

# Case Study : International Boundary Survey and Demarcation of South-eastern portion of Nepal with India

**Buddhi Narayan Shrestha\* Kathmandu, Nepal**

**Key words:** Masonry boundary pillar, permanent pillar, main boundary pillar, reference pillar, treaty, historical maps, Mechi River, tri-junction, status, demarcation, disputes, white paper.

## **ABSTRACT**

Nepal-India boundary has been delimited by the Treaty of Sugauli-1816 and subsequent treaties. According to the treaty, the River Mechi delineates the south-eastern borderline of Nepal with India.

During Nepal-British India demarcation, Masonry Boundary Pillars were erected on the ground and maps were prepared on the basis of field survey. The first boundary map was published in January 1818 depicting the south-eastern portion of Nepal, consisting of river segment.

British Surveyors had established masonry (Jumbo) pillars with a distance of 5 to 7 Miles. The actual borderline was somehow jig-jag between the pillars. So there were disputes on the lands.

To make the boundary settled, Nepal and India formed 'Joint Boundary Committee' in 1981. Subsidiary pillars were established between two masonry pillars. During field work in 1996, Masonry Permanent Pillar (PP-1), along River Mechi, was not given status as the Main Pillar.

During my ground inspection and field study, masonry pillar number PP-1, having 2 meter high and 3 meter round diameter with a ditch, is situated on just eastern bank of River Mechi. Other maps, as available were verified on the ground. Temporary bridge on the river Mechi is being constructed by Nepal.

When I study the British map of 1818, symbol of masonry pillars have been drawn on the map mentioning 'Pillar of Masonry along the Boundary connecting the ditch at the angles.'

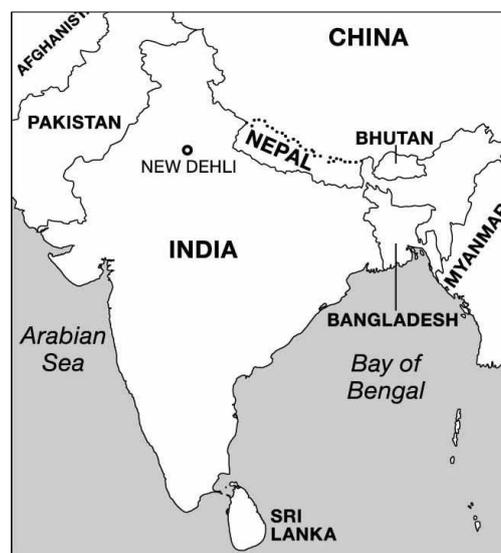
Persian Map of 1874 depicts that the river Mechi is meandering nearly 475 to 1250 meters in five loops towards Nepal from the boundary pillars, In this case, if we take the PPs as main boundary pillars, it computes that 2.54 sq km area of Nepal has been encroached.

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## 1. BACKGROUND

The Himalayan Republic of Nepal is situated between two emerging Asian giants, India and China. The frontier of Nepal is surrounded on its south, east, and west by India, and on the north by China. Nepal is elongated at the east-west in a rectangular shape. The Himalayan range is a natural wall between Nepal and China. There are neither natural walls nor man-made fences along the Indo-Nepal border. The flat Indo-Ganges flood plain extends from India towards the Nepali frontier. The less porous barrier border has challenged the identity of Nepal at the local and national level.



In 1745 Prithvi Narayan Shah the Great initiated the unification of various petty kings, small kingdoms and principalities of the Himalayan region. He formally established Nepal as a Himalayan State on November 17, 1769.<sup>1</sup> His descendants continued the unification movement; in 1806 Nepal's border was extended from the Tista River on the east to Kangra on the west. Similarly, Nepal was extended up to the confluence of the Gandak and Ganges Rivers to the south, and to Shigatshe and Tashilhunpo Gomba (monastery) across the Himalayas to the north, which falls today in the Tibetan Autonomous Region (TAR) of China. It was called the 'Greater Nepal'.

