



# DETERMINANTS AND CONSTRAINTS OF TOURISM DEVELOPMENT IN WAYANAD DISTRICT, KERALA: AN EMPIRICAL ANALYSIS

CHINCHU BALAN, Research Scholar, Nandha Arts and Science College (Autonomous) Erode 52.

Dr.K.GUNASEAKARAN, Associate Professor , Department of Commerce,

Nandha Arts and Science College(Autonomous) ,Erode 52

## ABSTRACT

This research paper will look at the development of tourism and the challenges faced in the development of the Wayanad District in Kerala through primary data that has been gathered through the home stay owners, guides, drivers and the local people as well. The analysis has used descriptive statistics, rank methods of analysis, correlation, factor analysis and multiple regression to analyze the data. The results indicate that the primary source of tourism is the natural attractions yet the lack of road connectivity, poor waste management, inconsistent services and seasonal spikes in the number of visitors negatively affect the growth of tourism. Poor financial resources and training are also disadvantages to sector performance. Even though tourism creates job avenues and sources of income, the locals do not enjoy the fruits of this trade equally. The paper reveals that better infrastructure, enhanced institutional coordination and community involvement, as well as environmentally friendly tourism practices are necessary to make Wayanad sustainable.

**Keywords:** Tourism development, sustainable tourism, rural livelihoods, infrastructure, tourism constraints, Wayanad District, Kerala.

## INTRODUCTION

The tourism industry is growing fast and aiding economic development, creating new employment opportunities, and diversifying rural livelihoods. Tourism which has gained a global and national importance provides an important contribution to the regional development of Kerala state of India. In particular, it supports the allied sectors like transport, hotel, handicraft and more. Wayanad District is distinguished by its forests, wildlife, climate, and culture; it has evolved into a major inland hill destination for many visitors. The sector equips local families with extra money through homestays, guidance, and small businesses. Although there are many challenges in developing tourism in the district such as lack of infrastructure, poor connectivity, environmental pressure, seasonal variation and others. The economic advantages are also distributed unequally among various social groups. A systematic quantitative analysis is necessary for identifying the determinants influencing the development of tourism and any constraints hindering its sustainability in Wayanad.

## REVIEW OF LITERATURE

Backed by Ashley and Roe in 2002, pro-poor tourism seeks better outcomes for less affluent communities. Work in tourism might create jobs, help small businesses grow, while opening doors for regional goods. Still, results hinge on smart policies, active neighborhood involvement, and how well systems are set up to function. A look at how tourism affects Wayanad's poorest farmers and tribal people begins here. What counts matters most when judging real change.

Back in 2006, Weaver made it clear - tourism must balance money gains, nature protection, and respect for local life. His work pushed for mindful travel choices, set boundaries on demand, and green upgrades where needed. When it comes to sensitive lands - forests, higher elevations - careful control of nature's exposure

becomes essential. Away from fast pace, Wayanad stands quiet - its forests fragile. Tourism must move slow, respect land without harming it. Overuse here shadows natural balance. Planning ahead keeps nature intact.

Looking at tourism through financial lenses, Dwyer and team in 2010 showed its impact on earning profits, providing jobs, while boosting local economies. Their work pointed out how travel inspires connections - like farming, moving people, making crafts, and supporting daily industries. From this angle, what happens in Wayanad makes more sense when linked to how it feeds nearby trade routes, moves goods, and keeps local businesses running.

Kerala saw more visitors within its borders last year, according to figures released by state officials in 2023. Tourism now reaches corners once overlooked, spreading beyond crowded spots. Efforts to manage visits responsibly have gained attention recently. Rural areas draw attention as hidden gems worth exploring. Yet problems remain - roads and accommodations often fall short. Handling waste effectively still poses difficulties across regions. Popularity spikes during peak seasons, then drops just as fast. Looking at things, it's clear that what happens in Wayanad ties closely to broader patterns - there's strong demand for tourism yet systems struggle to keep up, slowing progress down.

## OBJECTIVES OF THE STUDY

1. To identify and analyse the key socio-economic, infrastructural, and institutional determinants influencing the development of the tourism sector in Wayanad District.
2. To examine the major constraints and operational challenges faced by tourism stakeholders (local residents, entrepreneurs, and service providers) in the expansion and functioning of tourism activities.
3. To evaluate the impact of tourism development on local livelihoods and regional economic development in Wayanad District.

