CHAPTER - IV

COMPARE AND CONTRAST : COMPARATIVE STUDY BETWEEN THE FOREST POLICY OF THE COLONIAL GOVERNMENT AND NEIGHBOURING NATIVE STATES.

This chapter is an attempt to make a comparative study between the Forest Policy of the colonial government and neighbouring native states. A well known native state of this region is Cooch Behar and in Imperial Gazetteer of India, Provincial Series, volume one (Bengal) Bhutan and Sikkim have been discussed under the heading of 'native states' in broad sense of the term. We have followed that method and spirit and before discussing the approach of these native states towards the forests and their Forest Policy, if any at all, we are going to have a look on the management of forests by the British in adjacent areas of our area of study including Assam, Bihar and Baikunthapur. The last one was a Zamindari under the Permanent Settlement and it possessed rich forests.

In the Lower Provinces of Bengal and Assam, scant attention was paid to forest conservancy prior to 1863. In the middle of the 19th century with the advent of the Railways in Bengal the British were attracted to the rich forest resources of Assam. A light levy at the rate of Rs. 15 on every 100 logs was imposed on the export of timber outside the province.[1] Forest lease was introduced in 1852 in the Goalpara and Kamrup districts. Similarly, the forest management in the areas which today constitute the State of Bihar including Jharkhand started in 1855 with the laying down of the Forest Policy by Lord Dalhousie. Dr. Anderson was the only forest official controlling the present States of Bihar, Jharkhand, Orissa, West Bengal and Greater Assam in 1864. S.S. Negi noted that Anderson's 'efforts led to the introduction of forest conservancy in Chhota Nagpur in 1864 itself'.[2] But the Deputy Commissioner of Hazaribagh in 1864 wrote, "No forest conservancy exists in the jungle, (for I can not call it forest,) Government property. The right of cutting trees in the Government jungle was leased to the Raja of Koderma on an annual lease for the sum of rupee 1 per annum, but the lease has been lately broken."[3] In this letter he further noted, "with the exception of a very small tract of jungle *valueless* in Koderma the whole of the jungle is private property."[4]

But the Commissioner of Chhota Nagpur was not satisfied with the report and he thought that the "information generally is so vague and unsatisfactory, but in the absence of surveys it

could not well be otherwise". However, he held, "There are doubtless Sal forests in Palamow which are worth preserving", but new roads must be opened before the Palamow timber can be made of use. He instructed the Revenue Survey to survey tracts where preservation of forest can be effected. He had also information of private forests of Zamindars. He wrote, "In Chota Nagpore there are still great stores of sal forest, but remotely situated, and therefore not as yet utilized. They will become of importance as the more accessible forests are exhausted, and I am endeavouring to induce the Zemindars to take measure for preserving them." But the private owners either of 'jungle' or forests did not take any positive measure for their improvement through planning.

This was practically not in the minds of private holders of forest tracts or zamindars. A case may be cited here. Regarding the gradual clearance of the Sal forest in the Burdwan Division described in Mr. Seton-Karr's letter to the Government of Bengal, No. 1 of April 1867, reference was made by Mr. Leeds to the Commissioner of that Division, asking for information on the following points:-

1st. – Whether the holders of the forest tracts could be induced, it being otherwise feasible, to exchange them for other waste lands more valuable and fit for agricultural purposes?

2nd. – Could the tracts, or certain portions of them, be leased by Government under certain conditions which would ensure conservancy and a refund to Government, hereafter, of all expenses incurred?

3rd. - Could certain portions of the tracts be purchased outright, their present value being appraised by arbitrators to be appointed by all parties concerned?

4th. – Could the present owners be induced to stop the cutting of the fire-wood in certain tracts, and to adopt a system of conservancy in them?

Replies to these questions were received from the District Officers. A zamindar in the Burdwan District, in reply to the queries put to him on this subject said, "I preserved for a long period many trees in this jungle, in order to see if they could be made fit for building purposes, but failing in the attempt, I see that this jungle gives trees only fit for fire-wood and for no other purpose. I think that to sell and use the trees of this jungle for fire-wood, is more lucrative for me than to use it in any other way. Therefore I am not willing either to exchange it for other waste land more valuable nor to lease it out to Government under certain conditions, nor to sell it at once, nor to stop the cutting of fire-wood."[5]

Although the overtures made were more favourably received by some of the zamindars, still the Conservator believed that the above reply expressed the opinion and feeling of the generality of land proprietors in the Burdwan Division. In this perspective the Conservator observed and analysed the motive of the owner of the private forests in Burdwan vis-a-vis the interests of the Government which was applicable to almost all private owners of the country. He noted that there could be no doubt that in such localities a forest properly managed under the coppice wood system would give a quicker and larger return to the owner than it would if treated as a timber producing forest. "It is evident then that if private individuals follow the dictates of self-interest, by which people are generally influenced, they will not, as a rule, invest their capital in the production and re-production of timber trees, nor will they preserve the timber forest which they may happen to possess, when, by cutting it down and treating the new growth as coppice woods, they can obtain a much larger return, present and prospective." He further held "Private enterprise can not, therefore, be safely relied on in the matter of timber production, and the natural law of demand and supply here generally fails." He thought, "It is the state only which possesses interests sufficiently wide and permanent and common resources sufficiently ample to enable it to undertake the rearing of timber producing forests at a large immediate outlay, and receiving only a moderate and frequently very tardy return."

Regarding the Burdwan private forest the Conservator suggested to the Government to adopt, with a view of restoring some of the Sal forests or suitable patches of land of the district under the Act vi of 1857 for the purpose of planting or sowing. And as no timber forest is safe in the hands of private individuals left to their own discretion the Conservator suggested, "in all deeds of sales, by which the proprietary right of Government in land containing forest is conveyed to private individuals, a clause should be inserted, reserving the right of Government in the timber and forest produce, or at least stipulating that the proprietary right is conferred, subject to any rules that may be made in the Forest Department".[6] In future the Government worked on these lines.

This reveals that the private holders of forest area had no interest to improve their forests and in this they were not influenced by the Colonial Forest Policy in India, at least in initial stage of the Forest Policy of the Government. We have instances that neither the Raja of Koderma nor the zamindars of Burdwan had any policy to improve the potentiality of forests in their locality. Extraction of fire-wood from the forest and its sale were the aims of the private holders. Even the Raikat of Baikunthapur or native state of Cooch Behar had no forest policy to be compared with the native state of Cochin, let alone the British. The native state of Cochin understood the importance of forests and the native Government was perhaps initially influenced

by the attitude of Hyder Ali and Tipu Sultan and later by the British, and particularly the British Residents in Cochin. At the initial stage the forest administration of the Cochin State was managed in a way to extract the resources as much as possible. The early practice was leasing the forests to contractors for specific periods for a lump sum.[7] Since this system did not bring the expected revenue, the British Resident Col. Munro in 1813 abolished this practice and appointed Superintendent of Forests, and began to introduce a method which the British thought fit. The appointment of Lieutenant Lethbridge as the Chief Superintendent in 1818 led to large extraction of teak from the forests to tide over the financial problem. The Cochin Government created the post of forest managers who were asked to extract and store enough timber when there was much demand. The Government also created the post of Conservator of Forests and in 1835 J.A. Kohlhoff was appointed Conservator of Forests. He divided the forests into seven districts and each of which was placed under a superior officer assisted by other staff. These administrative measures helped the Government to extract the resources on a large scale. However, it can not be said that the system was efficient. Since they followed the British policy deforestation automatically came along with it; and the system of conservancy on the line of the British was not influenced by ecological considerations but by commercial motives. In fact, the native rulers in colonial period had no different approach with regard to forest policy and conservancy.[8] It is true that the rulers of Cochin State had no innovative power but they had mind to improve the forests and as such they, to some extent, copied the British system of forest treatment.