<sup>1</sup> Singh, Amar K. J. (1988) Himalayan Triangle, The British Library, London: page 165

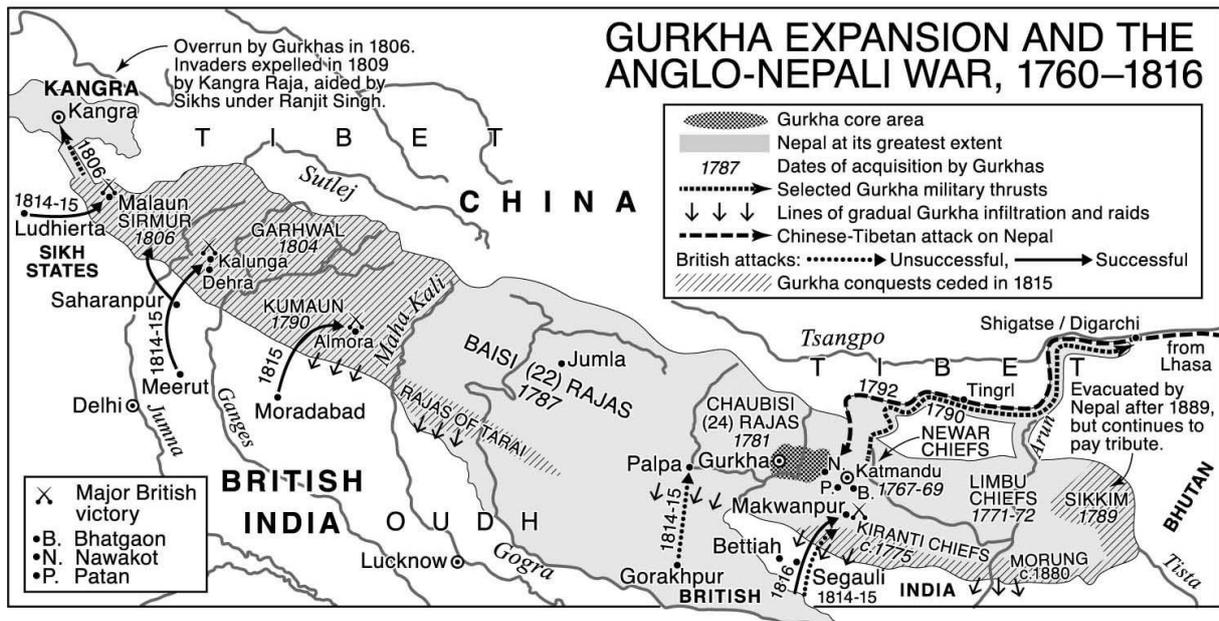


Figure 2

When India was ruled by the East India Company, British India did not like Greater Nepal as a unified and integrated country. So conflicts emerged regarding the territory between Nepal and British India. Border disputes, claims, and counter-claims intensified, that resulted the 1814–1816 Anglo-Gurkha War. During the border war, British India initiated steps towards establishing a treaty. Finally, the Treaty of Sugauli was signed between Nepal and British India on March 4, 1816. According to this treaty, Nepal lost one third of its territory from Mechi to the Tista River on the east and from Mahakali to Sutlej (Kangra) on the west. The whole plain Tarai region from the Koshi River to the Kali River came under British control.

In due course of time, the British regime did return back the eastern Tarai plains to Nepal from the Koshi River to the Rapti River on December 11, 1816. Additionally, British decided to return the territory called *Naya Muluk* of the plain areas from the Kali River to the Rapti River on November 15, 1860 which was taken away from Nepal by the stipulations of the Sugauli Treaty. In time, and owing to past developments, the borderline of Nepal has been constricted to the present territory of Nepal- the Mechi River on the east, the Mahakali River on the west, the watershed of the Himalayan Range on the north, and to the Indo-gangetic plains of the Tarai on the south.<sup>2</sup>

## 2. DESCRIPTION OF THE NEPAL-INDIA BOUNDARY LINE

Regarding the eastern border, the line was delimited by the course of the Mechi River, as mentioned in article 3 (5) of the Sugauli Treaty. It includes the fort and lands of Nagree and

<sup>2</sup> Shrestha, Buddhi Narayan (2003), *Border Management of Nepal*, Kathmandu, page 38-39.

