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Tourism Seasonality, Livelihoods, and Community Perceptions in Tawang Town, Arunachal Pradesh, India

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Abstract—Tourism has become a vital livelihood strategy in many Himalayan towns, yet its benefits are often unevenly distributed within local communities. This study examines the socio-economic implications of tourism in Tawang town, Arunachal Pradesh, focusing on work seasonality, income patterns, community perceptions, and access to basic infrastructure. Primary data were collected through a household survey of 321 respondents engaged in tourism and tourism-related activities. Descriptive statistics summarized socio-economic characteristics, while non-parametric tests were used due to non-normal data distribution. The Mann–Whitney U test compared tourism and non-tourism income between seasonal and non-seasonal workers, and Chi-square tests assessed associations between work seasonality and residents' perceptions regarding benefit sharing, cost of living impacts, participation in tourism decision-making, and adequacy of water and electricity supply. Results indicate that seasonal tourism workers earn significantly higher tourism income than non-seasonal workers, reflecting the concentration of activities during peak seasons, while no significant difference was found in non-tourism income. Chi-square analysis shows significant associations between seasonality and perceptions of tourism benefit sharing, price-related cost-of-living impacts, community involvement in governance, and adequacy of water supply; associations with electricity supply were not statistically significant. The study shows the uneven nature of tourism led development in Tawang, where economic gains coexist with infrastructure pressures and perception-based inequalities. The study emphasizes the need for inclusive tourism planning, improved basic services, and policy interventions to address seasonal income vulnerability in mountain destinations.

Keywords: Community Perception, Infrastructure Access, Livelihoods, Tourism Seasonality, Tawang

I. INTRODUCTION

Tourism has emerged as an important source of livelihood in many mountain regions of India (Kala, 2015; Sharma & Dey, 2018). Improvements in road connectivity, enhanced destination promotion, and growing interest in nature and culture based tourism have contributed to increasing tourist arrivals across Himalayan destinations (Singh et al., 2017). While tourism expansion has generated employment opportunities and enhanced household incomes (Karanth & Nepal, 2012), it has simultaneously placed pressure on local infrastructure and fragile mountain ecosystems (Nepal & Chipeniuk, 2005; Geneletti & Dawa, 2009). A nation's economy is impacted by tourism in several ways, including increased income from visitor arrivals, increased domestic demand resulting from the rise in visitor flows, and the creation of demand for travel and tourism-related products and services. The extension of the multicultural environment through increased knowledge of the host destination's citizens' habits, religions, and other characteristics of tourists is one aspect of the social development brought about by tourism, which is far more extensive than economic development (Stryzhak et al., 2024).

One of the main causes of the global economic shifts in society has been tourism. Tourism and socioeconomic factors are associated activities that are present in the majority of communities worldwide (Melita, 2014). Tourism is widely recognised as a key driver of socio-economic development, especially in peripheral and mountain regions where alternative livelihood options are limited. A substantial body of literature shows tourism's contribution to income generation, employment creation, and the growth of small-scale entrepreneurship among local communities (Ashley et al., 2001; UNWTO, 2018). In mountain

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destinations, tourism often provides seasonal employment opportunities in accommodation, transport, guiding, and other allied services, enabling households to supplement their incomes during peak tourist seasons (Nepal & Chipeniuk, 2005). However, the distribution of tourism benefits is frequently uneven, with disparities observed across occupational groups and between seasonal and non-seasonal tourism workers.

While tourism can contribute to improvements in infrastructure such as roads, electricity, and water supply, it may simultaneously intensify pressure on local resources and raise the cost of living for residents (Andereck et al., 2005; Nunkoo & Ramkissoon, 2011). Tourism-induced price hikes in essential goods and services have been documented in several destinations, disproportionately affecting households based on their degree of involvement in tourism activities (Doxey, 1975). Moreover, perceptions of equitable benefit sharing, community participation in decision-making, and access to training opportunities have been shown to play a critical role in shaping local support for tourism development (Tosun, 2000; Timothy, 2007).

In the Indian context, research on tourism impacts has largely concentrated on well established destinations, while empirical studies focusing on smaller mountain towns remain limited. This gap is particularly evident in the Eastern Himalayan region, including Arunachal Pradesh, where tourism has expanded rapidly in recent years. Despite this growth, systematic assessments of how tourism seasonality influences household income patterns, cost of living, and perceptions of infrastructure adequacy are scarce. Town level studies are especially limited, even though tourism development in such settings directly intersects with everyday livelihoods and access to basic services.