But the native state of Cooch Behar did not show any interest of any sort about the forest. Before the First Anglo-Bhutanese War in 1773 the whole of Western Duars and Baikunthapur were under the state of Cooch Behar, and the whole area was full of forests. But no document is available so far to prove that the Cooch Behar State had any forest policy. Perhaps the state considered forests inexhaustible in the region and steady destruction of forests coupled with negligence the forests depleted. Secondly, Cooch Behar State could not understand the importance of forests as a source of revenue. Thirdly, the Cooch Behar State depended much on the traditional source of revenue and naturally the state cleared lands for cultivation. Perhaps, the Cooch Behar Government did not prevent the encroachment of forest areas by the cultivators. And after 1774 A.D. the areas retained by the Maharaja of Cooch Behar had no forest to be called so. The statistics of 1901-02 show that Cooch Behar forest area was only of 9,845 acres.[9] Harendra Narayan Choudhury in 1903 wrote about Cooch Behar, "Although bushes and brush-woods are plentiful, there is no forest worth the name. Some patches of land containing *Sal* trees are, however, in existence in different parts of the country. A few *Sishu* and teak plantation have also been made by the state, and there are moreover some good *Sishu*

avenues grown along the important roads. The area under these patches of forests and plantations does not, however, exceed 30,000 Bighas or about 10,000 acres."[10] Naturally, in such a small so-called forest area there was no forest policy of the Cooch Behar State. However, to determine the right to valuable trees the state noted, "Timber trees (Sal, Sishu and Teak) growing on any land belong to the State and the occupants have no title to them. If, however, any jotedar grows such trees on his land he is entitled to exercise absolute right to them and also to get a reduction of jama of Rs. 2-8 per Bigha for land so planted; but this reduction is only granted to the extent of one Bigha for every hundred in the jote."[11] This shows that the Cooch Behar State did not encourage the jotedars to plant even valuable trees.

Gone by in time in Jalpaiguri, once connected with the Cooch Behar Raj State there was a large forest measuring 77 square miles, west of Tista, which belonged to the Raikats of Baikunthapur.[12] The forest is practically situated on the Tista river and forms a long narrow strip stretching from the boundary of the Darjeeling district to within a few miles of Jalpaiguri town. Buchanon Hamilton gave an account of this forest as the woods of Batris Hazari of Baikunthapur. But this forest of 77 square miles was the skeleton of the forests preserved by the Baikunthapur Estate before the inroads of the Bhutias and the coming in of the British. J.D. Hooker in 1848 found Baikunthapur, "Hemmed in as it is on three sides by a dense forest."

It is true that initially Baikunthapur Estate was under the Cooch Behar Raj State but for a long time it had a separate entity, and the ruler of Baikunthapur Estate was known as the 'Raikats' who used to hold umbrella over the Raja of Cooch Behar at his coronation. Before the aggression of the Bhutias and the coming in of the British in the 18th century the Baikunthapur Pargana was bounded in the north by Darjeeling (in fact Sikkim) and Bhutan proper, in the east also Bhutan, in the south by the Boda Pargana and Cooch Behar, and in the west by Purnea and Darjeeling i.e. Sikkim. The total area of the pargana was 2,78,779 acres or 435.59 square miles. It was triangular in shape and mostly wide plains. North-eastern part of the pargana was full of forests and naturally it was known as "Jangal Mahal" or Forest area.[13]

From the 16th century Baikunthapur was under the control of the 'Raikats' but they showed allegiance to the Raja of Cooch Behar. The information collected by J.A. Milligan from the report of Mr. R.N. Reid, I.C.S., Joint Magistrate of Jalpaiguri and from Harendra Narayan Choudhury's book on "The Cooch Behar State and its Land Revenue Settlement" informed us that from 1621 the Raikats signified their independence by ceasing to hold the umbrella over the Raja of Cooch Behar. Even they maintained their independence during the Mughal incursions over Cooch Behar which commenced from 1687. Glazier wrote, "Bykuntpore, otherwise

Battishazari was never subject to the Moguls",[14] but according to Milligan some other accounts said that "it transferred its allegiance to them and agreed to pay a nominal tribute" to them.

From that time upto 1765 there is little to record of the history of Baikunthapur. In 1765 the Dewani of Bengal, Bihar and Orissa was conferred on the East India Company and it was not long before the Company entered into relations with Cooch Behar which ushered in a new era. Taking the advantage of the weakness of the State of Cooch Behar Bhutan launched aggression on Cooch Behar and by 1765 Bhutan was supreme in Cooch Behar. Finding no other alternative to check the Bhutias the Raja of Cooch Behar in 1772 appealed to the Company, and in 1773 a treaty was concluded whereby Cooch Behar became a feudatory state of the English and latter immediately ejected the Bhutia forces from Cooch Behar. A treaty was made by the Company with Bhutan in 1774 (Anglo-Bhutan Treaty), and the Raikat of the time, Darpa Deo (Dev), who was according to Dr. Buchanon Hamilton, at the bottom, of the whole of the events that led upto those troubles, was confirmed in those parts of Batrish Hazari, or Baikunthapur, as had not been already ceded to Bhutan; but a revenue was assessed on his lands, and he was placed on exactly the same footing as an ordinary zamindar while being deprived of all authority in Cooch Behar proper.[15]

It seems from the British records that Darpa Deb was not quite willing to accept this position. First, in a petition of remonstrance addressed to the Collector of Rangpur he wrote against the heavy revenue assessed on him; secondly, in the said petition he called himself Raja of Batrishazari. Although he was nothing but a simple zamindar in the eye of the British, he was popularly called Raja. Fit in with this J.D. Hooker in 1848 called the zamindar of Baikunthapur as "Rajah of Jeelpigoree".

Further, greater British politics refrained the British Government from paying any respect to the Raja of Baikunthapur. This led to the further curtailment of forest area of Baikunthapur. When the British found that the Bhutias did not rest satisfied with the terms of the treaty of 1774, and soon set to work to wrest still more land from the unfortunate zamindar of Baikunthapur, whose interest suffered from the fact that the British Government, "being desirous of reaching Tibet through Bhutan, were apparently more anxious to carry out this policy and conciliated Bhutan than to scrutinize very carefully the merits of either party's claims."[16] The result was that by persistent application on the part of the Deb Raja of Bhutan to the Governor-General, the Bhutias obtained a large tract of Baikunthapur lying east of the Tista, containing the celebrated temple of Siva at Jalpesh, and a village west of the Tista, named Ambari-Falakata, right in the centre of the zamindari.

At the background of Tibetan interest the British Government had no soft corner for the Baikunthapur zamindar, but justice was made to them before the Permanent Settlement. When Baikunthapur was annexed in 1772 the zamindar was asked to pay an annual tribute of Rs. 10,000, but after an enquiry was made into the resources of the country in 1774, the revenue payable was increased to Rs. 25,000, which was further increased to Rs. 30,000 in 1775. In 1779 the revenue was enhanced to Rs 32,000/- and since then the estate "was known by the name of Batrishazari."[17] This gradual increase of revenue brought the estate to the verge of rebellion. A court judgment of 1879 passed opinion, "In 1779, as we learn from Mr. Glazier, page 19, the settlement of the estate and the enhancement of the revenue led to a quasi rebellion."[18] In 1780 a deduction of Rs. 6,238 was allowed on account of lands made over to the Bhutias, and the revenue paid in that year was Rs. 25,935. On this basis the Permanent Settlement was made.[19] Thus, the relation between Baikunthapur and the British Government was making fast progress through thick and thin which had ultimately influenced the forest management of the Baikunthapur Estate.

The history of the Raikat family in the 19th century was chiefly a record of frequent and protracted litigation which ultimately led to the management of the estate by the Court of Wards. The estate was under the Court of Wards between 1800 and 1812 during the minority of Sarba Dev, and again between 1857 and 1863 during the minority of Chandrasekhar Dev. When Phanindra Dev Raikat died in 1895, and was succeeded by his minor son Prasanna Deb Raikat, the estate was again managed by the Court of Wards from 1904 until Prasanna Deb Raikat attained his majority (legal age of reaching manhood) in 1914.

