

## **Brahmaputra Valley in the Nineteenth century: Colonial State, Embankments and Floods**

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North East India is home to two large river systems: the Brahmaputra and the Barak. There is no denying the fact that these had made tremendous impact in the evolution of human civilisation in this part of the globe. As Egypt is the gift of the Nile so is Assam the gift of these two magnificent rivers. There are two ways, both related, in which rivers impact on societies that inhabit regions around them. It deposits valuable silt through flooding which in turn benefit agriculture and secondly, it acts as a means of transport facilitating mobility of people, particularly in pre-industrial period when other modes of travelling were inadequate. The two river valleys of Assam being more than sufficiently endowed with monsoonal rainfall and deposit of silt had always supported intensive human occupation and agrarian economy. The earliest state formations in the history of the region belong to these valleys.

But rivers, floods and silt, by their mere presence do not lead to formation of states with paraphernalia of revenue/resource extraction and distribution. These are necessary conditions but not sufficient. Human beings, unless negotiate floods successfully will end up losers in the fight for survival. As Toynbee says, successful response to challenges posed by natural calamities is a sine qua non for civilisational growth. However, the response occurs not at one level but at two levels: first, at a popular level or response from below, involving peasants and villagers directly involved with production process. Over a period, these responses add on to experiences and lead to creation of a knowledge system being passed on from one generation to another and in due course being referred to as folk or traditional knowledge. At the other level, which we may term as response from the top involves steps/policies taken by the state/government to protect its sources of income/revenue from calamities. These two responses, however, do not always work in accordance because the basic perceptions about natural calamities at these two levels are different. At the popular level, negotiating calamities such as floods is a daily-lived experience and an existential encounter whereas at the state level it is more often than not, simply a concern over revenue collection. The impact of these differences of perception, however, came to be felt more acutely by the people only with the coming of modern industrial/colonial age.

Before the colonial state of the British established itself firmly in Assam's soil in the first half of the nineteenth century, the people of the Brahmaputra valley, for more than a millennia had to mitigate impact of floods. Historians like Nayanjot Lahiri working on pre-Ahom Assam had shown with evidence from inscriptional and literary sources,

though briefly, how people in lower Assam avoided flood prone areas for habitation purpose or for that matter Amalendu Guha, one of the greatest historians of North East India, in the context of Ahom history had shown how the Ahoms had built a network of earthen embankments called alis (also called bunds) to protect particularly sali cultivation in ripit lands, the basis of Ahom state formation.<sup>1</sup>

In studying Assam's history, it should be borne in mind that it was the Ahoms who for the first time made extensive intervention at both the community and state levels to protect their agrarian economy from periodic floods. At the same time, theirs was an economy heavily dependent on silt deposition. The wet rice cultivation introduced by the Ahoms in upper Assam though dependent on floods also needed to be protected from floods. In addition, a large number of the alis erected and maintained, were actually to protect administrative centres such as Sibsagar, Rangpur, Gargaon. Moreover, as one moved away from upper Assam towards central and lower Assam, the number and frequency of these alis drastically declined. This hydraulic intervention was a significant factor contributing to Ahom state formation to the delight of Marxist historians.

The purpose of the present paper is to discuss albeit briefly how the British, who succeeded the Ahoms to the political authority, visualized and negotiated floods in nineteenth century Brahmaputra valley particularly with regards to embankment construction or renovation. This is an important agenda, as the colonial state was not organically linked to the soil of Assam unlike the Ahoms or their predecessors. Therefore, interesting highlights can be obtained as to the nature of the functioning of an alien colonial rule.

## II

After the expulsion of the Burmese (1826), the British inherited the great fertile valley of the Brahmaputra. The early couple of decades were a period of uncertainty for them. It was a phase when they were not fully aware of the resources and challenges of this newly conquered territory. The initial response of the British was to assess the impact of the Burmese and civil wars on the economy of Assam.

Francis Jenkins who was appointed the Commissioner and Agent to the Governor-General in Assam on 23rd January, 1834 pointed out that because of the civil wars in Assam from 1780 to 1826, people had almost given up cultivation and lived on wild fruits. He went to record that famine and pestilence carried off thousands of people who could escape the sword and captivity.<sup>2</sup> 'All men of rank, the heads of the great Ahom and priestly families, had retired to one district, Gowalpara, having, with little exception, lost the whole of their property. With the nobility and gentry retired a vast body of the lower classes...'<sup>3</sup> According to Anandaram Dhekial Phukon, the Burmese massacred more than one-half of the population of Assam 'which had already been thinned by intestine commotions and repeated civil wars'.<sup>4</sup> Therefore, for Anandaram, the 'British

Supremacy' that was 'proclaimed' in the province of Assam was 'hailed' by every Assamese.