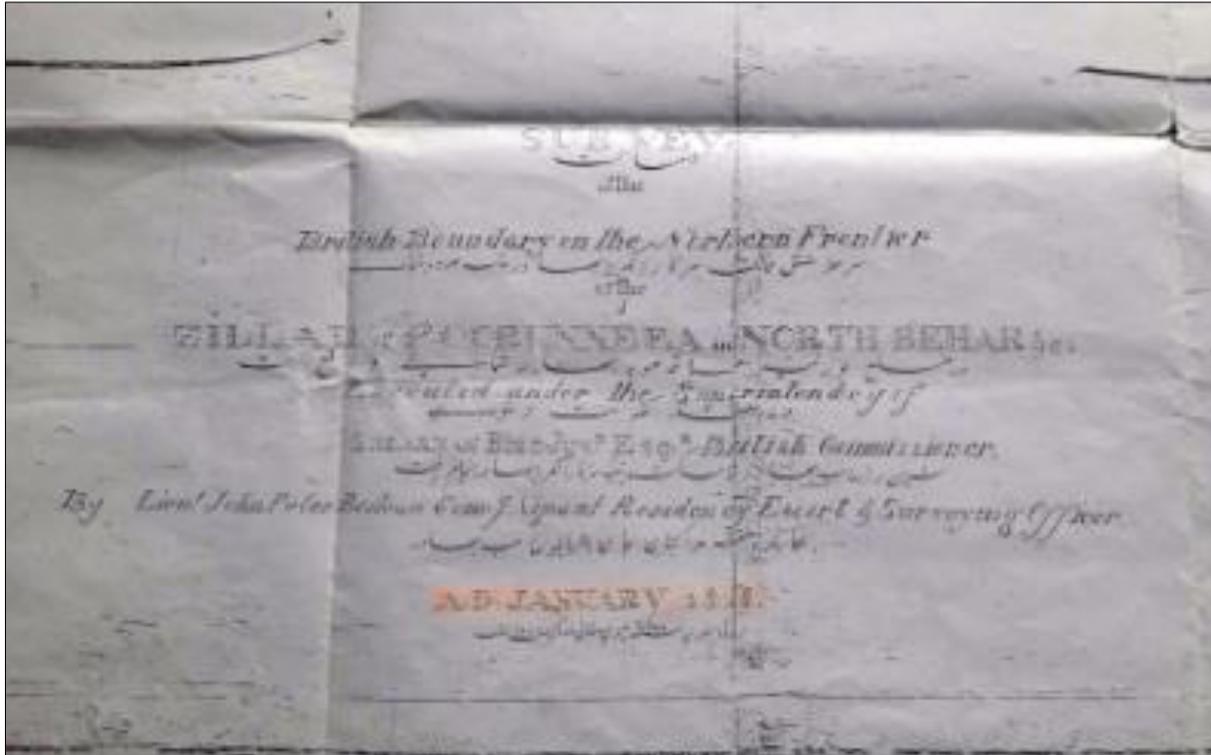
the Pass of Nagarcote leading from Morung into the hills, together with the territory lying between that Pass and Nagree. The uppermost eastern boundary, north of the origin of the Mechi River, is delimited to the watershed ridge of the Singhalila Range up to the Jhinsan peak, forming the Nepal-India-China tri-point.

The southern boundary of Nepal starts east from the low lands of the older river course of the Kali River (Mahakali/Sharada) at Khatima of India and Kichka Sundarnagar of Nepal. The borderline runs further eastward and ultimately it goes to meet the Mechi River near Sukhani Lodabari of Nepal and Kado Gaun of India, as the easternmost border point. It forms the southern borderline of the territory of Nepal. This is the Nepal-India boundary of present Nepal.

### **3. NEPAL-INDIA BOUNDARY DEMARCATION**

History tells that the boundary line between the two countries was surveyed and demarcated in the years 1816 to 1820, 1860, 1880-1886, 1906, 1920-24, 1940-41; in nine sectors erecting boundary pillars, from Phalelung to Brahmadeo Mandi. The demarcation work started from east to west. In the first stretch, 26 jumbo pillars from Phalelung to Antu Hill and an additional 120 pillars from the origin of the Mechi River to Bhadrapur were constructed. It continued south from Bhadrapur and then westward to the Koshi, Lakhandehi, Uriya, and Narayani Rivers along the second to the fifth sectors, and 101, 113, 73, and 61 pillars were erected, respectively. It was further extended to Arrah Nala, Tal Baghaura, and the Sharada River and ultimately to Brahmadeo Mandi as the ninth and last stretch erecting 72, 95, 211, and 41 pillars, respectively, along the boundary line. However, the survey and demarcation works north of Mandi and Phalelung were not completed during the British regime in India.

