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Exploring Tourism Potential for Miao town of Changlang District in Arunachal Pradesh

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Abstract: ***Hill tourism has always been a part of the attraction because of its scenic beauty, better air quality and a favourable thermal environment. Although the north-eastern part of India has a plethora of tourist attractions, little has been done to explore the natural resources. Patkai,a range in the Himalayas, is home to a vast variety of wildlife and has a unique ecosystem that attracts nature lovers looking for exceptional experiences. In the setting of hill regions nestled in the Himalayas, the religious and socio-cultural components of the tourism resources are of equal importance to the many dazzling natural attractions and aesthetic beauty. Nature related activities and sports have transformed the hill recreation tour into an adventure tour. Mountaineering and adventure tourism alone generate significant revenue from tourism. The unrelenting influx of tourists to these hubs has upset the traditional demand and supply balance due to a lack of forethought. Acute problems with land use, environmental pollution and deterioration, demand on infrastructure, transport, and services. Arunachal Pradesh state lies in Eastern India and has a mountainous terrain with rich flora and fauna. Changlang district lies in south-eastern part of Arunachal Pradesh. A better planning and systematic regulation can improve the tourism and tourism management both.***
Keywords: hill tourism, adventure sports, North-east India, Seven Sisters, National Parks

I. INTRODUCTION

Tourism is identified as an important parameter to boost development of a region which is economically backward and has a strong potential of tourist attraction. This attraction could be in the form of natural beauty (hills, seas, rivers), Religious, Cultural (desert of Rajasthan), Historic sites and precincts, or any other source of attraction. Leisure tourism is regarded as one of the biggest 'peace industry' attracting multi-ethnic and heterogenous population to a particular location. Entire Himalayan region is having a potential of leisure tourism. Value addition of these destination is done by adding multi activity zones for the tourists. North-eastern states boast of hygiene and cleanliness. Clean vegetable market and discipline in traffic on road is the way we see the North-eastern state on social media sites. Arunachal Pradesh is known as 'dawn- lit mountains. 80 % of total area is covered by thick evergreen forest and five major rivers flow through the state which are Lohit, Siang, Kameng, Subansiri, and Tirap. 26 major tribes and more than 100 sub-tribes in Arunachal Pradesh, in which Singpho and Tangsa are founded in Miao. These tribes have their different traditions and customs(Gurung & Pant, 2013). The varied culture of tribes makes this state a truly diverse in nature and rich in tradition. Tourism in Arunachal Pradesh is specific for natural beauty, unique flora and fauna, wildlife, turbulent rivers, holy shrines, vibrant and colourful cultural festivals(R. Mandal et al., 2021). Changlang district lies in Arunachal Pradesh with its boundary touching Myanmar and morning Sun first rises in its hill. According to urban mythology, Changlang was named after the mountaintop CHANGLANKAN, where locals made the initial discovery of the toxic herb used to poison fish in the river.

Table 1Organisational Chart of Changlang

Organisational Chart of Changlang District (Arunachal Pradesh)				
DISTRICT	*CHANGLANG*			
Sub-division	*CHANGLANG*	*MIAO*	*JAIRAMPUR*	*BORDUMSA*
Circles	*Changlang*	*Miao*	*Jairampur*	*Bordumsa*
	Yatdam	*Kharsang*	*Nampong*	*Diyun*
	Namtok	*Vijoynagar*	*Rima-Putok*	
	Khimyang	*Namphai-1*	*Manmao*	
	Kantang		*Lyngok-Longtoi*	
			Renuk	

Source: changlang.nic.in

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A. Tourism in North-east India

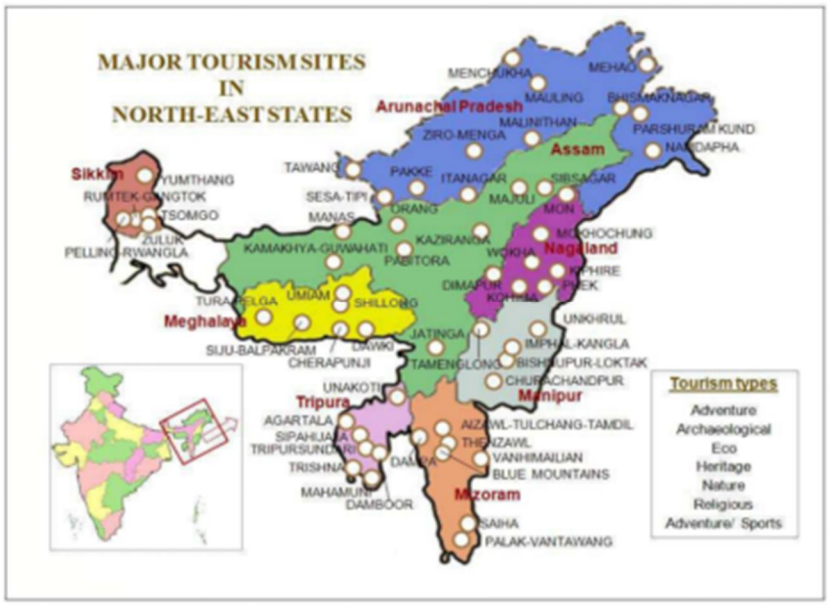


Figure 1 Various types of Tourist location in North-East states
Source: Grover and Mahanta (2018)