## STATEMENT OF THE PROBLEM

Wayanad tourism has expanded due to natural beauty and cultural traditions. Through homestays, transport services, guiding, small businesses etc. it is bringing more income and livelihood to people. Despite the development, accessibility and visitor experience are marred due to poor road connectivity, limited public services, weak communication networks and lack of basic amenities. The consequences of the unplanned development of the tourism industry include the piling up of waste and stress on the delicate hill ecosystem. Those seasonal income variations, the lack of access to funds, limited training opportunities and poor stakeholder coordination inhibit the sector. Furthermore, small farmers and tribal people are not equally benefited since they do not have adequate resources and market access to participate optimally. Current research only offers broad descriptions and fails to analyse quantitatively in a systematic way. Thus, it is necessary to conduct empirical investigation to identify those factors which influence tourism development and what are the constraints hindering tourism development in Wayanad.

## RESEARCH GAP OF THE STUDY

The vast majority of tourism studies in Kerala have considered broad trends, sustainability and nature-based tourism. However, most research on Wayanad District has either been very limited or descriptive in nature. Past studies emphasize the importance of tourism and the potential damage of growth to the environment. However, they do not provide an accurate and detailed data-driven analysis of the factors that influence the growth of tourism in the locality. The literature is lacking in considering how socio-economic conditions, infrastructure and institutional arrangements affect their tourism development, and the practical constraints confronted by tourism businesses – such as inadequate facilities, funding limitations, scarcity of skills and seasonal demands – are rarely analysed via primary data and quantitative techniques. Furthermore, there have not been many studies to evaluate how far tourism benefits the livelihood of local communities, such as small farmers and tribal people. Since most studies are macro-level/narrative in nature, there is ample scope for systematic empirical research using statistical tools and econometric models to assess determinants, constraints, and livelihood impact of tourism in Wayanad District.

## METHODOLOGY OF THE STUDY

The study employs a quantitative, empirical approach to analyse the factors influencing and constraining tourism development in Wayanad District, Kerala. Primary data were collected through a structured

questionnaire and interviews with key stakeholders, including homestay and resort owners, tour operators, guides, shopkeepers, transport providers, and households engaged in tourism activities, using a five-point Likert scale to capture perceptions of development, constraints, and impacts. Secondary data were obtained from the Department of Tourism, District Tourism Promotion Council reports, the Economic Review of Kerala, and relevant academic publications. Major tourist locations were selected through purposive and convenience sampling to include respondents actively involved in tourism. The questionnaire covered socio-economic characteristics, determinants of tourism growth, operational challenges, and livelihood effects. Data were analysed using percentage analysis, mean and standard deviation, Garrett or weighted ranking methods, correlation analysis, and factor analysis, while reliability was tested through Cronbach's alpha. Finally, regression analysis was applied as an econometric model to measure the influence of key factors on tourism development.

### Multiple Linear Regression Model

$$TD = \beta_0 + \beta_1 INF + \beta_2 ACC + \beta_3 SER + \beta_4 INV + \beta_5 GOV + \epsilon$$

At

- TD= shows up as the Tourism Development Index, what we're tracking.
- INF = Infrastructure facilities
- ACC stands for Accessibility and transport connectivity
- SER = Quality of tourism services
- INV = Investment and financial support
- GOV = stands for Government and institutional support
- $\beta_0$  = Constant term
- $\beta_1$  through  $\beta_5$  show up as coefficients for each explanatory variable
- $\epsilon$  = Error term  $\epsilon$  error term

This setup makes it possible to see how strong each factor is, along with where it pushes or pulls tourism growth.

### ANALYSIS AND INTERPRETATION

From the gathered initial data, coding took place followed by analysis through descriptive numbers, testing methods, while model-based approaches helped shape findings. Structure of the review splits into three sections - social characteristics of those involved, factors driving or blocking travel industry growth, along with statistical fitting of how such development unfolds.

