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Forest Conservation and Management Practices among the Ahom rulers of Pre-Colonial Assam: An Historical Assessment

Srijani Bhattacharjee

Variances in administrative sanctions over nature under pre-colonial, colonial and post-colonial regimes have been the subject matter of enquiry in the discourses of environmental history. It is usually estimated that with the establishment of colonial power in India, state intervention over nature have multiplied leading to interference in the flora, fauna and indigenous rights of the forest based communities. The contrary argument put against this is that the traditional societies maintained a balanced approach towards nature with nominal intrusion of the state. This paper attempts to analyse the role of the traditional rulers in administering nature by maintaining a balance between state forest policies and indigenous forest rights. For our study we have taken the Ahom rulers of Assam and their endeavours of forest conservation and management over the region. The Ahom monarchs ruled over Assam from the 13th century till the initiation of British administration over the territory. The study intends to find out the extent of floral and faunal use in the region under the Ahom state, state policies towards forests and neighbouring tribes and the royal approach towards the fauna of the region.

Keywords: Conservation, Management, Forest use, Ahom, Assam, Nature.

Introduction

Pre-colonial conservation practices have tended to be romanticised by most contemporary commentators. There is a dearth of information about these practices, although available evidence does indicate that as pre-colonial society became first regimented then stratified, access to and use of natural resources also came to be stratified, and conservation practices came up that reflected the attempts to balance competing interests. Such recorded pre-colonial conservation practices as the demarcation of sacred areas, the allocation of totems, the expropriation of labour for conservation etc.

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did not necessarily reflect egalitarian and consensual conservation, but rather the exercise of power over people and resources by dominant clans or classes, as the case would have been.

Very little is known and has been written about pre-colonial conservation practices in the India. The general belief is that low population densities, unsophisticated agricultural and hunting practices, and immobile populations meant that ecological conservation tended to be built into the routine economic, social and religious activities of the era. Consequently, pre-colonial societies did not need to develop sophisticated conservation mechanisms. The reality tends to be very different. Existing evidence suggests that settlements typically were consolidated with high population densities. Agricultural and other resource extraction activities were very sophisticated and adapted to the requirements of specific resources and ecosystems over-time, while the societies themselves developed sometimes very sophisticated mechanisms to regulate resource use. Because of obvious problems of the predominant historical methodologies, it is difficult to describe with any precision the conservation practices that could have existed in pre-colonial times.

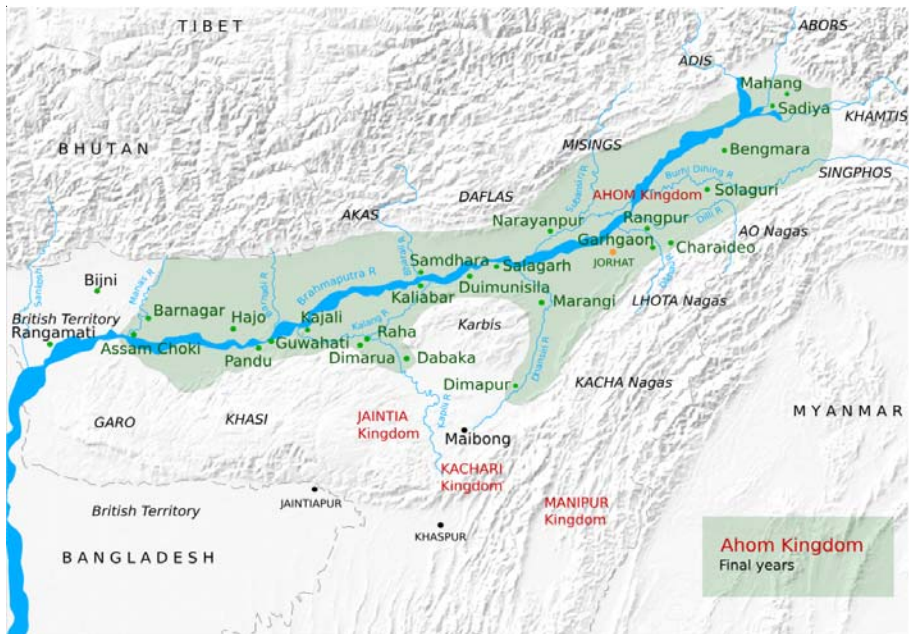
However instances of importance imparted to nature as cited in our religious and historical texts throws optimistic light on the subject. The personifications of natural phenomenon such as the sun, thunder, fire, dawn and rain with Gods in the Rig Veda can be considered as testimony to ancient value attached to nature (Majumdar 2010: 188). Ancient texts like Manusmriti laid out punishments for those who caused injury to plants (Jariwala 1992:3). Historical literature illuminates us on nature conservation practices adopted by the emperors of Ancient India. The Mauryan ruler Asoka (268-232BCE) prohibited hunting on certain days and made it mandatory to plant medicinal herbs in his second rock edict besides shade-trees along the roads and fruit plants on water lands (Rangarajan 2001: 19). We also find a clear outline of royal forest management in Kautilya's Arthashastra who referred to the existence of a separate Forest Department under *Kupyâdhakc a* (Director of Forest Management) in Mauryan administration. Kautilya upheld that the king should protect the produce-forests (*dravyavana*), elephant forests (*hastivana*), irrigation works and mines (Mukherjee 2000: 123-124; Shyamasastri: 412-416). Later monarchs such as Akbar also prohibited hunting on certain days of the week. We find the references of regional rulers like the Kashmir Sultan, Zain-Ulabidin (1420-1470) not consuming meat on certain days (Rangarajan 2001:19). Historical texts also notifies that Tipu Sultan of Mysore (1782-1799) imposed regulations over the felling of sandalwood trees in forests and levied some royalties on teak trees and cardamom plants for their commercial importance. Except few forest products, the state did not hinder or interfere with indigenous forest rights (Saravanan 2003:403). Thus, we may accept that environmental consciousness and some amount of forest management and conservation did exist in Ancient India.