Travel to and staying in different locations gave rise to the tourism industry. Travel to the destination and time spent there are two essential components of any trip. In a nutshell, the term "tourism" refers to the industry devoted to serving the needs of tourists(Rahman et al., 2010) The tourism industry is one that offers a wide variety of job opportunities to residents while also generating additional capital for governments(Chakma, 2011)

Tourism that takes place in a very small area, such as a mountain range, and that capitalises on the unique terrain, topography, climate, flora, wildlife, and local community is referred to as "mountain tourism. Clean air, unique landscape, wild life, scenic beauty and nature or snow base activities attracts the tourist. Living up in the mountains provides a respite from urban congestion and exposure to harmful pollutants, reduce the risk of heart disease, live at peace and keep active. Many residents in mountainous areas today depend on tourists for their livelihood. As a result of tourism, farmers have access to new sources of income and employment, have more prospects for advancement in their fields, and may sell their heirloom crops and locally crafted goods in new markets. Ecotourism is a form of sustainable tourism that helps local communities while also protecting natural regions."(R. K. Mandal et al., 2021). The picture beauty of Himalaya's coupled with wide diversity of flora and fauna makes entire North-eastern India a favourite hot spot. The unique cultural diversity, customs, anthropological heritage and spiritual mysticism are the strength of the region. It's a diverse land for Hinduism, Buddhism, Islam and Christianity. The co-existence of multi-religion in this region can boast of intra region and cross boarder tourism. There is a lot of creative space in North-East India. These creative spaces can be used for cultural tourism, rural tourism, eco-tourism, educational tourism, and medical tourism. These resources must be converted to innovative product for the tourist to assimilate in most productive ways. (Barman, 2012) These innovative bundled product can be packaged as Leisure tour, wildlife safari, tribal life tour, tea and herb tourism, homestays and camping tour etc. Packages which attract the youth population is trekking, biking, hiking, river rafting, paragliding, bungee jumping etc. With the cooperation of people, government authorities, and NGOs, four major trek routes have been identified: the Trekking in Sibe to Pamu Yalang Trek, the Hakhe Tari Trek, the Dusu Kattu Trek, and the Talley Valley Trek.(Talukdar & Thakuria, 2019). Himalayas are known for high altitude lakes, often frozen in winters, waterfalls, caves, waterfalls, passes etc. Packaging has been done in a refined way. Trekking is now the accepted term for hill walking in "strange" locations once known as "adventure climbing" or "sport climbing." (Beedie & Hudson, 2003, p. 626).

Many other forms of tourism can be experimented in the region. Village tourism and culinary tourism is gaining importance throughout the world. Village tourism showcases the life, art, culture, and heritage at the rural location, it is small-scale tourism, where the local people are actively involved in the process.

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As a form of travel, culinary tourism is not always about fine dining but rather about eating adventurously in search of new gastronomic experiences. (Sarmah et al., 2021). Tribal tourism gives an insight to simple, mundane, inspiring and empowering life of tribal community to change a city dwellers' mindset to something that regards kindness, care and tolerance towards our mother nature and surrounding(Raha & Tripathy, 2023). Geotourism involves significant geological, geomorphological, geographical and landform sites that are available for display(Grover & Mahanta, 2019). Eco-organic tourism and other novel approaches could help restore the youth of the community's faith in the agricultural sector, which has been eroded in recent years (Jena & Norbu, 2020).

II. PROJECT BRIEF

A. Site Description

The coordinates for Arunachal Pradesh are 26°30' to 29°30' north latitude, 91°30' to 97°30' east longitude. It has a size of 83,743 square kilometres, making it the largest of India's north eastern states. Changlang District is in the state's far southeast. It marks India's easternmost point which shares a border with Myanmar (Burma).

