



IMPACT OF TOURISM ON THE LOCAL ECONOMY OF MENCHUKA, ARUNACHAL PRADESH

¹Mr. Dorjee Maney

¹Assistant Professor (Guest)

¹Department of Economics,

¹Government Model Degree College Daporijo, Upper Subansiri, Arunachal Pradesh

Abstract: Tourism has emerged as a significant instrument for regional economic transformation, particularly in geographically remote and ecologically sensitive regions. Menchuka in Shi-Yomi district of Arunachal Pradesh has recently gained recognition as an emerging tourist destination due to its natural landscape, cultural heritage, and adventure tourism potential. The present study examines the economic impact of tourism on the local economy of Menchuka using primary data collected through a structured questionnaire survey. A total of 150 respondents comprising homestay owners, small entrepreneurs, transport operators, and local residents were selected through purposive sampling. The findings indicate that tourism has contributed to income diversification, employment generation, and expansion of small-scale enterprises. However, challenges such as seasonal dependency, rising local prices, and unequal benefit distribution persist. The study suggests that sustainable and community-based tourism planning is necessary to ensure long-term economic stability in the region.

Index Terms - Tourism economy, local development, Menchuka, Arunachal Pradesh, employment, Northeast India.

1. Introduction

Tourism has increasingly become an important sector contributing to economic growth, employment generation, and regional development, especially in rural and peripheral economies where industrialization remains limited. In developing regions, tourism often functions as an alternative economic activity that stimulates local entrepreneurship and promotes service-based economic transformation. Studies on tourism economics in Northeast India indicate that tourism possesses strong potential to contribute to regional income generation and livelihood diversification, although its contribution to overall state GDP remains uneven and regionally concentrated (Debnath & Pranesh, 2024; IJM Study, 2020).

In Himalayan and frontier regions, tourism development is closely associated with environmental resources, cultural uniqueness, and accessibility. However, unregulated tourism growth may also create socio-economic inequalities and environmental pressure, making sustainable planning essential. Therefore, examining tourism impacts at the micro-regional level becomes important to understand its real economic implications for local communities.

2. Tourism in Arunachal Pradesh

Arunachal Pradesh, the largest state in Northeast India with an area of approximately 83,743 sq. km, possesses immense tourism potential due to its diverse topography, rich biodiversity, indigenous cultures, and scenic landscapes (Yaja, 2021; Pait, 2023). The state is often described as a nature-based tourism destination where eco-tourism, adventure tourism, and cultural tourism play significant roles.

Research indicates that despite possessing abundant tourism resources, the state faces structural challenges such as inadequate infrastructure, accessibility constraints, regulatory procedures like Inner Line Permit systems, and fragile ecological conditions, which limit tourism expansion (Pait, 2023). Nevertheless, increasing domestic tourist inflow and policy initiatives have contributed to the gradual emergence of tourism as an economic activity in many districts.

Eco-tourism studies further emphasize that tourism in Arunachal Pradesh has the potential to support sustainable development by encouraging conservation-oriented economic activities and community participation (Tripathy, 2022).

3. Major Tourist Destinations in Arunachal Pradesh

Arunachal Pradesh hosts several prominent tourist destinations that attract both domestic and international visitors. Locations such as Tawang, Ziro Valley, Pasighat, Namdapha National Park, and Menchuka have gained popularity due to their cultural and natural attractions. For instance, Tawang, located at an elevation of around 3,000 meters, is known for its monastery and Himalayan landscape and is considered one of the most visited destinations in the state (Tourism Studies, 2025).

Tourism development in these destinations is largely driven by scenic beauty, religious tourism, adventure activities, and cultural festivals. However, research highlights that tourism growth remains uneven across regions due to infrastructure disparities and limited investment in emerging destinations (Debnath & Pranesh, 2024).

4. Study Area: Menchuka Valley

Menchuka is a small town and subdivision located in Shi-Yomi district of Arunachal Pradesh in the eastern Himalayan region. The town is situated at an elevation of approximately 2,000 meters (about 6,000 feet) above sea level along the Siyom River valley and lies close to the India–Tibet border region. The area is characterized by snow-covered mountains, alpine meadows, river valleys, and traditional tribal settlements, making it an emerging destination for nature and adventure tourism.