When the Baikunthapur Estate was under the management of the Court of Wards the British got first hand knowledge of the condition of the Baikunthapur forests. But first information of Baikunthapur forests was given by J.D. Hooker in his 'Himalayan Journals'. He described the forest as "Hemmed in as it is on three sides by a dense forest." Somewhere he found forest which was dry and unproductive and somewhere he found *Acacia Catechu* (Khair in Bengali) belted by *sissoo.* He passed sometimes through dense forest of sal timber which was quite perpendicular and river banks were forest-clad. He also gave information of indiscriminate felling of woods.

Next information about the condition of Baikunthapur forest was given by H.Leeds in his report of 1871. It reads "The Bycunpore forest on the Teesta, the property of the "Rycot" of that name has this year been delivering its last stock of small timber, little over saplings in size. This forest extended over 90 square miles of country, and was favorably situated on the Teesta below the dangerous rapids, where the river issues from the Himalayas into the plains." About the

future of this forest he drew the attention of the Government and wrote, "Attempts were made during the past three years to arrest the destruction of the forest, and to obtain charge of it by transfer or otherwise, but a continued lawsuit as to right of proprietorship has rendered all efforts unavailing. It is now destroyed as a timber-producing tract, and will probably be let out on pottahs for collection of fire-wood and charcoal, unless some influence be brought to bear on the owners. If closed for a period of sixty years, it would again become a source of valuable supplies. Possibly, when the lawsuit referred to is decided, it may be possible to obtain possession of this property by exhange."[20]

This report of H. Leeds showed that the Conservator was willing to take up this private forest, as WM. Stenhouse was willing to take up the private forests of the zamindars of Burdwan. In Burdwan since 1867 the foresters were trying to bring forest tracts of the zamindars of Bardwan under Governmental ownership in exchange for other waste lands more valuable, and fit for agricultural purposes. Some method and proposal were under consideration in Baikunthapur. About Burdwan WM Stenhouse reported that no timber forest was safe in the hands of private individuals left to their own discretion, and about Baikunthapur H. Leeds held the same opinion. Thus, it seems, that the forest officials made a plan to impress the Government of the potentiality of the private forests if those forests were nursed under the governmental supervision. In fact, Seton-Karr's letter of April 1867 to the Government of Bengal was the initiation of this policy and plan.

The British foresters thought that in the absence of any Forest Policy and proper management on scientific lines the forest of Baikunthapur gradually deteriorated. In the eye of J.A. Milligan the Baikunthapur forest during 1906 and 1916 was "composed of tree jungle interwoven with cane, and was impassable except by narrow paths known to the dacoits". He did not refer to any tall sal tree of good quality except in the northern corner of the estate consisted of compact forest with much sal timber. And he hoped that this forest "will become a very valuable property when it recovers from the denudation which it suffered for many years."[21] Hurry Mohun Sannial, overseer P.W.D. Bengal shared this view and corroborated the opinion of H. Leeds and held that the owners of Baikunthapur destroyed the whole forest tract due to their greed for money. He assessed that within 25 to 30 years the sal trees would not be useful since the sal tree took 60 to 80 years for its maturity.[22]

More pathetic picture of ignorance of this forest by its owner was given by J.F. Gruning, who was once the Deputy Commissioner of Jalpaiguri. He wrote, "Baikunthapur forests, which received little attention from its owners and was until recently burnt through every year to ensure good grazing for cattle and buffaloes, contains hardly a tree which is not twisted and

blackened by fire; at the same time this repeated burning has destroyed the soft wood trees and dense herbaceous undergrowth which spring up faster than *sal* and choke and kill the young trees, so that the natural reproduction is excellent and young *sal* plants abound in every direction."[23] He made a comparison regarding the method of fire-protection in Baikunthapur and Government forests of the area and remarked that in the Government forests the work of fire-protection was carried out more carefully. But that was not without flaws. As a result of this controlled fire-protection though the larger trees were preserved, the dense undergrowth was seriously interfered with the growth of the young plants and natural reproduction had not been as satisfactory as could be wished. He urged the Government to some new methods to be evolved so that adequate protection from fire should be given with out discouraging the natural reproduction of sal. Naturally the perfection of fire-protection between Baikunthapur and the Government was in degree not in kind. It causes much surprise why Mr. Milligan and Mr. Gruning gave a different view about the appearance of the Baikunthapur forests although they depicted the forests almost in the same period. While Mr. Milligan found northern corner of Baikunthapur Estate 'compact with much *sal* timber', Mr. Gruning found 'hardly a tree which is not twisted and blackened by fire'. In fact, even at the beginning of the 20th century Baikunthapur forests was not in a state of being morbid as Mr. Gruning made us to believe.

This needs to be verified further. As answers to the thirteen questions put by Dr. Anderson in 1864 to all the Commissioners of Bengal, the Divisional Commissioner of Rajshahi Division informed him about Jalpaiguri that there existed one forest of *Sal* wood in Baikunthapur Pargana, bordering the Bhutan frontier, 20 miles in length and 10 miles in breadth. The area of forests in Baikunthapur was, thus, 200 square miles in 1864. He also informed him that there was a large bazar in Jalpaiguri from where timber was procurable. He further informed Dr. Anderson that the zamindar of Baikunthapur was the owner of the Baikunthapur forests who "has leased his *sal* forest to Messrs. Dear and Co. for ten years, and probably might lease it to Government when the leases of Messrs. Dear and Co.expires".[24]

Thus two points are revealed about Baikunthapur Forest management from the answer of the Divisional Commissioner of Rajshahi. First, before the initiation of forest management in Jalpaiguri by the Government there was a large timber market here and the timber merchants connected with 'leases' used to come here for timber business. Secondly, the zamindar of Baikunthapur was aware of the importance of forests as sources of income which meant a commercial utility of forests. The question then automatically arises as to why the zamindar of Baikunthapur would destroy his forests which provided him wealth through lease-holders as held by Mr. Gruning and Mr. Milligan. And from the history of Raikat dynasty it is known that

the Raja of Baikunthapur (Raikat) had established, forest offices (Kachari) at Shalugara, Bodagunj, Shikarpur, Lantong, and Farabari.[25] The forest offices were not established and allowed to continue only to keep the accounts of the degree of destruction of forests. It is interesting to note that the Divisional Commissioner of Rajshahi did not refer to any destruction of forests under Bhutan and Baikunthapur. Since the Commissioner did not report of any destruction of forests in his division E.P. Stebbing's wrath fell upon him. He wrote in indignation, "The Commissioner does not appear to have realised that by that time the forest would have been cut out and ruined."[26] What the Commissioner on the spot could not find in 1864-65, the historian of forests saw it in 1923. It is difficult to conceal truth for all the time to come. In fact, it is all a tissue of lies. The Raja of Baikunthapur can not preside over the dissolution of the forests which were sources of lots of money. A Court judgment of 1879 noted, "Though encumbered by a large debt to the Raja of Cooch Behar, the estate is still a very fine one, and possesses among other things an extensive sal forest."[27] This was the opinion of the judge about Baikunthapur forest. Naturally, it requires simply common sense to say that the forest offices of Baikunthapur Estate were set up to protect forests and collect money from the sale of timber of the forests. The British always tried to prove native rulers inefficient in all respects including forest management only to grab at the area, and Baikunthapur Estate was not an exception. They drew a picture of mismanagement of Baikunthapur forests with a view to making a grab at the forests of Baikunthapur Estate. This attitude of the British is applicable in colonial scenarios of India in general and particularly against private owners of the forest tracts.