Tawang town, a high-altitude destination in Arunachal Pradesh, has experienced a marked increase in tourist inflow over the past decade. While tourism has become an important livelihood option for many households, increased tourist activity has also intensified demand for basic infrastructure such as water supply and electricity, which are already constrained due to geographical remoteness and climatic conditions. Despite the growing importance of tourism in the town, there is limited empirical research examining how tourism seasonality is linked to household livelihoods and infrastructure adequacy from the perspective of the local community. Gyana & Parida (2020) evaluate the vast tourism potential of Tawang District, and in their study, they reveal various internal strengths, such as the rich cultural heritage and natural beauty of Tawang, alongside weaknesses like inadequate infrastructure

Against this background, the present study seeks to examine the socio-economic impacts of tourism in Tawang town, with a specific focus on differences between seasonal and non-seasonal tourism workers. Using household level survey data and statistical analysis, the study explores how seasonality in tourism employment is associated with income patterns, perceptions of cost of living, infrastructure adequacy, and community participation in tourism-related decision-making. By providing empirical evidence from a rapidly developing high altitude mountain town, the study contributes to the broader literature on mountain tourism and offers insights relevant for sustainable tourism planning and policy formulation in similar Himalayan destinations.

I.I. OBJECTIVES

1. To examine the influence of tourism seasonality on household livelihood strategies and income patterns.
2. To assess community perceptions of tourism benefits, cost-of-living changes, and participation in tourism decision-making across seasonal and non-seasonal workers.
3. To examine the relationship between tourism seasonality and access to basic infrastructure and public services.

I.II. RESEARCH QUESTIONS

1. How does tourism seasonality affect household income from tourism and non-tourism sources?
2. Do perceptions of benefit sharing, cost-of-living impacts, and community participation differ between seasonal and non-seasonal tourism workers?
3. Is tourism seasonality associated with perceived adequacy of water and electricity supply?

II. STUDY AREA

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The study was conducted in Tawang town, a high-altitude urban center in Arunachal Pradesh, India, which serves as the district's primary tourism hub. Tawang town experiences concentrated seasonal tourist inflows and relatively higher infrastructure pressure compared to surrounding rural areas, making it an appropriate site for examining the socio-economic implications of tourism seasonality.

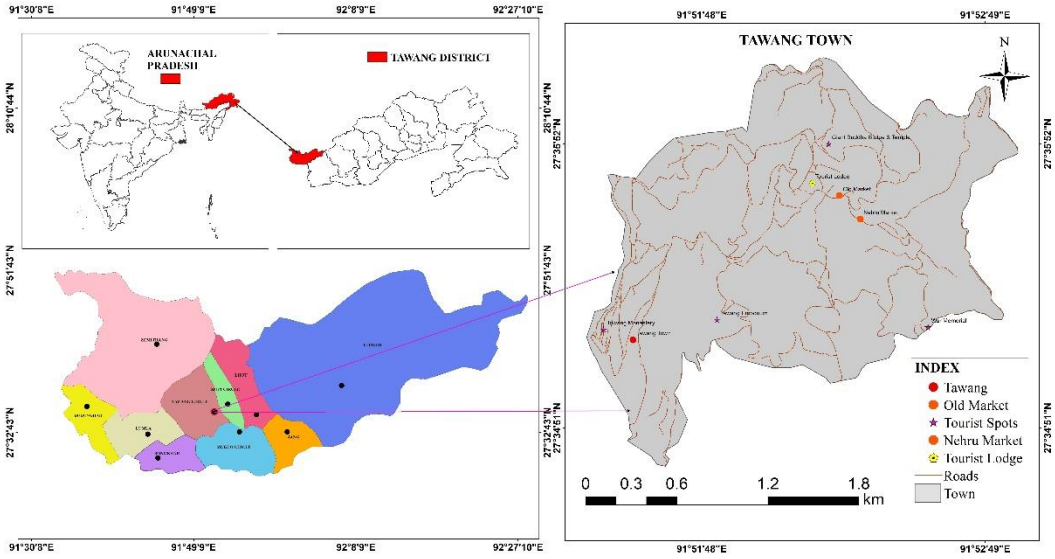

Fig.1: Location Map

III. METHODOLOGY

III.I. SAMPLING AND DATA COLLECTION

The study adopts a cross-sectional quantitative research design based on a household survey conducted in Tawang town. Primary data were collected using a structured questionnaire administered to 321 randomly selected households across the town. Random sampling ensured adequate representation of households engaged in tourism, tourism-related activities, and non-tourism livelihoods.

