



Forest Resources and Minerals in Tirap Frontier of Arunachal Pradesh

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ABSTRACT: As Amelendu Guha, has stated that “the Northeast India did not have enough economic worth of surplus revenue yielding potentiality to attract the attention of British annexations¹. And Jayeeta Sharma, in her *Empire’s Garden* focuses on the tea as the prime commodity of the empire for transforming the Northeast India economically and politically.² Thus, a systematic neglect developed to the study of the forest resources and minerals in the Tirap frontier among the scholars. However, this paper will provide insights on the political economy of British in Northeast India, the tea was not only the outcome for the British imperialism there were various other resources of forest like, coal, oil, gold, rubies, amber, salt, and timber, due to which the British were interested in the deep penetration into the Tirap frontier for the expansion and consolidation. The forest and mineral resources of the Tirap frontier of Arunachal Pradesh played an important role, as the tool for the political economy of British Empire in Northeast India. Here, the focus is on the commercial forest resources that helped the British Empire to form a state.

KEYWORDS: Political Economy, Forest Resources, Minerals, Tirap Frontier, Colonial Period, British exploitation.

I. INTRODUCTION:

The political economy of natural resources is about the interplay between politics and valuable natural assets. The interplay is potentially in both directions: political economy can affect the exploitation of natural assets, and natural assets can affect political economy. In principle, either of these could explain the resource exploitation, but there is a reasonable basis for thinking that both are important. It was in the interests of colonial states to accept accountability to wealth generators. This reduced the cost of borrowing and, by curtailing risks of confiscation, promoted wealth generation. The governments that made these investments in capacity tended to win the wars. Natural resources can make rebellion tribe attractive even if there is no realistic prospect of capturing the state itself.³

In order to understand these processes, it is important to find out the mode of production, especially the system of extraction of surplus and the other is the nature of British imperialism, which was itself subject to change as the British economy was transformed under the impact of the industrial revolution. As Karl Marx recognized in 1867 that in Europe, which is the home of political economy practices the method of primitive accumulation⁴ in the colonies, it was an important means of transforming wealth gained from the non-capitalist World into capital simultaneously with the expansion of capitalist accumulation prosper. As colonies expanded in the eighteenth and the nineteenth centuries, primitive accumulation grew in absolute size and relatively the commercial product extraction of the entire colonial state became crucial. Once a capital mode of production was established the nature is exploited for the profit of capitalist at the cost of the destruction of forest, ecology and environment and the natives of the area. Thus, continuing capitalist accumulation requires continuous expansion of the land for the market for capitalist products.⁵

There are studies done relating to the Arunachal Pradesh during the colonial period, however, the forest and mineral resources of Tirap Frontier which were important for British capitalism have been neglected. Thus, this study is focussing on the utilization of commercial products and consolidation of British empire for the political economy of the region. The question of empire building in the Northeast India and particularly in the eastern Arunachal Pradesh, the Burmese intervention was no longer serious security threat after the treaty of Yandaboo, rather the available of forest and mineral resources in the region became more significant, which could generate revenue for the British empire. The study is focusing on the Tirap Frontier presently Namsai, and Changlang districts of Arunachal Pradesh and Tinsukia district of Assam. The Tirap Frontier was a part of the Sadiya Frontier Tract during the colonial period.⁶

Before the *Treaty of Yandaboo* was concluded, exploratory surveys had penetrated into



Arunachal Pradesh in 1825. This was the beginning of an era of exploration of the hill areas. Wilcox, Burton, Neufville Bedford, Hannay and others were employed on the frontier for extending geographical knowledge and exploring the commercial viability of the north-east frontier and the countries beyond. Their researches conducted between 1825 and 1836 revealed bright commercial prospects for the East India Company in the Tirap Frontier and the extensive trade of the Eastern Arunachal Pradesh tribes with the Tibetans, the Chinese and the Burmese. As Gunnel Cederlof studies the transition of empire was driven by the commerce and the security of imperialism.⁷ And Ranju Bezbaruah work also asserts that the British in north east region identified economical and strategic important.⁸ Existing literature on strategic security of the Tirap Frontier are available however the study on British intervention in the valley for the commercial products of forests and mines are not enough.