The Divisional Commissioner of Rajshahi Division gave the initial hint at this in 1865 who saw a probability to enter the Baikunthapur forests through the door of 'leases' for commercial interest. The Divisional Commissioner drew the attention of the Conservator of Forests in Bengal by pointing out that the zamindar of Baikunthapur "probably might lease it to the Government when the leases of Messrs Dear and Co.expires". To bring Baikunthapur forests under British sphere of influence it was proposed in 1901 to extend the Forest Act of the colonial government to this forest and it was provisionally placed in charge of the Deputy Conservator of Forests, Jalpaiguri Division. At the time the Manager of the Estate was strongly opposed to the transfer, and this opposition was maintained, till at last the Raikat clinched the matter by refusing to agree to surrender his forest.[28]

The attitude of the Forest Department from the first was that unless continuous control over a long period of years, say sixty years, could be guaranteed, it was useless to take over this forest.[29] No guarantee could, of course, be given beyond the date of Prasanna Dev Raikat's attainment of majority in 1914. But it was anticipated that Prasanna Dev Raikat would then

agree to continue the arrangement of improving the forests of Baikunthapur under the guidance of the Forest Department. With such a feeling of expectation the Government proceeded. Since 1906 the Survey and Settlement operations in the Jalpaiguri district was in progress which ended in 1916. J.A. Milligan, the Settlement Officer took up his office in 1907 who was requested by Mr. Gruning, the then Deputy Commissioner of Jalpaiguri to extend this settlement to Baikunthapur. Mr. Milligan now found that so many encroachments, trespasses and alleged rights would be met with that nothing could be done until the Cadastral maps were ready. In 1909 he took up the work on the spot, but progress was exceedingly slow owing to the necessity of investigating a multitude of claims, and as the estate had no one at that time to accompany him and present the landlord's side of the case, Milligan postponed further work with the approval of the Director of Land Records. Meantime the Raikat formed definite opinion on the subject and was very anxious that the forest should not be reserved but should be left to his own management. In 1913 the Forest Department gave up their control of it – a control which in the absence of the Forest Act and of any whole-hearted support from the Manager of the Estate, had never been effective, and subsequently in accordance with Raikat's wishes all idea of reserving it was abandoned.

But the influence of British method of Forest Management could not be avoided in Baikunthapur forest area. At intervals Baikunthapur Estate was under the control of the Court of Wards and during these periods British system of forest management was introduced in Baikunthapur. It is known from the poorly maintained records of the Baikunthapur Raj Estate that there were the posts of Chief Forest Officer, Rangers and Deputy Rangers. It is also found that there was a post of Deputy Forester and an establishment of survey of the land of the estate.[30] From the records of the said Raj family it is also known that there were five ranges in Baikunthapur forest area, namely, Shikarpur, Sarogara (modern Salugara), Bodagunj, Nadimahal and Tanta Nadi. In 1933 Range Officer of Shikarpur and Deputy Ranger of Sarogara were Mr. Amarendra Nath Chakraborty and Mr. Sudhirendra Nath Chakraborty respectively. In the same year the Deputy Ranger of Bodagunj was Mr. Ananta Kumar Bandyapadhya. The Chief Forest Officer of Baikunthapur Estate was Mr. K.P. Roy and Deputy Forester of Tanta Nadi Range and Nadimahal was Prasanna Kumar Das (1933). Not only that by 1933 it is revealed that written statement of charges for forest goods delivered or services rendered (Bills) were prepared in British method. The trend of the adoption of this method can be traced back to the beginning of the 20th century. The Baikunthapur Estate thus willy nilly accepted the influence of British system of Forest Management.

The history of the Forest Policy and Forest Management in Bhutan is connected with the arrival of the British in Cooch Behar, Western and Eastern Duars and Baikunthapur. However, there is nothing on record to show that previous to the year 1772 the Government of India had any political cognizance what ever of Bhutan. In that year the Bhutias drew the attention of the British when they set up a claim to the district of Cooch Behar which was full of forests. They invaded and took possession of a large portion of that country and carried off the Maharaja Dhairjendra Narayan and his brother, the Dewan Dev, with the intention of placing on the throne of Cooch Behar a Raja of their own. The Raj family of Cooch Behar solicited the aid of the East India Company, which was at once accorded, and a detachment of four companies of Sepoys with two guns was despatched under Captain Jones for the purpose of driving back the Bhutias to their own frontier. This duty was efficiently performed and the Bhutias were not only driven beyond the frontier, but were pursued into the hills and completed their dismay by carrying three fortresses including Dalimcote at the close of the same year. The Bhutias were so pressed that they were compelled to invoke the aid of the Tibetan Government at Lhasa. In consequence of the appeal the Teshoo Lama, the Regent of Tibet wrote a very friendly and intelligent letter to the Governor General Warren Hastings and sued for peace on behalf of the Government of Bhutan. He reprimanded the Deb Raja and denounced the Bhutias as a 'rude and ignorant race'. He noted that henceforth the Bhutias would desist from evil practices, and to be submissive to the British in all things. The request was favourably received, and after some negotiation, a treaty of peace was entered into and ratified on the 25th of April 1774, between the British and Bhutan Governments. The British Government agreed to sign this peace treaty, inter alia, on two considerations. First, the letter of Teshoo Lama unexpectedly opened a source of mutual advantage, and a means of establishing an extended commercial intercourse with Tibet through Bhutan.[31] Secondly, the provision of the treaty permitted the East India Company to cut timber in the forests under the Hills, and to protect the wood-cutters.[32] Now there seemed to be no reason why Anglo-Bhutan hostility should not be succeeded by Anglo-Bhutan friendship. And on the whole the Bhutan policy of the British Government after the peace treaty was one of conciliation. The atmosphere of conciliation was facilitated by the return of the possession taken during the hostility to Bhutan.

But there was fly in the ointment. Throughout this entire period of an apparent conciliatory policy towards the British Government, there was constant trend in Bhutan to take reprisals of the humiliation. The Bhutanese interest in forest area of Cooch Behar was deep-rooted and was based upon an interest in resources rather than in market. It had always been made clear by the Bhutanese Government that it was determined to maintain the rights acquired in Cooch Behar district in the past, no matter what the effect of this determination should be on

Anglo-Bhutan relations. The reason for this determination is to be found in the conception, which had been fixed in Bhutanese thinking, that Cooch Behar district was economically indispensable not merely to the well-being, but even to the extension of Bhutan territory. There were eighteen Duars mean doors or passes[33] to enter Bhutan of which seven from Assam and eleven from Cooch Behar territory.[34] These Duars formed the most vulnerable portion of the Bhutan territory; through them and from them were procured, either directly or indirectly, almost every article of consumption or luxury which the inhabitants of the Hill possessed. Their principal trade was with them; the priests and higher classes of the laity subsisted almost exclusively upon their produce. The silks of China and the woollens of Tibet were purchased in barter for the cotton, rice and other products of the plains; and the British policy which would exclude the Bhutias altogether from these possessions would severe one of the strongest ties by which they might be constrained.