The questionnaire collected information on socio-demographic characteristics (age, gender, education, occupation), livelihood activities, engagement in tourism, seasonality of tourism employment, alternative income sources during the off-season, and monthly household income from tourism and non-tourism activities. In addition, perceptio based variables captured residents' views on equitable distribution of tourism benefits, tourism-induced price changes affecting the cost of living, community participation in tourism decision-making, and access to training or information related to tourism development. Infrastructure related variables focused on the adequacy of water supply and the reliability of electricity services.

3.2 Data Analysis

Data were coded and entered into Microsoft Excel and subsequently analysed using SPSS. Initial data screening involved checking for missing values and ensuring consistency in variable coding. Descriptive statistics, including frequencies, percentages, and means, were used to summarise socio-demographic characteristics, livelihood attributes, and perception variables.

Tests of normality (Kolmogorov–Smirnov and Shapiro–Wilk) indicated that household income variables were not normally distributed ($p < 0.001$). Accordingly, non-parametric statistical techniques were employed. The Mann–Whitney U test was used to compare differences in monthly household income from tourism and non-tourism sources between seasonal and non-seasonal tourism workers. Chi-square tests of independence were applied to examine associations between tourism employment

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seasonality and selected perception variables, including benefit sharing, costliving impacts, community participation in tourism decision-making, and adequacy of water and electricity supply. Where Chi-square tests were statistically significant, effect sizes were assessed using Phi and Cramer's V statistics. All statistical tests were conducted at a 95% confidence level, with statistical significance set at $p < 0.05$.

IV. RESULT

Table 1: Socio-demographic characteristics of respondents

Variable	Category	Frequency	Percentage
Gender	Male	150	46.7
	Female	171	53.3
Age group	18–30	165	51.4
	31–45	111	34.6
	46–60	31	9.7
	Above 60	14	4.4
Education	No Formal Education	42	13.1
	Primary	17	5.3
	Secondary	48	15.0
	Higher Secondary	62	19.3
	Graduation and Above	152	47.4
Occupation	Tourism-related	75	23.4
	Government service	57	17.8
	Labour work	17	5.3
	Unemployed	31	9.7
	Farmer	29	9.0

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Variable	Category	Frequency	Percentage
	Self Employed	112	34.9

IV.I. SOCIO-DEMOGRAPHIC PROFILE OF RESPONDENTS

The socio-demographic characteristics of the respondents are presented in Table 1. The study is based on data collected from 321 households in Tawang town. The gender composition of the sample is relatively balanced, with females accounting for 53.3% (n = 171) and males for 46.7% (n = 150), indicating adequate representation of both genders.

The age distribution shows that the majority of respondents belong to the economically active population. More than half of the respondents (51.4%, n = 165) fall within the 18–30 years age group, followed by 34.6% (n = 111) in the 31–45 years category. Older age groups are comparatively underrepresented, with 9.7% (n = 31) aged between 46–60 years and only 4.4% (n = 14) above 60 years. The educational attainment of respondents varies considerably. Nearly half of the respondents (47.4%, n = 152) possess graduate-level education or higher. Those with higher secondary education constitute 19.3% (n = 62), followed by secondary education (15.0%, n = 48). A smaller proportion of respondents reported having primary education (5.3%, n = 17), while 13.1% (n = 42) indicated no formal education.

Occupationally, respondents are engaged in a range of livelihood activities. Self-employed individuals form the largest group (34.9%, n = 112), followed by respondents involved in tourism-related activities (23.4%, n = 75). Government service employees account for 17.8% (n = 57), while unemployed respondents constitute 9.7% (n = 31). Farmers (9.0%, n = 29) and labour workers (5.3%, n = 17) represent smaller proportions of the sample.

IV.II. DIFFERENCES IN TOURISM-RELATED INCOME BY SEASONALITY OF WORK

A Mann–Whitney U test was conducted to examine differences in monthly income derived from tourism between seasonal and non-seasonal tourism workers. The results reveal a statistically significant difference between the two groups ($U = 6802.00$, $Z = -7.171$, $p < 0.001$). Seasonal tourism workers recorded a substantially higher mean rank (202.91) compared to non-seasonal workers (128.58), indicating higher tourism-related income among those engaged in seasonal tourism activities.