It is however, doubtful, how much the British hailed their entry into Assam. Economic viability of Assam was not yet ascertained. Their initial problem was to organize and assess the revenue system of Assam so that their earnings could be maximized and stay prolonged. They could immediately see that the whole province was not only under-populated but there were also large quantities of land lying waste. The settlement of wastelands was of paramount importance to them as more land under cultivation meant more revenue. Hence, proposals for wasteland settlement began to be formulated in the late 1820s itself. The discovery of tea in the next decade and the decision to commercially exploit it helped the cause of the British to settle many wastelands with the British entrepreneurs.

Nevertheless, one of the serious difficulties, which the government faced in its attempt to establish a well-regulated revenue system in the mid nineteenth century were the annual floods, which 'led to loss of crops, and compelled the ryots to migrate from one place to another.'<sup>5</sup> At the same time, however, they also found out that common people who had to negotiate floods almost every rainy season, never considered it to be a problem and always appeared to be 'contented and happy'. Excessive rains, regular inundations and happiness of the people in rainy season in the Assam valley were the three noteworthy features noted early by the British. John M'Cosh, an Assistant Surgeon to Assam wrote in 1837, a valuable and picturesque account of all these features, which is reproduced below:

'The rains set in very early in Assam, commencing in the beginning of April; nor are they sooner over on that account but continue till the middle of October. Thus was prolonging the rainy season to half the year. This long continuance of the rains, together with the heavy fog, renders the atmosphere extremely damp and salt, saltpetre and sugar melt and become liquid.

The Brahmaputra begins to rise in April: about the 1st July, it is swollen to its full height and the whole country is an inland sea; the average rise of the river being about 30 feet...The rainy season may be called the carnival of Assam; all the labours of the field are suspended; everyone seems happy and contented; and lives luxuriously upon haunches of venison, or steaks of the hog or the buffaloe....'<sup>6</sup>

But, this romanticism did not last long. English authors such as William Robinson, writing in the early 1840s gave a contrasting picture of these floods and pointed out, 'the agriculture of Assam seems to suffer most from the imperfection of drainage. Those waters which traverse the valley, and are the chief sources of its fertility, often overspread the country in a manner extremely destructive.'<sup>7</sup> The latter perception ultimately gained ground and informed official policy making till the end of colonial rule.

Such destructive floods happened very regularly in the Brahmaputra valley throughout the nineteenth century.

It may be noted here that in upper Assam, particularly in the Sibsagar district, nearly every stream was anciently bunded.<sup>8</sup> These bunds or flood embankments in upper Assam not only protected the fertile lands from periodical inundations but also acted as highways of the country. But, because of political chaos since the late 18th century, the maintenance of these great embankments were greatly neglected and according to Robinson, heavy inundations resulting from poor condition of the bunds had made valuable tracts of land abandoned.<sup>9</sup>

In 1845, Major Mathie, the Deputy Commissioner of Sibsagar, wrote to Jenkins that if the Bar Ali in the Sibsagar district could be repaired, floods from the Brahmaputra would be prevented and 'large tracts of excellent rice grounds will be reclaimed in places it is greatly coveted.'<sup>10</sup> Accordingly, the Governor of Bengal sanctioned a sum of rupees one thousand for this purpose.<sup>11</sup> It was probably one of the earliest instances of the British initiative in repairing Ahom embankments. Again, in 1847, the Bengal Government granted the sum of Rupees 3266-10-10 for the repair and construction of embankments in Sibsagar and Lakhimpur.<sup>12</sup>

The Darrang district suffered extensive inundation from the Nonai river from 1848 to 1850, which spoilt the 'fine' rupa and aus lands. This impelled the British in 1850 to grant a sum of rupees three hundred for the excavation of a canal to draw off the surplus waters of the Nonai river. In the same year, another grant of rupees three hundred was made for the repairing of a bund at Jorhat.<sup>13</sup> Captain Reynolds, the Collector Darrang reported in 1851 that because of the ravages of the Brahmaputra in the district there was a perceptible decline in the quantity of land cultivated. In the same year, Captain Butler, the Collector Nowgong also reported that because of the floods there had been a gradual decrease in the revenue of the chapari mahals from Rs. 15,203-5-10 in 1844-45 to 11,623-3-2 in 1850-51.<sup>14</sup> Again in 1845, the whole of upper Assam was visited 'by, an unnatural and ... unprecedented inundation.'<sup>15</sup>

Such instances of floods in the mid 19th century can be multiplied but the point to be made here is that the British, in their efforts to maintain a regular supply of land revenue faced an enemy, which it could not defeat. The policy of building or repairing new or old embankments also did not prove to be very successful as the attempts were half hearted. Jenkins reported that with respect to bunds 'the desired benefits appear not to have been derived.'<sup>16</sup> Still, they persisted in providing paltry sums for the said purpose.

