

Conservation of Forest in the Assam-Meghalaya Foothills of Kamrup District, Assam

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Abstract

Forest is a resource that plays important role in nature. It is a vast storehouse of natural resources. Geographers have often exhibited curiosity in man-environment relationships (Radel, 2009). The man-environment relationship has an important role in the ecosystems of an area. Earth, being the habitat of man, any alteration in the name of development or other mechanisms generates an adverse impact upon the Earth's surface. Forest is one of nature's priceless boons but human exploitation has created such a great strain on forests that in many areas they almost dwindling (Hazarika, 2017). The present study is an attempt to study the practices of forest conservation in the foothill belt of Kamrup district and the role of communities and their understanding of the natural environment around them to emphasize sustainability without damaging nature. In this paper, the conservational practices of the forest-based communities of the foothill belt of the Assam-Meghalaya region along the Kamrup district of Assam are discussed.

Keywords: *Conservation, environment, forest management, foothills.*

Introduction

The study area of Assam-Meghalaya foothills is transitioning rapidly with increasing human advent. The change is associated with increasing industrialization and population growth. This interchange and mutual adjustment of the landscape have sustained the increasing demands of the ever-growing human growth. The indigenous communities inhabiting the foothill belt plays important role in the forest ecosystem and modifications done by humanization in these areas. Forests and indigenous communities are interrelated with each other via culture and traditions (Tripathi, 2016). Their socio-economic and cultural life is shaped by the forest ecology. They live in the vicinity of forests and rely on forests to sustain themselves. They evolve their existence around the forest and their lifestyle depends upon the forests (Tripathi, 2016). In recent decades, new settlers, ethnically displaced persons, immigrants have contributed to widespread encroachment in the forested areas (Assam Forest Policy, 2004).

Objectives of the study

The objectives of the study are as follows:

1. To analyze the conservational practices prevalent in Assam-Meghalaya foothill belt along the Kamrup district of Assam.
2. To gain insight into the practices of local forest-based communities and their role in the process of conservation of the forests of the foothill belt.

Methodology:

The methodology adopted for the study uses both primary and secondary data of the area. The data from various government sources, reports, and publications are collected and thoroughly analyzed, and personal observations are done throughout the study area. Above all, information collected from field visits and personal observation in the study area are used.

Analysis

Study area

The study area is confined to the Assam- Meghalaya foothill belt bordering the Kamrup district of Assam. Kamrup district is surrounded by Kamrup Metropolitan district in the east, Goalpara district in the west, Darrang district in the north, and Meghalaya state in the south (Figure 1). The foothill zone occupies a total geographical area of 778.27 sq. kms. This foothill belt of the Assam-Meghalaya border is the northward projections of Garo hills and the Khasi-Jaintia hills. The foothill zone along Kamrup district under study stretches for a distance of about 78.6 kms from west to east with an elevation ranging from 42 to 1124 meters. Geographically, the foothill belt bordering the Kamrup district lies between geo-coordinates $91^{\circ}0' 3.338''$ E and $91^{\circ}46' 22.82''$ E longitude and $26^{\circ}0'4.432''$ N and $26^{\circ}13'46.372''$ N latitude.