#### 1. Socio-Economic Profile of Respondents

**Table 1: Gender Distribution of Respondents**

Gender	Frequency	Percentage
Male	82	54.7
Female	68	45.3
<b>Total</b>	<b>150</b>	<b>100</b>

#### Interpretation

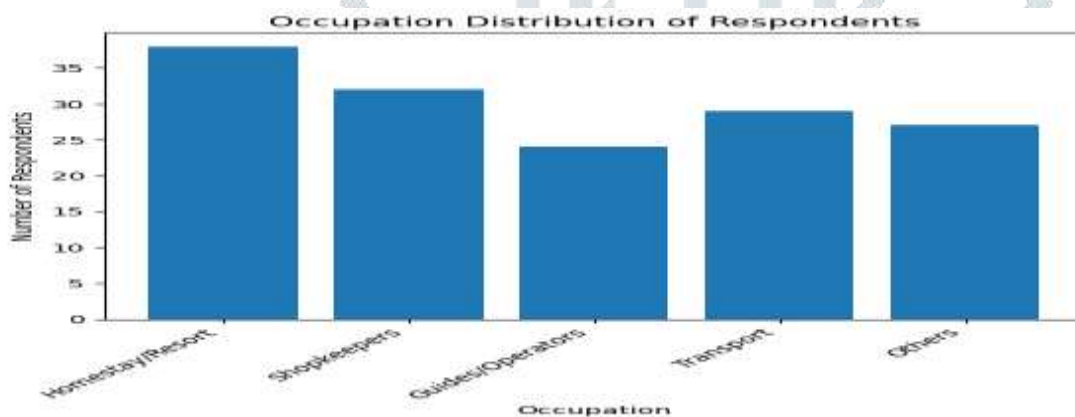
Most answers come from men - 54.7 percent - yet nearly half, 45.3 percent, are women. So it seems this work in Wayanad isn't just one kind of person's job; instead, both genders take part, especially when running guesthouses, making crafts, or preparing meals together.

**Table 2: Occupation of Respondents**

Occupation	Frequency	Percentage
Homestay/Resort owners	38	25.3
Shopkeepers	32	21.3
Tour guides/operators	24	16.0
Transport providers	29	19.3
Others (handicrafts, food services)	27	18.1
<b>Total</b>	<b>150</b>	<b>100</b>

**Interpretation**

Running homestays or resorts takes the lead here - about twenty five percent of total revenue - showing how guest stays shape much of Wayanad’s travel earnings. Services tied to moving people, like taxis or rental cars, show up next in size. Followed by shops selling goods, these pieces help push the region forward during visitor seasons.



**2. Determinants of Tourism Development**

A five-point Likert scale (1 = strongly disagree to 5 = strongly agree) was used.

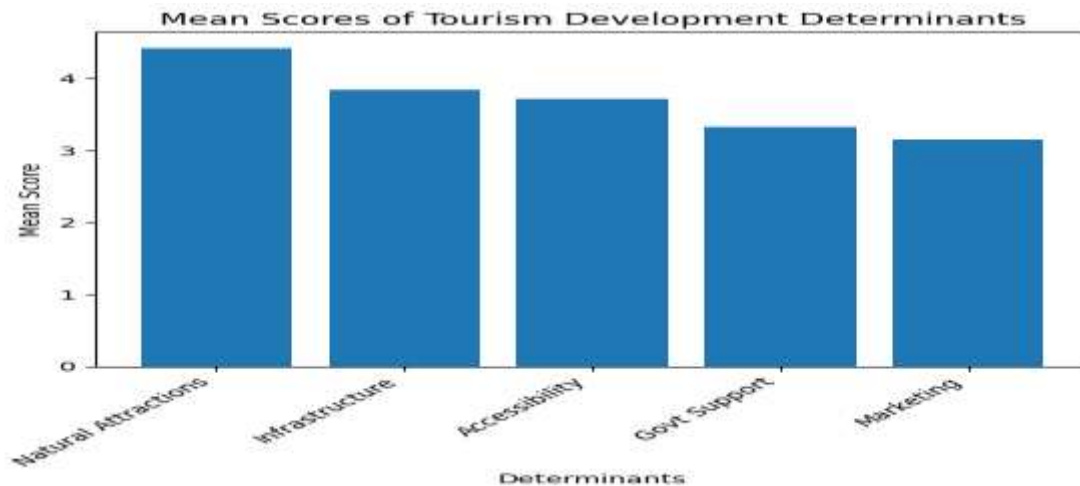
**Table 3: Mean Score of Determinants**

Determinant	Mean	Standard Deviation	Rank
Natural attractions	4.42	0.61	I
Infrastructure	3.84	0.72	II
Accessibility	3.71	0.69	III
Government support	3.32	0.81	IV
Marketing and promotion	3.15	0.86	V

