
KERALA ECOTOURISM: A PROMISING SUSTAINABLE LIVELIHOOD OPTION IN RURAL LABOUR MARKET

Dr. Jenni K. Alex
Associate Professor
Department of Economics
Newman College, Thodupuzha, Kerala, India
jennitdpa@gmail.com

ABSTRACT

Ecotourism is an efficient mechanism for sustainable development and this is the key reason why developing countries are espousing and including it in their myriad of economic development and conservation strategies. Ecotourism has been promoted as a socially compatible tourism strategy for sustainable development and besides it has emerged as a source of livelihood for the informal workers. The present study analyses how ecotourism intervenes and brings about localized structural changes in Kerala's rural labour market. The findings of the study are aggregation of primary data collected from 872 casually employed workers from 29 ecotourism destinations of Kerala. The zone-wise (North, Central and South) analysis reveals that ecotourism has ensued localized changes in the rural informal labour market of Kerala. Moreover, the involvement of local community in ecotourism helps in the conservation of the ecology and biodiversity of the area which in return provides economic incentives to the local community. To sum up, ecotourism initiatives across Kerala have brought structural changes in the rural informal labour market by generating reasonable employment opportunities associated with them.

Keywords: *Ecotourism, Rural Labour Market, Sustainable Livelihood, Conservation*

Introduction

Ecotourism has received tremendous popularity in the contemporary political, economic and ecological deliberations. Apart from its concern on strengthening the biodiversity and ecosystem, it also ensures the economic well-being of the rural residents, who can, in turn, make significant contributions to the preservation of the environment as a domain of economic, social, and environmental activities. Ecotourism has grown to the status of a niche market within the travel and tourism industry as an ideal strategy for promoting sustainable economic development and the well-being of the local community (Cardoso, 2014). The concept of ecotourism was premised into the domain of tourism in the 1960s. The International Ecotourism Society (TIES), defines ecotourism as “responsible travel to natural areas that conserves the environment and improves the well-being of the local people” (Singh, 2009). The view by TIES is undoubtedly suggestive that ecotourism has to be perceived as a potential venture to protect and sustain the natural environment through the generation of employment opportunities and income to the local community. That is perhaps the reason to embrace ecotourism, which is an alternative to mass tourism, as a sub-content of sustainable tourism and a strategy for the economic and social development of the rural. Thus the paper is an attempt to evaluate how far the ecotourism projects of Kerala have been instrumental to the employment generation to the rural community.

Materials and Methods

The study, both the descriptive and analytical, is based on both primary and secondary sources. Structured interview schedule has been administered to collect information from 873 casually employed workers at 29 ecotourism projects of Kerala. Special attention has been paid to include the representative samples proportionally from each stratum (North, Central and South zones of Kerala) on the basis of exclusive and inclusive criteria. The data was analysed with the help of SPSS software. Moreover, various statistical tests like t-test, chi-square test, and ANOVA and regression analysis are also employed.

Results and Discussion

Ecotourism and Informal Employment

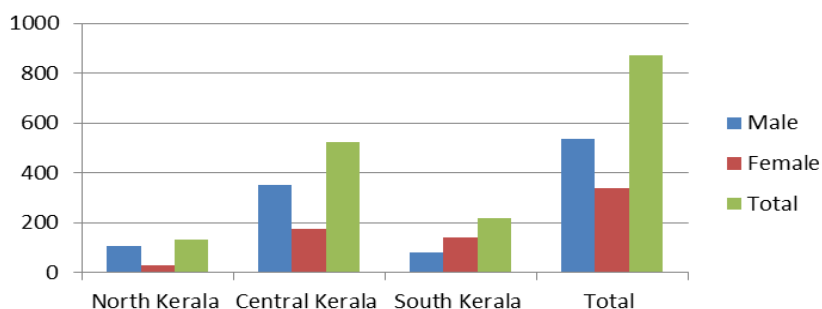
A majority of rural households in Kerala is surprisingly found to be depending on the informal labour for their livelihood (Kerala State Planning Board, 2015). Most ecotourism destinations are located in and around forest and backward regions of Kerala, and for that reason the launch of ecotourism spots at these locations has benefited a large chunk of the local people. The local populaces who are sporadic tour guides at ecotourism destinations undertake the works such as protection watchers, cooks, boatmen, mahouts, drivers, eco-shop staff, office staff, etc. The works at each spot depend explicitly on factors like the category of ecotourism destination, the nature of ecotourism activities, the size of the ecotourism projects, the amount of revenue generated by ecotourism destinations, and the inflow of tourists into each destination. The implementation of ecotourism projects in the rural areas, where employment opportunities accessible to the local population were negligible earlier, has been recognized as a popular movement in the rural informal market under the special initiative of Forest Department of Kerala (Kerala State Planning Board, 2009). The local population depends on the ecotourism projects either as major or subsidiary (active or passive) income-earning activity. The zone-wise classification of rural households depending on ecotourism either as a major or subsidiary income-earning activity is shown in Table 1.