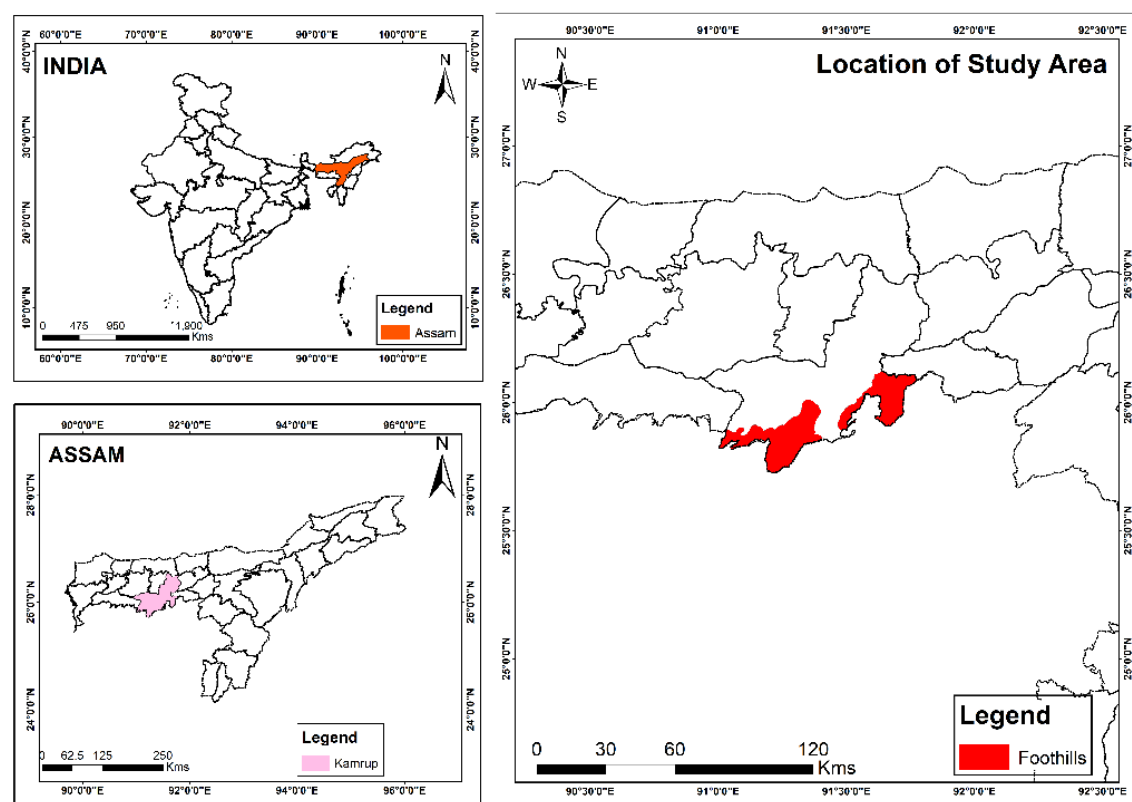


Figure 1: Location of the study area

Role of local people towards conservation of the forest

Humans as anthropogenic agents modify their environment with their skills and technologies. The role of culture in the conservation of the environment is immensely significant. The main purpose behind the

study is to explore how the local inhabitants of the foothills of Assam in the Kamrup district have sustained the environment around them culturally.

Over the last few decades population in the foothill zone has increased at a tremendous pace. Major human activities that are increasing the pressure on the forests include encroachment, border disputes, shifting cultivation, insurgency & ethnic strife, and illegal poaching and smuggling. Area covered under settlements has increased at a faster rate due to growing urban sprawls. Illegal encroachment in forested areas has increased the built-up areas of the foothill zone. Major reserved forests and wildlife sanctuaries located in the foothill belt of Kamrup district are, Talimara RF, Kulsi RF, Mataikhal RF, Mayong Hill RF, Pantan RF, Rajapara RF, Bariduar RF, Barjuli RF, Chayagaon RF, Garbhanga RF, Rani RF, Deepor Beel Wildlife sanctuaries. The indigenous people settled in and around the foothill belt are an important part of the foothill environment as their philosophical standpoint influence the conservation and nature of resource utilization. Their livelihood and sustenance depend on the forest ecology while their culture encourages them to cherish and honor nature. Mostly, in the Kamrup district, Karbi, Bodo, Rabha, and Lalung people are settled. Rani Chaygaon tribal belt of Kamrup district is dominated by Rabhas, the tribal belt of western Kamrup is dominated by Rabha and Lalung people (Saikia, Medhi, et al, 2012). Dakhin Rani, the southernmost part of Palasbari Revenue Circle, Chaygaon Pantan area and parts of Boko Revenue Circle are the areas of forest tribes. Traditionally, indigenous communities were founded on eco-centered principles and inclusive, non-materialist worldviews (Banerjee, 2002). Similar to indigenous communities throughout the world, these communities have often retained cultures and traditions, and beliefs aligned with the concept of sustenance. The concept of sustainability derives from their ideology of constructing a conscious strategy to establish an equilibrium between the human survival framework and the natural environment, bearing in mind the needs of future generations. Indigenous societies are origins of alternate environmental ideals besides the mainstream consumerist ones.

Some of the beliefs prevalent among tribal people of the foothill belt came into light after interaction with them towards their environment are: (i) Their use of natural resources is only for sustenance., (ii) The immoral felling of trees is deemed as taboo. (iii) Forest should be protected. (iv) Harming the forest and wildlife is considered immoral. (v) In few villages, the forest is worshipped and festivals are held for the celebration of the grove. (vi) The protection and conservation is the responsibility of the village communities.