George Bogle's mission to Bhutan in 1774 was aimed to form trade relations between British India and Bhutan and to get permission of Bhutan Government to sell Indian merchandise to Tibet through the Bhutan territory from Bengal. During this period Bhutan claimed the districts of Ambari Falakata and Jalpesh as its territories. To settle this issue Dr. Hamilton was deputed to lead the second mission to Bhutan in 1775 and on his recommendation the British Government ceded to Bhutan in 1784 the regions of Ambari Falakata and Jalpesh at the cost of Baikunthapur Raj Estate. Still, boundary question remained unsettled. The British Government did not want to severe relations with Bhutan. Naturally, with the purpose of settling some boundary disputes with Bhutan Krishnakanta Bose mission was sent in 1815, but no tangible result was found except some details about the society, administration, religion, agricultural products etc. Since then for a decade the relation between the two countries did not improve, on the contrary, both the countries drifted towards hostilities. Neither Pemberton mission of 1838 nor Ashley Eden's mission of 1863 could put a stop to aggressive attitude of the Bhutan Government. Colonel Durand's letter No. 493, dated 11th August 1863 described the tensed situation in the following words:[35]

"Outrages, extending over a series of years, which have been committed by subjects of the Bootan Government within British Territory and the Territories of the Rajas of Cooch Behar and Sikhim, have, rendered it necessary that measures should be taken to revise and improve the relations existing between the British Government and Bootan." At this juncture the Ashley Eden's mission was nothing but to force Bhutan to be a friend of the British. Ultimately the Eden mission was humiliated and failed which at the close of 1864 culminated in Anglo-Bhutan or Duar War of 1864-65. The Government of Bhutan gave in and the treaty of Sinchula was

signed on November 11th 1865. The main provisions of the treaty were the annexation of all Assam and Bengal Duars and an area on the left bank of the Tista to be fixed by a British Commissioner: a subsidy of 25,000 rupees to be paid the first year subject to the fulfilment of all treaty terms and the return of the two guns lost in the war. This would be raised to 35,450 and finally 50,000 in successive years. In future all disputes with Cooch Behar and Sikkim were to go to the British for arbitration. Under pressure the Deb Raja ratified the treaty. It is not clear whether Bhutan desired or showed any inclination to accept the treaty.

Peter Collister observed, "These were stringent terms and have been understandably criticised for their harshness by Indian historians. Nevertheless, it is difficult not to accept the conclusion that Bhutanese methods of diplomacy largely contributed."[36] Shifting the responsibility on to somebody else is a British colonial form. The British records are exaggeratively offensive and turned to one side since no British records had so far been given access to Bhutanese source materials. Be that what may, Peter Collister found two major long term benefits of this Bhutan War. First, for the inhabitants of the Duars the quality of life was enormously improved as they no longer lived in constant dread of cross-border raids; secondly, the British Indian capital became available for investment in tea plantations and other forms of agricultural improvement. But he did not count that the Meches, Garos, Totos who were the original inhabitants of this region and who were not disturbed by the Bhutias were driven away from the reserved forests initiated by the British Government depriving both the Rajas of Cooch Behar and Bhutan which reminded us the proverbial monkey who in the name of distributing equal share to both the cats gobbled up the hole cake. Being ejected from homestead how they could enjoy the benefits; benefits, if any, were enjoyed by the outsider labourers brought by the British for their own benefit. But the second point of tea plantations should be given much attention because in addition to much discussed commercialization of forests, they thought of tea plantations in Duars long before the Anglo-Bhutan War of 1864-65. In fact, since the First Anglo-Bhutan War of 1773-74 the soil and sylva of this area attracted the notice of the British for the tea plantations. Sir Vidia Naipaul 'carps at colonial clique'[37] had advised us to treat colonialism as dead issue. But can Bhutan and Cooch Behar forget their political and economic oppression by a colonial frame of mind? How can Bhutan and Cooch Behar think that colonialism is irrelevant or that its influence on the life of a people is insignificant? In their treatment with Bhutan, it seems that they had three points in mind in driving out Bhutias to the hills and depriving Cooch Behar of the Duars. First, to use Duars to commercial purposes by exploiting forest resources; second, to make direct trade relations with Tibet through Bhutan; third, to use Duars for tea plantations. The first two issues have already been discussed but the

third purpose behind the Duars war of 1864–65 should be dealt with particular emphasis on the issue.

After the occupation of Bengal by the East India Company's servants, the practical mind of Warren Hastings clearly realized that if the company were to prosper it must promote industrial development. Silk, cotton cloth, indigo and several other commodities received his attention and at the same time he devoted particular efforts to the promotion of trade with Tibet and other neighbouring countries. In 1774 he made provision by treaty for the duty-free sale in North Bengal (Northern part of present West Bengal and northern part of present Bangladesh) of Bhutanese goods. In the same year it is not, therefore, surprising to learn that when China tea's seeds began to arrive in India Warren Hastings had a selection of them sent to George Bogle, the British emissary then in Bhutan.[38] No practical result seemed to have followed. In 1778 Sir Joseph Banks was asked to prepare a series of notes for the East India Company on the cultivation of new crops, and in them he advocated the cultivation of tea in India. He gave priority to tea as an article of the greatest national importance to Britain. Banks himself pointed out that Bhutan then seemed to be a more hopeful area than India for tea cultivation,[39] but plains of Bhutan was not then British territory.

It must be borne in mind that the total annual fall of rain will not indicate the most suitable area for tea growing. Many parts of India have a heavy annual fall down in a few months, and with long droughts before and after. "What is needed is a steady monthly fall from, say, March till October, and it will be seen from *Sir Charles Lyell's Principles of Geology, Dr. Hooker's Himalayan Journal* (sic), & c., that Eastern Bengal peculiarly fulfil these conditions."[40]

The above mentioned point of favourable climatic condition was noted by 'a thinking and able man' and a tea planter of upper Assam. He further pointed out that each maund of tea requires a cubic foot of timber to pack it in, and each acre of tea requires 1½ maunds of charcoal to manufacture it. To manufacture 70,000 maunds of tea per annum require huge forest area since an acre of ordinary forest produces only about 66 maunds of charcoal. Supposing the forest to reproduce itself fit for cutting in ten years for this purpose, as only small wood is used, something like 27 square miles of forest are perpetually required to furnish charcoal for the manufacture of 70,000 maunds of tea.

Naturally tea planters require land with forest upon it, not only because forest-covered land, when cleared, is the richest, but because a proportion of forest is required near at hand for charcoal. This renders selection of such tracts as should be retained for tea planting necessary.[41]

Due to this favourable conditions of tea plantations in North-Eastern part of India H. Leeds in recommending tea plantations wrote, "This cultivation has a future in Assam, and all along the line of the North-Eastern Frontier as far as Nepal, which will probably, ere many years are passed, almost oust China tea from the Home markets. Tea is being grown over many parts of India; but here, by reason of climate, due to peculiar situation, it will probably be found that tea cultivation will chiefly flourish and be a success."[42]

This view of H. Leeds was of 1870–71. But in fact, the potentiality of Duars as a tea growing zone was discovered eleven or twelve years earlier. Colonel Jenkins in his report of 1859 categorically emphasized the need for immediate occupation of the Bengal Duars from Bhutan because of its favourable conditions for high-quality tea plantations.[43] On the basis of authorities Ranajit Das Gupta wrote, "That the Duars had considerable potential as a tea growing area was noted as early as 1859; that is, several years before the annexation of the Duars."[44] This view has been supported by A.C. Sinha who also writes that the Duars was annexed 'to initiate tea cultivation'.[45]

At the backdrop of this panoramic picture of the frame of mind of the British it can be safely concluded that the British thought of annexing Duars from the Bhutias and Cooch Behar Raj to make an experiment on the tea plantations in addition to forest exploitation on commercial basis. That was implemented by Dr. Brougham who started Dhutaria tea garden in Darjeeling in 1859 and now the first tea garden was opened by him at Gazaldoba on the left bank of the Tista in the western portion of the Duars in 1874 followed by Fulbari and Bagracote.[46] The same mind worked in occupying British Sikkim and annexing Duars. All through they had hidden agenda.

The British, thus, in their colonial method stripped Bhutan of her rich forest and forced her to take it fait accompli. The cessation of the Duars and its subsequent annexation, which used to generate a sizable revenue for the Bhutanese government, made the Bhutanese government economically vulnerable, and thereby retarded her economic development.[47] The Bhutias were pushed to the Hill where they began to think about forest as a source of revenue for the well-being of their country. E.P. Stebbing in many places of his book alleged the Bhutanese of indiscriminate felling of trees. J.F. Gruning wrote, "There was very little mature timber in the forests at the time when they were reserved as all big trees had been cut and removed previous to the annexation of the Western Duars." In British records in general the Bhutias have been stigmatized as a curse for the forests who lop and fell the trees mercilessly.