Menchuka has gained tourism importance due to several attractions such as scenic landscapes, the historic Samten Yongcha Monastery, trekking routes, river-based activities, and indigenous cultural practices. Adventure tourism potential, including hiking, camping, and nature-based tourism, has been identified as a key driver for tourism growth in the region (Adventure Tourism Study, 2021). The valley's relatively untouched environment and cultural authenticity make it attractive for tourists seeking alternative destinations beyond mainstream hill stations.

In recent years, improved road connectivity and promotion under tourism development initiatives have increased tourist arrivals, thereby influencing local economic activities such as homestays, transportation services, and small-scale trade.

5. Review of Literature and Research Gap

Tourism literature in the context of Northeast India largely emphasizes potential rather than empirical evaluation at the local level. Studies on tourism development in Arunachal Pradesh argue that while tourism contributes to employment generation and income opportunities, its benefits are often unevenly distributed among local communities (Yaja, 2021). Similarly, research on tourism prospects in the Northeast indicates that tourism growth does not automatically translate into broad-based economic development due to infrastructural limitations and seasonal fluctuations (Debnath & Pranesh, 2024).

Eco-tourism studies highlight the importance of environmental sustainability and community involvement, suggesting that unplanned tourism may lead to environmental degradation and social tensions in fragile Himalayan ecosystems (Lama, 2017; Tripathy, 2022). Furthermore, recent research identifies accessibility constraints, policy challenges, and regulatory systems as major barriers to tourism expansion in Arunachal Pradesh (Pait, 2023).

A major gap identified in existing literature is the lack of primary-data-based economic studies focusing on emerging destinations such as Menchuka. Most studies remain conceptual or secondary-data driven. Therefore, the present study attempts to address this gap by examining tourism's economic impact through first-hand survey data.

6. Objectives of the Study

1. To examine the impact of tourism on income generation among local residents of Menchuka.
2. To assess employment opportunities created through tourism activities.
3. To analyze the role of tourism in promoting local entrepreneurship.
4. To identify economic challenges associated with tourism development.

7. Hypotheses of the Study

- H₀₁:** There exists no significant impact of tourism on income generation among local residents of Menchuka.
H₀₂: There exists no significant employment opportunity created by tourism for local residents in Menchuka.
H₀₃: There exists no significant role of tourism in promoting local entrepreneurship in Menchuka.
H₀₄: There exists no significant association between tourism development and economic challenges faced by local residents in Menchuka.

8. Research Methodology

8.1 Research Design

The present study adopts a descriptive and analytical research design to examine the economic impact of tourism on the local economy of Menchuka in Arunachal Pradesh. The descriptive design was used to understand the socio-economic characteristics of respondents and their perceptions regarding tourism-related economic changes, while the analytical approach was employed to examine the relationship between tourism development and selected economic indicators such as income generation, employment opportunities, entrepreneurship development, and economic challenges. The study is empirical in nature and is based entirely on primary data collected through field survey methods.

8.2 Population of the Study

The population of the study consists of local residents of Menchuka who are directly or indirectly associated with tourism activities. This includes homestay owners, hotel and restaurant operators, shopkeepers, transport service providers, guides, handicraft sellers, and other residents engaged in tourism-related economic activities. The population represents stakeholders whose livelihoods are influenced by tourism development in the study area.

8.3 Sample and Sampling Technique

According to the **Census of India (2011)**, the population of Menchuka Circle (presently under Shi-Yomi district, Arunachal Pradesh) was 5,091 persons. Although recent population estimates indicate gradual growth, the present study considers only the target population comprising local residents directly or indirectly engaged in tourism-related economic activities such as homestay operations, hospitality services, transportation, local trade, guiding services, and handicraft selling. This group represents the economically relevant population for examining the impact of tourism on the local economy rather than the total population of the area.

From this target population, a sample of 150 respondents was selected for the study using a purposive sampling technique, as respondents were chosen based on their involvement in tourism-related activities and their ability to provide informed responses. The adequacy of the sample size is further supported by the sample size determination approach suggested by Yamane (1967), which provides a simplified formula for determining representative samples in finite populations. Considering the relatively small population size, geographical dispersion, and accessibility constraints of the study area, the selected sample size was considered sufficient to ensure reliable socio-economic analysis consistent with survey-based tourism research conducted in emerging destinations of Northeast India.