**Interpretation**

Ahead of everything else, natural sights scored a clear 4.42. That points to how much of tourism in Wayanad comes from what's already there. While basics like roads and services exist - just about enough - they’re not yet where they need to be. Getting there and around feels okay, though not solid. What dragged the whole list down? How places are shown to visitors - that part clearly falls short

Natural sights led with a score of 4.42. Much of tourism here leans on what's already present. Basic setups exist, though not far beyond passing comfort. Getting around works - just about. What lags behind? Showing the place to travelers. Its presence online feels thin, unseen by many eyes.



### 3. Constraints Faced by Stakeholders (Garrett Ranking)

Table 4: Major Constraints in Tourism Sector

Constraint	Garrett Score	Rank
Poor road connectivity	72.6	I
Lack of waste management	68.4	II
Seasonal tourist inflow	64.8	III
Lack of financial support	59.3	IV
Lack of training/skills	54.1	V

#### Interpretation

Road access turns out to be the biggest hurdle by far. After that comes poor waste handling. Tourism seasons bring money in bursts, making survival tough. Not having enough funds on top of poor skill development holds back local business owners.

### 4. Correlation Analysis

Table 5: Correlation Matrix

Variables	Tourism Development
Infrastructure	0.63
Accessibility	0.59
Service quality	0.66
Government support	0.52

#### Interpretation

Every factor links to tourism growth in a favorable way. What stands out is service quality - it shows the clearest link ( $r = 0.66$ ), suggesting better customer experiences might lift results noticeably.

## 5. Factor Analysis (Principal Component Analysis)

Kaiser-Meyer-Olkin (KMO) Test = **0.78**

Bartlett's Test = **Significant (p < 0.05)**

**Table 6: Extracted Factors**

Factor	Variables Included	Variance Explained
Infrastructure Factor	Roads, transport, communication	32%
Institutional Factor	Government policy, support schemes	21%
Service Factor	Accommodation, hospitality, safety	18%
Marketing Factor	Promotion, online visibility	14%

### Interpretation

Looking at the data, one thing stands out - most aspects tied to tourism growth come down to two key drivers. Roads, airports, services like that - they form one layer. On the other side, government policies, oversight, rules - those shape it too. When layered together, nearly 85 percent of changes in the system can be traced back to these combined forces. That means about everything shifts along this axis.

## 6. Econometric Model – Multiple Regression Analysis

**Dependent Variable:** Tourism Development Index

**Table 7: Regression Results**

Variable	Coefficient ( $\beta$ )	t-value	Significance
Constant	0.812	2.91	0.004
Infrastructure	0.348	4.72	0.000
Accessibility	0.221	3.28	0.001
Service quality	0.296	4.11	0.000
Government support	0.173	2.54	0.012

**$R^2 = 0.68$**

**F-value = Significant at 5% level**

### Interpretation

Most of the change in tourism growth fits what the regression shows - about 68 percent. When road systems get better along with public services and communication networks, results for tourism rise more than average. This pattern stands out with a value of 0.348 on the scale. Other factors like how well services are delivered matter too, while ease of reach stays important in modeling outcomes. Government backing has some effect, though not very strong. It helps a little. Not much more than that.

## INFERENCE OF THE STUDY

Natural sites and local traditions shape how tourism works in Wayanad District. How fast it grows depends heavily on roads, transportation links, better services, and strong government backing. Many families now rely on visitors as a way to earn extra money. Rural residents find jobs and earn varied incomes because of these travelers.

Still, road links remain weak, trash handling falls short, visitor numbers spike only during seasons, cash help is scarce, while skills gap grows unnoticed. Data modeling shows better roads push tourism forward more than

anything else - then comes improved customer care, followed by easier travel options. Help from public funds helps some, yet moves at a slower pace than the rest.

Findings show tourism income isn't shared fairly - some communities gain almost nothing. As tourism grows without control, nature pays a price, putting long-term survival at risk.