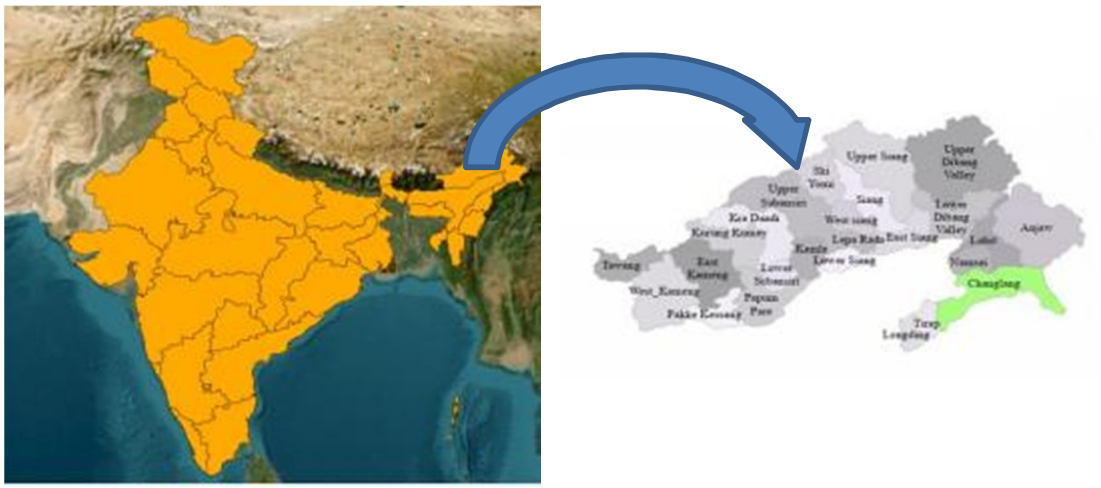


Figure 2 District of Changlang in Arunachal Pradesh (India/ Arunachal Pradesh/ Changlang)

District of Changlang has for subdivisions and has a total 17 circles. Miao is a subdivision of Changlang. Other subdivisions are Changlang, Jairampur and Bordumsa.



Figure 3 Circles of Changlang district
Source: Author

Miao town is located 30 kilometres from the Assam Border (Namchik). The Patkai Bum, the Himalaya's eastern extension, rises over the city. Miao is roughly 213 metres above sea level, and one of the important rivers that flows through it is the Nao-Dihing. Tinsukia, Assam (125 kilometres from Miao), is conveniently accessible through air, rail, and road, and hence serves as a hub for the region.

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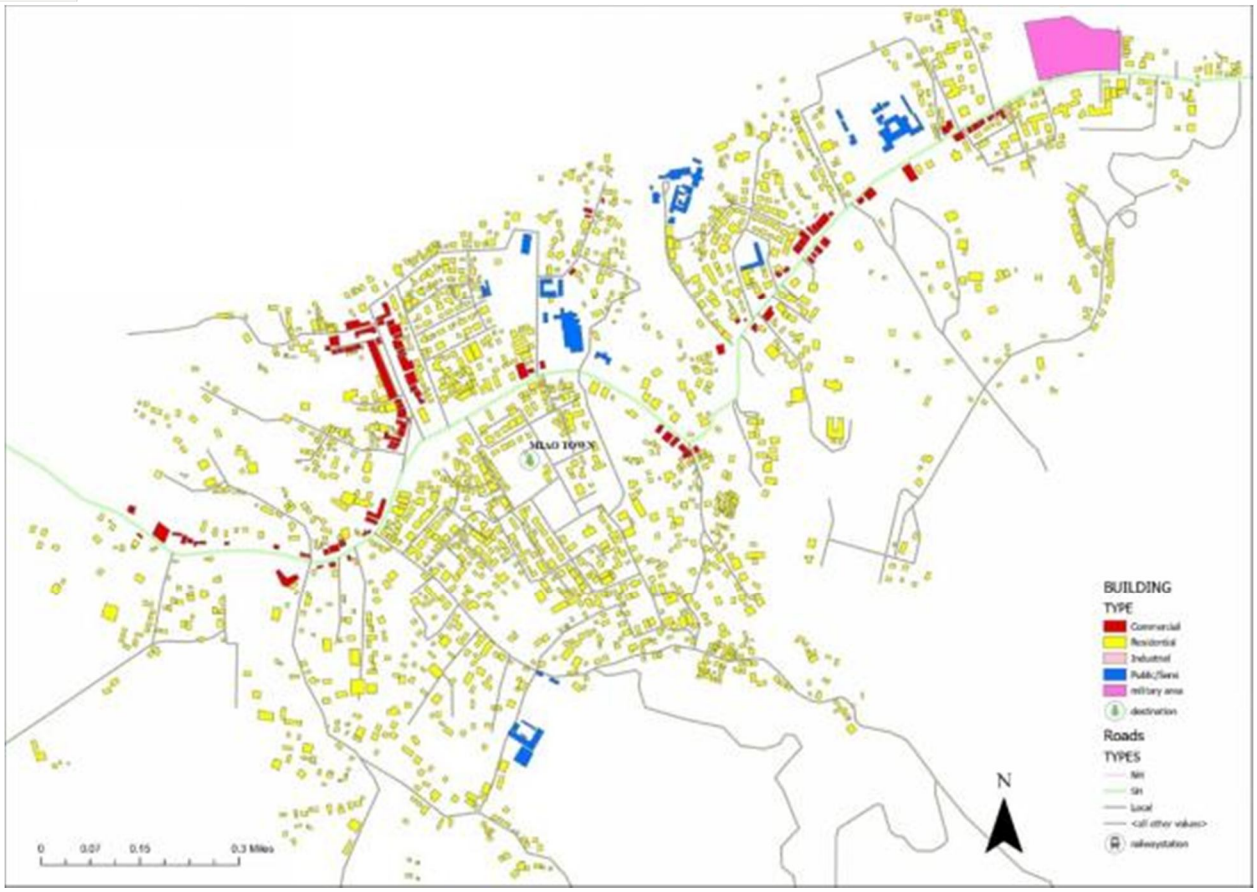