There is no reason as to why the Bhuddhist Bhutan would fell trees mercilessly and why the Bhutias would involve themselves in indiscriminate felling of woods. There are no known records of the British to prove that the Bhutias had any timber trade with the neighbouring countries. Then, what they did with those felled big trees as alleged by J.F. Gruning and E.P. Stebbing? Moreover, they have inherited high culture or great tradition from Tibet. Buddhism never provided moral support for the total ascendancy of man over nature which Christian theology supplied. Buddhist religious percepts contribute to environmental issues. These include tribal and folk insights into ecosystems that ascribe divinity to nature — earth, river, forest, rain and even animals. The Buddhist approach views human beings as part of the cosmos and its creator. Buddhism renounces material enjoyment and thus advocates minimization of worldly possession and non-violence. Buddhist religious books are probed in the light of nature protection, emphasizing that forests should be protected by the king and people.

Michael Aris recalls a tradition of the Bhutias to show how much soft-hearted they are towards the trees: "In Bhutan there is now a school textbook called *Kezang and Wangmo* (Thimphu, 1980) with illustrations of scenes drawn from village life. In place we see a boy shooting an arrow at a tree. The tree is caused needless injury and the action is described as 'sinful'. This is not a modern attempt to instill the virtues of conservation but rather the expression of a traditional moral attitude still found in some villages to day."[48] Thus, there had been symbiotic relationship between man and forest in the traditional societies such as Bhutan.

After the annexation of Duars the British encouraged the private entrepreneurs to enter into Bhutan's peripheral economy as advance party. But due to the resistance of Bhutan the British private enterprise failed to invest capital for organized exploitation in the name of developing Bhutan. As a result, Bhutan could preserve two-thirds of its land covered with rich forests in Hill area. This had given the Bhutanese enough scope in future to plan their own national forest policy and pohcy for forest management. Forests in Bhutan are spread over 31,000 square kilometres out of its total 46,000 square kilometres. From this it is suggested that Bhutan is one of the most forested countries of the world. J.Claude White in missions to Bhutan from 1905 to 1907 found a variety of trees in Bhutan which include Rhododendrons, *Pinus Longifolia,* Fir etc. He often passed through very fine forests. He wrote, "For a great part of the way there were magnificent forests of *Pinus Excelsa, Abies Brunoniana*, and Silver Fir, many of the trees exceeding in size anything I have ever seen."[49] In another place he noted that Hills on the northern slope of the Himalayas are densely clothed with forests.[50] He also criticized the British Government for destroying forest along the Bhutan border. He wrote, "The loss during the last twenty years from the wholesale cutting of their forests along their boundary in the

Duars alone amounts to many lacs."[51] The upper elevation of Bhutanese forests, above 8,000 feet are dominated by broad-leafed evergreen forests consisting of oak and rhododendron species for which the Himalayas are famous. At the highest elevation, near passes such as Pele-la and Yatong-la, this broad-leafed forest is replaced by indigenous conifers of Himalayan fir and hemlock. These are ancient relic forests which evolved on extremely steep slopes of highly weathered, unconsolidated bedrock. Their growth form indicates considerable age, slow growth and sporadic natural regeneration.[52] Claude White has made a bit mild but frank criticism of the Bhutanese attempts at the utilization of the timbers of forests. He found that enormous beams were used in Bhutanese construction. "They also use a quite unnecessary amount, and make their floors far to thick."[53] However, in Bhutan in cool Inner Himalaya one kind of trees and in the Tundra type of the Great Himalaya another kind of trees are found. And in the hot and humid foothills forests are abound in sissoo, khair, simul, sal , birch etc. Naturally, Bhutan after 1865 had enough forests for conservation and management on British lines. Khenpo Phuntshok Tashi's viewpoint shows that Bhutan knew the conservancy in the 18th century. He writes,"According to our belief, killing boars, for example, only causers them to multiply, assisted by local nature goddesses, leading to even more damage. And in our religion (Buddhism), there are well-defined spiritual rites to provide protection. A Bodhisattavas never kills or harms others, provides whatever help is needed. For example, in the 18th century,Rigzin Jigmelingpa gave many funds to his disciples from Bhutan. In this way he purchased, or 'leased' for a number of years whole areas of mountainside in Rolam, Dugti and Thragom eastern Bhutan, on the understanding that no one should then kill any animals, birds or bees in those areas."[54] This reminds us of Asoka who prohibited his subjects from killing even the eggs of ant.

But the British planned to bring Bhutan proper under their sphere of influence. With this end in view J. Claude White was sent to Bhutan at the end of 1913. He put forward three proposals to the king for favourable consideration, namely, (a) lease of land near frontier of India for cultivation of tea, (b) development of mineral resources of the country and (c) extraction of timber and bamboos.[55] The Maharaja of Bhutan ultimately rejected the proposal since his government was not eager to take help of the European agents in developing his country. However, Bhutan showed strong desire for development of forests and requested the British Government to depute a forest officer to get to know the areas of Duars under Bhutan where forest could be reserved. The Government selected Mr. Jacob, the Deputy Commissioner of Jalpaiguri in 1911 to perform the scheme. On the recommendations of Mr. Jacob the Bhutan Government decided to take certain actions towards the preservation of forests. The Bhutan Government agreed to the demarcation of all areas where forest was scanty but could not accept the proposal for afforestation along the streams because of the paucity of money. Secondly, the

Bhutan Government agreed to stop grazing in the hills, bordering on plains, for two years after every four years; and in implementing this different areas will be selected in terms for closing. But this rule will not be applicable to the cattle of the Bhutanese chiefs; they were exempted from the set rules. Thirdly, they will also make use of most of the timbers after clearing the forests for cultivation. Fourthly, none of the reserved timbers like sal, magnolia, tun, lampati, mulberry, paniraj, walnut, nagesar, malligiri are even to be felled where the trees are less than 6 feet in circumference; and the Government will protect the rubber-tree from the thieves. Lastly, the Bhutan Government agreed to take steps to improve paths and to make use of rivers for floating timber. They will lay special emphasis on organizing an increased staff, if funds permits, for management of forests as soon as possible.[56]

There are some differences in framing rules for conserving forests between Bhutan and Native States of India proper. Rules for the Conservancy of Forests in Native States of Central India show that those rules were harsher than the rules framed for Bhutan. One such rule in Native States of India mentions that all parties found felling trees or removing timber from jungles and forests, in breach or disregard of all prescribed rules, will be liable to punishment for theft, mischief, or trespass, as the case may be, and to the confiscation of the timber, &c. There is also difference regarding the girth of the felled trees. It was stipulated in the rules of the Native States of Central India which reads "None of the reserved timbers (except satin-wood) are even to be felled, when the tree is less than 3 feet in circumference at 3 feet from the base."[57] The initial forest rules in Bhutan was rather soft in comparison to the initial forest rules applicable to the Native States in India in 1866 which runs: "As one of the chief objects of conservancy is to preserve saplings and young trees, and to restrict felling to such trees as have come to maturity, it is ruled that, when the reserved trees are found cut, or being brought out of the forests of a less circumference than 3 feet, the license-holder shall be subject to the forfeiture of his license, and to the confiscation of the timber."[58] In forest rules of Bhutan it was not stipulated that the portion of the forest in which the felling is to take place shall be specified in each license, as well as the Thana Station or village through which the timber is to pass. That was incorporated in the rules of the Native States of India.