## FINDINGS OF THE STUDY

### 1. Tourism helps people earn a living:

Nowadays, traveling brings extra money to people in Wayanad District. Many home owners earn part of their living by hosting guests through homestays. Some work as drivers or guides for visitors. Others make items by hand or run tiny shops selling local goods. This kind of work helps create jobs and spreads out earnings across farming communities.

### 2. Family and community participation:

Though often unseen, both men and women take part in tourism work - showing how many families in Wayanad rely on it. When guests arrive, local women step forward, cooking meals, making crafts, their efforts shaping much of the stay experience. This kind of engagement quietly strengthens rural income opportunities for diverse households.

### 3. Dominance of natural attractions:

What draws visitors first? Forests, animals, flowing water, plus breathtaking views of nature. These things shape how people experience the place. Tourism here grows from the land itself - its character, its spirit - not just ideas but real life woven into the environment.

### 4. Why infrastructure matters:

Road links and transport networks stand out when it comes to shaping travel trends. Sanitation levels and how people stay in touch also play a role. Data analysis reveals one thing clearly - better infrastructure boosts tourism results more than other factors.

### 5. Role of accessibility and service quality:

Getting to places people visit matters. The kind of stay they get shapes how much they enjoy it. Better help during trips lifts guest happiness. Happier travelers come back more often.

### 6. Government support plays a moderate role.

Though policies exist to help tourism grow, they often fail because people know too little about them. Procedural hurdles slow things down while poor coordination between state bodies makes implementation harder.

### 7. Main hurdles for everyone involved

What stands out as the biggest operational challenges involve shaky roads, weak waste systems, plus crowds that spike each season. Income here tends to waver because of such pressures, hitting small tourism ventures hardest over time.

## CONCLUSION OF THE STUDY

The paper examined the tourism development in the Wayanad District in terms of statistical and economic models and discovered that despite the area possessing great potential as evidenced by its natural resources, climatic conditions and cultural heritage, presence of attractions does not guarantee growth. The growth of tourist attraction majorly relies on the infrastructure, accessibility, the quality of services and institutional support, the road connection and the bare amenities being the most important. The industry offers job and additional earnings to the locals, but there are usual issues like lack of accessibility, ineffective waste disposal, seasonal changes, low financing, ineffective training and ineffective marketing. Distribution of economic benefits is wastage as small farmers and tribal communities receive a relatively smaller amount. There is also rapid and unplanned tourism which places environmental pressure on the sensitive hill ecosystem. The results are the indication that sustainable tourism requires coordinated governance, enhanced infrastructure, capacity building, community involvement, and environmental protection. Tourism in Wayanad can be used to improve

livelihoods and bring about balanced development in the region with proper long term planning and inclusive policies.

## **SUGGESTIONS OF THE STUDY**

Based on the findings and conclusions of the study, the following suggestions are proposed to promote sustainable and inclusive tourism development in Wayanad District:

**Enhancement of Transportation infrastructure.**

The government and local governments need to focus on establishing and upgrading road networks linking both major and minor tourist attractions. There should be strengthened proper signage, parking facilities, and connectivity up to the last mile to ease the access of tourists and facilitate their convenience in travel.

**Enhancement of Basic Amenities.**

Tourist places should have adequate common facilities like sanitation units, water source, rest places, and health care centres. To improve visitor satisfaction and quality of the destinations, it is necessary to maintain and monitor these amenities on a regular basis.

**Efficient Waste Management System.**

Waste management system of a scientific nature must be applied in every tourist area. Waste segregation, recycling, and proper disposal are mechanisms that have to be introduced by local bodies. Education of tourists and local inhabitants on matters of responsible conduct and plastic mitigation should also be done.

**Training and Skill Development.**

The local residents and entrepreneurs should be trained in hospitality management, customer service, digital marketing, language skills, and eco-tourism practices. Capacity building will enhance quality and professionalism of services in the tourism industry.

**Funding and Credit Facilities.**

Loans, subsidies and micro-credit initiatives by financial institutions and government agencies should be easily accessible to small tourism entrepreneurs especially the homestay owners and local artisans. Easy procedures and awareness campaigns will promote the involvement of small investors.

**Promotion and Marketing Strategies.**

The destination branding of Wayanad should be boosted by digital platforms, official tourism websites and social media marketing. Cooperation with travel agents and tour operators and online booking services can contribute to attracting the national and international tourist market.