Forest-based communities have their livelihood and source of household supplies from the forests. Thus, the forest has sentimental values in the community lives of the inhabitants. In the study area community-oriented conservation measures are traditionally adopted. These traditions are practiced in other states of North-East India including Meghalaya, Manipur, and Mizoram (Darlong and Barik, 1998). *Lao Lyngdoh* (priests' forest), *Lao Niam* (ritual forests), and *Lao kyntang* (forests of the clan) are the holy groves named in Meghalaya (Syngai, 1999). The Garo communities of southernmost parts of the foothills still follow these beliefs. Besides sacred groves where strict conservation is imposed, restricted resource exploitation is permitted in those groves, although some tribes and sub-tribes such as Dimasa, Garo, Karbi, Rabha, and Lalung maintain community-based forest reserves. Community plantation for the restoration of balance in the forest villages is a common practice. The protection and conservation of the forest resources under

the forest villages is the responsibility of the village head. Supply of woods and sustainable extraction is approved with permission from headman and village peers (Guha *et.al.*, 1999).

Forest degradation

Apart from these above-mentioned problems illegal mining activities and destructive cutting of hills for stone quarrying have a long-term impact on the forest areas of the foothills. Blasting of stones for quarry and illegal breaking down of stones for generation and supply of materials have been going on in the hills of Kamrup district. The resultant impacts of these activities includes the change in the natural regime of the slopes, destruction of the forest belt, changes occurring in the vegetation cover, and aggravated runoff causing landslide and erosion at a tremendous level. A huge part of reserved forests is converted into the degraded forest. The highest area under degraded forest cover is observed in Garbhanga Reserved Forest which is 31.97 sq. kms followed by Pantan Reserved Forest covering a total of 14.18 sq. kms. Other reserved forests that have been degraded are Rani Reserved Forest (4.06 sq. kms) and Jaipur Reserved Forest (3.74 sq. kms).

Problems associated with forest degradation

Slow but gradual urban expansion, industrialization and increasing demands of population and agglomeration consequently lead to increasing demands for agricultural land, natural resource exploitation and habitat destruction for human settlements. Thus, industrial growth is violating the community-based beliefs and practices of conservation of these indigenous communities. With time these communities are engaging themselves in the commercial trade of timber, bamboo and other forest resources. It is evident that the lack of alternative livelihoods have forced many villagers to engage in activities threatening the forest. Many local people are gradually contributing to the illegal felling of timber under the influence of timber merchants (Sharma & Sarma, 2014). Most of the bamboo forests are in the hill slopes and with unplanned and unscientific ways of bamboo extraction, these forests have been degrading increasing the geo-environmental hazards in the area (Talukdar, 2003). These factors are destroying our forest reserves and increasing the dimension of degraded forests. With the depletion of the forest and loss of habitat, man-animal conflict is also increasing day-by-day. Therefore, proper management strategies and awareness need to be implemented. The need of the hour is to adapt the conservational perspective and eco-centric viewpoint from these communities to protect the rich reserves of forest in the foothill belt. Deforestation and exploitation of resources such as timber and forest products by agencies that could bypass laws is a major concern (Pegu & Pegu, 2018). Sustainability elements are the ecological priorities with economic and socio-cultural responsibilities.

Conservational measures

However, planned plantations taken up in the study area are efforts made by the Forest Division and Assam Project on Forest and Biodiversity Conservation Society (APFBC) for sustainable management of the diverse resource. The overall goal of this initiative is to restore forest ecosystems. To enhance their livelihoods and ensure conservation and sustainable use of biodiversity, an effort has been made to engage the forest-dependent communities under this initiative. These practices will support the multidimensional

conservational process to restore the degraded forest and also to facilitate employment generation and productivity of the region. Types of plantation initiated in the foothill belt of Kamrup district include: Non-Timber Forest Produces (N.T.F.Ps), Assisted Natural Regeneration (ANR), Mixed Hardwood Plantation and Firewood Plantation. According to the Joint Forest Management (JFM) practices of the state, participatory forest management would benefit from the abundant potential of people living in rural and forest areas (Assam Forest Policy, 2004). In many cases, a shift from state forestry to multistakeholder forestry with the active participation of local people is a key factor in achieving positive trends (FAO, 2016). Forest protection agreements with households are being used to involve local people in forest-related activities and to develop community-based forest management (FAO, 2016). Regeneration of Sal (*Shore robusta*), Bamboo (*Dendrocalamus hamiltonii*), and replantation of teak (*Tectona grandis*) forests by indigenous species is observed. Involvement of local communities in the sustainable management of land use methods for converting the degraded areas into productive ones has proved beneficial (Das and Bhagabati, 2019). The focus should be on delegating rights of communities, who can play important role in forest conservation of forest resources through their traditional conservative knowledge (Tripathi, 2016). The forest cover will be increased and maintained progressively through scientific and sustainable forest management practices that emphasize traditional knowledge and understanding of Assam ethnic communities (Assam Forest Policy 2004).