Study Area

The study area of the paper is focused on forest management and conservation practices in pre-colonial Assam under the Ahom rulers. Assam, the green state located in

the north eastern corner of India and blessed with valuable floral, faunal and mineral wealth since ancient times had been ruled by the Ahom rulers for long six hundred years (1228-1826). The Ahoms established their command over the Brahmaputra Valley districts of the region with occasional administrative control over the neighbouring hills. The river Brahmaputra flowed through the districts of Kamrup, Darrang, Nowgong, Sibsagar, Lakhimpur and portions of the Sadiya Frontier Tract making the region as one of the most fertile regions of the world. The geographical boundaries of the pre-colonial Assam under the Ahoms can be estimated from the following cartographic representation.

The Map of Assam under the Ahoms



Objectives and Methodology

The paper is an effort to examine the position of forests under the Ahom rulers in pre-colonial Assam, the attempts of forest use, management and nature conservation under the Ahom royal administration. The paper endeavours to understand the policies of the Ahom state towards the flora and fauna of the region and towards the forest based neighbouring tribes. The study is mainly based on official and non-official archival records, primary and secondary literature. The archival works have been done at various places like the Assam State Archives, National Archives, West Bengal State Archives and National Library, Kolkata which are rich repositories of primary documents pertaining to the study area. Primary literatures like the Forest Administration Reports, Assam Administration Reports, Bengal Revenue Proceedings, Working Plans, Gazetteers of B. C Allen, Census reports (1931-1971), Indian Forest-

ers (1910-1983) and *Journal of Asiatic Society* (1841-1916) have enriched the work on various aspects of pre-colonial and colonial Assam. The *Buranjis* or Historical chronicles of Assam acted as storehouse of information about the Ahom reign and administration. *Hastividyarnava* edited by Pratap Chandra Choudhury assisted in acquiring information about the approach of the Ahom rulers towards the faunal resources especially the elephants. The works of British officers like Edward Gait, Francis Hamilton, Robert Reid, John M Cosh, William Robinson, W.W Hunter, and Alexander Mackenzie have provided us with primary data about the province. Works on secondary literature have been undertaken at the various libraries of Guwahati, Shillong, Kolkata and New Delhi. The secondary literature throws illuminating light on the subject (Sinha, 1989; Singh, 1996; Tucker, 1998; Handique, 2004; Saikia, 2011).

Survey of Literature

Of late works on forest administration and management under various regimes have come up in different discourses of environmental history the study of which is mainly traced through analysing the history of colonial exploitation of natural resources during the span of last two hundred years and after. Scholars have examined the role of colonial government in handling forests and nature in India. Ramachandra Guha had argued way back in 1989 that Scientific Forestry in colonial India had developed in order to meet the revenue and strategic needs of the British Empire denying its conservationist agenda (Guha 1989:185-186). Madhav Gadgil had made similar observations and considered that colonial forestry in India was established with the purpose of revenue production and with the rapid growth of industrialisation; trees became a commodity of commercial profit that was further accelerated with the expansion of railways (Gadgil and Guha 1992:114). Rangarajan and Skaria held the view that though the colonial Forest Department was established with the apparent purpose of halting indigenous forest exploitation that took place in the pre-British era, the rate of deforestation had actually accelerated with the advent of the Department in the region (Rangarajan 1996:3; Skaria 1998:596-597). K. Sivaramakrishnan has analysed forest history, subjugation of forest based communities, natural resources and state policies from the perspective of state making in Bengal. He has described state making as the form and legitimisation of the colonial government to penetrate into the society and the state, to establish control and a relationship between them (Sivaramakrishnan 1999:5). For Assam, Arupjyoti Saikia has contended that tea plantations and agrarian expansion have played an important role in deciding the fate of Assam forests that eventually led to clashes between the colonial government and the local communities leading to expansion of agriculture and tea gardens with consequent deforestation of forest lands (Saikia 2011:352). These writings apart from analysing the colonial role in nature appropriation and forest administration have also provided glimpses of pre-colonial era but perhaps not in a vivid way. Since studies on regional environmental history depicting the pre-colonial era are scanty, literary works on the subject should be emphasised and the present study has been undertaken from that perspective.

Situating Ahom Rule in Assam

The Ahoms began their rule over Assam in the 13th century that continued till 1826 (1228-1826) when under the clauses of the Treaty of Yandaboo, the region was annexed to the British Empire of India after the First Anglo-Burmese War although upper Assam continued to be under the Ahom kings until 1839. After the annexation, there were geographical alterations and Assam that actually consisted of the Brahmaputra Valley districts of Kamrup, Darrang, Nowgong, Sibsagar and Lakhimpur with portions of Sadiya Frontier Tract was massively increased in size. The independent hill units under chieftainships surrounding Assam were incorporated within the region at various points of time. Districts of Cachar and Sylhet that originally formed parts of Bengal were also included within Assam. Thus the geographical boundary of the province was enormously increased. With these geographical changes, the system of forest management and administration also underwent drastic alterations. Scientific Forestry practices basically of German origin were implemented over the region although with sub-regional variations. This tightened the colonial hold over the natural resources of Assam resulting in changes in the relationship between the ruler and the ruled and in human-nature interfaces.