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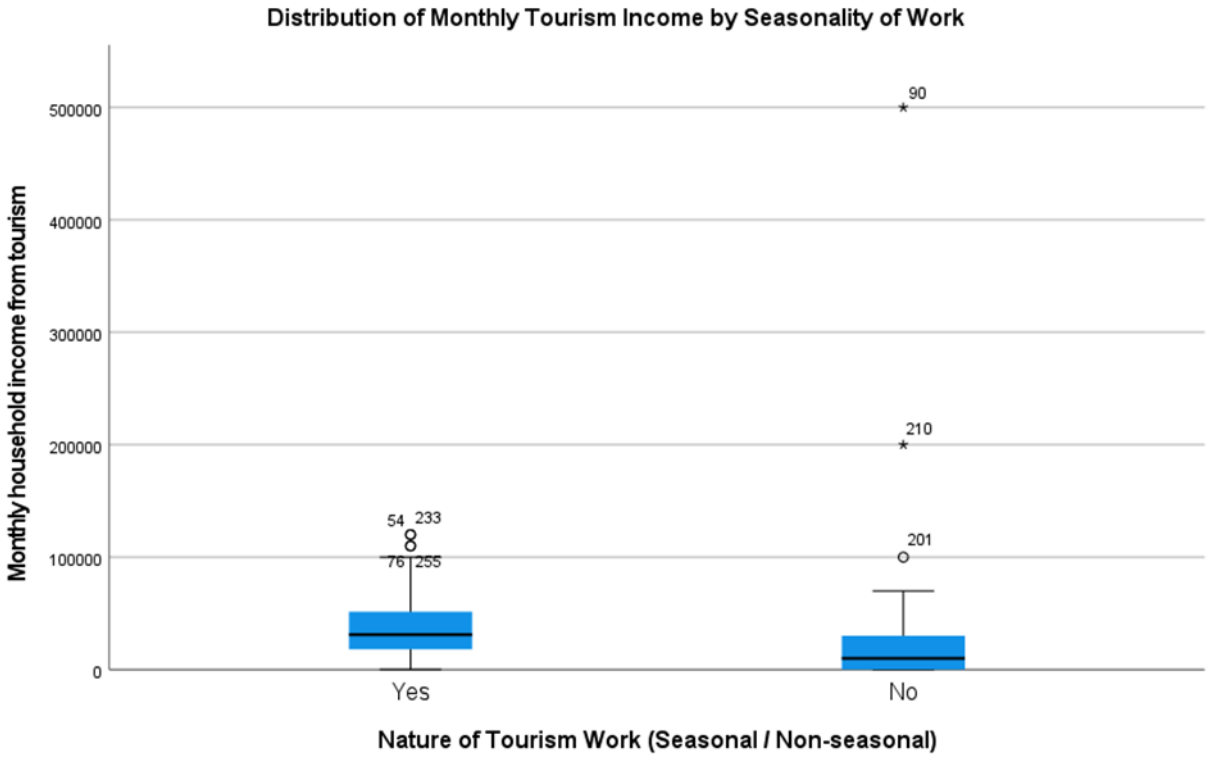

Fig, 2: Distribution of respondents by tourism work seasonality/related to tourism.

Fig. 2 presents a boxplot showing the distribution of tourism-related income by employment seasonality. Seasonal workers display a higher median monthly income and a wider range of income variation. In contrast, non-seasonal workers exhibit relatively lower and more stable tourism income, with fewer high-income cases. Outliers are present in both groups, reflecting variation in tourism earnings among households.

IV.III. INCOME FROM NON-TOURISM SOURCES

To assess differences in household income from sources unrelated to tourism, a separate Mann–Whitney U test was performed. The analysis shows that non-seasonal workers have a higher mean rank (168.62) compared to seasonal workers (151.15); however, this difference is not statistically significant ($U = 11290.50$, $Z = -1.679$, $p = 0.093$).