Figure 4 Built environment of Miao town
Source: Author

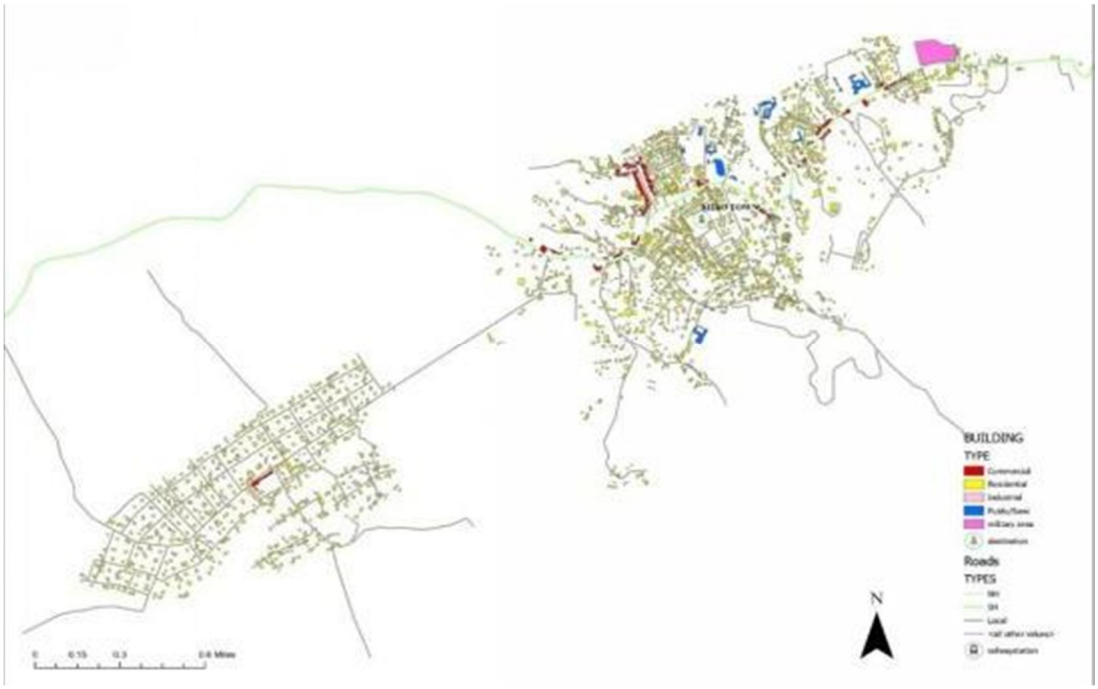


Figure 5 Miao town and its adjoining area
Source: Author

1) *Railway:* The nearest rail head is at Ledo station, which lies in Tinsukia district of Assam. Miao is 55 km from Ledo and travel time is one and half hour by private vehicle.



Figure 6 Ledo Railway station and Miao town connectivity by Road
Source: Author

2) *Roadway:* Miao town is 170 km from Dibrugarh and takes 4 hour journey via NH 15.
3) *Airways:* North East India has 16 operational passenger airports out of total 110 airports in India. Nearest airport for Miao town is Dibrugarh.



Figure 7 Passenger airports in North East India
Source: Author

Currently there are 10 domestic flights to Dibrugarh connecting with Delhi and Kolkata and nearby airports.