Conclusion

The study shows that the local beliefs and livelihood patterns must urgently be taken into account in the broader perspective of conservation policy. The communities in the forest villages have a greater role to play in the conservation process. Forest policies need to adopt the eco-centric principles of communities residing in these forest villages. The government authorities should work with the NGOs and local communities to build sustainable forest-based livelihoods and employment generation. Thus, the diverse forest reserves of the foothill region need to be properly monitored and protected from immense humanization and other anthropogenic activities. Therefore, adopting an eco-centric viewpoint from these communities and their outlook towards their habitat can prove to be pragmatic and empirical towards the long-term sustainability of the forest resources.

References:

1. Assam Forest Policy, (2004). <http://online.assam.gov.in/web/envforest>.
2. Banerjee, S. B. (2002). Reinventing colonialism: Biotechnology, intellectual property rights and the new economics of sustainable development. *Ninth Biennial Conference of the International Association for the Study of Common Property*, Victoria Falls.
3. Belshaw, C. (2001). *Environmental Philosophy*. Chesham: Acumen. 1-902683-21-8.
4. Darlong, V.T. and Barik, S.K. (1998). Traditional Practices and Recent Initiatives in Biodiversity Conservation in Northeast India; Lessons from Peoples Experiences (Abstract). *Seminar on Environmental Problems in North-Eastern India*. Dept. of Ecology, Assam University, Silchar, India.
5. Guha, K., Gupta, A., & Dutta, B.K. (1999). Indigenous Conservation Initiatives in Barak Valley, Assam. *Biodiversity- North East India Perspectives*. In Kharbuli, B., Syiem, D. & Kayang, H. (Eds.).

North Eastern Biodiversity Research Cell, North-Eastern Hill University, Shillong, Meghalaya, India, 42-46.

6. Gupta, A., and Guha, K. (2002). Tradition and Conservation in Northeastern India: An Ethical Analysis. *Eubios Journal of Asian and International Bioethics*, 12, 15-18.
7. Hazarika, A. (2017). Forest Management and Forest Conservation in Assam, *International Journal of Humanities & Social Science Studies (IJHSSS)*, 3(4), 407-414.
8. Pegu, B., & Pegu, M. (2018). The Conservation Discourse in Assam Must Consider a Sustainable Rehabilitation Plan for the Mising Tribe. *Economic and Political Weekly*, 53(41), 2349-8846.
9. Radel, C. (2009). Natures, Gendered. *International Encyclopedia of Human Geography*, 331-336. <https://doi.org/10.1016/B978-008044910-4.00573-3>.
10. Saikia, S., Medhi, B., & Medhi, B.K. (2012). Spatial Distribution of Tribal Population and Inter Tribal Differences in Population Growth: A Critical Review on Demography and Immigration in Assam. *IOSR Journal of Humanities and Social Science (JHSS)*, 3(3), 23-30. www.iosrjournals.org.
11. Sarkar, S. (2012). *Environmental philosophy: from theory to practice*. Wiley-Blackwell. Chichester. West Sussex. 978-0-470-67182-5. 224.
12. Sharma, C. K. & Sarma, I. (2014). Issues of Conservation and Livelihood in a Forest Village of Assam. *International Journal of Rural Management*, 10, 47-68. 10.1177/0973005214526502.
13. Syngai, D. (1999). Sacred Groves of Meghalaya. In: Biodiversity- North East India Perspectives. In Kharbuli, B., Syiem, D. & Kayang, H. (Eds.). *North Eastern Biodiversity Research Cell*. North-Eastern Hill University. Shillong, Meghalaya, India, 70-76.
14. Talukdar, B.K. (2003). Status, Trends and Challenges of Forest Conservation in Assam, India, *XII World Forestry Congress, Canada*. <http://www.fao.org/3/XII/0697-B3.html>.
15. Tripathi, P. (2016). Tribes and Forest: A critical appraisal of the tribal forest right in India. *Research Journal of Social Science and Management*, 6, 6-6.
16. FAO. (2016). *State of the World's Forests 2016*, Forests and agriculture: land-use challenges and opportunities, Rome, 978-92-5-109208-8. <http://www.fao.org/>.
17. Das, I., & Bhagabati, A. K. (2017). Land use/land cover change in Rani-Garbhanga reserve forest area, Kamrup, Assam. *International Journal of Current Research*, 9(2), 46921-46924.