The science and technological advancement elevated the capacity of exploitation of resources of the region. The advancement in the technology brought by the industrial mode, however, rapid an outflow of much greater range of forests resources. For the purpose of extraction of surplus, the delegitimization of the indigenous community in their own land, and abandoning of the resource utilization by the local peasants over which the British were to exercise their rule. The forest and mines resources of Tirap Frontier have been altered by the British capitalism, in the name of expansionism, and environments were disrupted, such interventions restructure the political economy of the British authority. They also ensured that such changes would primarily benefits Europe. Thus, in the early nineteenth century, after the defeat of Burmese, the east India Company demolished the forest and started extracting all the natural resources.⁹ During the survey, the colonial officials collected a lot of information about the forest resources than political regimes.¹⁰ The data collected during the scientific survey tell us about the resources available of the region like coal and petroleum, timber tree like teak and hillock, precious stone like gold and amber and rubies which are popularly known to trade with China, Tibet and Burma. Political economy of resources undermines the development of state political system with capital assets. Therefore, the interplay between resources and political economy influence colonialism.

MINE RESOURCES

Mineral political economic investigates and promotes understanding of economic and political issues associated with the production and use of mineral commodities. While its origins can be traced back at least 200 years to the writings of David Ricardo and other early Classical economists, it emerged as a separate academic field only after World War II and then primarily in the United States.¹¹ The mining politics play important role in the history of the British colonialism for extraction of commercial product for their capitalist motive. The political economy of mining shapes the Britain capital concentration by advanced company organization, marketing and industrialization. Minerals exploration has been happening for centuries driven by the so-called European industrialization process projecting of colonization. The commercial mining is more complex revenue extraction system than it seems in reality. Coal mines found in Lohit frontier are at Supkong, on the Pori Dihing, where there is a bed of coal in the middle of the river, and the jungles are full of an odour of petroleum. There were two beds of coal one at a little higher level than the other, but both on the plains, filled with liquid mud of various degrees of consistence. One was twenty or thirty feet across, and the other larger.¹² Another in the middle of Singphos Village, petroleum was seen floating, even the coal is found which is used by the Singphos. And about two miles from the Putar a fine seam of excellent coal has been reported.¹³

The British also exposed Kongoneah Chang from which they can fetch coals, near the road of Habung Gohain and Kongoneah Morung Naga. The road was opened by the British orders, whenever we are summoned by the Kutkee Chowtung, we will attend, and will as usually pay our annual visit to you. Should Kongonenu Naga or Jaktoongeah Naga again close the road. Britishers crossed the Dehing at Makoom, and taking the direction of the Naga Hills, and after a march of nine and a half miles, encamped on the banks of the Teerook. We passed near a fine petroleum well and a bed of coal. A vein of coal was observed in the hill we ascended immediately after crossing the Teerook.¹⁴

Captain Vetch passed near a fine petroleum well and a bed of coal on the banks of the Teerook, near the Dehing at Makoom.¹⁵ At Supkong, on the river Buri Dihing, where there is a bed of coal in the middle of the river, and the jungles are full of an odour of petroleum. Lieutenant R. Wilcox saw two beds of coal, both on the plains, filled with liquid mud of various degrees of consistence.¹⁶ The British officials extracted the minerals for the profit at the



cost of native environment degradation. The resources could meet the demands of British colonialism motives. The coal mine found in colonial Lohit and Tirap frontier Makum, Jaipur and Tirap¹⁷ are important refinery, and provides information on Northeast India transition from tribalism to capitalism, focussing on the shift to a world market economy. Coal was also used by the tribes of Lohit and Tirap valley, apparently, for shaping of iron *dao* and to make the opium smoking pipes and brewing spring water to salt. Such resources naturally attract the attention of the British officials.

