tribal areas was only Rs 17,000. Also, the terms were not too clear and did not specify whether compensation would be paid in case of accelerated bank erosion; it would have been difficult to link the erosion with the construction of the bridge.

The strong opposition from the All Assam Mishing Students Union (AAMSU), locally known as Takam Mishing Poring Kebang (TMPK), and the local people have put a question mark on the timely completion of the Rs 1,700 crore Bogibeel project. The union insists that it will not stop protesting until its demands are met.

The PWD is yet to survey the Kulajan to Kaba stretch of the land allotted for construction of a service road connected with the project. The villagers have been demanding a proper study and the TMPK has submitted a memorandum to the general manager, Northeast Frontier railways stating that the land belongs to poor farmers.

This is a project rife with controversies. Not only has there been a lack of a comprehensive feasibility study on the part of the authorities, but the issue also involves displacement, loss of land and livelihood; the lack of transparency and public participation in decision-making has made it a target of wrath.

### Progress vs Traditional Lifestyles

If the conflict persists and all the stakeholders maintain their rigid stand, the traditional Mishing society with its hierarchical social structure and distinct cultural traits will be greatly affected. The loss of land will not merely destroy a traditional resource base and the economy of the region, it will also have a severe impact on the social fabric of the community. Land, kinship, power centres, wealth and religion are all inter-related. Sudden and far-reaching change in even one of these components will affect the other aspects as well and thereby hurt the entire culture. Changes like this may lead to stress and adaptation problems for the people, and eventually sow seeds of discontent. On the other hand, if the idea of the bridge is abandoned and shifted to another location, the local population will most certainly lose out on valuable opportunities for economic development.

### IV Tough Choices

The vociferous protest by the Majuli Suraksha Samiti against the construction of the Bogibeel bridge is based on earlier unpleasant experiences when, during and after the construction of three bridges over the Brahmaputra, there followed an enhanced braiding of the river course leading to unprecedented floods and erosion in villages located immediately downstream from the site (Palasbari, Gumi downstream from the Saraighat bridge, Morigaon, Nagaon region downstream of Koliabhomora bridge and Dakshin Salmara, Pancharatna and Mancachar areas downstream from Naranarayan Setu).

What is required at the moment is a dialogue between the authorities and the people. The railways can begin by conducting a realistic environmental impact assessment based on a study of the physical hydraulic and sediment transport models. The report should involve an expert team of ecologists, environmentalists and technical people and offer a sound environment management plan to mitigate the erosion problem. Before the conflict gets polarised, the government should come forward with a problem-solving, cooperative approach that involves collaboration; merging resources to seek solutions that address everyone's interests and are mutually beneficial. An impartial and compassionate attitude on the part of the agencies can help initiate a dialogue and together both parties can isolate areas of common interest such as the development of the economy through better facilities. By recognising and addressing the underlying issues of the

conflict, the government will gain the confidence of the people; the stakeholders too should accordingly change their attitude of defiance to break the impasse. They need to perceive the threat and recognise the urgent need for intervention.

Protests against structural interventions on the unpredictable Brahmaputra are not new. The Bogibeel case merely reflects growing doubts about the viability of constructing such bridges on an already capricious river. The perception is that they cause more harm than good in the floodplains. Hence public fears over projects like the Tipaimukh, Pagladia and Subansiri dams. **EPW**

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## Reference

Goswami, DC (2001): 'Geomorphology of Majuli' in K C Kalita (ed), *Majul*, pp 22-35.