Be that what may, Bhutan began to move on the line of scientific forest management, and her forest policy was on its way of learning. Whatever may be the ulterior motive the British in fact had apparently a paternalistic attitude to Bhutan and lent Bhutan a hand with full of experience in scientific forestry. In 1921 the famous evangelist John Graham of Kalimpong with the blessing of the British Government went to Bhutan and planned, inter alia, to train the future foresters of Bhutan in India.[59]

With the passage of time Bhutan understands that forests are one of the most important resources of the country. Naturally, concerted efforts by the government and the people were taken to protect and preserve the forests of Bhutan which was endowed with a large forest cover, at least, 72 per cent of its geographical area. In view of this, the King of Bhutan (Druk Gyalpo) promulgated a tentative Forest Act in 1959. To implement this Act a separate forest department was established in 1962. A comprehensive and formal Forest Act was passed in 1969. This Act consolidated all the previous laws and customs. Bhutan felt that land was not a mere economic factor. Only through the deliberate social regulation of land — often through public ownership could natural resources be preserved. Thus, the more comprehensive Act of 1969 transferred all forestland into the Government Reserve Forests to be controlled absolutely by the Government. All inheritable and transferable rights in the forests were abolished, and the people were denied any access to them. Shifting cultivation at the cost of forests was strictly prohibited. Felling of the trees and the grazing were brought under the control of the Forest Department. By the provision of the Act the Government 'acquired all the rights for itself of absolute ownership on all the trees and forest products'.[60] The draft Forest and Nature Conservation Act of Bhutan, 1995 had been prepared based on the existing Bhutan Forest Act, 1969. The National Assembly of Bhutan, after carefully considering the said Forest and Nature Conservation Act, page by page and incorporating the additions and changes as proposed by the members, approved the Act for implementation. Bhutan, thus, with ecological awareness and social concerns stands as a member of the comity of nations to control global ecological crisis and environmental degradation. She is now on the look out for saving this vulnerable planet along with others.

Sikkim is another neighbouring state adjacent to Bhutan, Nepal and West Bengal. 'The land of Rice' is how Sikkim or Dejong is often described.[61] But, in fact, it is the hidden valley of rice since Sikkim is a hidden treasure of so many things of which forest is the major treasure. At present, the forest area of Sikkim covers an impressive 80 or 81 per cent of the total geographical area of the state, and all are under the control of the Forest Department.[62] This is much higher than the country's average. This has not been achieved in a day. Sikkim became conscious of forest wealth with the passage of time. But she had respect for forests from time immemorial. Concern for forests is part of their social, cultural and religious ethos. This is a tradition of Sikkim where the settlers were Buddhist Lepchas, but a few British officers depicted Sikkim and her people otherwise.

It has been alleged by J.F. Gruning that owing to the practice of *juming,* or shifting cultivation the large areas of Sikkim and Bhutan have been deforested.[63] It has also been said about Sikkim forests that The forests have suffered much from promiscuous cutting, and also

fires caused by villagers when clearing ground for cultivation.[64] These are, however, not facts as it is plainly evident from British records that appreciable areas of land of British Sikkim covered by forest were included in many tea leases of which the produce was utilized by lease-holders. The timber was used for the manufacture of tea boxes and charcoal, for bridge and house building and as fuel both for domestic purposes and for the drying of tea, a half and half mixture of wood and coal being commonly used for this last purpose. Terai or Morung forests which were once under the Sikkim Government were also exploited, inter alia, for railway sleepers. As a result of these commercial activities of the British the area of these forests was diminishing. "Prices of both fuel and timber had greatly increased with gradual deforestation of the areas nearer to towns. Government therefore decided to fall into line with other provinces in India, introduce measures of conservancy against over-exploitation and save the remaining forests from total destruction."[65] Gustav Mann, Assistant Conservator of Forests, also warned the Government about 'wanton destruction' of forests in British Sikkim.[66]

This proves that the forests of British Sikkim, when these were under the King of Sikkim, were not destroyed indiscriminately. The British records contradict each other. One kind of British records further show that the area first taken over in 1835 from Sikkim, that is, the hill tract between the Kyal and the Balason on the east and the Rangu and the Mahanadi or Mahananda rivers on the west, was entirely covered with forests and was practically uninhabited. So also were the hill areas between the Mechi and the Balason and between the Tista and Mahananda which were taken over in 1850. The latter were under Kurseong sub-division. The Kalimpong sub-division was annexed in 1865 which also came under rapid clearance of forest and a considerable extension of cultivation followed an influx of settlers.[67] The rest of the area of Sikkim, henceforth, was known as Independent Sikkim, and it came under a British protectorate in 1890.

The boundaries of this Independent Sikkim are between Nepal and Chumbi (Tibet) west and east, and Tibet and West Bengal north and south. Total area is 2,745 square miles. Sikkim occupies the upper basin of the Tista river with an altitude range from under 700 feet in the south to 28,146 feet in Kanchanjangha on the Nepal border. Rainfall is over 130 inches in the south, but falls below 20 inches in some of the more sheltered northern valleys. The snow-line is about 15,000 and the tree-line about 14,000 feet; down to 7000 feet is dense forest, largely broad-leafed evergreens (oaks, chestnuts, rhododendrons) with conifers at the higher levels.[68]

Sir J.D. Hooker, who is the greatest authority on the vegetation of Sikkim, in his Introductory Essay to the Flora Indica divides the country into three zones. The lower stretching from the lowest level upto 5000 feet above the sea, he called the tropical zone; thence to 13,000

feet, the upper limit of tree vegetation, the temperate; and above, to the perpetual snow-line at 16,000 feet, the Alpine. In describing the aspect of the country he says that up "to an elevation of 12,000 feet, Sikkim is covered with a dense forest, only interrupted where village clearances have barred the slopes for the purpose of cultivation".[69]

When J.D. Hooker left East Nepal and crossed the Islumbo Pass over Singalelah into Sikkim, the elevation being 11,000 feet. Above his camp the trees were few and stunted. Around this area he found grassy ridge covered with withered saxifrages, umbellifers, parnassia, hypericum etc. Here he did not find coniferous tree of any kind, except a few yews, covered with red berries. On the top of the Islumbo Pass he saw dwarf bamboo, rose and berberry in great abundance. At Pemiongchi towards Yoksum he found oaks, chestnuts, and magnolias. He further noted that deep in the valley the river-beds were but 3000 feet above the sea, and were choked with fig-trees, plantains, and palms; to these succeeded laurels and magnolias, and still higher up, oaks, chestnuts, birches etc; there was, however, no marked line between the limits of these two last forests which formed the prevailing arboreous vegetation between 4000 and 10,000 feet, and gave a lurid hue to the mountain. Fir forests succeeded for 2000 feet higher, when they gave place to a skirting of rhododendron and berberry. Hooker on his way from Yoksum to Kanchanjangha reached Ratong valley and found thick forest ten thousand feet above the river-bed of the Ratong. At Buckeen(alt. 8,650ft.) he encamped in a forest of *Abies Brunoniana* and silver fir, yew, oak, various rhododendrons, and small bamboo. In higher altitude around this area he saw dwarf juniper and brushwood. On his way, elevated 13,080 feet he saw the abundant growth of Himalayan heather (Andromeda fastigiata) along with rose, berberry, alpine rhododendrons. At Yoksum Hooker found a variety of ferns. Thus, in short, Independent Sikkim housed over 400 species of flowering plants, 300 species of ferns and its allies, 11 species of oaks, 8 species of tree ferns, 40 species of primulas and 20 species of bamboo.[70] So, Sikkim is endowed with a variety of natural flora and is a paradise of nature lovers, botanists, environmentalists, conservationists and trekkers.