The British were particularly interested in repairing embankments in the Sibsagar district. A sum of rupees two thousand was sanctioned in 1854 to repair the bunds on the Bhogdoi and Disang rivers in Sibsagar.<sup>17</sup> Sometimes, force was also used to renovate the bunds in the district. For example, the Dehing bund was maintained by Major Holroyd, the in-charge of the Sibsagar district by forcing the ryots to renovate it in the 1850s.<sup>18</sup>

Another proposal was made in 1854 to appoint a scientific officer to take charge of bunds of upper Assam but the Bengal government did not give any importance to the idea.<sup>19</sup> The same year witnessed the repair and reconstruction of not less than thirty-four embankments in Nowgong district by 127,800 ryots who however, voluntarily offered their service.<sup>20</sup> Thus, not just the British authorities but also the peasants were very much interested to built embankments in the Brahmaputra valley in the mid 19th century.

But, this enthusiasm was not sustained after 1860s. The Assamese, particularly of the Sibsagar district, were constantly demanding the British to be more pro active in maintaining the bunds. In 1881, a survey was half-heartedly done by an Executive Engineer, but no action resulted out of his report. In 1888, the then Deputy Commissioner of Sibsagar, Mr. Knox Wight, wrote a note on the subject, discussing generally the system of embankments and pointed out that, owing to their disrepair, the district was losing greatly in produce and the government in revenue. Some 3,00,000 bighas of excellent land, according to him, were lying waste, which were previously cultivated, due to the non-repairment of embankments along the rivers Dehing, Desang and Dikhu. He further pointed out that when the bunds were kept in repair, tea gardens had also come up in the region but once repairs ceased, inundation again started. Infact, one tea garden by the name of Gohani Pukri Tea garden demanded Rs. 1,01,893 as compensation for damages done to it by the Dehing river, which was not properly repaired. Knox Wight wanted to repair this bund at an estimated cost of Rs. Six thousand to Rs. Eight thousand for he was sure that before long land revenue would double. Even the moujadar of the area concurred with his view. Knox Wight's note obviously had the desired impact. Soon, an Executive Engineer, Mr. Bolinarayan Borrah, was deputed to study the condition and renovation of embankments in the Sibsagar district. Bolinarayan's report of 1892 resulted in the expenditure of Rs. 1,26,058 during eleven years from 1891-92 to 1901-1902, for the renovation of Dehing, Desang and Dikhu bunds and a part of the Dhai Ali, which helped in reclaiming a large quantity of land for cultivation.<sup>21</sup> It may be noted here that this relatively large amount was in stark contrast to the meagre amount of approximately Rs. Twenty-five thousands that was sanctioned for the renovation of said bunds during the period 1869-70 to 1887-88.

However, the progress made in this direction was slow and incomplete as the Chief Commissioner of Assam, Sir J.B. Fuller, 'has again had the matter under consideration' in 1902.<sup>22</sup> A committee was formed in October, 1902 with the Director, Department of Land Records and Agriculture, Assam as the President. Other official members were the Deputy Commissioner of Sibsagar district and Sri. B.C. Basu, Assistant to the Director of Land Records and Agriculture, Assam. The non-official members included three Assamese gentlemen of the district of Sibsagar viz., Srijut Ganga Govind Phukan, Srijut Kali Prasad Chaliha and Srijut Someswar Barua. Rao Sahib Matadin Sukul, the Executive Engineer was also a member of the committee.<sup>23</sup> The committee was chiefly given the task of preparing a detailed plan for the restoration and extension of embankments in Sibsagar and Lakhimpur districts. At the same time, their

impacts on the extension of cultivation and increase of revenue in the area were also to be looked into. The members were also asked to carefully investigate the effect of embankments in diverting useful silt from the land or in raising the river beds.<sup>24</sup>

After thorough discussion a plan was approved for the construction of new and renovation of old embankments in Dikhu (both left and right banks) and Dehing rivers (left bank) during the season 1903-04, at an estimated cost of Rs. 1,53,000 which was sanctioned by the Chief Commissioner in September, 1903.<sup>25</sup> The members were unanimous in their opinion that the benefits of *bunding* would be overwhelming and would go a long way in reclaiming vast areas of wastelands. The desirability of reclamation of lands by bunding was all the more necessary as large number of coolies, whose contract in the tea gardens had expired, were now willing to settle down in upper Assam. Interestingly, on the question of raising of river beds by silt deposit, Sakul observed that there would be no danger in the case of Assam rivers as their slope was much steeper than those of Bengal rivers and the normal velocity was such that silt could not be deposited. Basu, the other technical person, even went to the extent of saying that silt played no major role in the agriculture of Assam except for those villages, which were located on the banks, and therefore the proposed embankments would not harm the fertility of soil much.<sup>26</sup> This was, for all intent and purposes, the last major intervention by the British in renovating or constructing bunds in upper Assam.

