4. The Brahmaputra River

4.1 Introduction

The Brahmaputra Basin which has derived its name from the Brahmaputra River is one of the most densely populated river basins in the world. It is located at a longitude of 82°-97° east and latitude of 21°-31° north. This basin covers an estimated population of seven hundred million people of China, India, Bhutan and Bangladesh. The Brahmaputra river is considered as an international river and traverses through several countries. It originates from the Kanglung Kang glaciers east of Manas Sarovar which is at an elevation of 5150 m. In Tibet where the upper course of the river is located, it travels 1625 km and then enters Indian territory through Arunachal Pradesh and Assam. It traverses 278 km in Arunachal Pradesh and 640 km in Assam. A total number of fifty nine tributaries are received by this river, twenty two in Tibet, thirty three in India and three in Bangladesh. Dutta (2001) says, “closer to its source it is known as the mutsung tsangpo, then the moghung tsangpo and finally the tsangpo while Chinese maps have it as the yarlu tsangpo-brahmaputra,” (as cited in The Assam Tribune, Nov 4, 2001). In Tibet the river is called by the name of Tsangpo and Yarlung Zangbo in China. In India it is known as the Brahmaputra, and Jamuna in Bangladesh. One of the major rivers of the world, the Brahmaputra is described, ‘A river extraordinaire, the Brahmaputra presents a picture of awesome expanse, enchanting grandeur, over whelming sobriety and immense vigour’. (Goswami 2008, pp. 2). Through its journey of 2880 km, the river passes through different hydro- ecological and climatic regions. The flora, fauna and ethnic composition of people of this region is one of the most diverse in the world.

The river enters the north-eastern corner of Assam through the Mishmi hills of Arunachal Pradesh where it is called as the Siang, and further down as Dihang, and along with the Lohit and Dibang enters Assam and takes the name of the Brahmaputra. Previously, the river in Arunachal Pradesh was called as Shyama, Sema or Senglai, while near Along it was known as S’Yem. (Dutta, 2001, pp. 2). On entering Assam from the east through Sadiya in Tinsukia district, it flows through the districts of Dibrugarh, Sibsagar, Jorhat, Lakhimpur, Dhemaji, Biswanath, Darrang, Nagaon, Morigaon, Kamrup, Barpeta, Goalpara, Bongaigaon, South Salmara- Mancachar and Dhubri. After traversing through Assam, the river near Dhubri abruptly turns south and enters Bangladesh and assumes a
new name Jamuna which once more changes to Padma and then flows into the Bay of Bengal. The Brahmaputra while carrying the waters of its tributaries flows throughout the length and breadth of Assam. Its tributaries have permeated the entire region. The major tributaries from the north bank are the Lohit, Dibang, Subansiri, Jiabharali, Barnadi, Puthimari, Pagladiya, Beki, Manas, Ai, Gabhoru, Chompawati, Raidhak, Torsa, Teesta, Jiadhol, Dhansiri(N), Saralbhanga, Aie, and Sankosh. The major tributaries from the South bank are the Noa Dehing, Buridehing, Dibang, Disang, Dikhow, Dhansiri (S), Kopili, Janji, Bhogdoi, Kakdonga, Kolong, Digaru, Dudhnai, Krishnai, Sonai, Bharalu, Krishnai and Dudhnoi.

The plain areas of Assam consists of two valleys, ie., the Brahmaputra Valley and the Barak valley. The names of the valleys have been derived from the rivers which flow through them-the Brahmaputra valley named after the river Brahmaputra and the Barak valley named after the Barak River. The Brahmaputra valley is the dominant physical feature of Assam. It covers 72 percent of the total area of the state and is inhabited by the majority of the population. The massive Brahmaputra touches most of the plain districts of the state. It consists of the Western Brahmaputra valley, the Central Brahmaputra valley and Eastern Brahmaputra valley.

**River Map of Assam**
4.2 Myths

During the mythological period shrouded with myths and legends, there is the mention of the river by different names. The name Brahmaputra literally means ‘Son of Brahma’ and is one of the few male rivers in India. The myth on the origin of the name tells that Brahmaputra was the son of Lord Brahma, the God of the Universe. His mother was Amogha who was the wife of the Sage Santanu. The child who was in the form of water was taken by Sage Santanu and placed in the middle of four great mountains- Kailash, Gandhamadana, Jarudhi and Sambwarttaka. He grew into a great lake which came to be known as the Brahmakund. Another ancient name of the river is the Lauhitya. In Hindu mythology the river is viewed as sacred and mystic.