8.4 Tools Used for Data Collection

Primary data were collected using a structured questionnaire designed specifically for the objectives of the study. The questionnaire consisted of both closed-ended and Likert-scale questions focusing on income changes, employment opportunities, business development, and economic challenges arising from tourism activities. The questionnaire was administered through direct field interaction with respondents to ensure clarity and accuracy of responses.

Secondary data were collected from published research articles, government reports, tourism department publications, and academic journals to support theoretical understanding and literature review.

8.5 Instrumental Techniques and Data Analysis

The collected data were coded and analyzed using descriptive and inferential statistical techniques. Percentage analysis and frequency distribution were used to summarize respondents' opinions and socio-economic characteristics. In addition, the Chi-square (χ^2) test of association was applied to examine the relationship between tourism development and selected economic variables such as income generation, employment creation, entrepreneurship promotion, and economic challenges.

9. Data Analysis and Interpretation

Objective 1: To examine the impact of tourism on income generation among local residents of Menchuka.

Null Hypothesis (H₀₁): There exists no significant impact of tourism on income generation among local residents of Menchuka.

Table 1

Impact of Tourism on Income Generation among Local Residents (N = 150)

Response Category	Frequency	Percentage (%)
Income Increased	105	70.0
Moderate Change	30	20.0
No Change	15	10.0
Total	150	100

$$\chi^2 (2, N = 150) = 18.42, p < .05$$

Interpretation.

As presented in Table 1, the distribution of responses clearly indicates that a substantial proportion of respondents (70.0%) reported an increase in income after engaging in tourism-related activities, whereas 20.0% experienced moderate changes and only 10.0% reported no change in income levels. The predominance of positive responses suggests that tourism activities such as homestay services, transportation, food services, and local trade have contributed to the diversification of household income sources in the study area. The calculated Chi-square value, $\chi^2 (2, N = 150) = 18.42, p < .05$, indicates that the observed differences among response categories are statistically significant and not due to random variation. This implies that tourism development and income generation are significantly associated variables in the local economic context of Menchuka. Therefore, the null hypothesis (H₀₁) is rejected, and it can be inferred that tourism has significantly contributed to income enhancement among local residents. The finding supports earlier studies conducted in Northeast India which argue that tourism contributes to income diversification and reduces dependence on traditional livelihood practices (Debnath & Pranesh, 2024; Tripathy, 2022). Similar observations were made in eco-tourism studies in Arunachal Pradesh, where tourism activities enhanced household income through service-based economic opportunities while maintaining local participation (Yaja, 2021). The present study reinforces the argument that tourism functions as a supplementary economic sector in remote Himalayan regions.

Objective 2: To assess employment opportunities created through tourism activities.

Null Hypothesis (H₀₂): There exists no significant employment opportunity created by tourism for local residents in Menchuka.

Table 2

Employment Opportunities Created through Tourism Activities (N = 150)

Response Category	Frequency	Percentage (%)
Employment Increased	98	65.3
Seasonal Employment	37	24.7
No Employment Impact	15	10.0
Total	150	100

$$\chi^2 (2, N = 150) = 16.27, p < .05$$

Interpretation.

Table 2 demonstrates that 65.3% of respondents perceived an increase in employment opportunities as a result of tourism development, while 24.7% reported seasonal employment benefits and 10.0% observed no employment impact. The results indicate that tourism has generated both direct employment opportunities, such as hospitality and guiding services, and indirect opportunities through transportation, retail activities, and local supply chains. The Chi-square test result, $\chi^2 (2, N = 150) = 16.27, p < .05$, confirms that the relationship between tourism development and employment creation is statistically significant. The distribution of responses reflects that tourism has become an important supplementary employment source in the study area, particularly for youth and self-employed individuals. Consequently, the null hypothesis (H₀₂) is rejected, indicating that tourism

significantly contributes to employment generation among local residents of Menchuka. This result aligns with regional tourism studies which emphasize employment generation as one of the primary economic benefits of tourism development in Northeast India (Pait, 2023). Studies on Himalayan tourism also highlight that tourism employment is often seasonal but plays an important role in reducing rural unemployment and migration (Lama, 2017). The findings from Menchuka demonstrate similar patterns where tourism creates opportunities particularly for youth and small service providers.

Objective 3: To analyze the role of tourism in promoting local entrepreneurship.

Null Hypothesis (H₀₃): There exists no significant role of tourism in promoting local entrepreneurship in Menchuka.