The British wanted to exploit this forest-wealth of Independent Sikkim since 1864. Their first target was the area adjacent to British Sikkim. In April 150 sleepers of sal were cut near the banks of the Great Rangit with the view of testing the capabilities of that river for transporting timber. This exploitation of forests was on the British side of the river. But they did not stop there. Perhaps the British put pressure on the Sikkim Government to allow them to cut timber from the Sikkim side of the river. Dr. Anderson informed the Secretary to the Government of Bengal, "Tehelm Lama, the Envoy at Darjeeling from the Sikkim Durbar, allowed (30) thirty trees of *pinus longifolia* to be felled on the Sikkim bank of the river. It is intended to use

the light wood of this tree in floating out the heavier sleepers of sal. The forests of *pinus longifolia* belonging to Independent Sikkim are very valuable, and endeavor will be made to obtain a favorable lease of them."[71] This policy of the British continued and shortly they induced the King of Sikkim to sell timber to them and hoped to persuade the King to lease his forests to the British for a term of years or in perpetuity. WM. Stenhouse in the Progress Report for the year 1868–69 wrote that in the Tista and Rangit valleys they occupied an area of 23 square miles which was full of sal and chalawnee trees fit for felling. "The forests belonging to the Rajah of Sikkim are probably of greater extent and equally rich in sal. They also contain abundant supplies of Pine timber (Pinus longifolia), a considerable quantity of which was purchased from him by the Department during the year before last." He continued "It is said that the Sal trees can be had on payment of a royalty of rupees 2 each. It may be possible to lease these forests from the Rajah, in perpetuity or for a term of years, and, at the above rate, it would certainly be advantageous."[72]

But this proposal was neither accepted nor rejected immediately by the Government. According to the British records the Lieutenant-Governor was unable to pass any order on the proposal to take over on a lease the sal forests belonging to the Raja of Sikkim. The Government wanted much more detailed information than appeared in the report of W. Stenhouse, offg. Conservator. The resolution adopted by the Government on the subject reads, "This subject must be treated separately, and it should be clearly shown what the cost to Government, per tree, would be in bringing the wood to market, and the price which it would fetch when taken there."[73] The Government also considered the said proposal from another viewpoint. The Government resolved, "It should also be definitely reported whether the same advantages cannot be secured from lands which are already the property of the state."[74] However, the previous report of Stenhouse was based on supposition, not on definite knowledge. In another report of 1869-70 he informed the Government that on the 25th of November, 1869 a portion of the Raja of Sikkim's sal forest situated on the left bank of the Rangit river was inspected and a valuation survey of it made. The result of this counting measurement showed, "the Rajah's forest is rich in sal of all sizes, but it is of limited extent. Very little pine forest (pinus longifolia) now exists on the banks of the Rungeet."[75]

But the British Government did not stop there. They assessed pros and cons of the problems of exploiting the forests of Independent Sikkim. Ultimately the British made a deal with the Raja of Sikkim to sell timber, fire-wood and charcoal to them. Full information is not obtainable, but the following has been ascertained regarding the description and quantity of produce exported from Sikkim in 1890.[76]

Description	Approximate Quantity Exported		Market supplied
	Sale measurement	Cubic feet solid	
Timber	1,000 c.ft	1,000	Darjeeling, 1890
Firewood	5,000 mds.	8,750	Lebong tea company's annual demand on the Rajah's forest
Charcoal	3,500 mds.	24,500	
Total		34,250	

The British took a portion of the Sikkim Forests on lease under certain conditions, and Rates paid by the lessee show that the Raja got an advance of Rs. 5,000 on granting the lease. The royalty on charcoal was 2 annas a maund and fire-wood 1 anna a maund from dead trees. The lessee was not allowed to cut good trees. The Raja was unable to give details of the outturn of his forest, but was credited with Rs. 3,500 for last year. That was considerably more than the value of the produce shown in the above statement.[77]

However, this is not the first time that the British purchased timber from Sikkim. H. Leeds in his Annual Forest Report for the year 1869-70 noted, "No attempt was made to bring out any of the pine logs extracted from the Rajah of Sikkim's forests and launched into the Great Runjeet, a tributary of the Teesta, the former year. As this timber will float, no great difficulty need be apprehended in getting it down to Sivok; the Assistant Conservator should therefore have turned his attention to it."[78] Again, in the Bengal Administration Report 1877-78 it has been reported that during the year Sikkim sold timber to the British and transported to Darjeeling which amounted to Rs. 7,08,708.[79]

Be that what may, all these activities of the Raja of Sikkim do not reflect that the Raja was aware of the forest-wealth of Sikkim. Sikkim was not interested beyond the traditional trade with the neighbouring countries. The Raja's peculiar relation with the British ultimately made him conscious of the forest-wealth as a source of revenue for his country which was soured by poverty. Still, the Raja of Sikkim on his own did not take any step towards the scientific forestry in Sikkim. Perhaps, the British political officers like J. Claude White and Sir Charles Bell inspired him to methodical management of the large forest area of Sikkim as was done in Cochin by the Residents, and same thing was done by the British officers in Baikunthapur during the periods under the Court of Wards.

As a result Forest Department was constituted as early as 1893. Subsequently, in 1902, the reserved forest was demarcated, the *Khas mahal* forest in 1905 and the Gaucharan (grazing or browsing area) forest in 1911.[80] Sir Charles Bell as political officer in charge of Sikkim wrote

that between 1908 and 1918 "We conserved large areas of forests, which were being rapidly felled, and introduced rules for their management."[81] Thus, the first decade of the 20th century marked the beginning of the forestry organization in Sikkim. In point of fact, Shri Dilu Singh Ghale "organised the Forest Department from scratch and gave it a strong and stable foundation both organisationally as well as technically."[82] He was born in 1872 in Darjeeling and had his forestry training in Dehradun. After successful training he joined the Bengal Government. In 1905 he was deputed to serve the Sikkim Darbar which he did till 1925. During this period Mr. Ghale under the regime of the Chogyal Sidkeong Tulku organized the Forest Department in Sikkim which was hitherto non-existent. His foresight and planning skills contributed to the forestry base being laid on a firm footing. During his tenure as the first Forest Manager of Sikkim, classification and demarcation of Forest land into three categories of Reserve Forest, Khasmahal and Gorucharan were done and notified during 1908 to 1912. The basis of scientific forest management was thus initiated by him. His other outstanding contribution was the publication of the first Forest Manual in 1914 which is available till to day. He organized and took care and gave attention to forest-wealth for bequeathing to the present generations. He is truly the father of modern forestry in Sikkim along with his ruler Chogyal Sidkeong Tulku.

This does not mean that at this stage Sikkim adopted any forest policy. There was no Working Plan for the development of forests in Sikkim, no policy was taken for fire protection, no strict measures were taken against shifting cultivation, no method was planned or evolved to ascertain the revenue and expenditure annually, and over all, no statement of financial results was prepared. That expected forest management in Sikkim dates back to the late 1920s. One of their Chogyals (kings) who graduated from the Royal College of Forestry in England, developed scientific but indigenous methods of forest preservation.[83]

Till 1956, one forest manager was given charge of forests. It was in this year that demarcation of ranges and blocks was made for better administration. This pattern shows that Sikkim's forest management followed the tracks left by the British and pursued by the Government of India. In 1976, the Indian Wild Life Act extended to Sikkim. Soon it was followed by the creation of the Sericulture Sub-Division in 1978 to promote rural economy and the Remote Sensing Cell in 1987. In 1988, the Sikkim Forest Water Conservation and Road Reserve Act was enforced and in 1989, the Indian Forest Act was extended to Sikkim. The Directorate of Land Use and Environment was merged with the Forest Department. Thus, Forest Department is one of the pioneer Department of the Government of Sikkim. At present, the major objectives of the Department are:

(a) Protection and management of forests, water bodies, alpine pastures, snow covered areas by implementing the policies of the Government of Sikkim as well as of the Government of India in co-ordination with other sister Departments.

(b) To carry out afforestation activities in forest as well as in non-forest and private wastelands with active participation of the local people and to provide fuel-wood, fodder and timber to the villagers for their bona fide use.

(c) To prevent illegal felling of trees, illegal movement of timber and other forest produce, regulate felling of trees in private forests, prevent and control grazing in Reserve Forests and plantation areas and prevent encroachment of forest lands through implementation of different Forests Acts.

(d) To carry out research in forestry, wildlife and other related subjects.

Besides, the Forest Department maintains Parks, Gardens, National Park, Sanctuaries; promotes pisciculture; protects wildlife, medicinal plants and monitors pollution of every kind. To conclude, it may be said that Sikkim's State Department of Forests and Environment is performing well and its implementation of the various schemes in the state is satisfactory.

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Versus

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