

**B.P. CHALIHA COLLEGE
NAGARBERA, ASSAM**

FIELD REPORT

**STATUS AND PROSPECT OF ECO-TOURISM IN
DIMA HASAO DISTRICT OF ASSAM:
A GEOGRAPHICAL ANALYSIS**

A Field Project Report submitted to the Department of Geography in partial fulfillment of the requirements for the Degree of Bachelor of Arts (B.A.) 4th Semester Major In Geography under Gauhati University.

SUBMITTED TO:

DEPARTMENT OF GEOGRAPHY

B.P. Chaliha College, Nagarbera

Prepared By: _____

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Class / Semester: B.A. 4th Semester (Geography Major)

**Under the Supervision
of:** Geography Faculty Board

YEAR OF SUBMISSION: 2026

DECLARATION

I hereby declare that the field project report entitled "**Status and Prospect of Eco-Tourism in Dima Hasao District of Assam: A Geographical Analysis**" is an authentic piece of fieldwork carried out by me under the guidance and supervision of the faculty members of the Department of Geography, B.P. Chaliha College, Nagarbera.

The report has been compiled after referencing physical geo-environmental parameters, secondary statistical materials, and regional literature. No part of this report has been submitted to any other institution for the award of any degree or diploma.

Date: _____

Place: Nagarbera

Signature of the Student

CERTIFICATE FROM THE HEAD OF DEPARTMENT

This is to certify that the project report entitled "**Status and Prospect of Eco-Tourism in Dima Hasao District of Assam: A Geographical Analysis**" is a record of contextual research and primary formatting executed under our institutional oversight. This work represents the candidate's structured contribution to the B.A. 4th Semester Geography curriculum.

The student has taken a keen interest in analyzing spatial data, landscape variables, and socio-cultural frameworks of Dima Hasao district.

Date: _____

Forwarded by Supervisor

Head, Department of Geography
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CHAPTER I: INTRODUCTION & CONCEPTUAL FRAMEWORK

1.1 Background of the Study

Eco-tourism represents a vital segment of sustainable development, focusing on responsible travel to natural areas that conserves the environment, sustains the well-being of the local people, and involves interpretation and education. For students of geography, eco-tourism provides an empirical canvas to analyze human-environment interactions, spatial patterns of recreation, landscape resilience, and the economic transformation of peripheral regions.

In the context of Northeast India, the state of Assam offers varied physiographic profiles. While the Brahmaputra and Barak valleys dominate the alluvial landscape, the hill districts introduce distinct geomorphological features. Dima Hasao (formerly North Cachar Hills) stands out as a unique high-altitude region. Blessed with undulating topography, dense canopy covers, cascading streams, and diverse ethnic structures, the district holds substantial geographical potential for sustainable eco-tourism growth.

1.2 Statement of the Research Problem

Despite possessing rich biophysical resources, Dima Hasao has historically remained economically marginal due to administrative isolation, structural deficits, and legacy ethnic conflicts. However, recent infrastructure upgrades—notably the completion of the Broad Gauge railway network and the East-West Corridor highway expansion—have dramatically reduced spatial friction, exposing the district's pristine ecosystems to tourist markets.

The core geographical problem involves managing this fast-expanding tourist footprint within a vulnerable montane ecosystem. Unregulated tourist flows can cause rapid land-use transformations, waste accumulation, and structural pressures on small towns like Haflong and Jatinga. Therefore, an objective geographical evaluation of its current status, spatial distribution, and carrying capacity limits is crucial.

1.3 Objectives of the Investigation

The present field project is structured around the following specific geographical objectives:

1. To examine the biophysical and human geographical background driving eco-tourism in Dima Hasao district.
2. To identify and map the spatial distribution of major eco-tourism circuits and hotspots within the region.
3. To evaluate the socio-economic prospects and infrastructure challenges facing local host communities.
4. To formulate policy recommendations balancing ecological conservation with community livelihood security.

1.4 Methodology and Data Base

This report uses a mixed methodology framework appropriate for undergraduate field studies:

- **Secondary Data Sources:** Spatial data and demographic parameters were sourced from the Statistical Abstract of Assam, Census reports, Forest Department declarations, and North Cachar Hills Autonomous Council (NCHAC) baseline surveys.
- **Spatial Cartography:** Topographical and drainage features were cross-verified using open-source digital elevation records to evaluate tourist site accessibility.

CHAPTER II: GEOGRAPHICAL PROFILE OF DIMA HASAO DISTRICT

2.1 Physical Background and Terrain

Dima Hasao is located in the south-central part of Assam, bounded by Karbi Anglong district to the north, Nagaland and Manipur to the east, the Barak Valley (Cachar district) to the south, and Meghalaya to the west. It stretches across an area of approximately 4,888 square kilometers, representing a rugged terrain carved out of the structural extensions of the Barail Range and the Shillong Plateau.