AMBER MINES

Burmese amber is extracted from the mines; it's transported usually via elephant over pitted paths to railways tracts that deliver it to markets in the south of China. Amber was used in China, Burma and Lohit and Tirap frontier mostly for ornaments, traditional medicine or for charm. Therefore, amber was important for a strategic trade with China goods, he gave a Chinese and Burmese chiefs a strand of mines amber in return for forest resources too. Besides the amber which is found in the Payentoung, or amber mine hills, there is another place on the east side of the valley, called Kotah Bhun, where it exists in great quantities; but the region is considered sacred by the Singpho, who will not allow the amber to be taken away” the trade of the Hukong valley naturally attracted a share of Captain Hannay’s attention, and from his account it appears that “the only traffic of any consequence carried on in this valley is with the amber, which the Singpho sell to a few Chinese, who find their way here annually. The price of the common, or mixed amber, is 2£ ticals a vis, or Bs. 4 per one and a half seer; but the best kind, and what is fit for ornaments, is expensive, varying in price according. to its colour and transparency.¹⁸ The Chinese sometimes pay in silver for the amber, but they also bring with them warm jackets, carpets, straw hats, copper-pots, and opium, which they give in exchange for it. They also barter their merchandize for ivory and gold-dust, but only in small quantities.

An amber merchant, comes annually to the mines for this mineral. The number of merchants who have come this year, he said, is between twenty and thirty, and the amount of his own purchases he estimated at 1,500 ticals, paid in silver.¹⁹ Amber is said to be procurable at a hill called Kottah, east of the Namtanae, but is not dug for, and the principal mines which Dr. Griffith and G. T. Bayfield visited the mines are about five miles South from the village of Mainkhwon.²⁰

About twenty Chinese Shans and Lapce Singphos have come this year for the mineral; each brings one or two ponies, and each pony carries fifty viss, to procure. The price of amber at the mines is from Rs. 3 to 14 or 16 per viss; the small coarse pieces bring the former price, and the large bright masses the latter. A duty of 10 per cent, is levied at Mogoung, besides some trifling presents to officers, and for passes, amounting to two or three rupees more.²¹

The Pyenduren or amber mines have been examined first time by the European intelligence; the latitudes of the principal towns between Ava and Mungkhong have been ascertained by astronomical observation with a degree of accuracy sufficient for every purpose of practical utility, and they may now be regarded as established points, from whence inquiry can radiate in every direction with a confidence which the most zealous and enlightened investigators have been hitherto unable to feel in prosecuting their researches from the want of a few previously well-determined positions at which to commence or terminate their inquiries.²² Captain Hannay diligently employed in collecting information regarding the valley which had from a very early period been an object of great geographical interest as the site of the Payendwen or amber mines.²³

Where amber had been formerly dug for, are visible; but this side of the hill is now deserted, and we proceeded three miles further on to the place where the people are now employed in digging, and where the amber is most plentiful. The last three miles of our road led through a dense small tree jungle, and the pits and holes were so numerous that it was with difficulty we got on I was informed that the amount of revenue forwarded last year to the Province was near 400 viss (390 viss, 74 ticals), which included More than one-half of this sum is said to have been the produce of the Serpentine stone mines, and the remainder to have been collected from the amber mines and district. The red amber is found in the upper stratum, and the pale amber in the lower it is invariably found in conjunction with coal.²⁴

PRECIOUS STONES LIKE GOLD AND RUBIES

Gold is found in many of the mountain streams, but the most productive are the upper parts of the Namtanae or Khyendwen, and a small stream falling into it from the east, named Kapdoop. The Lapaes Singpho are the principal washers, and with ordinary industry a man will obtain from one-quarter to one-half rupee weight per month. There



is, however, little inducement to labour, for they have little trade, and do not esteem the precious metals as ornaments for the person.

Captain Hannay obtained an extensive view to the subjacent country, more accurate information of the site of the celebrated mines of Momeit had been practice at an earlier period of his voyage. From these accounts it appears that the locality which is said to produce the finest rubies in the kingdom is about forty-five or fifty miles east of Tagoung Myu, from where it can be reached by a foot traveller in three or four days, and by a laden bullock in ten.²⁵ the site of the celebrated ruby mines of the confluence of these streams is represented as occurring at the village of Laha, about 40 miles from the Irrawaddy.²⁶ The amber was exported to European countries or traded with Chinese. This result in the largest deposits exploited for jewellery and trade.

FOREST RESOURCES

On the left bank of the river, between Henga Myo and Tagoung, the teak tree first begins to appear, and at Kyundoung, on the opposite side, it is said that timber is found sufficiently large to form a boat from a single tree; it grows principally on the western face of the hills, at whose eastern base Kyundounu stands.²⁷ The whole tract is a succession of small hillocks, the highest of which rise abruptly to the height of 50 feet, and amongst various shrubs which cover these hillocks, the tea plant is very plentiful.²⁸ on approaching Numpoung, the second encampment, the country became more open, and the pathway led through a forest of very fine teak trees.²⁹ Coursen through the thick forest—some teak and bamboos and saw many elephant tracks.³⁰ On the banks of the Teerook our route lay through an undulating country, covered with a forest of magnificent timber.

