

Natural Disaster In 20th Century Assam: The Narratives Of The Bor-Bhiunkop (The Great Earthquake) Of 1950's In Assam

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Abstract

The record of natural disasters in India has been found in ancient text and mythological narrations. The history of natural disaster has been recorded in qualitative and quantitative way and the occurrences were narrated as, both, scientifically and mythologically. Most significant natural disaster is flood and earthquake, which has great impact on society. From the time of Indus Valley Civilisation we have the information of natural disaster and its impact on social life.

Earthquake, one important natural disaster, has great impact in social and economic life; evidence of its occurrence is long back to Indus Valley Civilisation in Indian context. After that a series of high magnitude earthquake was occurred in this subcontinent. Among them, in northeast India, in 1897 and 1950, two major earthquakes jolted the entire region. The reminiscence of 1950's earthquake is still alive among the elderly persons, which has great impact in the social life of Brahmaputra valley as well as hills of Arunachal Pradesh. So, in this paper it shall be trying to record from the available sources- archival and oral, and from secondary source, about the history of 1950's earthquake, its societal impact etc. in Assam.

Keywords: *Natural disaster, Assam, Flood, Earthquake, Social Impact, Oral narratives.*

Introduction:

The record of natural disasters in India has been found in ancient text and mythology. The history of natural disaster has been recorded in qualitative and quantitative way and the occurrences were narrated as, both, scientifically and mythologically. Most significant natural disasters are flood and earthquake, which has great impact on society. From the time of Indus Valley Civilisation we have the information of natural disaster, especially on earthquake and flood. Earthquake, one important natural disaster, has great impact in social and economic life. Evidence of its occurrence is long back to Mahabharata in Indian context. After that a series of high magnitude earthquakes, including Indus valley earthquake, was occurred in this subcontinent.

India's history is full of significant earthquakes that have affected many aspects of peoples' life, including population movement, important cultural and religious monuments, local

economies as well as construction practices.¹ Interpretations of archival records of both Persian and Sanskrit origin have referred to several earthquakes in Kashmir and Assam and some in other parts of the country. The first reference to an earthquake in Kashmir is from the Mahabharata.²

A number of historic earthquakes have been reported from Assam, primarily in the *Buranjis* or official records maintained by court officers of Ahoms. These include earthquakes with notable effects, including: the 1556 Gajala earthquake with evidence of what is now known as liquefaction (sand boils, water spouts); the 1697 Sadiya earthquake and the 1714 earthquake at Tingkhang and Charaideo Hill with extensive building damage.³

The twentieth century Assam and its neighbourhood areas have experienced 40 earthquakes of Richter magnitude < 6. The north-eastern part of Assam (the Sadiya region) and the south-western part of Assam (the Dhubri region) including the Surma valley are seismically most active. Each region experienced an earthquake of Richter magnitude 8.7 in the last century.⁴ Among those two major earthquakes in 1897 and 1950 jolted the entire region and left impact on society and economy. The reminiscence of 1950's earthquake, popularly known as "*Bor Bhuinkop*" (the Great Earthquake) in Assam, is still alive among the elderly persons of Brahmaputra valley, especially in Subansiri valley, as well as hills of Arunachal Pradesh. So, in this paper it shall be trying to record from the persons who were experienced the jolt of 1950's earthquake and also trying to collect from other available archival and secondary source, how people were survived during and aftermath of the earthquake.

Scientific details of the 1950's earthquake:

On August 15, 1950 at 14:09.5 GMT an earthquake of Richter magnitude 8.7 having the epicenter at 28.6°, 96.5°E occurred in upper Assam. The focal depth of this shock was estimated to be about 15 km. About 1500 persons in India and 2400 in China were killed and caused huge landslides which blocked rivers, and later caused floods as the blockades got cleared. A lot of aftershock activity, with at least one of M7.0.⁵

The area over which considerable or great damage was done extends from Rima north-westwards across the eastern Himalayas to the Tsangpo, above the gorge where Tsela Dzong was destroyed, and south-eastwards to northern Burma where the bridge path up the Nam Tamai was badly damaged. The principal rivers in the shaken area, any or all of which may be involved in floods, include: in Assam, the Subansiri, Dihang, Dibang and Lohit; in Burma, the Nam Tamai and the Adung. How far eastwards in the direction of the Salween river the disruption extended is unknown. But there seems no doubt that the earthquake, centred on the neighbourhood of Rima, affected more or less permanently a block of highly mountainous