The Name Lauhitya is found mentioned in various forms in the early inscriptions and literary texts. The Tezpur Copper Plate Inscription and Parbatiya Copper Plate Inscription of Vanamalavarmadeva, Uttarbarbil Copper Plate Inscription and Nidhanpur Copper Plate Inscription of Balavarman, Bargaon Copper Plate Inscription and Subhankarapataka Copper Plate Inscription of Ratnapala, Guwahati Copper Plate Inscription and Guwakuchi Copper Plate Inscription of Indrapala, Gachtal Copper Plate Inscription of Gopalavarman mention the name of river Lauhitya in different contexts. These epigraphs sometimes depict the beauty of the river, and reflect the sacred and high status accorded by rulers of early Assam. The epigraphs also mentions about honouring the river for its vastness and it was called as Varidhi and Sarit-adhipati. The other names of the river according to ancient scriptures are Hiranyo, Mandakini, Hridini, Khatai, Brahmi, Karkaya, Diyame, etc.

There is a legend regarding the origin of the name Lauhitya. Parashuram, the son of Sage Jamadagni killed his mother with an axe which remained glued to his hand. He was advised by the sages to visit the different shrines to wash off his sin. He roamed about the country visiting holy places, but his axe did not fall off from his hand. At last it was at the Brahmakund he was able to drop the axe. He plunged his hand in the water and his axe separated from his hand. He made this Brahmakund a shrine. According to the Kalika Purana, Parashuram caused the Lauhitya to flow out from a hill after he had filled it from the water of the Brahmakund. The Lauhitya rises in this sacred pool and flowed
westward from here under the name of Brahmaputra. The reason behind the nomenclature of Lauhitya was its water which was coloured red by the thick blood (Lohita) washed off from the battle axe of Parashuram is also depicted in a copper plate of ancient Assam. (Borah N., 2010, pp. 127-128)

The legend of Parashuram is also found in the Brahmavaivarta and Kalika Purana. The river due to its vastness is often referred to as a sea in ancient literatures. The Kalika Purana referred the river as a Sagara. The Mahabharata calls the river Lauhitya while in the Matsya and the Varaha Puranas the river is mentioned as ‘Lohita’. Vayu Purana refers to it as a sacred river. Kalidasa in his Raghuvasma depicting the expedition of Raghu towards Pragjyotisha-Kamrupa mentions that when he crossed the river Lauhitya, the king of Pragjyotisha began to tremble. (Borah N, 2010, pp. 127-128).

The Mahabharata refers about the Lauhitya Shrine which was established by Parashuram. In the Kalika Purana and the Yoginitantra the river Brahmaputra has been identified with the Shrine. The hot spring bearing the name of Brahmakunda and Parashuram Kunda presently located in the state of Arunachal Pradesh and situated about fifty miles east of Sadiya is venerated as the same shrine of the Hindu religion.

The term Lauhitya appeared to be the sanskritized form of the Indo-Mongoloid name Luhit, which is still the name of the easternmost branch of the river. S.K. Chatterjee writes that the common name of the river Brahmaputra is a sanskritization of the Indo-Mongoloid name Burum-buthur. It was an intermediate form between Lauhitya and Brahmaputra. (Chatterjee, S. K., 1974, pp. 88). The rational explanation of the red colour of the water of the river is said to be due to the soil it brings along its course. It is so called because of the fact that the river takes this colour during the rainy seasons when it cuts through the red soils in the adjoining embankments. (The Assam Gazetteer, 1967).