Boundary maps were prepared on the basis of field survey. The first boundary map was published in January 1818 depicting the south-eastern portion of Nepal with British India, which consists of river segment. Symbol of boundary pillar was drawn on the map and the very symbol was mentioned in the reference section of that map.

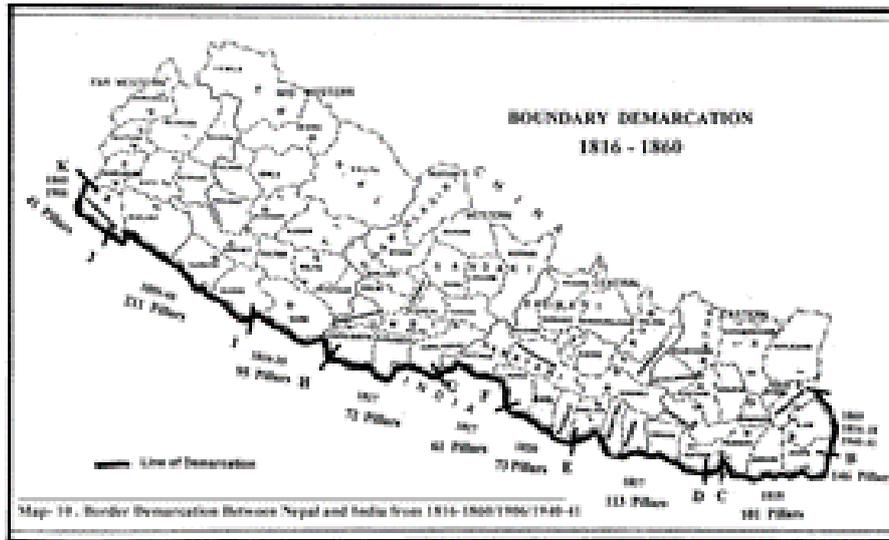


#### 4. ISSUE

The border demarcation work between Nepal and India was started after the Treaty of Sugauli (ratified on 4 March 1816). Surveying and demarcation of border with pillars had been started just after monsoon season of 1816. The border line was divided into nine segments starting from point A to K. Point A was located at Phalelung of Panchthar district as the tri-junction of Sikkim, Bengal and Eastern Nepal, whereas the last station K was established at Brahmadeo Mandi of Kanchanpur district of western Nepal. North of Phalelung to Jhinsan Chuli in eastern Nepal and north of Brahmadeo Mandi to the origination point of the river Mahakali in western Nepal were not demarcated at that time. The survey and demarcation work was not completed during the British India period. The reason for not demarcating on these two segments in those days may be that it is the mountain deep river bed of Mahakali on the west and natural Singhalila mountain range is elongated on the eastern border adjoining Sikkim.

The total number of masonry main boundary pillars as *Jange* (Jumbo) pillars, erected by the British surveyors, were 913 from A to K segments.<sup>3</sup>

<sup>3</sup> A letter from British Embassy Kathmandu to HMG Ministry of Foreign Affairs, 2 July 1980 [with an attached note](#)



## 5. DISPUTES AND CONFLICTS BETWEEN NEPAL AND INDIA

During the British India period, British Surveyors had erected masonry (Jumbo) pillars with a distance of 5 to 7 Miles. The actual borderline was not straight between two pillars. It was somehow curved jig-jag in some portions. In course of time there were conflicts and disputes on the lands between the inhabitants of two countries as the boundary was blurred. Portions of the line are sharply bent in between boundary pillars, thus creating ambiguity regarding the exact boundary location. A No-man's land having a ten-yard width (*Das Gaja*) on both the sides of the *Jange* pillars was not maintained in these areas. Later, these were the causes of disputes in some spots.

On February 25, 1981 Nepal and India made an agreement to work jointly to make the boundary more clear, to settle the disputes and maintain the borderline. To materialize the agreement 'Nepal-India Joint Technical Level Boundary Committee' (NIJTLBC) was formed. The Joint Technical Committee (JTC) demarcated 97 percent of the total 1,880 km-long Indo-Nepal border line within a period of 26 years- 1,233 km as a land boundary and 647 km as a river boundary.<sup>4</sup> There are 60 rivers, streams, rivulets, and brooks that act as Border Rivers. The main rivers are Mahakali, Narayani, Mechi, Rapti, Ghongi Uriya, Jamuni, Arrah, and others. 182 strip-maps were prepared at a scale of 1:15,000, covering half a kilometre width on each side of the border line.