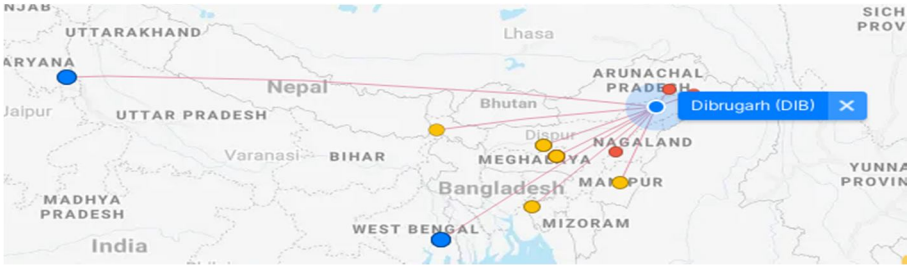


Figure 8 Air Connectivity of Dibrugarh with other parts of India;
Source: Author

B. Climate Analysis

The favourable season for tourists is from January to May and September to December. The temperature throughout the year is good and varies from 5°C to 27°C. As per the human thermal comfort indices, Heat Index calculation based on ambient temperature and relative humidity has been done. The base temperature taken for analysis is 22^{O}C. As per Heat Index analysis, months from Jan-May and Sept.-Dec. are comfortable for tourists. Table 2 shows tourist footfall from January to December. Miao is situated in a part of north-east India that is subject to some of the highest precipitation on the continent. The region loses its tourist potential in the summer months of June, July and August due to heavy rainfall Fig. 5.