The Ahoms were originally an offshoot of the great Tai or Shan race of Burma who spread eastwards from the border of Assam over nearly the whole of North East India and far into the interior of China. Sukapha (1228-1268), the first Ahom ruler, is said to have left Maulang in Upper Burma in 1215 AD and by subduing and absorbing the ethnic principalities like the *Morans*, *Barahis*, *Mataks*, *Chutiayas*, and *Kacharies* in Upper Assam and established a strong empire over the Brahmaputra Valley. A system of administration was established under which the local governors and officials were appointed to keep the frontier tribes under control. Some of the tribes were tributaries of the Ahom kings while others were kingdoms with which the Ahom rulers maintained diplomatic relations and imposed terms of vassalage at times of necessity. The rulers did not interfere with the indigenous state system, mode of administration, religious beliefs, culture and tradition of the tribal states. There were some tribes like the *Nagas* with whom they had military encounters (Gait 1981:70-77).

Administrative Structure and Land Systems under the Ahoms

The Ahoms had a monarchical form of government. The king also known as *Swarga Maharaja* (king of heaven) was the supreme authority of the state. The hereditary officials like *Buragohain*, *Bargohain*, *Barpatragohain*, *Barbaruah* and the *Barphukan* assisted the king in various aspects of administration. There was a well-organised hierarchical structure that supervised the administration at different levels. The backbone of the administration was the *Piak* system where the male population of the Ahom kingdom known as *Paik* between the age of fifteen and fifty had to perform administrative works for the state in exchange for which he was granted 2 *puras* (2.66 acres) of cultivable lands known as *gaamati*. This was known as the *Khel* system that was composed of *Paiks* engaged in various segments of Ahom administration (Barua: 1993). The administrative structure of the *Khel* system was

controlled, planned and organised. The system was associated with each branch of administration including forests. The entire male population of the country worked under this system with exception of nobles, priests, persons of high castes and their slaves. The king was the virtual owner of lands within his jurisdiction who distributed lands to his subjects where each *paik* was allotted two *puras* (three acres) of land. Three to four *paiks* collectively made a 'got' and a member of each *got* was supposed to be present for state service on rotational basis. The Ahom kings allotted homestead lands to the *paiks* for construction of houses and gardens and in return they had to pay a house tax to the king. The lands granted to the *paiks* were surveyed and registered as *paikar* lands (Gait 1905:239-240)

Lands were divided into three segments namely *Khetra* (arable lands), *Khila* lands (wastelands) and *Vastu* (lands for building sites) during the Ahom period. *Khetra* lands were mostly held individually while *Khila* lands often comprised of forests under common ownership. If the *Khetra* land was cultivated by an immigrant *ryot*, the latter was obliged to pay a plough tax to the ruling authorities. The hill tribes cultivating cotton paid a hoe tax to the Ahom government. The latter received a higher rate of poll tax from artisans such as gold washers, brass workers and oil pressers (Guha 1990:240). The persons engaged in gold washing industry constituted a separate *Khel* known as *Sonowal* (Barpujari 1963:240). The rulers granted two to three *puras* of lands to nobles who paid a tax called 'godhan' to the king as a substitute for military service. They also allotted lands to different *Rajas* who paid tributes to them (Hamilton 1940:28). The Ahom royals granted lands to *Brahmans*, religious institutions and temples, to pious and meritorious persons. These lands were initially half revenue paying estates and in course of time they were declared as revenue free. Thus the lands were mainly classified into *Debatter* lands donated to temples, *Brahmattar* lands for the Brahmins, *Dharmattar* lands for religious and charitable purposes, *Nankar* lands for *Sudras* and religious order and lastly *Pirpal* lands dedicated to pious Muslims (Acharya 1984:123-124).

Endeavours of Forest administration and Nature Conservation under the Ahom State

The Ahom rulers encouraged reclamation of forest lands for agriculture, grants and for other purposes. The homestead lands often contained forested tracts which the *Paiks* occasionally reclaimed and obtained during times of necessity. The Ahom king Suklengmung (1539-1552) encouraged the reclamation of forested areas bordering the rivers (Sharma 1986:228). Wet rice cultivation was the main mode of farming adopted by the Ahoms. In order to spread the cultivation, forests were cleared mostly in the regions having slopes. The Ahoms uprooted the forests of these areas and leveled the land so that water could be accumulated in them when required. The Ahom rulers maintained embankments as a measure to retain water for wet rice cultivation (Robinson reprint 1975: 317). Amalendu Guha observed, 'Slope and water control are the two most crucial factors for wet rice culture. The Ahoms understood this very well' (Guha 1983:12). *Khels* were associated with various aspects of forest use and management in the Ahom state. Construction of forest paths, building of

wooden pillars, supply of timber, wood, bamboo, collection of thatch and other natural products for royal use, and usage of forest products for commercial and architectural purposes amongst others also came within the purview of forest organisation. The Ahom rulers emphasised on the maintenance and construction of public roads both for civil and military uses for which *Khels* were employed (Acharya 1984: 121). Generally roads were repaired after wars and new roads were constructed. The Ahom king Suchingpha (1644-1648) took significant steps in this regard (Barua 1930:135). The *Khels* engaged in forest management, extraction and preservation can be determined from the following table.

Sr. no.	Name of Khel	Purpose
1	<i>CharaimariaKhel</i>	bird shooters
2	<i>PahumariaKhel</i>	deer hunters
3	<i>PakhimariaKhel</i>	feather hunters
4	<i>BaghamariaKhel</i>	tiger hunters
5	<i>KhariJoganiaKhel</i>	fire wood suppliers
6	<i>KharichaJoganiaKhel</i>	suppliers of fermented bamboos
7	<i>KherJoganiaKhel</i>	thatch suppliers
8	<i>TakaupatJoganiarKhel</i>	suppliers of <i>Takaup</i> palm leaves or fan palm leaves
9	<i>Bah JoganiaKhel</i>	bamboo suppliers
10	<i>KukurchungiKhel</i>	dog game preservers
11	<i>PahuchungiKhel</i>	deer game preservers
12	<i>HatichungiKhel</i> as	elephant game preservers
13	<i>NamchungiKhel</i> as	lower valley's game preservers
14	<i>CharaichungiKhel</i> as	bird's game preservers
15	<i>ChunibasaKhel</i> as	forest road makers
16	<i>KhutakatiaKhel</i> as	wood pillar makers
17	<i>KharikatiaKhel</i> as	wood cutters
18	<i>KathkatiaKhel</i> as	timber cutters
19	<i>HabichowaKhel</i> as	forests preservers

Source: (Bhuyan 1983:342-346).