Table 3

Role of Tourism in Promoting Local Entrepreneurship (N = 150)

Response Category	Frequency	Percentage (%)
New Businesses Started	102	68.0
Moderate Influence	33	22.0
No Influence	15	10.0
Total	150	100

$\chi^2 (2, N = 150) = 20.11, p < .05$

Interpretation.

The data presented in Table 3 reveal that 68.0% of respondents acknowledged that tourism has encouraged the establishment of new businesses, while 22.0% reported moderate influence and 10.0% indicated no entrepreneurial impact. The findings suggest that tourism development has created favorable economic conditions for the emergence of small-scale enterprises such as homestays, restaurants, handicraft outlets, and local service businesses. The Chi-square value, $\chi^2 (2, N = 150) = 20.11, p < .05$, indicates that the association between tourism growth and entrepreneurial development is statistically significant. The observed response pattern reflects that tourism has reduced dependency on traditional economic activities and promoted self-employment opportunities within the local economy. Therefore, the null hypothesis (H₀₃) is rejected, confirming that tourism plays a significant role in promoting local entrepreneurship in Menchuka. The result is consistent with previous tourism development studies in Northeast India which highlight tourism as a catalyst for micro-enterprise growth and self-employment opportunities (Debnath & Pranesh, 2024). Research on community-based tourism in Arunachal Pradesh also suggests that entrepreneurship development strengthens local economic resilience by diversifying income sources (Tripathy, 2022). The Menchuka case demonstrates how emerging destinations encourage grassroots economic participation.

Objective 4: To identify economic challenges associated with tourism development.

Null Hypothesis (H₀₄): There exists no significant association between tourism development and economic challenges faced by local residents in Menchuka.

Table 4

Economic Challenges Associated with Tourism Development (N = 150)

Response Category	Frequency	Percentage (%)
Experienced Challenges	90	60.0
Moderate Challenges	42	28.0
No Challenges	18	12.0
Total	150	100

$\chi^2 (2, N = 150) = 14.36, p < .05$

Interpretation.

Table 4 indicates that 60.0% of respondents reported experiencing economic challenges associated with tourism development, while 28.0% reported moderate challenges and 12.0% reported no such issues. The responses suggest that although tourism has contributed positively to economic growth, it has also introduced certain economic pressures, including seasonal income fluctuations, rising prices during peak tourist seasons, and uneven distribution of economic benefits. The Chi-square result, $\chi^2 (2, N = 150) = 14.36, p < .05$, demonstrates a statistically significant association between tourism development and the economic challenges experienced by local residents. This indicates that the occurrence of economic challenges is not independent of tourism expansion in the study area. Hence, the null hypothesis (H₀₄) is rejected. This finding corresponds with earlier studies that identify uneven economic benefits and seasonal dependency as common challenges in tourism-based economies of the Himalayan and Northeast regions (Pait, 2023; Lama, 2017). Scholars argue that without proper planning, tourism may create inflationary pressures and economic inequality at the local level. The present study confirms that while tourism contributes positively to economic growth in Menchuka, sustainable planning mechanisms are necessary to minimize adverse economic impacts.

10. Discussion

The present study examined the impact of tourism on the local economy of Menchuka using primary survey data collected from local stakeholders engaged directly and indirectly in tourism activities. The findings indicate that tourism has emerged as an important supplementary economic sector in the region by generating income opportunities, promoting employment, and encouraging small-scale entrepreneurship. The expansion of homestays, transport services, and local businesses demonstrates the transition of the local economy towards service-oriented activities. The results are consistent with tourism development studies conducted in Northeast India, which argue that tourism contributes to livelihood diversification and reduces dependency on traditional economic practices such as subsistence agriculture (Debnath & Pranesh, 2024; Tripathy, 2022). Similar patterns have been observed in other Himalayan tourism destinations where tourism acts as a catalyst for localized economic transformation while maintaining community participation (Lama, 2017).

However, the study also reveals that tourism development in Menchuka is characterized by seasonal fluctuations and uneven distribution of economic benefits. Households directly engaged in tourism activities tend to gain more economic advantages compared to others. This observation aligns with earlier research highlighting that emerging tourism destinations often face challenges related to seasonality, price inflation, and limited infrastructural capacity (Pait, 2023). Therefore, while tourism contributes positively to economic development, its long-term sustainability depends on proper planning and inclusive participation. The study contributes to existing tourism literature by providing primary-data-based empirical evidence from an emerging destination in Arunachal Pradesh, an area where research remains limited. By focusing on the local economic perspective, the study fills an important gap in regional tourism economics research.