Many of the forest trees are superb, particularly that called by the Burmese Toungbain, sometimes used for canoes.³¹ Nam Seik Toung, which was a complete forest of wild plants; also, some very fine teak, and numerous elephant tracks. In Kyun-beng-Tsakkan, from some teak trees in the vicinity still continuing through the thick forest over a tolerably good foot-path.

Namphook village, and the Namroop, over some hilly land covered with forest, both rivers were covered with a forest of immense timber trees, and underneath the larger trees was a rank growth of jungle through which we could not have made our way, except for the tracks of wild elephants.³² Of all the timber trees common to Assam, Captain Vetch particularly noticed the Artocarpm Chapiasha and

Mehahi. These trees average at least twelve feet in girth, and the latter grows to the height of 60 to 70 feet without a branch. Neesaka's village, the first period of the journey was through a forest abounding with magnificent toon and halock trees, many of them from 10 to 15 feet.³³ The Dehing at Makoom, and taking the direction of the Naga Hills, and after a march of nine and a half miles, encamped on the banks of the Teerook, a fine, clear stream. Britishers route lay through an undulating country, covered with a forest of magnificent timber. The locality of the amber is a succession of low hillocks, the highest of which does not exceed 200 feet; they are thickly covered with forest.³⁴

The rise of British power in Arunachal Pradesh coincided with the development of the phase of capitalism which has been identified predominantly mercantile character. While mercantile capitalism started out with the desire for securing trading privileges, with the Industrial Revolution in Britian, the prosperity of British industries depended on imported raw materials and exported manufactured goods. The need for seizing new markets set the pace in forging new links between inner and outer zones. The process led to the consolidation of British power in Assam, which extended its jurisdiction to the eastern Arunachal Pradesh in 1826. The sparsely populated territories of the Arunachal tribes had enough economic potential to attract the immediate attention of the colonialists, but with the gradual consolidation of British rule in Assam, imperialism discovered new motives in a forest area. Capitalism in its industrial phase was concerned with seizing markets for manufactured goods and acquiring raw materials, in contrast to the mercantilist emphasis on primary accumulation through trade and plunder. The importance of the territory now known as Arunachal Pradesh for the British was not so much for its resources as for its strategic location in having a common boundary with Tibet, China and Burma. This strategic importance stemmed from Britain's growing trade interests in these are.

To exploit these resources commercial intercourse in the Tirap Frontier was encouraged but certain changes were introduced in the traditional structure to suit colonial needs. The pattern of commercial exchanges that took place at fairs and trade centres included a variety of items but traffic beyond the hills mostly centred on coal, oil, gold, rubies, amber, salt, and timber. The various industries in the upper Assam close to the hill areas of Tirap Frontier depended to a large extent on the supply from the hills and a considerable trade developed with neighbouring countries.



II. CONCLUSION

To conclude the above discussion, Foucault³⁵ analysis the relation of power and the economy which are the pillars of a state. He underplays several elements which have been central for the institution of the political economy of colonialism, particularly regarding colonial expansion and subjugation, the prior existence of trade and other networks operating on a world scale, and economic properties and technical developments that acted as conditions of possibility of empire consolidation.³⁶ The political economy of British, did not merely appear in the picture of Tirap frontier of Arunachal Pradesh due to Burmese invasions but their steered scientific surveyed of the region highlighted the abundance of economic potential and their strategic geopolitical region. The minerals and forest resources of Tirap frontier of Arunachal Pradesh had enough worth of surplus revenue yielding thus they documented their security and commercial interest in the Tirap frontier of Arunachal Pradesh.

¹ Guha, A. (2014). *Planter Raj to Swaraj Freedom Struggle and Electoral Politics in Assam 1826-1947*, Tulika Books, New Delhi, pp. 1-4.

² Sharma, J.(2011). *Empire's Garden: Assam and the Making of India*, Duke University Press, Durham.

³ Collier,P.(2010) "The political Economy of Natural Resources", *Social Research*, Vol. 77, No. 4. pp. 1105-1132.