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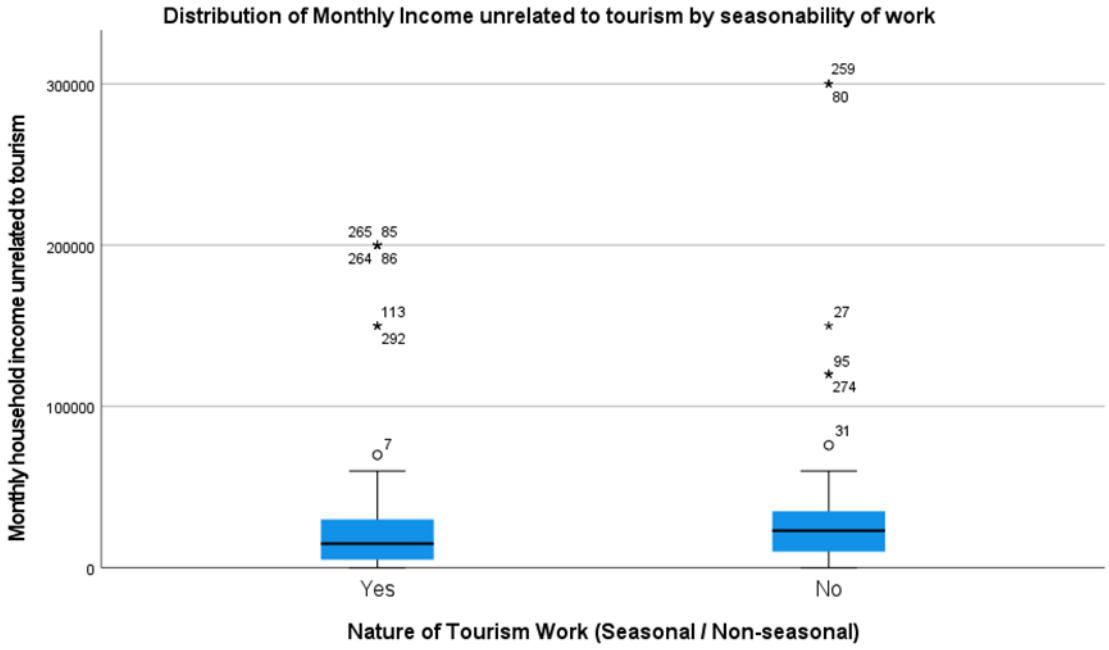

Fig 3: Distribution of respondents by tourism work seasonality/ Unrelated to tourism

The distribution of non-tourism income by employment seasonality is illustrated in Figure 3. The boxplot indicates that non-seasonal households have a slightly higher median income from non-tourism sources, while seasonal tourism households tend to report lower non-tourism income. High-income outliers are observed in both groups, suggesting variability in access to alternative income sources.

IV.IV. ASSOCIATION BETWEEN TOURISM SEASONALITY AND PERCEPTIONS OF BENEFIT SHARING

A chi-square test of association was conducted to examine the relationship between tourism employment seasonality and perceptions of equitable benefit sharing within the community. The results indicate a statistically significant association between the two variables ($\chi^2 = 12.726$, df = 1, $p < 0.001$). Among seasonal tourism workers, 59.3% reported that tourism benefits are equally shared within the community, whereas 60.8% of non-seasonal workers perceived tourism benefits as inequitably distributed.

Table 2: Chi-Square Analysis of Tourism Employment and Perception Variables

Variable	χ^2	df	p-value	Cramer's V
Has a tourism-related price hike affected your cost of living?	21.33	1	<0.001	0.259
Are the local community involved in the decision-making of tourism policies?	4.28	1	0.039	0.115

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Variable	χ^2	df	p-value	Cramer's V
Is the water supply adequate throughout the year?	30.36	1	<0.001	0.309
Is the electricity supply reliable and sufficient in your area?	3.16	1	0.075	0.100

IV.V. SEASONALITY OF TOURISM WORK AND HOUSEHOLD-LEVEL IMPACTS

Further chi-square tests were conducted to assess the association between tourism employment seasonality and selected household-level perceptions and infrastructure-related variables.

A statistically significant association was observed between employment seasonality and perceptions of tourism related price hikes affecting household cost of living ($\chi^2 = 21.33$, df = 1, $p < 0.001$). The strength of association, as measured by Cramer's V (V = 0.259), indicates a weak to moderate relationship between the two variables.