### III

The British approach to floods and their mitigation in the Brahmaputra valley in the nineteenth century show considerable similarities and differences with that of the Ahoms. At the outset, we should remember the fact that the British had not come to Assam to do any charity. Just like any other colonial power that had assumed political power through force and deceit, its main purpose was loot and plunder. It was always searching for new avenues to exploit the resources of colony and increasing land revenue demand was one of the ways to achieve that.

In the Brahmaputra valley, where the British could consolidate their political hold only during the third and fourth decades of nineteenth century had to face a unique problem in its attempt at maximization of revenue: floods and an unusual kind of dilemma: whether to renovate ancient bunds, so effective previously in flood mitigation. But, as was shown, their upkeep proved too costly and after much dillydallying, they took up the issue with some sincerity only in the 1880s. There was lot of public outcry as well to force the British to take the initiative. These ancient bunds were considered symbols of glorious Ahom rule and their welfare measures and a yardstick to compare the British rule. Their negligence by the British equally became a source of tension between the rulers and the ruled that in twentieth century became the staple of nationalist agenda to question the colonial government.

An additional pressure on the English was that of tea lobby. As is well known, tea was 'discovered' in the 1830s and commercial production of it commenced in right earnest from the 1840s. It soon became a vital part of colonial economy connected to international market and a rationale for the British to stay much longer in Assam. But, its entry created other complications. The protection of tea gardens from floods, even though they were usually above the floodplains, became a major issue of contention between the tea planters and the colonial government. We have seen an instance when a tea garden in upper Assam actually demanded compensation for its losses suffered due to floods. At the same time, gardens became overwhelmingly dependent on the state machinery for supply of relief during floods and other natural calamities. The unity of interest between colonial administration and the tea planters was very much apparent. Whenever floods occurred, the colonial state machinery made it a point to investigate carefully its impact on the tea gardens.<sup>27</sup>

### Notes and References:

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2. A.J.M. Mills, *Report on the Province of Assam (1853)*, Guwahati: Publications Board, Assam, Second edition, 1984, p.3.
3. *Ibid.*
4. *Ibid.* Appendix-J: *Observations on the Administration of the Province of Assam* by Baboo Anandaram Dakeal Phookun, p.93.
5. Bhupendra Narayan Choudhury, *An Economic History of Assam (1845-58)*, Gauhati: Author, 1959, p.6.
6. Joh M'Cosh, *Topography of Assam*, New Delhi: Logos Press, 2000 (Reprint), pp.71-73.
7. William Robinson, *Descriptive Account of Assam*, New Delhi: Sanskaran Prakashak, 1975 (Reprint), p.221.
8. *Ibid.*, p.222.
9. *Ibid.* p.318.
10. *Bengal Revenue Consultation* (henceforth BRC) 26-3-1845, No.26, cited in Bhupendra Narayan Choudhury, *op.cit.*, p.7.
11. *BRC*, 26-3-1845, No.28, cited in Bhupendra Narayan Choudhury, *ibid.*
12. *BRC*, 7-4-1847, No.55, cited in Bhupendra Narayan Choudhury, *ibid.*

13. *BRC*, 21-8-1850, Nos.21 & 28 and *BRC*, 26-12-1850, No. 31 cited in Bhupendra Narayan Choudhury, *ibid.* p.8.
14. Bhupendra Narayan Choudhury, *op. cit.*, pp.8-9.
15. *BRC*, 22-10-1845, No.24, cited in Bhupendra Narayan Choudhury, *op.cit*, p.7.
16. *BRC*, 10-3-1853, No.14 cited in *ibid.*, p.11.
17. *BRC*, 23-2-1854, No.8 in *ibid.*, p.14.
18. *Revenue A*, December, 1902, nos.21-44.
19. Bhupendra Narayan Choudhury, *op.cit.* p.14.
20. *Ibid.*
21. *Revenue A*, December, 1902, No. 21.
22. *Ibid.*
23. *Ibid.*, No.34.
24. *Ibid.*, No. 21.
25. *Revenue A*, September, 1904, No. 203.
26. *Ibid.*, Nos.184, 191,193.
27. See for instance *Revenue and Agriculture A*, July 1883, Nos.11-17 for the Cachar flood of 1883.