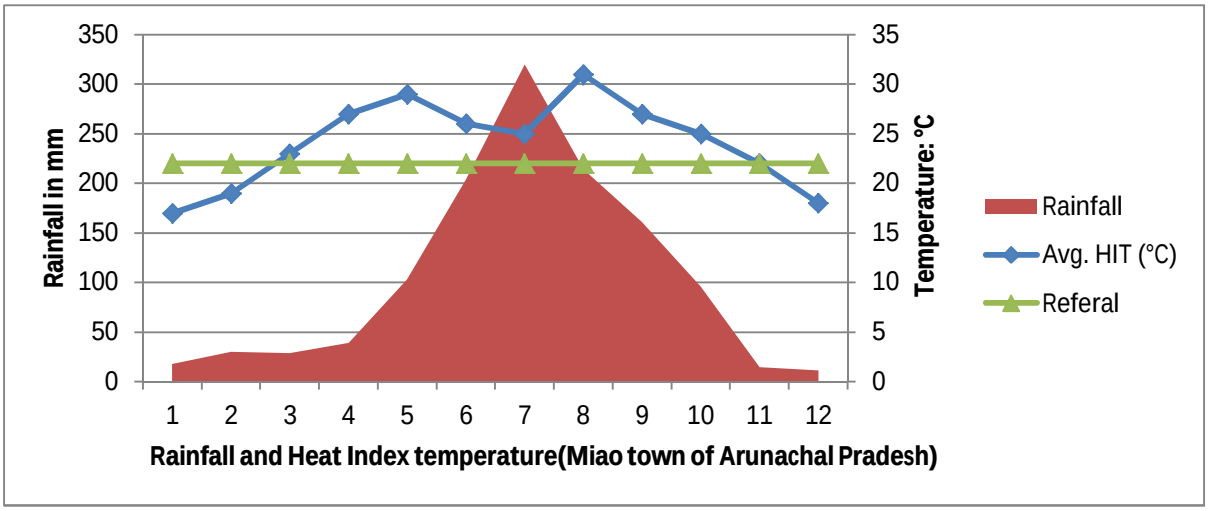


Figure 9 Climatic data of Miao Town
Source: Author

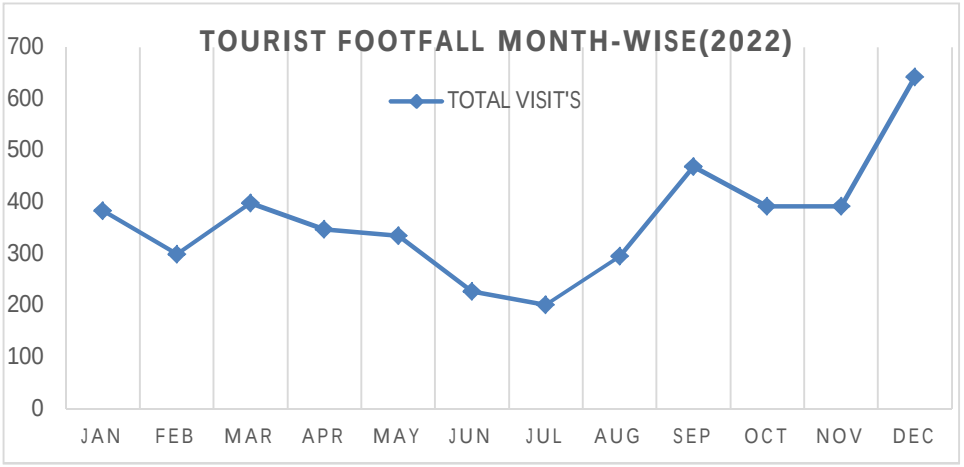


Figure10 Tourist Footfall Monthly

Source: Author

Mountain environments are very sensitive to climate change and slope degradation. The landscape can undergo sudden and drastic change due to natural disasters such as landslides, avalanches, earthquakes, and rock falls. Usually, landslides and mudslides can be caused by an excessive amount of rainfall because rain is heavy and adds more weight to the earth. The landslide causes a significant increase in the danger to both people and infrastructure. Major connecting roads can get damage at any time. During the catastrophic period food supplies and necessary required item get disrupted. Adventures and sports activities are banned to reduce the accident risk.

C. Tourism Potential

1) Miao Town as gateway to Namdapha National Forest

There are certain formalities that are to be completed before visiting Arunachal Pradesh and Changlang district, because of the sensitivity of border areas. These are the hindrances to the smooth movement of tourists. A valid Inner Line Permit (ILP) is required of all Indian nationals before they are allowed to visit any area of Changlang District. Foreign nationals must get a Restricted Area Permit (R.A.P.) from the Indian Ministry of Home Affairs before travelling to Arunachal Pradesh or the Changlang District.

Namdapha Tiger Reserve (also a National Park) is 26 km from Miao town. Prior to 1983, it was a wildlife sanctuary. Every national park, animal refuge, and other type of protected area in the country is required by law to have a one kilometre wide "eco-sensitive zone" (ESZ) surrounding their perimeter. These are the buffer zones, which act as shock absorbers for highly protected zone to the less protected zone. With the great diversity of flora and fauna, this national park has a great opportunity to attract tourists.

Namdapha Wild Life Sanctury, Arunachal Pradesh (1972) → **Namdapha National Park and Namdapha Tiger Reserve (1983)**

Government Guest house in limited number is available at Miao town which is listed below. Apart from this a few private hotels and guest houses are available for visitors.

a) Inspection Bungalow – 6 Rooms
b) Eco-Tourist Forest Guest House – 4 Rooms
c) Namdapha Jungle Camp – 4 Rooms
d) Circuit house – 4 Rooms



Figure 11 Map of Arunachal Pradesh,
Source: https://changlang.nic.in/how-to-reach-namdapha