Importance on preservation, exploitation and expulsion of natural elements often depended on the requirements of the state and the people. Faunal species like elephants and hawks, certain timber and floral resources were preserved for political, military, commercial and architectural purposes. The state made efforts to preserve animals like elephants and horses that had military, political and commercial significance. The royal administration appointed a *Khel* for catching and preserving elephants for their export potential, for their symbolic use as a mark of royal ceremonies and for wars and battles. An officer designated as *Hati Barua* was the master of elephants who looked after their well-being and had about 125 elephants under his charge. In a similar way, an officer titled *Ghora Barua* was in charge of around fifty horses (Hamilton 1940:21). Dogs were preserved for security reasons. Certain birds

like hawks were trained for military and political uses. Faunal species that threatened human life were usually exterminated. For instance, a *Khel* was appointed for hunting tigers as the latter often posed threat to people and to the royal officials (Bhuyan 1940:10).

Khels were also engaged for collecting timbers needed for commercial and architectural requirements. The Royal Secretariat appointed a *Khel* to supervise the collection of good quality timbers sought for architectural, boat building and other necessities. An officer titled *Kath Barua* supervised the duties of the *Khel* assigned for the purpose (Das Gupta 1990:29). Trees yielding timbers with commercial, architectural and military potential were brought under the Ahom conservation policy and a *Khel* was appointed for the purpose. Captain S.F. Hannay, the Commandant of the Assam Light Infantry Battalion in 1845 held that in pre-colonial Assam certain tree species like *Joba Hingori-quercus* were preserved as they were required for construction works (Hannay 1845:116-133). An officer designated as *Habiyal Barua* was in overall charge of forests and forest revenues. Products like elephants, ivory, lac and timbers like aloes and *agar* wood fetched handsome revenue to the royal government. The Ahom authorities levied duties on them (Bhuyan reprint 1983:124 and 239). As per the details provided in the commercial treaty concluded in February 1793 between Captain Welsh, the representative of the British government in Assam and the Ahom king Gaurinath Singha (1780-1795), a pair of elephant teeth fetched around Rs 50.00 as export from Assam. The duties levied on the forest products were strictly implemented and any person found to defraud the Ahom king of the duties were liable to confiscated of his/their property and were debarred from the privileges of trade (Baruah 1993: 273)

The Ahom monarchs preserved nature on religious grounds. The fact that forest and forest-based resources occupied an important position in the religious, social, and economic life of the people during the Ahom period may be deduced from the Assamese royal chronicles or *Buranjis*. The rulers assigned considerable religious significance to various elements of nature. For instance, during the coronation ceremony the Ahom rulers accompanied by their queens mounted on male elephants, planted banyan trees (*ficus religiosa*) and advanced to hill Charaideo, the Ahom capital founded by the first Ahom King Sukapha (1228-1268) (Gait reprint 1981:235). The planting of banyan tree was considered auspicious during religious ceremonies. The Ahom kingdom at its various stages of evolution from initial political formation to statehood passed through several phases when religious beliefs underwent changes. Initially the Ahom rulers believed in animism. Image or idol worship was not in vogue. They worshipped spirits (*nats*) and deities who presided over natural objects like forests and rivers apart from particular deities for households and rice fields. Sacrifices formed an important part of these processes. Cows and buffaloes were sacrificed in major religious occasions while fowls and pigs were sacrificed in minor occasions (Guha 1983:12).

With the Brahmanisation of the Ahom rulers by the 14th century and simultaneous expansion of administration, nature and river gods were begun to be worshipped before undertaking any administrative works. Trees like *Vata (Ficus Indica)*

and *Asvattha* (*Ficus Religiosa*) had religious significance and the Ahom rulers planted them on auspicious occasions. They also offered prayers to nature gods before initiating any public construction work. The Ahom king Jayadhvaj Singha (1648-1663) before excavating a tank at Bhatiapur offered prayers to the river gods (Barua 1930:148). Rivers and water bodies were considered sacred and excavation of ponds, building of water reservoirs and dams within the kingdom was regarded as one of their sacred duties by the Ahom monarchs. Water bodies were created in the commemoration of kings, queens and ministers. An officer titled *Barbarua* was entrusted with the responsibility of digging ponds (Saikia 1997:210).

Royal Use and Conservation of Elephants

Elephants formed one of the important forest produce of Assam and since the mythological times, elephants occupied a significant place in the royal households and played a major role in the formulation of royal policies in the region. Birinchi Kumar Barua informs us that Bhanumati, the daughter of Bhagadatta, the king of Kamrup supported the Kauravas during the Kurukshetra war with a large contingent of elephants from Assam. Another king Bhaskarvarman had large regiment of elephants in his royal army and had presented elephant tusks and hide made shields to Emperor Harshavardhan. Hieun Tsang, the Chinese pilgrim to India had also admired the size and quality of the elephants found in Assam. Historical literature on the region also suggests that the Persian historian Shihabuddin Talish had appreciated the high spirited and well-proportioned elephants found in the hills and wilderness of Assam (Barua 1951:63).