The river Dyardanes mentioned in Greek mythology is also said to be the same river as the Brahmaputra. The origin of the name of the Brahmaputra has been a subject of research for scholars through out history. During medieval period the river has been mentioned in various contexts. Earlier travelers and chroniclers to Assam have left accounts of their travel to Assam and about the Brahmaputra and its tributaries. In the ‘Description of Asam’ By Mohammed Cazim who accompanied the army sent by
Mughal king Aurangzeb to Assam in the 17th Century, the river Brahmaputra divided the country of Asam into two parts, the north bank was called as Uttarcul, and the south bank was called as Dakshincul. (cited Goswami, 2010, pp.4)

4.3 Tracing its origin

The Brahmaputra has been a subject of interest since ages. Since ancient times, the river has been an enigma. Countless monks, explorers and travellers from India, China and Europe made attempts to unravel the mystic associated with the Brahmaputra and its origin. Even as early as the beginning of the 18th century, the origin of the river was a subject of speculation, and there have been references about the river in the writings of several explorers and missionaries. European explorers wanted to collect information about countries like Tibet which was hitherto unknown to them and regarded as Terra Incognito. Their fascination about this region made them organize several expeditions. They had other motives also. They wanted to open a trade route to China through Tibet. In the course of their explorations they began to search about the origin of the Brahmaputra.

Herman Moll, writing in the early eighteenth century, mentions that the lake of ‘Chiamay’ lies in ‘Acham’ from where the River Brahmaputra ensued, and ran into the Bay of Bengal after passing through several kingdoms.

Gerhard Kremer, published an atlas in the year 1612 from Amsterdam, named Mercator’s Atlas, where he depicts four rivers beyond the Ganges originating from this mysterious lake, which was later identified to be the Brahmakund of Eastern Assam.

During that period, maps were made by Jesuits cartographers who visited Tibet. In 1715, Father Desideri also drew a map of the rivers. But these maps along with the geographical records and description were not regarded scientific in nature.

In 1733 D’ Anville published a map based on surveys made by the Lamas of Tibet. He supposed the river Tsangpo to be the same with the ‘River of Ava’ or the Irrawady.
John Stewart, who later became the Secretary to the British Colonial Government at Fort William, wrote about the true course of the Brahmaputra in 1763.

Father Joseph Tieffenthaler, a Jesuit priest, had written in the second half of the eighteenth century that the Brahmaputra had its origin in the Manasarovar lake. Most of these claims were not accepted as reliable.

It was only after a century later, that evidence regarding the origin and true course of the river could be collected.

It was Major James Rennel who recognized the identity of the Brahmaputra with the Tsangpo river of Tibet. Rennel considered to be the ‘Father of Indian Geography’ made his observations and recordings based on his surveys of the river in its course in Bengal. In the course of his survey he also took information from people of Assam, who informed him that the Brahmaputra had travelled a long course before entering Assam. In addition, he based his views on the Lama’s map of the Tsangpo in Tibet as shown in the book by Du Halde.

While entering Assam through Goalpara, he observed the size and speed of the flow of the river which he inscribed in his Memoir of a Map of Hindoostan and was convinced that the Brahmaputra was identical with the Tsangpo. His river survey in the 1760s was one of the oldest studies of the Brahmaputra in a scientific manner. Rennel, from December 2-6, 1765 traced the course of the river Brahmaputra from Goalpara to Nagerbera, but he had to keep near the south bank of the river, as the population residing there, did not welcome Rennel to explore further. Never the less, Rennel was able to go further ten miles and was able to collect information that he required. The results of his survey are published in the Bengal Atlas, Memoirs of a Map of Hindoostan and in his Journals, 1764-1767.

His work was criticized by JP Wade (1805) who dismissed Rennels assumption that the Tsangpo was the origin of the Brahmaputra. Although Wade’s was proved wrong in the long run, never the less, his book ‘A Geographical Sketch of Assam’ (1805) lists sixty one rivers in Assam which is one of the greatest contribution about the rivers of this region.
William Robinson in his ‘Descriptive Account of Assam (1841), also viewed skeptically the idea of the narrow Dihang being the actual wide Tsangpo of Tibet.

After becoming embroiled in the affairs of Assam, with the intervention of the East India Company in quelling the Moamoria rebellion in the Ahom kingdom, the British realised the need to gain knowledge about this land which they knew very little. They sent an expedition to Assam to suppress the rebellion. Thomas Wood of the Bengal Engineers was employed to survey the Brahmaputra and its surrounding. He accompanied Captain Welsh in his expedition to Assam in 1792. He started his survey of the river from Goalpara where Rennel had left off his survey in 1765. By 1794, he finished his survey of the Brahmaputra and its surroundings as far as the mouth of the river Dikhow.