¹ Sudhir K. Jain, Earthquake safety in India: achievements, challenges and opportunities, Bull Earthquake Eng (2016) 14:1337–1436, p.1347

² Iyengar RN, Earthquakes in ancient India, Current Science (1999) 77(6):p.827–829

³ Sudhir K. Jain, Earthquake safety in India: achievements, challenges and opportunities, Bull Earthquake Eng (2016) 14:1337–1436, p.1342-1345

⁴ R. K. S. Chouhan, V. K. Gaur, J. Singh, Investigations on the aftershock sequence of the great Assam earthquake of August 15, 1950, p.246

⁵ Sudhir K. Jain, Earthquake Op. Cit., p.1345

country which to west and south alone covers some 50,000 square miles, and to north and east probably no less.

Stories from upper region:

Several narratives were reported immediate after the shock from upper part of the affected areas. It came shortly after dark on that fateful day, unleashing its prey and devastation for full five vicious minutes. The effects on the mountains were terrific. Rocks roared down all around while mountain sides were stripped off the forest covering. Practically every tributary of the Lohit from the river downwards was shocked by rock avalanches forming innumerable lakes which ultimately broke there barriers causing devastating floods in the low lying area of the plains.⁶

Shipping on the lower Brahmaputra River (whose source is in the Himalayas) was dislocated by a tide of tens of thousands of uprooted trees and the bodies of tigers, elephants and other wild life borne down the river from the earthquake area. The waters of the Brahmaputra, blackened with sulphur that the quake had churned up from the earth's innards, cast up millions of dead and dying fish. Up in the mountains the river had been dammed by landslides.⁷

F. Kingdon Ward, a botanist narrated that the earthquake struck without warning an hour after dark on the night of 15 August 1950; that is, at about 8 p.m. local time. There were no preliminary tremors unless a slight, an almost imperceptible jolt immediately preceding the main shock can be called that. *"We reckoned that the main shock lasted five or six minutes. It was certainly of long duration and extreme violence, the motion being vertical, as though the crust of the earth were caving in, but found difficulty in getting through the hole."*⁸ He further stated *"We lay on the ground outside our tent, which was pitched on a low sand hill just outside the Rima village; the vibration was so rapid as to suggest the roll of kettledrums. Dark as it was, we could see the ridges silhouetted against the paler sky, with their fuzzy outline of dancing trees."*⁹

The noise was terrific, petrifying, and long continued as whole hillsides, studded with pine trees, slid into the valley. These external clattering quickly drowned the internal rumblings deep within the crust. But the strangest noises of all came at the end of the shock, when five or six consecutive explosions, all exactly alike, following each other at intervals of several seconds, were touched off. They were heard on the plain of Assam 150 miles distant and in Myitkyina (north Burma) 200 miles away.

At the Subansiri rapids it must have been terrifying. The river dried up showing that tons of water was somewhere held up by landslides. Some fishermen thinking to get a fine harvest free of work collected the fish from the mud flats; they were warned off by the Manager before it was too late - the waters came down in a wall some 12' high, sweeping everything before them.¹⁰

⁶ <http://bprd.nic.in/writereaddata/linkimages/32693070077.pdf>

⁷ Time Archive since 1923, Monday, Sep.04,1950,<http://bprd.nic.in/writereaddata/linkimages/32693070077.pdf>

⁸ F. Kingdon-Ward, The Assam Earthquake of 1950 , p.172

⁹ Ibid

¹⁰ Padre Wyld, Thirty Years in Assam, Rev F Wyld, Calcutta, 1957,[www. Koi-hai.com/Chota_Kuti_Thoughts. html](http://www.Koi-hai.com/Chota_Kuti_Thoughts.html)

Most of the buildings in North Lakhimpur were destroyed or damaged, fields sunk many feet below level, portions of road disappeared, and communications for two years were exceedingly difficult.¹¹

The Assam Rifles' experiences:

The earthquake of 1950 is a living memory and this has also become a fateful year in the history of the Assam Rifles. Since the epicentre of this great earthquake was located north of Rima just across the border, therefore, though severe shocks were felt all over Assam, they were of the maximum intensity in the Mishimi and Abor Hills of the Sadiya Frontier Tract which were the closest to the epicentre and here there were out posts of 2AR. It came shortly after dark on that fateful day, unleashing its prey and devastation for full five vicious minutes. The effects on the mountains were terrific. Rocks roared down all around while mountain sides were stripped off the forest covering. Practically every tributary of the Lohit from the river downwards was shocked by rock avalanches forming innumerable lakes which ultimately broke there barriers causing devastating floods in the low lying area of the plains. Lower down, the area in around Sadiya was severely shaken. The earth cracked and opened up at many places, damaging roads and bridges. The floods that followed immediately washed away ferry ghats and marooned innumerable villages. The National Highway was submerged for miles on end and with the Railway line damaged at various places; Sadiya was completely cut off from the rest of the world. Assam Rifles outposts up in the hills reported damage to buildings and property in varying degrees. At Riga and Walong the Assam Rifles posts had completely collapsed. At Denning all the buildings had either collapsed or were badly damaged and a new stream was now flowing through the camp, dividing it into two. There were however no casualties. After the initial shock was over the Assam Rifles recovered quickly and the best in every man came to surface. Wherever the Assam Rifles men were located in the affected areas they immediately began to reconstruct buildings, roads and tracks on their own initiative. At Sadiya they put shelters for their homeless families within 24 hours of the earthquake. Similarly all posts started repairs to their buildings and also work on tracks in a desperate bid to link up with the Battalion Headquarters and with each other. The result was that within a short time, though after very heavy toil, the Assam Rifles were able to open all the important tracks in the Mishimi and Abor Hills. Even as the Assam Rifles themselves struggles for existence, under the impact of the devastation caused by the earthquake, they rendered invaluable help in alleviating the sufferings of the civil population.¹² Great tributes were paid to the Assam Rifles for its splendid work and here is the extract from the statement of the then Chief Minister of Assam, Shri Bishnuram Medhi:

"The splendid work of the Assam Rifles during this emergency deserves mention. For days after the earthquake, there was no news about the three Assam Rifles and Military parties marooned in the Lohit Valley tracks at the time of the disaster, and of those who were standing guard at some of the remote outposts near our borders. It was due to the heroism of the Officer-in-charge of our last outpost at Walong in the Lohit Valley and his men, that contact was at last established with these marooned parties".¹³

Narratives of the Subansiri Valley Survivors':

¹¹ Ibid.

¹² <http://bprd.nic.in/writereaddata/linkimages/32693070077.pdf>

¹³ Ibid.

The Bor-Bhuinkop :

People were just finished up their dinner or some were slept. Suddenly their “*Khatiyas*”¹⁴ started shaking heavily. People could not understand why that was happens. After a few second only they realised that it’s *Bhuinkop* (earthquake). They started to make hue and cry, came out outside the house and lay down in the earth. They had seen the betel-nut trees were moving like almost touching the earth and again reverse back which make them realised the intensity of the earthquake. The earthquake exists about five minutes.

The people of riverbank areas of Brahmaputrea and Subansiri explain their experiences on the earthquake. The Mishing community of the areas generally lived in “*Chang Ghar*”¹⁵ which had shake very roughly. But the damage was very less since it made of bamboo and/or wood, which later proved very earthquake resistance building by modern engineers, though they build it to escape from flood. Only damage of the *Chang Ghar* was that its posts were tilted down.

The typical Assamese houses, which also made of bamboo and thatched, having little damage. Since its foundation is earthen, hence it having some damages and those houses having ceiling, they also getting some damages.

Since the incident was at night people could not imagine the damages. Only their household damages were realised at that moment. Some betel-nut trees were breached down, which had fallen down in the houses and getting some damages. Only at the morning the people realised the destruction of the earthquake.