Elephants constituted a vital forest resource for the Ahom rulers. Apart from its use for trade, wars and battles, the Ahom kings attached prosperity and wellbeing of the kingdom to certain categories of elephants. It was believed that elephants with right tusks red and left tusks white brought prosperity to the kingdom. The Ahom kings framed rules for identifying elephants considered to be auspicious. It was assumed that elephants having fine complexion, strength, undaunted in warfare, fine structure, good grace, healthy and quick in movement would bring success to the king and the empire. Similar guidelines were framed to identify elephants not considered as auspicious for the kingdom. The *Hastividya*, a treatise on elephants written by Sukumar Barkath under the patronage of the Ahom king Siva Singha (1714-1744) and his queen Ambika Devi provides us with interesting information on the elephants found in Assam (Choudhury 1976: 28 and 144). The treatise informs us about the nature, characteristics, and types of elephants found in the region, the elephant catching operations, construction of stables, ailments and longevity of elephants, medical treatment for ailing elephants, its role in wars and battles and training of elephants etc. Elephants were used for a number of purposes in the battle field. While proceeding to a battle, the Ahom kings used elephants to lead the soldiers, in pursuit of enemies, for determining the elevation and depression in battlefields situated in hills, for making tracks across forests, for carrying water for the soldiers, for spoiling the concentration of enemies, for fortification and for protecting the plunder after battles. The Ahom kings attached success in battles and prosperity of the king-

dom with royal elephants and uttered hymns and *slokas* after mounting on it (Choudhury 1976: 100).

Under the Ahoms, elephant catching operations in Assam achieved new heights. The Ahom rulers adopted steps to develop the techniques of elephant catching and training in the country. Measures were undertaken for the efficient functioning of *Khedda* and *Mela shikar* operations. The officer *Hati Barua* supervised the *Khedda* operation. *Paiks* in two batches after every hundred cubits were engaged to keep a watch on the movement of elephants. *Chowkies* (watch towers) within forested areas were constructed to keep a constant vigilance over the movement of the animal. Elephants were used for riding, hunting, for carrying loads and dragging woods and for wars and battles. They were also caught for tusks and hides. The Ahom kings presented gifts made of ivory to the rulers of Delhi. The Ahom ruler King Rudra Singh (1696-1714 AD) presented mats, fans and chessmen made of ivory to a ruler of Delhi (Gogoi 1991:90-91). The Ahom *Buranji* mentions that regular supply of elephants from Assam to Bengal formed an important clause of the treaty concluded between the Ahoms and the Mughals after Mirjumla's invasion over Assam (Barua 1930:185). The annual contribution of 20 elephants to the Mughal Emperor was an essential clause in the agreement concluded between the Ahom king Jayadhwaj Singha (1648-1663) and the Mughal general Mirjumla on 22nd January 1663. Under the treaty, the Ahom king presented 20,000 *tolas* of gold, 40,000 *tolas* of silver and 90 elephants to the Mughal Emperor (Bhuyan 1947: 191). Surya Kumar Bhuyan observed that access over the forests of Assam teeming with elephants and *agar* wood was an important motive behind Mughal invasion over the region in 1662 (Bhuyan 1949:26).

Elephant was an important item of trade and commerce under the Ahom rulers. Trade in elephants fetched considerable amount to the royal treasury. According to John M Cosh, around seven hundred to one thousand elephants were yearly exported from Assam with an average value of Rs 300. A duty of Rs ten was levied on every elephant exported. A good number were also killed for ivory (Cosh reprint 1986:44-45). Elephants were also granted to nobles and the number generally depended on their official and social status. Boxes, pots and handles made of ivory were some of the articles manufactured in Assam. The Ahom king Pratap Singh (1603-1641 AD) assumed the title of '*Gajapati*' after taking the possession of thousand elephants. A place previously known as Jamirguri was renamed as 'Gajpur' as a commemoration of the event. The significance of elephants during the Ahom rule was so immense that it was adopted as the emblem of Ahom royal culture (Basu 1970:93).

Forest Use under the Ahom Royalty

Natural products found a number of uses under the Ahom rulers. Wood and natural products were plentifully used in the Vaishnava *Satras* and *Namghars*, the monasteries established by Srimanta Sankardeva, the initiator of Vaishnavism in Assam (Chaliha 1978:9). The central building of the *Satra* and *Namghars* consisted of two structures: the *Kirtanghar* (prayer hall) and the *Manikut* (sanctum) with an impressive *Simhasana* (throne) which were repositories of attractive wood carving with beautiful designs (Das Gupta 1990:30-31). Huge wooden pillars constructed mainly of Nahor

(*Mesuaferra*) wood supported the structure with thatch roofs accompanied by timber binds. Such wooden constructions are visible in few *namghars* of Assam even till now. In the *namghars* of Majuli the largest fresh water river island in the world, pillars constructed of pine trees still exist with grandeur (Medhi 2008:95-95). A Majid, the Assistant Commissioner of Habiganj in Sylhet district, observed that the residences of 'Gosains' (head of *Satras* and *Namghars*) were most handsomely decorated with wooden carvings and the largest and stateliest instance of them was found in the *namghars* of Majuli island (Majid 1905: 1).

The Ahom rulers extended patronage to *Vaishnava Satras* and *Namghars*. After undergoing Brahmanisation by the fourteenth century, the Ahoms started extending royal patronage to the *Satras* since the reign of Jayadhvaja Sinha (1649-1663) when a number of *Satras* were established under the royal patronage (Gogoi 2006:6). *Paiks* were employed in charge of different *Satras* and adjoining lands (Chaliha 1978: 78). The *Satras* also preserved nature by planting trees of religious significance such as Bakul (*Mimosopselengi*), Bael (*SaracaIndica*), Agar or Sachi (*AquilariaSiberiana*), Kadam (*Anthocephalus Kadamba*), Silikha (*Terminaliacitrina*), Amlokhi (*EmblcPhyllanthusemblica*) and Bhomora(*TerminaliaBelerica*) and coconut trees etc. (Medhi 2008:95-97).