The association between tourism employment seasonality and perceptions of local community involvement in tourism-related decision-making was also statistically significant ($\chi^2 = 4.28$, df = 1, $p = 0.039$). However, the strength of this association was small, as indicated by the Phi coefficient ($\varphi = 0.115$). A strong and statistically significant association was found between tourism employment seasonality and perceptions of water supply adequacy ($\chi^2 = 30.36$, df = 1, $p < 0.001$). The strength of association was moderate (Cramer's V = 0.309). Among seasonal workers (n = 139), 74.1% reported that water supply is adequate, while 25.9% reported inadequacy. In contrast, among non-seasonal workers (n = 180), 95.6% reported adequate water supply and only 4.4% reported inadequacy. In contrast, the association between tourism employment seasonality and adequacy of electricity supply was not statistically significant ($\chi^2 = 3.159$, df = 1, $p = 0.075$), indicating similar perceptions of electricity reliability among both seasonal and non-seasonal households.

V. DISCUSSION

V.I. TOURISM SEASONALITY AND LIVELIHOOD OUTCOMES

The results show a significant difference in tourism-related income between seasonal and non-seasonal tourism workers, with seasonal workers earning considerably higher income during peak periods. This finding reflects the highly concentrated nature of tourism activities in Tawang, where tourist arrivals are limited to a few months due to climatic constraints and accessibility. During these peak periods, demand for accommodation, transport, guiding services, and allied activities increases sharply, allowing seasonal workers to intensify their economic engagement and generate higher short term earnings. This pattern is consistent with findings from other mountain and peripheral destinations, where tourism income is often characterised by high seasonal intensity rather than year-round stability (Nepal & Chipeniuk, 2005). Although seasonal employment is temporary, the income generated during peak seasons may exceed the earnings of non-seasonal workers who remain active throughout the year but operate during periods of low tourist inflow and reduced expenditure. However, such income concentration also exposes seasonal workers to greater economic uncertainty during the off-season, showing the risky nature of tourism-dependent livelihoods. Tourism seasonality often intensifies livelihood vulnerability in mountain destinations, where income is highly concentrated in peak periods, and alternative employment opportunities remain limited (Butler, 2001; Su et al., 2019).

In contrast, the absence of a statistically significant difference in non-tourism income between seasonal and non-seasonal workers suggests limited livelihood diversification across households. While many respondents reported engagement in alternative

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activities such as agriculture, government service, labour work, or small scale businesses, these sources do not appear to significantly offset seasonal fluctuations in tourism income. This finding indicates that tourism functions primarily as a supplementary or dominant livelihood rather than being effectively integrated with diversified income strategies. Similar observations have been made in other tourism-dependent mountain regions, where structural constraints limit access to stable non-tourism employment.

Taken together, these results show a pattern of livelihood vulnerability rooted in seasonality. Seasonal workers benefit from higher tourism income during peak periods, but this advantage is not balanced by stronger non-tourism income opportunities. Non-seasonal workers, although engaged year-round, do not experience significantly higher income stability, suggesting that prolonged engagement in tourism does not necessarily lead to improved economic security. But we also have to note that the the non seasonal worker

V.II. PERCEPTIONS OF EQUITABLE BENEFIT SHARING

The study reveals a significant association between tourism seasonality and perceptions of equitable distribution of tourism benefits. Seasonal workers were more likely to perceive tourism benefits as fairly distributed, whereas non-seasonal workers expressed greater dissatisfaction. This divergence in perception can be interpreted through differences in economic exposure and expectations.

Seasonal workers often evaluate tourism development based on short-term financial gains experienced during peak seasons. As tourism directly contributes to their income during these periods, their perceptions tend to be more positive, aligning with earlier studies that show households economically dependent on tourism are more likely to support tourism development (Haralambopoulos & Pizam, 1996). In contrast, non-seasonal workers, who remain engaged throughout the year, may be more sensitive to structural inequalities, unequal access to tourism opportunities, and the concentration of benefits among specific groups or locations within the town. However, the income difference should be interpreted within the broader occupational structure of the sample. A considerable proportion of non-seasonal workers are engaged in government service and other salaried occupations that are not directly dependent on tourism seasonality. Consequently, their tourism-related income is naturally lower, as tourism does not constitute their primary source of livelihood. Therefore, the observed income gap reflects not only the effect of seasonality but also variations in the degree of dependence on tourism-based activities.

