Influence of Hydrology on Manipur Kingdom

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Physically Manipur is divided into three parts: (a) hilly region, (b) lake region and (c) river valley regions. The hills are the sources of the rivers and the valley was formed by the sediments brought down by the rivers. The Imphal valley is about 700 sq kilometres surrounded by hill ranges. Besides, there are smaller valley strips in the western and eastern slopes of the State. The central valley of Manipur occupies only nine per cent i.e., 1843 sq km of its total geographical area i.e., 22,327 sq. km [1]. There are a number of lakes in different places in the valley. Loktak is one of the biggest freshwater lakes comprising about 200/400 sq. km. (The area of the lake is extended during the rainy season. A number of streams and rivers of north and west fall into Loktak Lake from which emerges a river named Khodrak.

In the valley, there are smaller hill ranges running in different directions. The valley itself is at an elevation of 790 meters above the Mean Sea level. The general shape of the valley is an irregular oval [2]. Its length is about 85 km and its breadth is about 35 km. the highest ground of the valley is towards the north, the capital area. The lowest is at the Loktak and its adjoining area, towards the south and southwest, the ground again rises. The general conformation of the valley is that of a shallow saucer.

Generally, the rivers of Manipur can be classified into two drainage systems: the Chindwin-Irrawaddy system and the Ganga-Brahmaputra system. Barak and its tributaries drain the hill region of Manipur and pass into the Bangladesh territory.

The Imphal River rises from Bolenpat of the Senapati district. It flows from north to south. The important tributaries of the Imphal River or Manipur River are Iril, Sekmai, Khodark, Kongba, Thoubal, Kakching or Sekmai, and Maramba Marin canal. Iril River originates from north-east of Mao and it joins the Imphal River at Lilong. Awang Sekmai River rises from the Koubru range and it connects to the Imphal River at Khonghampat. Khordak River derives from Loktak Lake and it falls into the Imphal River at Khodrak Echin. The Khongba River merges from Khongba Maru and it unites With the Imphal River at Kongba Meilombi. Thoubal flows from Huimi Hill of Ukhrul District and it finally merges into the Imphal River at Irong of Myang Imphal Chakpi River arises from southern hills and it mingles with the Imphal River at Sekmaijin. Finally, the Imphal or Manipur River joins the Chindwin River of Myanmar. Nambul River rises from Kangchup merges with Thangjing Maru and falls into Loktak Lake. Heirok or Wangjing River comes down from the Heirok range and joins Ikop Lake. Arong River rises from the Ingourok area, runs across from east to west, and finally meets Ikop Lake.

Barak, the longest and largest river of Manipur rising from the northern ranges of Senapati, drains the western half of Manipur State. It flows a south-westerly course. The important tributaries of the Barak River are the Makru, the Irang, the Leimatak, the Maklang, the Jiri, and the Tepai. The Makru River rises from the Makru or Barail range of Tamenglong and it flows into the Barak River. No part of the course of Makru is navigable.

Varieties of fish are well-stocked in this river. Irang River originates from the north of Yang Pugilong ranges at the west of Karong. It runs across narrow and deep gorges. It joins the Barak River near Tipaimukh. Both, the Leimatak and Ijei rivers which rise from the western slopes of the Leimaton ranges are the two important tributaries of the Irang River. Besides, Irang receives other smaller mountain streams, before it falls into the Barak River.

Tepai River running from Mizoram flows to the Barak at Tipaimukh. Jiri River forms the boundary between Manipur and Assam. It rises in the hills to the northeast of Cachar District and runs across nearly south Godam Ghat then turns to the west until it meets the Jiri Ghat from where it moves south again and after about a course of 12 miles it joins the Barak River. Then Barak River traverses Cachar Valley and Stlhet plain. Finally, it meets the mighty Brahmaputra River in Bangladesh [3].

Apart from these two major river systems, there are a number of smaller eastward-running rivers near the Indo-Myanmar border region. These run into the eastern hilly track of the Manipur State. The important river among them is Yu which falls into the Chindwin River of Myanmar. Some of the important tributaries are the Taret, the Tuyangbi, the Lockchao, the Lalim Lok, the Thuidam etc. These arise from the eastern ranges of Manipur. Both Chingai and Chamu rivers flow over the northern part of Ukhrul District in Manipur and merge with the Chindwin River [4].

'Patki Hourakpham' (source of lake) an ancient literary text records as many as 42 lakes. These are given below:

"Chakha Pat, Hyeng Pat, Lampun Pat, Waishel Pat, Luwangyi Pat, Yangkoi Pat, Thangching Pat, Serikok Pat, Khakoktao Pat, Nungchengpot Pat, Yilil Pat, Langyam Pat, Kakwa Pat, Chingak Pat, Lilrong Pat, Thoupal Pat, Teltha Pat, Yikok Pat, Haiyen Pat, Khaopakhong Pat, Wuchiwa Pat, Laikol Pat, Thamlal Pat, Phumlou Pat,

Khaka Pat, Leimatak Pat, Chingmahul Pat, Yimuyilal Pat, Laikhom Pat, Leisom Hilel Pat, Kailakhong Pat, Wunungta Pat, Takhel Pat, Wulikhong Pat, Kontha Pat, Ngaching Pat, Polapi Pat, Laicha Pat, Thaku Pat and Kekrupat" [5].