Dried-up of the Subansiri River:

Suddenly the summer river dried up....the fishes, river dolphin and other aquatic lives were in danger due to shortage of water. The people observed the un-natural incident in astonished. What is the incident!! Where had gone the water!! The incident spread knock and corner of the region. Some people dare to catch the fishes in the dried up river bed but most of the people were in fear and observed it from the bank. People were still in trauma of the earthquake and this incident create more traumatic situation among them. People from distance areas were also coming to look the river.

The earthquake could not damage more in the plain muddy houses which was made of rid and bamboo, but some ceiling were damaged, where people kept their *pera* (storage box), falling down to earth. Those people were busy with repairing the damages and rest of people were busy in discussion in groups with neighbour one about the jolt, their experiences, and damages and about the dried up rivers.....What will be next! What happened the river! Where gone the water! How it possible! People started to show their expertise in exaggerative way.

Of late, the news has arrived on evening of August 16, 1950. The water was blocked in upper stream of Subansiri, in Arunachal Pradesh (then NEFA), and creating a artificial lake and in anytime it might break down and flash flood will ruin everything in the down-stream. It was

¹⁴ *Khatiya* is bamboo or wooden made bed, which is common in each household of Assam.

¹⁵ *Chang Ghar* is a typical house with raised platform made of either from bamboo or mixed with wood and bamboo. The Mishing communities of the affected areas made it bamboo only to escape from recurrent flood.

eye-witnessed by the tea planter of Pthalipam Tea Garden, with his private helicopter and warned the neighbouring people. The message spread in the riverine areas of Subansiri and people were in great fear. At any moment they might lose everything.

The riverine villagers could not decide anything. Just a days before the earthquake was happened. Their damages still to be repaired. Suddenly the lifeline of the area, the Subansiri river dried up. And the news arrived that a big flood will arrive shortly. What they will do! where to go! people started whispering about their fear.

Day one left, people worried of the flood. Day ended without flood.

Day two also gone with the same tense, but flood did not arrived. People stated to talk...flood will not come...all were false. People started to forgot the fear of flood and busy with day to day work.

The Flood:

Day three, 18th August 1950, when people are busy in their daily work, almost forgot the arrival of flood; suddenly the flood appears at a height of 15-20 feet with roaring noise. People could not even imagine such panic of nature and had never such experience to coup-up with the situation.

Before the flood of 1950 the river bank of the Subansiri was dense forest. In the eastern bank the Diprai Tea Estate was locate where as in the lower side of the western bank was Pthalipam Tea Estate. Some riverine village were Bhebeli Kachari Gaon, Kechukhana Gaon, Mishing Goan etc. in the eastern side near Diprai Tea Estate. The massive flood after the earthquake totally destroying the beauty of nature, the riverside forest as well as the Diprai and Pthalipam Tea Estate were waste away. The flood brings 10-12 feet diameter timber log and rocks along with water, which remain still found in the nearby areas of Gogamukh. The main stream of the Subansiri changes its course after the flood and running through the Diprai and Pthalipam Tea Estate and Gergeri village. People says that a concrete build well of Gergeri village still in the Subnsiri river.

After the flood the villages were not in a position to liveable. Entire riverine region was full of liquefied mud. The villagers of Bhebeli, Kechukhana etc. which were not waste away by the flood, people were forced to adopted bamboo made raised platform house. The people lost all their stocks of grain and people begged seed of paddy from the nearby villages and cultivated in the liquefied mud. In the fertile land the paddy were growing up very finely and people kept a hope that their difficulties will be over after the ripe of these paddy. But the situation was not as they wish. In the time of seeding to have it various size of mice were appeared and it destroying all mature paddy. The problems of the people were not ended here-to have the mice various species of snake were appeared and people were terrified in the appearance of these snake. People of villages like Bhebeli abandoned their village. Schools were shut down due to lack of student, which was established by the British. People were later on shifted themselves to Ukhomati Village, where they started the school again along with new habitation.

Summing Up:

The description of the above mentioned happenings is basically oral narratives of the elderly persons of the area either survivors or eyewitness. No documentary record is available of these narratives of Subansiri valley except the sayings of elderly people. A few colonial

people trying to documented the incident , but in that documentation the lower stream of Subansiri did not appeared. Hence the author is trying to document the narratives of the Subansiri Valley survivor's instead of drawing any conclusion.

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