## **POLICY RECOMMENDATIONS**

To better have balanced, sustainable and inclusive tourism development as applicable to Wayanad District, the following policy level recommendations can be proposed to be considered by the government agencies, local authorities, and tourism planners.

**Integrated Policy of Tourism Development.**

The development of a district level tourism should be developed to comprise economic growth, environmental preservation, and social inclusion. Planning of tourism should be integrated in the policy of regional development, land-use planning and local governance structure to prevent uncontrolled growth and environmental destruction.

**Infrastructure Public Funding and Investment.**

The state government must focus on government investment in transport infrastructure, especially road network enhancement, last-mile transport, and transport services to tourist destinations. Rural tourism should also be provided with funding on sanitation, drinking water facilities, digital connections, and tourist information centres.

**Land-Use Control and Regulation.**

There should be a stringent regulatory system which will regulate the unplanned construction of resorts and commercial buildings in the ecologically sensitive regions. Environmental clearance, zoning and building permits are to be implemented to have an ecological balance and safeguard forest and animal habitats.

#### Responsible Tourism Promotion.

The responsible tourism guidelines ought to be mandatory to every tourism operator. The policies should promote environmentally friendly accommodation, use of renewable energy, plastic and rain water harvesting and plastic-free tourism areas. Establishments that practice in a sustainable manner can be provided with certification systems and incentives.

#### Policy of Community-Based Tourism.

Community based tourism should be encouraged by the government policy with the involvement of the locals, small farmers, and tribal groups. Homestays, local cultural activities and sale of indigenous products should be supported. This will enhance distribution of income and minimization of economic leakages in the local economy.

#### Monetary Rewards and Welfare Programs.

Small and medium tourism enterprises should be provided with special financial schemes, tax concessions and subsidies. The homestay operators, guides, and local entrepreneurs should be given priority lending by the banks and cooperative institutions to encourage local investment in tourism.

#### Development of Skills and Capacity Building.

Planned tourism training policy needs to be adopted in partnership with learning institutions and skill training agencies. Hospitality, safety standards, foreign language skills and digital marketing and eco-tourism management training should be given regularly to enhance the level of service and employability.

#### Enhancing Institutional Co-ordination.

Specific district tourism coordination committee is to be formed which entails the tourism department, forest department, local self-government institutions and the private stakeholders. This organ should ensure that tourism operations are checked, operational problems are sorted out and proper implementation of policies.

#### REFERENCES (APA STYLE)

1. Ashley, C., & Roe, D. (2002). Making tourism work for the poor: Strategies and challenges in southern Africa. *Development Southern Africa*, 19(1), 61–82. <https://doi.org/10.1080/03768350220123827>
2. Butler, R. W. (1980). The concept of a tourist area cycle of evolution: Implications for management of resources. *Canadian Geographer*, 24(1), 5–12. <https://doi.org/10.1111/j.1541-0064.1980.tb00970.x>
3. Chok, S., Macbeth, J., & Warren, C. (2007). Tourism as a tool for poverty alleviation: A critical analysis of 'pro-poor tourism'. *Current Issues in Tourism*, 10(2–3), 144–165. <https://doi.org/10.2167/cit303.0>
4. Cooper, C., Fletcher, J., Fyall, A., Gilbert, D., & Wanhill, S. (2008). *Tourism: Principles and practice* (4th ed.). Pearson Education.
5. Dwyer, L., Forsyth, P., & Dwyer, W. (2010). *Tourism economics and policy*. Channel View Publications.
6. Government of Kerala. (2023). *Kerala tourism statistics 2022*. Department of Tourism, Government of Kerala.
7. Honey, M. (2008). *Ecotourism and sustainable development: Who owns paradise?* (2nd ed.). Island Press.
8. Inskeep, E. (1991). *Tourism planning: An integrated and sustainable development approach*. Van Nostrand Reinhold.

9. Kannan, K. P., & Pillai, N. V. (2007). Tourism and economic development in Kerala. *South Asian Journal of Socio-Political Studies*, 8(1), 23–34.
10. Murphy, P. E. (1985). *Tourism: A community approach*. Routledge.
11. Sharpley, R. (2002). *Tourism and development: Concepts and issues*. Channel View Publications.
12. Sinclair, M. T., & Stabler, M. (1997). *The economics of tourism*. Routledge.