The JTC delineated 8,853 boundary pillars, including *Jange* masonry pillars, on the maps, 873 of which are main; and 7,980 are subsidiary and minor pillars. It is notable that 4,193 subsidiary and minor pillars are yet to be constructed on the ground. Half of these pillars fall in the river sectors.

<sup>4</sup> Shrestha, Buddhi Narayan (2014 Second Edition), Sima Sangram (Border War), Ratna Sagar Publication, Kathmandu, pp 111-112.

Subsidiary and minor pillars were established between two masonry *Jange* pillars during joint demarcation. But Masonry Permanent Pillar (PP-1), erected just on the eastern bank of River Mechi, was not given status as the Main Boundary Pillar, while making clear the boundary during 1995-96 field season. This is the main issue dealt in this paper.

The Map of 1874 on the Scale 4 Inch to 1 Mile, prepared in Persian language, was taken as the basis map. The Indian side claimed that the course of the river Mechi shown on this map must be taken as the boundary line between two countries, as masonry pillars are only the reference pillars to the river. So they erected small size pillar, 475 meter west towards Nepal side as numbered from 101/1. Nepal government did not protest formally. But local people protested mentioning, masonry *Jange* pillar is the main boundary pillar since last 200 years, and it is not the reference pillar (RP). Whether the masonry boundary pillar (PP-1) is the main boundary pillar or just a reference pillar has been the bone of contention.

## 6. CASE STUDY

The masonry boundary pillar was named *Jange* Pillar after the name of Prime Minister Janga Bahadur Rana (1846-1877). Since then, the Nepalese people used to call these pillars *Jange* pillars, and *Jange* became synonymous to a masonry boundary pillar. Jang Bahadur maintained all main boundary pillars (BP) of the same shape and size along the border line with India. He painted white with lime water on those pillars that were constructed also before his regime.

### 6.1. Description of *Jange* pillar

*Jange* pillars as the masonry pillars (PP) are considered the main boundary monuments. The construction of masonry boundary pillars was started just after the Treaty of Sugauli-1816, with a view to demarcate the border between Nepal and India. It is regarded as the main boundary pillar with its massive shape and large size.

In the map, the dimension of *Jange* pillar as 2.2 metres in height and its diameter as 3 metres in round shape have been mentioned. Its foundation is 1 mtr deep under a rectangular platform of 1 mtr x 1 mtr. The pillar is constructed with bricks, mortar of brick-powder and limestone and glued materials. It is a pre-cast monument homogenously round in shape with its top round and smooth slope. A ditch normally 2.5 mtr deep and 1.5 mtr wide is dug around the pillar to protect it from man, animal and other objects. It is painted with lime water to be seen distinctly from far off distances. In the explanation index of the map entitled 'British Boundary on the Northern Frontier of Zillah of Poorneea in North Behar-AD 1818' the dimensions (shaft, decretion, foundation, width, depth etc.) of *Jange* pillar have been mentioned with a picturesque drawing. Close to this drawing a sentence "pillars of Masonry along the Boundary connection the Ditch at the angle" has been written. The people believe that *Jange* pillars are the historical monuments of the border between Nepal and India. These are the pre-cast pillars having its serial number inscribed on the upper portion, as the pillar PP-1, is located east of Bhadrapur, Jhapa district on the way to Galgalia railway station, India.