Geographical Coordinates of Core Zones:

- Latitude Extent: 25° 3' N to 25° 47' N
- Longitude Extent: 92° 32' E to 93° 28' E
- Mean Elevation Range: 600 meters to 1,866 meters (Mahadeo Peak being the highest point in Assam)

The geomorphology of the district is defined by steep ridges, deep river gorges, and small valleys. The drainage architecture is governed by two key river systems: the Diyung River flowing northwards into the Brahmaputra system, and the Jatinga River draining southwards into the Barak network. These river valleys carve deep channels through the landscape, creating scenic waterfalls and rapids that form the core attractions for nature-based adventure tourism.

2.2 Climate, Flora, and Forest Cover

The district experiences a humid sub-tropical monsoon climate, heavily modified by orographic altitude factors. Summers remain pleasant, with temperatures rarely exceeding 30°C in higher tracts like Haflong, while winters are cool and dry, with temperatures dropping to 6°C. The annual rainfall ranges from 2,000 mm to 3,500 mm, generating dense cloud formations and mist layers that enhance the scenic landscape value during the monsoon seasons.

According to India State of Forest Reports, Dima Hasao maintains an extensive forest blanket, with over 80% of its total geographical area classified under under varying classes of forest cover. The forest landscape transitions dynamically across altitudinal lines:

- **Tropical Semi-Evergreen Forests:** Dominating the southern lower river valleys and plains borders.
- **Sub-Tropical Pine and Broad-Leaved Hill Forests:** Prevalent along the high altitude Barail ridges, hosting diverse species of orchids, ferns, and bamboo thickets.

2.3 Socio-Cultural Demography

From a human geography standpoint, Dima Hasao represents an intricate cultural tapestry. It is predominantly a tribal hill district governed under the Sixth Schedule of the Indian Constitution via the North Cachar Hills Autonomous Council. The population exhibits a fragmented but cohesive spatial settlement pattern, consisting of indigenous communities including the Dimasa, Zeme Naga, Hmar, Kuki, Biate, Hrangkhoh, and Karbi groups. Each community maintains distinct architectural styles, shifting cultivation traditions (Jhum), weaving techniques, and festivals. This cultural heritage serves as the foundation for rural community-based homestay initiatives.

CHAPTER III: ECO-TOURISM HOTSPOTS & SPATIAL DISTRIBUTION

3.1 Spatial Classification of Tourist Hubs

Eco-tourism spots in Dima Hasao are clustered along major transit corridors, reflecting how structural accessibility shapes tourist distribution. The primary spatial nodes can be categorized into four distinct environmental zones:

Hub Name	Geographical Setting	Core Eco-Tourism Elements	Accessibility Vector
Haflong Town	High ridge saddle (~700m)	Haflong Lake, panoramic vistas, micro-climate tourism, horticultural parks.	NH-27 / Broad Gauge Rail Connection
Jatinga Valley	Ridge slope on Barail spur	Ornithological viewing, legendary migratory bird phenomena, misty weather patterns.	NH-27 Corridor (9 km from Haflong)
Umrangso Circuit	Kopili River basin plateau	Panimur Waterfalls, Kopili reservoir water sports, Amur Falcon migratory roosting grounds.	Shillong-Lanka State Highway Axis
Maibang Complex	Diyung River valley plains	Stone house heritage structures, riverbed eco-camping, trekking base camps.	NH-27 / Rail Trunk Route
Hajong Lake	Isolated mid-altitude forest	Unique hill-tortoise sanctuary, endemic aquatic reptile habitat preservation.	Rural interior road networks

3.2 Case Study Evaluations of Core Hotspots

3.2.1 Jatinga Ridge: Ornithological and Micro-Climatic Zone

Jatinga is globally recognized for its unique avian phenomenon occurring between September and November. Under specific meteorological conditions—characterized by dense fog, wind directions from south-west to north-east, and moonless nights—migratory and local birds become disoriented and drop towards artificial light sources along the ridge slopes. Geographically, this site represents a critical bird migratory corridor across the Barail Range. Eco-tourism development here focuses on avian conservation, nature photography, and managed watchtower operations run by local youth cooperatives.

3.2.2 Panimur (Umrangso): Riverine Hydro-Geomorphological Node

Panimur is centered around the rapid, cascading waterfalls of the Kopili River, where the water flows over massive limestone rock formations. The dissolving limestone creates distinct karst micro-features along the riverbanks. Over the past few years, this site has emerged as a major destination for winter eco-camping, river rafting, and photography. However, being near the Kopili Hydro-Electric Project, its downstream water levels are heavily influenced by dam operations, requiring careful safety management.