This finding suggests that perceived equity in tourism development is closely linked to the timing and intensity of economic benefits rather than long-term livelihood security. It also indicates the importance of addressing intra-community disparities in tourism participation and benefit distribution, particularly in small mountain towns where tourism opportunities may be spatially and socially concentrated. The findings can be interpreted through Social Exchange Theory (Ap, 1992), which posits that residents evaluate tourism development based on a cost benefit exchange framework. Seasonal workers, who derive higher short-term tourism income, are more likely to perceive tourism benefits positively, whereas non-seasonal workers, who experience fewer direct economic gains, demonstrate relatively greater dissatisfaction regarding benefit distribution. Similar to findings from rural tourism households in China (Su et al., 2019), the result show that households with a higher dependence on seasonal tourism income experience greater income variability and are more vulnerable to livelihood insecurity.

V.III. TOURISM-INDUCED COST OF LIVING CHANGES

The analysis indicates a statistically significant relationship between tourism seasonality and perceptions of tourism-induced price increases affecting household cost of living. Seasonal workers were more likely to report being affected by price hikes, particularly during peak tourist seasons. As Biagi et al., (2020) state, while tourism brings economic benefits, it can also harm urban quality of life (UQoL) by inflating housing costs and crime rates. This finding reflects the inflationary effects commonly associated with tourism growth, where increased demand from tourists drives up prices of food, accommodation, transport, and other essential goods and services.

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In destinations like Tawang, where supply chains are constrained by remoteness and climatic conditions, even modest increases in tourist demand can lead to sharp price fluctuations. Seasonal workers, whose engagement matches with peak tourist periods, are more directly exposed to these inflationary pressures. Although higher tourism income may partially balance rising costs, the net effect on household welfare remains uncertain, particularly for lower-income households and those with limited savings. These findings support the argument that tourism development produces both economic benefits and social costs, and that income gains do not automatically lead into improved living standards. Without regulatory mechanisms to control price inflation or protect vulnerable households, tourism-induced cost of living increases may aggravate existing inequalities within the community.

V.IV. COMMUNITY PARTICIPATION IN TOURISM GOVERNANCE

The relationship between tourism seasonality and perceptions of community participation in tourism decision-making was statistically significant but weak, indicating limited institutional inclusion of local residents regardless of employment status. Although seasonal workers were marginally more likely to perceive community involvement, the low effect size suggests that participation remains largely limited.

This finding is consistent with previous studies presenting governance challenges in tourism planning, particularly in peripheral and developing regions where decision-making is often top-down (Tosun, 2000; Timothy, 2007). Limited community participation can lead to a lack of ownership over tourism initiatives and reduce the effectiveness of tourism as a tool for sustainable development. As noted by Nwankwo and Agboeze (2013), meaningful local participation is essential for ensuring that tourism development aligns with community needs and priorities. In the context of Tawang, the weak association between seasonality and participation suggests that both seasonal and non-seasonal workers face similar constraints in influencing tourism policies. This indicates the need for institutional mechanisms that actively involve local residents in planning, regulation, and benefit-sharing processes, which will help in stimulating more sustainable tourism development.

V.V. INFRASTRUCTURE STRESS AND WATER SUPPLY

One of the most significant findings of the study is the strong association between tourism seasonality and perceptions of water supply adequacy. Seasonal workers were considerably more likely to report inadequate water supply, indicating that peak tourism periods intensify pressure on already constrained water resources. In a high-altitude town like Tawang, where water availability is affected by freezing temperatures, snowfall, and limited storage capacity, increased tourist demand can intensify shortages for local households.

The prioritisation of water supply for hotels, guesthouses, and other tourism facilities during peak seasons may further contribute to perceived inequities in access. This finding raises serious concerns about the sustainability of current tourism growth patterns and indicates the need for integrated infrastructure planning that accounts for both resident and tourist needs. Without targeted investment in water infrastructure and effective resource management, tourism development may undermine local quality of life and generate long-term social tensions.

V.VI. ELECTRICITY SUPPLY AND TOURISM SEASONALITY

In contrast to water supply, no statistically significant association was found between tourism seasonality and perceptions of electricity supply adequacy. This suggests that electricity related constraints are experienced relatively uniformly across households, irrespective of tourism employment status. Unlike water resources, electricity infrastructure may be less directly affected by seasonal tourist inflows or may be distributed more evenly across residential and commercial users.