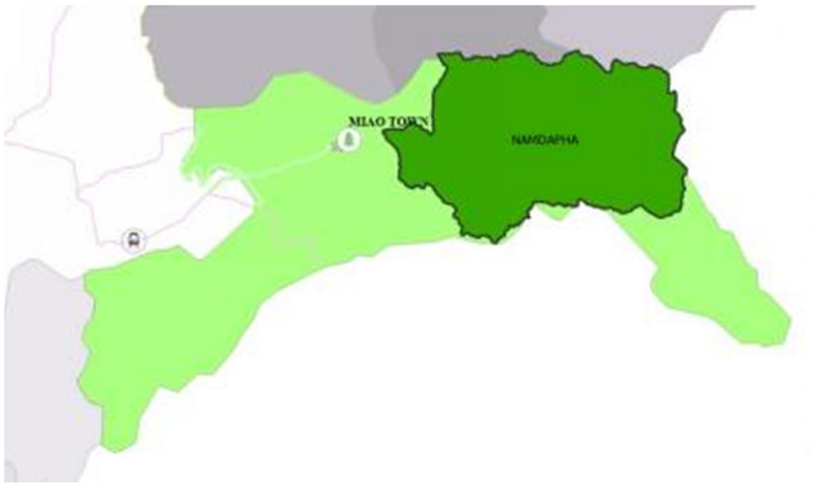


Figure 12 Map showing Miao town and Namdapha National Park.
Source: Author

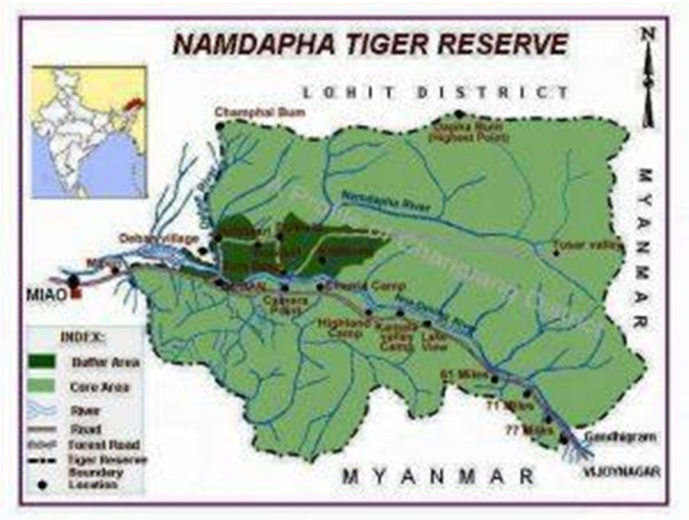


Figure 13 Map of Namdapha Tiger Reserve
Source: https://changlang.nic.in/how-to-reach-namdapha/

Good accommodations at an affordable price are key to the tourist attraction. While government-facilitated guest houses have cheap accommodation, but are not easily accessible for common people. Local guest houses and hotels provide rooms at reasonable rates based on needs.

Table 2 Accommodation at Namdapha National Park (Deban)
Source: https://changlang.nic.in/how-to-reach-namdapha/

Place of accommodation at Deban in Namdapha National Park	Type of Room	Tariff (INR)
Forest Rest house (11 Rooms)	Double occupancy	190
Forest Rest house	Single occupancy	145
Tourist Hut	Double occupancy	95
Tourist Hut	Single occupancy	50
Dormitory	Per bed	30

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Figure 14 Forest Guest House at Deban in Namdapha national Forest
Source: Author

Table 3 Tourist Footfall
Source: Tourism Department, Miao

YEAR	Total Tourist Visit's (TTV'S)	Domestic Tourist Visit's (DTV'S)	Foreign Tourist Visit's (FTV'S)
2018	2840	2706	134
2019	2954	2813	141
2020	1259	1250	9
2021	2396	-	-
2022	4386	-	-



Figure 15 Total Visitors in Miao Town

Source: Tourism Department, Miao

Table 4 Tourist Footfall
Source: Tourism Department, Miao

DAYS SPENT (2021)	NO OF TOURIST
1 NIGHT	1522
2 NIGHT'S	715
3 NIGHT'S	96
4 NIGHT'S	40
5 NIGHT'S	6
6 NIGHT'S	14
9 NIGHT'S	1

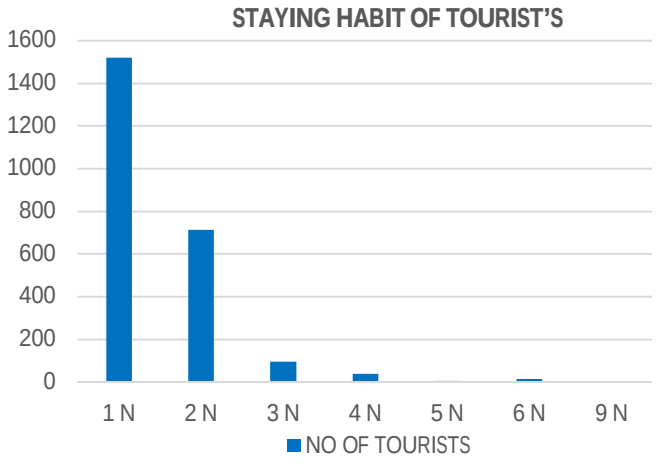


Figure 16 Staying Habits of Tourists, Source: Tourism Department, Miao

D. SWOT analysis

Strength • Beautiful scenic beauty clubbed with favourable climate. • Youthful population • Facility of conversion of home visit to North-eastern state visit under LTC for Central Govt. employee.	Opportunity • All the North-eastern states have got tag of 'special statuses. • Infrastructural Innovation, Since the Asian Highway passes through the North-East Region; it is a major factor in the Asian Development Bank's current efforts to create a Sub-Regional Plan for the Promotion of Tourism in Bhutan, Bangladesh, India, and Nepal.
Weakness • Lack of transportation infrastructure • Terrorism threat • Far away from Central India.	Threat • Strong competition with other states of India • Insurgent activities

III. PROPOSAL

Following are the development proposal for the Miao Town

1) Two lane road stretch of 30 km from Namchik to Miao town (all-weather motorable).
2) 157 km, all weather road from Vijoynagar to Miao Town.
3) Provision for 24 hour electricity.
4) Water treatment plant installation.
5) Research lab for various type of flora and fauna.
6) Provision for hotels/ guest house/ home stay etc.
7) Provision of craft village for tourist showing tribal culture.
8) There is no provision for tea processing in town right now; small scale tea processing unit is required.
9) Mpen near Noadihang River is almost 8 km apart from Miao town which is very much suitable for Rafting.
10) Bungee- jumping/ paragliding adventure sport can be provided at TVS location.
11) A decade earlier in TVS Miao, which is 3 km from the main town; there was a facility for cable car.