In addition to these lakes, there were a number of lakes like *Akampat, Hichamyaichampat, Lampel Pat, Leicheng Pat, Uphongpat, Porompat, Keishampat, Yaral Pat, Uchekon Pat, Mantak Pat, Poirou Pat, Waithou Pat, Kharung Pat, Ngangou Pat.* Many of these aforementioned lakes have become extinct. But only, Loktak and Pumlen Lakes still exist.

These lakes played a great role in monitoring the climate of the kingdom and in providing livelihood materials as well as transport facilities to the people. Naturally, the ecological environment developed a habitat which attracted people/communities to live in the watershed system of the kingdom. From time to time, the people inhabiting the lakes and their surrounding areas were able to develop different mechanisms to mould and sustain the lake environment. They would gather various edible aquatic and non-aquatic plants from the lakes. They caught fish by using traps, spiked spears and nets. Of course, the demographic structure changed due to the increase in community population brought to manage even the marshy areas of the lake for their expansion of habitation. The people of Moirang and Kanglei practically established settlement mounds in the marshy and swampy areas and even the lake banks. By diverting river courses and making canals and filling day by day, the lakes were transformed into habitational areas and cultivable fields. Nambul was once the most important source of water which drained itself in the Uphongpat lake. When the Nambul River was diverted eastward by cutting a new canal, this lake came to dry up due to the absence of a riverine water supply. During the reign of Nara Singh Lake like Thiyam Pat was transformed into cultivable fields. The lakes such as Keishampat, Hichamyaichampat, Porompat, Akampat, Lamphelpat etc. dried up by draining water through canals, encroachment of human settlement and siltation. Likewise, other lakes scattered around the valley came to disappear one by one. The water of Pumlenpat Lake was also monitored by draining of water through the Maramba Marin canal which was connected to the Imphal River. Such a canal largely brought an advantage in the control of river floods by catching excess water during the rainy season and it also enabled the supply of water to the river during the dry season.

Obviously, different rivers like the Inphal, the Iril, the Kongba, the Naga, and the Thoubal which flowed across the valley provided a suitable environment for the pristine Meitei civilization. The rivers are significant factors to make the valley fertile and supply usable water to provide easy means of communication to the earliest forms of transport. The rivers were managed and controlled by the Meitei Kings and their associates with the water bodies would help to adjust and adapt to the existing environment. The successful water management and several kinds of devices became the life source of the early Meitei civilization and these equipped the governance of the kingdom peacefully [6].

Probably, the State took the entire responsibility for the planning, construction, management and organization of a series of water works. The Meitei Kings extensively exercised their power over different decision-making and also over management works. Although the king was at the top of the political strata, different aspects of water control were envisaged for lower administrators like the bureaucrats and district and village functionaries which existed within the State. In this regard, the degree of centralization of the Meitei King could be properly measured by a particular water control programme. The Meitei Kings timely organized necessary labour, developed military defence of water points and performed rituals to handle the watersheds and water points. These practices involved money, Power and specialized roles which could not be met by an ordinary power but by the king or political leader alone. The centralized tendency was intensified when the field irrigated was inaugurated by King Garibaniwaz.

Since the hydro managerial system was prevalent in early Meitei society, the kingdom possessed networks to control the physical environment i.e., the amount of water available and man-made dams, dikes, canals, weirs etc. On the other hand, all the water-control mechanisms within a Meitei social structure were the handy works of managers and their associates. However, social groups political institutions, decision-makers or political leaders and water management plans are in the same line. While in this situation, the Meitei kings were supreme in all matters. Gigantic river dredging works, repairing of an embankment of the river, construction of a canal and irrigated canal, tank, diversion of the river course, making dikes and weirs and creation of defensive moats were carried out under the complete order of the king. When a dispute arises over the supply and distribution of water, be intervened and resolved the dispute. Many villagers had their autonomous and resolved the dispute. Many villagers had their autonomous water irrigated management system. It was established among themselves the king resolved the matter. The King's presence in all the rituals of waterworks relating to commission and inauguration to save and control all the water points could establish legitimate rights over the social environment. The connection between the socio-political and religious functions of waterworks and the Meitei King caused to development of highly centralized power [7].

Primarily hydro managerial work necessitates some basic mechanisms like maintenance, personal quality and organization. The water control programme brought to thrive a centralized organization of large human labour under a single authority. Such a pattern of the organization was usually done by amicable kings whose sole responsibility was management. In the case of the Meitei Kingdom, only the rulers were successful in doing such work [7]. However, the Meitei Kings were not only considered competent organisers but also regarded as tactful managers. The hydro managerial works successfully tended to strengthen the centralized power of the king. Moreover, the Meitei Kings were able to draw the massive loyalty of their subjects. Then hydro managerial works successfully tended to strengthen the centralized power of the king. Moreover, the Meitei Kings were able to draw the massive loyalty of their subjects. The mechanism of controlling water was an instrumental factor in bringing peace and development to the State. On the other hand, the water work programme became an important role in integration which was brought by the large-scale participation of the people in the network of construction of dikes, draining and dreding and digging of ponds and canals. Success in water-controlling work led to the generation of wealth of various kinds and greatly enhanced the State's pride.

References

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