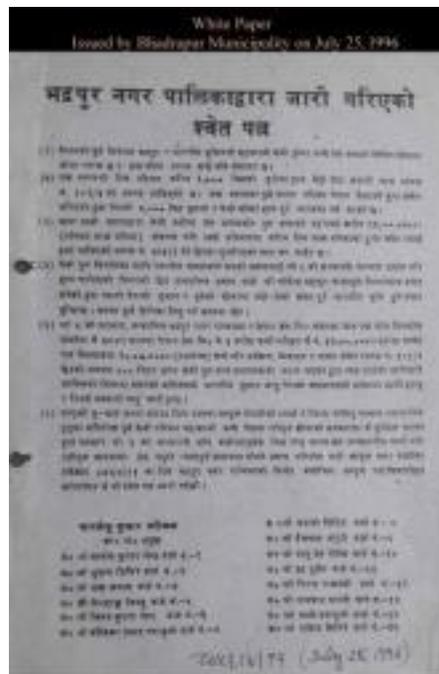
## 6.2. Field verification

During the ground inspection and field study, it is found that the masonry (*Jange*) pillar number PP-1 is located on just eastern bank of Mechi River. The foundation of the pillar underneath the ground is 1.5 x 1.5 x 1 meter and there is a platform of 1 x 1 x 0.75 meter above the foundation. Length of the pillar above the platform is 2 meter high having 3 meter round diameter. There is a small ditch on the eastern part of pillar platform. Indian metalled road starts from the ditch point and it leads to their Galgalia Railway Station. The PP-1 acts as the Tri-junction point, which represents the border of Nepal, Indian States of Bihar and West Bengal. Maps of 1818, 1874, 1932 and 1996, as available were verified on the ground. Bridge on the river Mechi is being half constructed by Nepal to connect Bhadrapur to Masonry Pillar PP-1 that leads to Indian road to Galgalia. The local people say that masonry pillar is regarded as the boundary pillar since their ancestors.



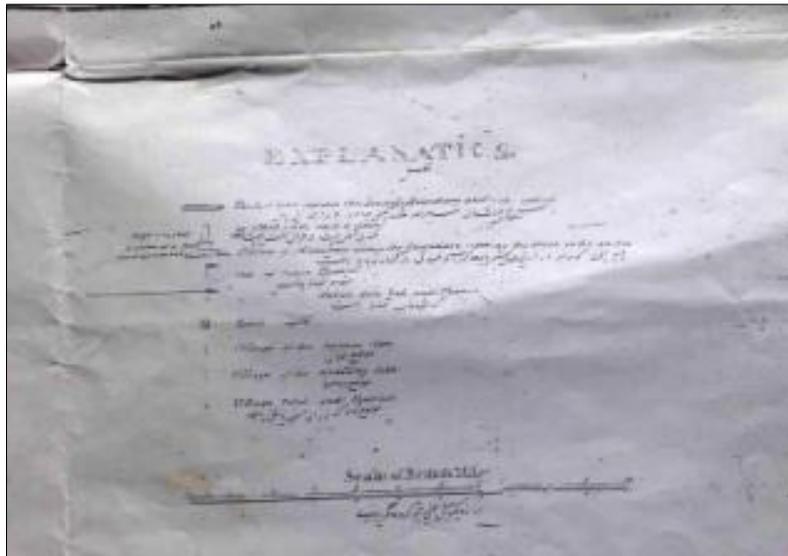
## 7. ANALYSIS

The Nepalese people believe that *Jange* pillars are the main boundary monuments erected on the boundary line between Nepal and India. But field level Indo-Nepal joint border survey team regarded the *Jange* as the reference pillar (RP), while they were working on the Mechi riverine sector during November-December 1995. The team was demarcating the then course of the river Mechi with the help of a map of 1874 AD that bears the heading and internal details on Persian script. They started to erect new boundary pillars in the Bhadrapur area of Jhapa district ignoring the masonry *Jange* pillars, as existing main BPs. By this action, the boundary line has been shifted towards Nepal nearly one kilometre west of *Jange* permanent pillar (as it is inscribed PP-1) constructed by British Surveyor in 1817. Due to the erection of new pre-cast small pillars, Nepalese territory has been encroached. As a result, half of the compound of Bhadrapur high school came under Indian territory. This caused much hue and cry not only among the local people of Bhadrapur but also other parts of the Nepal, including the capital city and it became the national issue. In the mean time Bhadrapur municipality issued a white paper highlighting the issue and problem.



After these activities, Chief District Officer of Jhapa made a public notification on March 21, 1998 that it will be examined by the Nepali Survey Team at first and the matter will be put in the next joint meeting of Nepal-India Survey Team. At the joint meeting it was decided that the issue would be resolved in a spirit agreeable to both the sides after the joint field inspection.