After the Burmese were expelled from Assam by the British in 1826, there grew a renewed interest in this region. The British were keen to learn about the terrain, history, people and culture of this unexplored part of India. Anthropologists, medical officers, surveyors, administrators started coming here for collection of information. This included gaining information about the origin of the Brahmaputra.

Between 1824 and 1828 Captain Wilcox and Bedford carried out surveys of the rivers in the Brahmaputra valley. Shortly after that, Lieutenant Burlton completed the survey of the Brahmaputra up to Sadiya.

Francis Hamilton (1840) also surveyed some portion of the Brahmaputra in Assam. He did identify the Dihang as a stream of the Brahmaputra, but did not consider it to be the principal one. Several attempts were made by different individuals to trace the Lohit. In this context, the names of Wilcox, Griffith, Rowlatt and Cooper are noteworthy.

Captain R. Wilcox after gathering information from an elder of the Mishmi tribe that the Dihang had its course in Tibet went to explore the upper course of the river. He had to narrowly escape death from the tribesmen who did not welcome strangers to their territory and viewed their activities with suspicion. In 1854, two French missionaries were also killed when they penetrated this territory. By 1885, two more individuals – Needham and Molesworth travelled in the region to follow the course of the river, but were not able to leave a reliable map.
Thus by early 1900, it was found, that the origin of the Brahmaputra still remained unsolved. The British needed to enter Tibet not only to gather information about the terrain, flora, fauna and the connection between the Tsangpo and the Brahmaputra, but also to discover a route which might be important for promoting trade with Tibet. Tibet did not welcome foreigners, especially white people to their country and it was difficult to go look for the course of the Brahmaputra through Assam due to the presence of tribesmen hostile to European intrusion. The British then tried to use other means to achieve their objectives. They resorted to espionage by sending spies and informants within Tibet. As early as 1847, a mendicant, Paramanad Acharya was sent to Tibet with this purpose. In the early 1860s, Colonel T.G. Montgomerie and General Walker of the Survey of India devised a scheme which would enable some individuals to enter Tibet in the guise of pilgrims and gather information about the country and the Tsangpo. They trained the Indians in the basics of survey works. They were trained on using simple instruments and techniques and record them concisely. They were referred to as Pundits. Some of the Pundits were Nain Singh, Kishen Singh and Manee Singh. They were sent several times to Tibet to collect geographical and political information of the country.

On one such expedition, Nain Singh and Manee Singh were sent to Tibet in find out the source of the Brahmaputra. Both these persons spoke fluent Tibetan language and had earlier visited Tibet. They had to disguise themselves as tradesmen and pilgrim. This expedition has been recorded in the ‘Report on the Trans Himalayan Explorations’. They started their journey in March 1865 and reached Lhasa in January 1866. This expedition was able to locate the source of the Brahmaputra and through information gathered from the inhabitants, also determine the main branch of the river. Nain Singh carried two other expeditions to trace the upper course of the river, the second in 1867 and the third in 1873. After five years, another party was sent for further search of some unexplored portions of the route of the river. In the reports of the journey on the expedition by Nain Singh in 1873, it was written that the Tsangpo could be identified with “the large river which under the name of Dihong enters Assam near Sudiya, where it is joined by the Brahmakund” (cited from Goswami, 2014, pp.43 ). These expeditions could unravel the upper course of the Brahmaputra to a large extent. Though this river in Tibet was
considered to be the source of the Brahmaputra, yet there was lack of evidence to prove this assumption.