⁴ It is a Marx concepts of primitive or primary accumulation of the capital. Such accumulation had a double aspect: in the first place, it was a transfer of wealth, originating from non-capitalist sources and second it implied the coming into being of certain new conditions, such as the creation of the proletariat within the proto-capitalist economy of the colonizing country, for otherwise the transferred wealth could not be transformed into capital.

⁵ Habib, I. (1995). *Essays in Indian History: Towards a Marxist Perception*, Tulika, New Delhi, pp.259-282.

⁶ Government of Arunachal Pradesh.

⁷ Cederlof, G. (2014). *Founding an Empire on India's Northeastern Frontiers 1790-1840: Climate, Commerce, Polity*, Oxford University Press, New Delhi, pp.3-6.

⁸ Bezbaruah, R. (2017). *The Pursuits of Colonial Interest in India's North East*, Eastern publishers, Guwahati, p.1.

⁹ Gadgil, M. and Guha, R. (1992). *The Use and Abuse of Nature: Incorporating this Fissured Land an Ecological History of India Ecology and Equity*, Oxford University Press, pp.113-122.

¹⁰ Gardner, L and Roy, R.(2020) *Colonialism and the Environment* , Bristol University Press digital, pp. 129-146

¹¹Gordon, R.L.and Tilton, J.E. (2008), "Mineral economics: Overview of a discipline", *Resources Policy*, pp. 4-11.

¹² Memoir of a Survey of Assam and the neighbouring Countries, executed in 1825-8-7-8, By Lieutenant R. Wilcox, p.59.

¹³ Journey from Upper Assam towards Hookhoom, Ava, and Rangoon, Lat. 27.25' to 16.45' N.; Long. 96. To 96.20E by W. Griffith, Esq. F.L.S. Assistant Surgeon on the Maras Establishment, 1836.125.

¹⁴ Report of a visit bp Captain Vetch to the Singpho and Naga Frontier of Luckimpore, 1842. Dated 8th June 1842, Debroogarh, letteres to Major, F. Jenkins, Governor General Agents, N.E.F.

¹⁵ Captain Vetch, p.282

¹⁶ Lieutenant R. Wilcox, *op.cit.*,p.59.

¹⁷ Mr. G.T. Bayfield, p.226.

¹⁸ Abstract of the Journal of a Route travelled by Captain S. F. T Tannay, of the 40th Regiment, Native Infantry, in 1835-36, from the Capital of Ava to the Amber Mines of the Hukong Valley on the south-east frontier of Assam, By Captain R. Boileau Pemberton, 44th Regiment, Native Infantry, p.103.

¹⁹ Narrative of a Journey from Ava to the frontiers of Assam and back, performed between December 1836 and May 1So7, under the orders of Lieutenant-Colonel Burney, Resident at Ava, by Mr. G. T.. Bayfield, of the Medical Establishment of Fort St. George., p.193.

²⁰ Mr. G. T. Bayfield, pp. 224-225

²¹ Mr. G. T. Bayfield, p.226

²² Captain R. Boileau Pemberton, *Op.cit.*, p.84.

²³ Captain R. Boileau Pemberton, p.101.

²⁴ Mr.G.T. Bayfield, p.185.

²⁵ Captain R. Boileau Pemberton, p.88.

²⁶ Captain R. Boileau Pemberton, p.89.

²⁷ Captain R. Boileau Pemberton, p.88.

²⁸ Captain R. Boileau Pemberton, p.106.

²⁹ Captain R.B. Pemberton, p.100.

³⁰ Mr. G.T. Bayfield, p.183.

³¹ Mr. G.T. Bayfield, p.190.

³² Notes on a Trip Across the Patkai Range from Assam to the Hookong Valley, by H.L. Jenkins, ESQ., in 1869-70. pp.250-251.

³³ Reports of a Visit by Captain Vetch to Singpho and Naga Frontier of Luckmpore, 1842 p.276.



³⁴ Ibid.

³⁵ Foucault, M. (2008), *The Birth of Biopolitics*, trans. Graham Burchell, Palgrave Macmillan.

³⁶ Venn, C., (2009), “Neoliberal Political Economy, Biopolitics and Colonialism: A Transcolonial Genealogy of Inequality”, *Theory, Culture & Society*, pp. 206–233.