Under the Ahom rulers, architectural use of forest products gained importance. The Ahom palace was constructed of wood and bamboos. Bricks were hardly used for the purpose. Other buildings were often constructed with the unique combination of wood and bamboos. Literary sources on the aspect informs that Shihabuddin Talish, the Persian historian who visited Assam in 1662 in connection with Mirjumla's invasion over the region, was astounded by the workmanship of the wooden works visible in the Ahom kingdom and observed that the royal structure was supported by 66 pillars and each of them was 4 cubits round with highly polished and beautiful wooden works. Wooden frameworks of various designs were carved into highly polished brass mirrors (Bhuyan 1983:280). In his words:

My pen fails to describe in detail the other works and rare inventions employed in decorating the wooden works. Probably nowhere in the world can wooden houses be built with such decoration and figure carving as by the people of this country (Acharya 1985:81).

Wood carvings received the active patronage of the Ahom kings. *Khonikers* or wood carvers from Sibsagar sub-division performed the art for the royal authorities. The *Holonghar* (royal palace) and *Patghar* constructed during the reign of King Pramatta Singha (1744-1751) display the architectural skills of the Ahoms (Das Gupa 1990:30-31). By the late sixteenth century, the coronation ceremony of the Ahom rulers became highly elaborate and for the purpose a large wooden hall known as *Singori Hall* was constructed where the installation ceremony took place (Saikia 1997:216).

Wood was used profusely in the boat building industry. The Ahom kings possessed strong naval power which was an integral part of the defense army. The war boats manufactured by the Ahoms were mounted with guns and cannons. The boats that moved speedily and did not easily sink were mostly constructed from *cambal*

woods. Timbers like Odiamma (*bischoffia javanica*) were also used for building boats. Acharya inform us that *Fathiyah-i-ibreyah* notified the existence of 32000 ships under the possession of the Ahoms at the time of Mirjumla's invasion on Assam (Acharya 1984: 120). An officer titled *Naosalya Phukan* was in charge of the royal fleet and had 1000 men working under him (Hamilton 1920:20). The Ahom kings possessed large number of trading boats used for trade and commerce. Ferry boats were important means of communication. Wooden canoes were manufactured from Ajhar (*lagerstroemia reginae*) and Sam (*Atocarpus Chaplasi*) timbers for common usage. In case of bigger boats, the wooden shell was plastered with mud and steamed over fire (Gogoi 1991:93).

Trade in natural products with neighbouring areas was an important medium of commercial transaction between Assam and adjoining regions. Export to Bengal included cotton, *mujistha*, fir trees (*Agar*), gold, musk ponies, mustard seed, tobacco, betel nuts, lac, *endi*, and *muga* silk, elephant tusk, rhino horns, etc. Hamilton reported that Assam exported an amount of 10,000 *maund* of stick lac valued at Rs 35,000 to the Mughals in the early nineteenth century (Hamilton 1940:146). The royal administration imposed taxes on some timbers which were important sources of revenue to the state. The tax on the timbers was farmed out to the highest bidder. The timbers were cut during cold weather and when the rivers were on the rise, the logs were dragged down into the drains and floated down the Brahmaputra. The logs were then accumulated in the stacking grounds where the merchants from Dacca, Sirajganj, Jamalpur and Rajshahi from neighbouring Bengal purchased them and carried them down stream to their respective places. Grazing tax known as *Khasurri* at the rate of two *annas* for cows and four *annas* for buffaloes were also important sources of revenue to the royal treasury (Goswami 1987: 113). Illegal timber trade was rife and timbers of good quality were often procured without the legal permission of the ruling authorities. One Ratan Shah was caught red handed when he was accumulating aloe wood for Mughal Emperor Jahangir (1605-1627) at Singri, a place which was within the dominion of Ahom territory. This had led to clash between the ruling authorities (Baruah 1985:241).

Faunal resources were often the source of amusement for the Ahom rulers. Organizing animal fights was a popular entertainment for the Ahom monarchs. The kings themselves mounted on elephants and viewed the shows. Hunting was also another source of entertainment for the Ahom rulers. They caught fishes, tortoises, and crocodiles in large number and carried on hunting expeditions with small and big boats in jungles (Barua 1930:374-375)

Approach of the Ahom rulers towards the Neighbouring Tribes

The approaches of the Ahom rulers towards the neighbouring tribes did not follow a uniform pattern. Some of the tribes were tributaries of the Ahom kings while others were tribal kingdoms with which the Ahom rulers maintained diplomatic relations and imposed terms of vassalage at times of necessity. A system of administration was established under which local governors and officials were appointed to keep the frontier tribes under vigilance and control. The rulers did not interfere with the indig-

enous state system, mode of administration, religious beliefs, culture and tradition of the tribal states. There were some tribes like the *Nagas* with whom they had military encounters. A system known as *Posa* system was introduced by King Pratap Singha (1603-1641) by which the hill tribes who raided the neighbouring plains were given certain commodities by the villages situated in the plains areas on the condition that the tribes would refrain themselves from raiding the plains. This system was adopted in the case of the *Bhutias*, *Miris* and *Daflas*. The *Posa* system played an excellent role in protecting the *Ahom* plains from tribal raids. (Gait 1981:70-77)

The forest tribes were employed in a number of forest related works by the royal authorities. The indigenous knowledge and hunting skills of the tribes were utilised in forest administration. The forest dwelling tribes procured forest products for the royal households. The *Morans* and the *Borahi* tribes, for instance, supplied fuel woods to the royal houses and looked after the royal gardens. Some other tribes were engaged as hewers of wood, cooks, potters, medicine men, valets, and storekeepers. They were also employed for procuring forest products for commercial purposes. Functional groups like the *Morans* supplied the *Ahom* state with different types of forest products. Other groups supplied elephants and ivory, another with wild vegetable dyes, and honey (Guha 1991:67). Some tribes living on the frontier paid taxes to the *Ahom* government for cultivation. The hill tribes cultivating cotton paid a hoe tax to the *Ahom* state. The latter also received a higher rate of poll tax from artisans such as gold washers, brass workers and oil pressers (Guha 1990:240).