There was still speculation about the lower course of the Tsangpo which was thought to be either the Irrawady or the Brahmaputra. From 1860-70 till 1910, several Indian surveyors were recruited by the British to collect geographical information of this region. It was during this time that the name of the Sikkimese adventurer and explorer Kinthup comes into the picture. He was sent by the Survey of India to Tibet with a plan to ascertain that the Brahmaputra was the same river as the Tsangpo. He was advised to send specially marked logs at regular interval down the course of the Tsangpo River. He would inform the British officers of the Survey of India about it, and they would keep watch at the lower part of the Dihang river to catch the logs. This would establish the fact that the Dihang is the lower course of the Tsangpo. Kinthup reached Tibet according to plan, but unfortunately he had to undergo a lot of hardship. He was sold as a slave and lost his freedom, regained it back, lived in a Buddhist monastery for months, tried to prepare the logs for floating it, gained the trust of his master who was a Lama, somehow managed to go to Lhasa and send a letter to the British Officer through a messenger informing him about his proposed plan to send the logs on a particular date (the letter did not reach the destination). He sent the logs finally after two years, which reached the Dihang River and floated in the river undetected. By that time, the British officers had already lost their hope of receiving the logs and they had also stopped their vigil by the river. H. J Harman who was entrusted with the task of keeping watch kept waiting for two years for the logs to arrive. After two years, he lost hope. He became ill and left for England. Finally when Kinthup arrived in India and recounted his trials and tribulations, the British Officers were not ready to accept his stories. But later in 1913, when his account was checked, the British realised that it was remarkably accurate. The latter explorers based their expeditions on the accounts left by Kinthup. Thus it was the exploration of the Indian surveyor Kinthup, as reported in 1884 and later by J.F Needham in 1886 which were able to establish the Tsangpo River as the upper course of the Brahmaputra.
Several expeditions in the early part of the twentieth century were attempted to map the lower course of the Tsangpo. A few expeditions were sent to explore the Lohit, Dibang and the Dihang. J.F. Needham travelled up to the Lohit and proved that neither the Lohit nor any other rivers in Myanmar could be the Tsangpo. It was Needham again who surveyed the Dihang and established the fact that it was the only possible southward stream. Thus the Brahmaputra's upper course which was long unknown, and its identity with the Yarlung Tsangpo was only established by exploration in 1884–86. This river is often called Tsangpo-Brahmaputra River.

By the end of the nineteenth century, it was widely accepted that the Tsangpo in Tibet was the Brahmaputra of Assam. But there was still another riddle left to be solved. The Tibetan plateau was at an elevation of 3657 meters whereas the lowest level in the Brahmaputra valley was no more than 300 meters. This drastic fall in the level of the river within a distance of around just 200 kilometers stimulated the imagination of explorers who now began to speculate about the existence of a magnificent hidden waterfall on the Tsangpo.

In the meanwhile, in 1882, while one survey was underway in Tibet by Kinthup, from Assam side, Captain John Michell was conducting a reconnaissance survey of the Mountain region. This region remained impenetrable as the Abor tribes inhabiting this territory did not allow Europeans to enter. In 1909, Colonel D.M Lumsden, Noel Williamson and Rev. W. L. B. Jackman visited the area. Their purposes were varied. All three failed in their mission as the Abors resisted their visit. The British during the expedition in 1911-12 against the Abors sent two surveyors Captain F. M. Bailey and Morsehead attached to the expedition. They took an expedition from Mipi above Sadiya. They made a map of the course of the river. In 1924, two botanists Kingdon Ward and Earl Cawdor completed the mapping of the final eight kilometer stretch of the river. By the second decade of the twentieth century, the river Brahmaputra was almost completely mapped.

At the beginning of the twentieth century, the Brahmaputra again came to the forefront. During the beginning of the First World War, the importance of the river as a strategic
route for British India was realised and in 1914 the *Military Report on the Brahmaputra River System* was prepared and printed by the British Indian Army. It was the main conduit for sending military troops to this region. The river was also used as a major commercial route as the road communication during that period was abysmal.

During that same period the British government also had to start looking into another aspect of the river- the recurrent flood it caused. The earthquakes of 1897 had made changes in the terrain of the valley, and the river system had also undergone similar changes.

After India attained independence, a series of scientific studies were taking place to have a complete understanding of the Brahmaputra River. The study of the river has diversified into specialized fields such as geography, geology, geomorphology, hydrology, etc.

What we now know about the river is through the hard work and sacrifice that explorers and cartographers have made since the last two centuries. Their persistence amid adversities finally unveiled the mysteries surrounding the origin and course of the Brahmaputra. Several people had to sacrifice their lives. After relentless search over the centuries the mystery of its origin was finally settled by the middle of the twentieth century. However, the last major discovery with regard to the Tsangpo was made in 1998 when an expedition sponsored by the National Geographic Society, led by two Americans, Tibet-Scholar Ian Baker and Tsangpo- expert Kenneth Storm Jr. ultimately unveiled the riddle of the Tsangpo gorge by surveying and measuring the magnificent thirty meter high Hidden falls.
Picture: Map prepared by Thomas Wood (1794)
(source- Ethno profile of Karbi In Plain Districts of Assam, pdf file)

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