When I study the map of 1818, scale 1 Inch to 2 Miles, entitled 'Survey of British Boundary on the Northern Frontier of Zillah of Poorneea in North Behar' symbol of masonry pillars have been drawn on the map and the very symbol is mentioned in the reference section of that map. On the right hand side of the symbol, it is written 'Pillar of Masonry along the Boundary connecting the ditch at the angles.' This map has been verified that all the masonry pillars from number 1 to 5 along the Mechi river have been erected on the eastern bank of the river, as depicted on the map. Pillar number 4 and 5 have been partially damaged. On top of that sketch, it is also written 'The Red Line denotes the British Boundary and ditch which is 6 feet wide and 6 feet deep.'



Persian Map of 1874, scale 4 Inch = 1 Mile, depicts that the river Mechi is meandering nearly 475 to 1250 meters in five loops (Loop-1= 0.176 sq meter, Loop-2= 0.352 sq meter, Loop-3= 0.075 sq meter, Loop-4= 0.880 sq meter and Loop-5= 1.056 sq meter) towards Nepal from the PPs, in the form of roughly an English alphabet 'C.' Subsequent maps of 1932 and 1996 follow the river course as shown in 1874 map. If we take the PPs as main boundary pillars, it computes that 2.54 sq km area of Nepal has been encroached.

## CONCLUSION

To resolve the status of *Jange* pillar whether it is the main boundary pillar or a reference pillar, one has to know the construction criteria of these pillars. In this respect, there may be a question as what is the difference between BP and RP or what are the ingredients to make it different from the other.

It is defined that 'main boundary pillars have been erected at intervals of about five kilometres with intermediate or auxiliary pillars at interval of about 500 metres'.<sup>5</sup> These pillars will be

<sup>5</sup> Boggs, S. Whitmore (1940), International Boundaries:166

established in the main chainage of the border line to create the line of sight between the two main pillars. To recognize its status, the main boundary pillars are automatically larger in shape and size in comparison to intermediate and reference pillars.

On the other hand, the reference pillars have been defined as 'Reference Marks: when there is any possibility of temporary or permanent marks being moved and it is desired to be (st) able, at any future time to replace them in the exact positions in which they were originally, they should be carefully referenced'.<sup>6</sup>

According to this definition, *Jange* (Jumbo) pillar located east of Bhadrapur on the Mechi River segment must be regarded as the main boundary pillar (BP). Followings are the points to honour the status of main boundary pillars (BP) to the masonry *Jange* pillars:

- On the map of 1818 (British Boundary on the Northern Frontier of Zillah of Poornnea in North Behar) PP is written on the *Jange* pillar and PP is mentioned as Masonry Permanent Pillar.
- There is no difference between the *Jange* pillars of riverine and land sectors. No categorization has been mentioned in the legend, index, explanation and marginal information of the map regarding the pillars.
- If the PP-1 at Bhadrapur area is supposed to be as RP, there must be its main BP. But there are no such pillars larger than *Jange* pillar on and around the area.

So the PPs must be given status as the main boundary pillars between Nepal and India. Because all the pillars are on the eastern bank of the river Mechi. If these are only the reference to the river, the pillars should have on the left and right banks alternatively. Secondly, the pillars of same size and shape have been given the status of main boundary pillars from number 6 onward and also other segments of the boundary line. Thirdly, the PP-1 is established as the Tri-junction point of Nepal, Bihar and West Bengal. Fourthly, all the pyramidal pillars, which are smaller than PP in size, located on the north of PP-1, have been regarded as the main boundary pillars. Fourthly, PP is larger in shape and size than the pyramidal shaped pillars.

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<sup>6</sup> Clark, David (1923), Plane and Geodetic Surveying for Engineers, Vol-I: 244



In the light of these points and technical facts, all 913 *Jange* (Jumbo) pillars erected during the British regime in India belong to the same status of main boundary pillars (BPs), no matter whether these are located in land sector or riverine sector along the boundary between Nepal and India. Due to all these ground reality, the 1818 map must be taken as the basis map, and the masonry permanent pillars (PPs) established on the ground must be given status as Main Boundary Pillars in the south-eastern portion of boundary between Nepal and India.

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\* Buddhi Narayan Shrestha

IP President, Nepal Institution of Chartered Surveyors (NICS)

Border Researcher

P.O. Box 6769

Kathmandu Nepal

*E-mail: bordernepal@gmail.com*