However, the absence of a significant association does not imply the absence of infrastructure challenges. Rather, it indicates that electricity-related issues represent a broader structural constraint affecting the entire community, rather than a tourism specific impact.

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V.VII. IMPLICATIONS FOR SUSTAINABLE MOUNTAIN TOURISM

Overall, the findings present that tourism seasonality plays a central role in shaping economic outcomes and social perceptions in Tawang town. Seasonal tourism employment generates higher short-term income but is also associated with increased exposure to cost-of-living pressures and infrastructure stress, particularly electricity and water supply. These dynamics reflect broader patterns observed in mountain tourism destinations, where rapid tourism growth often outpaces the capacity of local infrastructure and governance systems.

The study presents the need for tourism policies that go beyond income generation to address issues of equity, livelihood stability, and resource sustainability. Promoting livelihood diversification, strengthening community participation in tourism governance, and investing in basic infrastructure, which is critical for reducing vulnerability and ensuring that tourism contributes to long-term, inclusive development in high-altitude Himalayan towns. As stated by Mitra & Lama (2013) in their study on tourism development in Arunachal Pradesh, sustainable tourism policies and guidelines could transform Arunachal Pradesh into one of the most frequently visited states in the northeastern region. This transformation could lead to substantial revenue generation for the state government, which is crucial for its development

VI. CONCLUSION

This study examined the socio-economic implications of tourism seasonality in Tawang town, Arunachal Pradesh, focusing on household income patterns, livelihood strategies, community perceptions, and infrastructure conditions. The findings indicate that seasonal tourism workers earn significantly higher income during peak periods; however, this advantage is not supported by stronger non-tourism income sources, reflecting limited livelihood diversification and continued dependence on seasonal tourist inflows. Such dependence shows the vulnerability of tourism based livelihoods in mountain regions.

The study also reveals differences in community perceptions, where seasonal workers tend to view tourism benefits more positively, while non-seasonal workers express relatively greater dissatisfaction. In addition, tourism-induced price increases and pressure on water supply and electricity during peak seasons demonstrate the dual nature of tourism development as both an economic opportunity and a source of strain on local resources. Overall, the findings suggest that tourism growth in Tawang has developed rapidly, while local infrastructure and governance systems may require further strengthening to effectively manage its impacts. The study indicates the importance of adopting more balanced, inclusive, and sustainable tourism planning approaches to support long-term socio-economic stability in high-altitude destinations.

VII. POLICY IMPLICATIONS

The findings of this study offer several important policy implications for tourism planning and local development in Tawang and similar Himalayan destinations.

First, there is a need to reduce livelihood vulnerability associated with tourism seasonality. Although seasonal tourism generates substantial short-term income, heavy reliance on peak-season earnings exposes households to economic uncertainty during the off-season. Policymakers may therefore consider promoting livelihood diversification through skill development initiatives, support for non tourism micro enterprises, and stronger linkages with agriculture, handicrafts, and off season employment programmes. Strengthening alternative income sources can improve household resilience and reduce overdependence on seasonal tourism. Previous research indicates that improving access to financial and physical capital, along with diversified livelihood opportunities, can significantly reduce vulnerability in tourism dependent regions (Su et al., 2019), which is particularly relevant for mountain towns such as Tawang.

Second, the differences in perceptions of benefit distribution shows the importance of more inclusive tourism development. Local authorities could encourage broader participation in tourism-related activities by supporting small and locally owned enterprises, improving access to credit and training, and ensuring that benefits are not concentrated among a limited group of stakeholders. Such measures can promote a more equitable distribution of tourism gains within the community. Third, monitoring

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seasonal price fluctuations, strengthening local supply chains, and ensuring fair pricing of essential goods and services may help reduce financial pressures on resident households. Particular attention should be given to protecting low income and tourism-dependent families, who are most vulnerable to rising living costs. The limited association between tourism employment and community participation in decision-making further indicates the need for stronger institutional inclusion. Encouraging active community involvement through consultative forums, local tourism committees, and participatory governance mechanisms can enhance transparency, strengthen accountability, and foster a greater sense of ownership over tourism development.

In conclusion, tourism in Tawang presents significant economic opportunities while also creating challenges related to seasonality, equity, and resource pressure. Addressing these issues requires integrated and balanced policy approaches that align tourism growth with livelihood security, infrastructure capacity, and long term community well being.

VIII. ACKNOWLEDGEMENTS

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