The *Ahom* kings as measure of extending jurisdiction over the tribes cleared forest lands and inhabited the areas by the frontier tribes. During wars or after military engagements, cleared forested areas were settled as villages inhabited by frontier tribes thus enhancing the scope of *Ahom* authority over them. For instance, the *Nagas* living in the low hills south of *Sibsagar* and *Lakhimpur* districts were claimed as subjects by the *Ahom* government and the *Nagas* had to pay taxes on slaves, elephant teeth, spear shafts, cloths and cotton. The chiefs were granted lands known as *Naga Khats* and were supervised by officers known as *Naga Kakatis*. Paths and roads constructed by clearing forests connected the villages (Bhuyan 1949: 46).

The *Ahoms* shared trading relations with the neighbouring tribes based on natural products that acted as medium commercial transactions between the tribes and the *Ahom* government. The *Ahoms* shared trade relations with the *Dafla*, *Mishmi*, *Miri*, *Naga*, and the *Garo* regions along with *Bengal* and *Tibet*. Articles like ginger, pepper, copper, cotton, musk, cow tails, bison, small horses and others were exported for import of natural and mineral products like fir trees, clove, cinnamon and others. Traders formed temporary trading partnerships in distant markets and carried boats loaded with local products. After selling them they returned with cargoes for sale. The mode of exchange was usually barter system. The commodities exchanged in barter between the *Mishmi* and *Abor* of North East Frontier and the plains of *Assam* were medicinal plants like *Mishmi teeta*, musk bags, *mujistha*, *gatheon* (an aromatic plant), bee wax, honey, ginger, tibetan rock salt, ivory, gold, fowls, eggs and cattle. Export to *Bengal* included cotton, *mujistha*, fir trees (*Agar*), gold, musk ponies, mustard seed, tobacco, betel nuts, lac, *endi*, and *muga* silk, elephant tusk, rhino horns, etc (Mackenzie reprint 1979:387).

Conclusion

Thus it can be assumed that the Ahom rulers endeavoured to tune the administration towards efficient forest utilisation. There existed a system of governance where certain departments were assigned to definite branches of forest management. The preservation and exploitation of floral and faunal species often depended on the requirements of the state and officials were engaged for the purpose. Certain faunal species like elephants enjoyed royal attention and thus royal protection and formed an important item of inter regional trade. Some commercial timber species were taxed while few others fetched commercial revenue often decided the royal policy of forest preservation of natural resources. Forest tribes appointed for procurement of natural products for the state demonstrate the approach of the Ahom rulers to utilise the indigenous specialised skills of the people. The royal approach towards the neighbouring tribes that was often dictated by political exigencies reveals the Ahom rulers as diplomat and discreet administrators. With the above conjecture, it can be stated that the forest policy of the Ahom rulers did not impinge into the indigenous forest rights of the people. However it does not overtly prove that the Ahom rulers maintained a balanced administration. The balance between state forest policies and indigenous forest rights was perhaps possible because the land man ratio was comparatively low and conservation of certain natural species did not directly intrude into the forest rights of the people. Moreover commercialisation of natural products did not reach the extent that it had under the British.

Notes

Tola: Tola was a traditional Ancient Indian unit of mass standardized as 180 troy grains. This system is still prevalent in various parts of India

Khedda: Khedda was a system of trapping or capturing a full herd of elephants by driving them into a stockade with the help of skilled elephant trainer mounted on a domesticated elephant. This system of elephant catching operation was in practice in Assam and in South India.

MelaShikar: Under this system of catching elephants prevalent in Assam, a wild elephant is lassoed from the back of a trained elephant known as *koonki*.

Kala-azar: Kala-azar or black fever is a fatal disease whereby due to a parasitic attack the internal organs like liver, spleen, and bone marrow gets infected.

References

- Acharya, N.N. 1984. *The History of Medieval Assam*, New Delhi, Omsons Publication, New Delhi.
- Acharya, N.N. 1985. *North East as viewed by the Foreigners*, Omsons Publications, New Delhi.
- Allen, B.C. 1905. *Assam District Gazetters, Volume VI, Nowgong*, City Press, Calcutta.
- Barpujari, H.K. 1963, *Assam in the days of the Company (1826-1859)*, Lawyers Book Stall, Gauhati.
- Barua, Birinchi Kumar. 1951. *A Cultural History of Assam*, Vol I, Nowgong, Assam.