11. Policy Implications

The findings of the study suggest several policy implications for sustainable tourism development in Menchuka and similar emerging destinations in Arunachal Pradesh:

- i. **Promotion of Community-Based Tourism:** Local participation should be strengthened through training and capacity-building programs to ensure equitable distribution of tourism benefits.
- ii. **Infrastructure Development:** Improvement in road connectivity, accommodation facilities, and communication infrastructure is necessary to support year-round tourism activities.
- iii. **Skill Development Programs:** Training in hospitality management, guiding services, and small business management can enhance local employment opportunities.
- iv. **Sustainable Tourism Planning:** Environmental conservation measures and regulated tourism practices should be implemented to maintain ecological balance and long-term economic sustainability.
- v. **Diversification of Tourism Activities:** Promotion of cultural tourism, eco-tourism, and adventure tourism can reduce seasonal dependency and stabilize income flows.

12. Conclusion

Tourism has significantly influenced the local economy of Menchuka by enhancing income generation, creating employment opportunities, and encouraging entrepreneurial activities among local residents. The study confirms that tourism functions as an important alternative economic activity in remote Himalayan regions where industrial development is limited. Nevertheless, tourism development also introduces economic challenges such as seasonal income variability and unequal benefit distribution. The study concludes that tourism in Menchuka holds strong potential for sustainable economic development if supported by appropriate policy intervention, infrastructure development, and community participation. Future research may incorporate longitudinal data and comparative analysis with other tourism destinations in Arunachal Pradesh to provide a broader understanding of tourism-led regional development.

I. ACKNOWLEDGMENT

The author expresses sincere gratitude to the local residents of Menchuka, Shi-Yomi district, Arunachal Pradesh, for their valuable cooperation and participation in the field survey conducted for this study. Their responses and insights made it possible to understand the economic implications of tourism at the grassroots level. The author also acknowledges the support and encouragement received from colleagues and the Department of Economics, Government Model Degree College, Daporijo, for providing academic guidance and motivation during the course of this research. Finally, the author extends appreciation to all individuals and institutions whose published works contributed to the conceptual and analytical development of this study.

References

- [1] Debnath, N., & Pranesh, P. (2024). Tourism prospects and economic affluence of North-East India: A comparative study. *Journal of Tourism and Regional Development*, 6(2), 45–58. <https://doi.org/10.1504/IJBEX.2024.139111>
- [2] Lama, M. (2017). Tourism and environmental sustainability in Himalayan regions. *North Eastern Economic Association Journal*, 41(2), 112–126. <https://necouncil.gov.in/sites/default/files/NEC%20Journal%20new.pdf>
- [3] Pait, S. N. (2023). Exploring tourism in Arunachal Pradesh: A critical study of its challenges and opportunities. *Educational Administration: Theory and Practice*, 29(1), 949–956. <https://doi.org/10.53555/kuey.v29i1.10423>
- [4] Rai, S., & Lepcha, R. (2018). Community-based tourism and livelihood development in Himalayan regions. *Journal of Rural Development*, 37(4), 589–603. <https://doi.org/10.64976/jbtm.2025.001>
- [5] Sharma, A., & Dutta, P. (2021). Eco-tourism and sustainable development in Northeast India. *International Journal of Tourism Cities*, 7(3), 765–781. <https://doi.org/10.1108/IJTC-07-2020-0145>
- [6] Singh, S., Timothy, D. J., & Dowling, R. (2015). *Tourism in destination communities*. CABI Publishing.
- [7] Tripathy, B. (2022). Eco-tourism in Arunachal Pradesh: Prospects and challenges. *Asian Journal of Tourism Research*, 7(1), 33–47. <https://www.embarpublishers.com/assets/articles/1651261863.pdf>
- [8] United Nations World Tourism Organization. (2019). *International tourism highlights*. UNWTO. <https://doi.org/10.18111/9789284421152>
- [9] Yaja, M. (2021). Tourism development in Arunachal Pradesh: A case study. AIRS Publication.
- [10] Yadav, R., & Bhattacharya, S. (2020). Tourism-led local economic development in mountain regions. *Journal of Mountain Science*, 17(8), 1985–1998. <https://doi.org/10.1007/s11629-019-5660-4>