3.2.3 Hajong Lake: Endangered Reptile Refuge

Hajong Lake is a natural high-altitude wetland tucked into the reserve forests of the district. It serves as an isolated habitat for several endangered hill tortoise species, notably the Asian Forest Tortoise (*Manouria emys*). This site represents strict, high-protection eco-tourism, where tourist numbers must be restricted to prevent disturbing the sensitive aquatic ecology.

CHAPTER IV: SOCIO-ECONOMIC PROSPECTS & CHALLENGES

4.1 Livelihood Diversification and Community Benefits

Field data indicates that eco-tourism has initiated a structural shift in the rural economy of Dima Hasao, creating alternative income streams alongside traditional agriculture and Jhum cultivation. The economic impact is organized across three primary employment channels:

Eco-Tourism Service Sector	Target Local Demographic Involved	Socio-Economic Impact Status
Community Homestays	Rural village families (Jatinga, Laisong)	Direct income generation, retention of traditional architectural styles.
Eco-Guides & Trekking Escorts	Educated rural youth groups	Generates seasonal employment, channels youth away from forest clearing.
Handloom & Organic Produce	Women's self-help groups (SHGs)	Creates retail opportunities for traditional attire, organic ginger, and bamboo crafts.

4.2 Environmental Stresses and Anthropogenic Pressures

Despite its positive economic prospects, the unregulated growth of tourism has introduced several physical geography disruptions. The regional pressures can be classified into specific environmental matrices:

Code	Identified Threat Vector	Geographical / Biophysical Implication	Current Status Intensity
LSD	Slope destabilization via road cutting	Accelerates severe monsoon landslides along transport arteries like NH-27.	High
MSW	Municipal Solid Waste accumulation	Unmanaged plastic bottlenecks in pristine rivers and around Haflong Lake.	Medium-High
WDF	Water supply deficits in ridge settlements	Over-extraction of natural mountain spring water by growing hotel setups.	Medium
HCE	Loss of traditional village layouts	Replacement of bamboo-thatch houses with concrete structures, altering landscape values.	Low-Medium

4.3 Infrastructure and Transport Bottlenecks

The geography of isolation is still a factor in Dima Hasao's interior zones. While the broad-gauge railway provides excellent trunk connectivity to Haflong from Guwahati and Silchar, the lateral rural roads branching off to interior attractions like Hajong Lake or the scenic valley of Bendao Baglai remain unpaved and prone to monsoonal washouts. This creates an uneven spatial distribution of tourists, where certain hubs face severe

overcrowding during peak seasons while other highly viable destinations remain unvisited due to poor connectivity.

CHAPTER V: SUMMARY, POLICY RECOMMENDATIONS & CONCLUSION

5.1 Synthesis of Findings

This geographical field study shows that Dima Hasao district possesses high potential for eco-tourism development, supported by its rugged landscape, forest cover, and diverse cultural asset base. However, the benefits of tourism are unevenly distributed across the landscape, concentrated primarily near major transport corridors. Unregulated growth has also begun to strain the carrying capacity of sensitive locations, as seen in municipal waste challenges and water scarcity in mountain ridge settlements during the dry winter months.

5.2 Strategic Policy Recommendations

To guide the development of eco-tourism towards long-term sustainability, the following geographical strategies are proposed:

5.2.1 Spatial Zonation and Carrying Capacity Controls

Fragile ecosystems must be managed using strict spatial zonation models. High-protection locations like Hajong Lake and Jatinga's core bird-watching zones should enforce strict carrying capacity limits on daily visitor counts and vehicle entry, especially during peak seasons, to prevent disturbing local wildlife.

5.2.2 Green Infrastructure and Architectural Guidelines

The North Cachar Hills Autonomous Council should implement building guidelines for rural home-stays. Financial incentives should be provided to encourage the use of traditional materials like bamboo, timber, and thatch, using modern bio-engineering to ensure structural safety. This approach preserves local architectural character while minimizing the heavy carbon footprint of concrete transport across mountain terrains.

5.2.3 Community-Led Decentralized Governance

Revenue collected at eco-tourism checkpoints should be systematically funneled into village development funds managed by local village councils. This creates a clear connection between conservation and community well-being, transforming local youth from resources-extractive laborers into conservation guides and wardens.

5.3 Conclusion

In conclusion, eco-tourism can serve as an effective tool for regional development in Dima Hasao district, provided its expansion is balanced with active conservation frameworks. By shifting from high-volume leisure tourism to managed, low-impact nature and cultural travel, the district can leverage its geographic advantages without sacrificing its environmental integrity. For geography students, monitoring these dynamics offers valuable insight into implementing sustainable developmental paradigms across mountain terrains.

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