IV. CONCLUSION

Miao Town has the potential to be developed in such a way that it serves not only as a gateway to Namdapha National Park but also as a tourist location for a variety of different tourist packages located in the immediate area. These packages include bungee jumping, trekking, paragliding, and river rafting as some of the activities available to participate in. The earnings generated by adventure tourism and sports have the potential to assist the local government and the local population economically. Also, it will be beneficial to environmentally responsible tourism**.**

Conflict of Interest: There is no conflict of interest associated with this paper. There is no funding for this paper.

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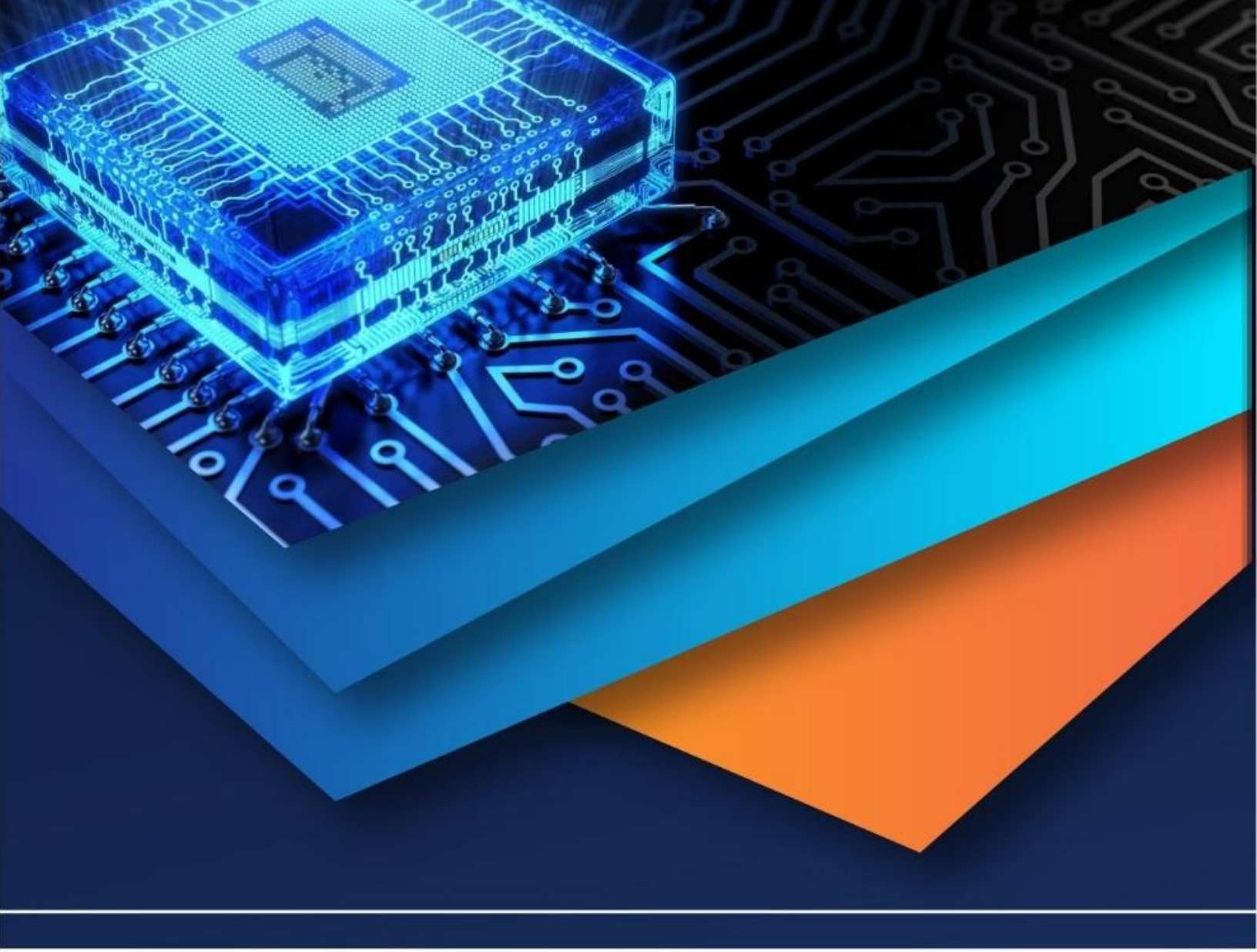
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