- Barua, Golap Chandra. 1930. *Ahom Buranji*, Baptist Mission Press, Calcutta.
- Barua, Swarnalata. 1993. *Last Days of Ahom Monarchy*, MunshiramManoharlal Publishers, New Delhi.
- Basu, Nirmal Kumar. 1970. *Assam in the Ahom Age 1228-1826*, Sanskrit PustakBhander, Calcutta.
- Bhuyan, Surya Kumar. 1947. *LachitBarphukan and his Times A History of the Assam-Mughal conflicts of the period 1667 to 1671 A.D.*, Department of Historical and Antiquarian Studies, Gauhati.
- Bhuyan, Surya Kumar edited and translated.1933, reprint 1983.*TunghungiaBuranji or A History of Assam, 1621-1826 A.D.*, D.K Publishers and Distributors, New Delhi.
- Bhuyun, Surya Kumar. 1949. *Anglo-Assamese Relations 1771-1826*, Department of Historical and Antiquarian Studies in Assam, Gauhati.
- Chaliha, Bhaba Prasad (ed). 1978. *Sankardeva Studies in Culture*,SrimantaSankardevaSangha, Gauhati, Assam.
- Champion, H. G. and Seth, S. K. 1968.*A Revised Survey of Forest Types of India*, Govt. of India Press, New Delhi.
- Choudhury, Pratap Chandra (ed). 1976. *Hastividyarnava*, Assam Publication Board, Gauhati.
- Cosh'M, John. 1837 reprint 1986. *Topography of Assam*, Logos Press, New Delhi.
- D' Souza, R. 2004. Rigidity and the affliction of capitalist property: Colonial land revenue and the recasting of nature. *Studies in History 20*: 237-272
- Das Gupta, Kalyan Kumar. 1990. *Wood Carvings of Eastern India*, Firma KLM Private Ltd, Calcutta.
- Fathiya-i-ibryya by ShihabudinTalish in translation byJadunathSarkar, Assam and the Ahoms in 1660s A.D, Journal of Bihar and Orissa Research Society, Volume I, 1915, pp 179-195 cited in AmalenduGuha, The Ahom Political System: An Enquiry into the State Formation Process in Medieval Assam (1228-1714), *Social Scientist*, Volume II, No 12, December 1983, p 6.
- GadgilMadhav and Guha Ramachandra. 1992. *This Fissured Land: A Ecological History of India*, Oxford University Press New Delhi.
- Gait, Edward. 1905 and reprint 1981.*A History of Assam*, LBS Publications, Gauhati.
- Gogoi, Lila. 1991. *The History of the system of Ahom Administration*, PunthiPustak, Calcutta.
- Gogoi, NitulKumar, 2006. *Continuity and Change among the Ahom*, Concept Publishing Company, New Delhi.
- Goswami, Shruti Dev. 1987. *Aspects of Revenue Administration in Assam*, Mittal Publications, New Delhi.
- Grove Richard, Damodaran Vinita, SangwanSatpal (ed). 1998. *Nature and the Orient The Environmental History of South and Southeast Asia*, Oxford University Press, New Delhi.
- Guha, Amalendu. 1983. The Ahom Political System: An Enquiry into the State Formation Process in Medieval Assam (1228-1714), *Social Scientist*, Volume 1(12).

- Guha, Amalendu. 1991. *Medieval and Early Colonial Assam Society, Polity, Economy*, K.P Bagchi and Company, Calcutta.
- Guha, Amalendu. 2009. The Medieval Economy of Assam, in Tapan Roy Chaudhuri and Irfan Habib edited, 1982 reprint 2009. *The Cambridge Economic History of India, Volume I 1200-1750*, Orient Longman in association with Cambridge University Press, Delhi, pp 478-505.
- Guha, Ramachandra. 1989. *The Unquiet Woods Ecological Change and Peasant Resistance in the Himalayas*, Oxford University Press, New Delhi.
- Hamilton, Francis. 1940. *An Account of Assam*, Department of Historical and Antiquarian Studies, Narayani Handique Historical Institute, Government of Assam, Gauhati.
- Hunter, W.W. 1879, reprint 1975. *Statistical Account of Assam*, Volume II, B.R Publishing House, New Delhi.
- Hannay, S.F. 1845. Observations on the quality of Principal Timber trees growing in the vicinity of Upper Assam, *Journal of the Agricultural and Horticultural Society of India*, Vol 4, pp 116-133.
- Mackenzie, Alexander. 1884 reprint 1979. *The Northern Frontier of India*, Mittal Publications, Delhi.
- Majid, A. 1903. *Monograph on Wood Carving in Assam*, Assam Secretariat Printing Office, Shillong.
- Medhi, Dilip Kumar. 2008. *Man and Environment in North East India*, Vol III, Heritage Issue I, EBH Publishers, Guwahati.
- Rajan, S.Ravi, 2008. *Modernising Nature: Forestry and Imperial Economic Development 1800-1850*, Orient Longman, New Delhi.
- Rangarajan, Mahesh. 1996. *Fencing the Forests, Conservation and Ecological Change in India's Central Provinces 1860-1914*, Oxford University Press, New Delhi.
- Robinson, William. 1841 reprint 1975. *A Descriptive Account of Assam*, Spectrum Publications, New Delhi and Calcutta.
- Roy Chaudhuri Tapan and Habib Irfan edited. 1982 reprint 2009. *The Cambridge Economic History of India, Volume I 1200-1750*, Orient Longman in association with Cambridge University Press, Delhi.
- Saikia, Arupjyoti. 2011. *Forests and Ecological History of Assam*, New Delhi, Oxford University Press. New Delhi.
- Saikia, Sayeeda Yasmin. 1997. *In the Meadows of gold telling tales of the Swargadeos at the crossroads of Assam*, Guwahati, Spectrum Publications, Gauhati.
- Sarma, Amulya Chandra. 1986. *Tai Ahom System of Government*, B.R Publishing Corporation, New Delhi.
- Shihabuddin Talish, *Fathiya I Ibrya* translated in the Journal of the Bihar and Orissa Research Society, Volume I, p.179 cited by N. N. Acharya, *North East as viewed by the Foreigners*, Gauhati, New Delhi, Omsons Publications, 1985, p 81.
- Skaria, Ajay. 'Timber Conservancy, Desiccationism and Scientific Forestry: The Dangs 1840s-1920s', in Richard Grove, Vinita Damodaran, Satpal Sangwan edited, 1998. *Nature and the Orient The Environmental History of South and South-*

east Asia, Oxford University Press, New Delhi.

Sivaramakrishnan, K. 1999. *Modern Forests: Statemaking and Environmental Change in Colonial Eastern India*, Oxford University Press, New Delhi.