Table 1: The Zone wise Classification of Casually Employed workers at Ecotourism Spots

Zones	Male	Percentage	Female	Percentage	Total	Percentage
North Kerala	105	19.7	27	8	132	15.12
Central Kerala	349	65.4	173	51.	522	59.79
South Kerala	80	14.9	139	41	219	25.09
Total	534	100	339	100	873	100

Among the 873 casually employed workers sampled from the three zones, approximately 60% were drawn from Central Kerala, 25% from South Kerala, and 15% from North Kerala. This proportional distribution aligns with the relative number and type of ecotourism destinations as well as the workforce density in each zone, as illustrated in Figure 1.

Figure 1: The Zone wise Classification of Casually Employed workers at Ecotourism Spots



A higher proportion of male workers is observed at ecotourism destinations in North Kerala (20%) and South Kerala (15%). However, in South Kerala, female workers surpass their male counterparts due to significant female participation at destinations such as Ponmudi, Kallar, and Neyyar in Thiruvananthapuram district, Konni Elephant Kraal in Pathanamthitta district, and Palaruvi in Kollam district. The study also undertakes a gender-based analysis of the motivations for employment at ecotourism destinations (Table 2), revealing that income generation emerges as the predominant reason for seeking employment in these locations.

Table 2: The Response of the Workers on the Reasons for Work at Spot

Work purposes	Male				Female			
	No	Yes	Percentage	Total	No	Yes	Percentage	Total
Savings	232	302	76.82	534	159	180	53.34	339
Income	0	534	100	534	0	339	100	339
Personal safety	433	101	18.91	534	135	204	60.17	339
Less hardship	78	456	85.39	534	30	309	91.15	339
Self- reliance	377	157	29.40	534	148	191	56.34	339
Convenience	377	157	29.40	534	45	294	86.73	339

Approximately 76.82% of male workers and 53.34% of female workers reported having some form of savings, either through banks or alternative options such as post office savings and LIC schemes. Interestingly, 60.17% of female workers and 18.91% of male workers cited personal safety as their sole reason for working at these ecotourism destinations. Notably, 91.15% of females and 85.39% of males expressed interest in ecotourism employment due to the comparatively lower levels of physical hardship involved. Furthermore, while 29.40% of males were drawn to casual employment in these locations for its convenience, a significantly higher 86.73% of females preferred it for the same reason.

Ecotourism Projects: As a Source of Employment

Employment opportunities provided by ecotourism projects are perceived by local residents as either a primary or supplementary source of income. The classification depends on the number of working days per month and the monthly wages earned. For individuals receiving over 20 days of work per month from these destinations, ecotourism constitutes their principal source of employment. Among the sampled population, 86.48% (755 respondents) affirmed that ecotourism projects have become their primary source of livelihood, as illustrated in Table 3.

Table 3: The Zone Cross Tabulation of Ecotourism as the Major Source of Employment For the Casually Employed Zone						
						Total
Ecotourism as a major source of income			North Kerala	Central Kerala	South Kerala	
	Yes	Count	120	466	169	755
		% within Tourism related	15.9%	61.7%	22.4%	100.0%
Total		Count	132	522	219	873

Ecotourism destinations serve as the primary employment source for 86.5% of the workforce, a trend evident in the zone-wise comparison as well. Notably, 90.9% of respondents in North Kerala, 89.27% in Central Kerala, and 77.16% in South Kerala rely on ecotourism as their major source of livelihood. However, for 10.72% of respondents in North Kerala, ecotourism does not constitute a primary source of employment. This is primarily attributed to limited working days and lower wages offered at certain destinations.

For instance, at the Thommankuthu waterfalls in Idukki District, Central Kerala, a worker receives only seven days of employment per month at a daily wage of ₹250. Consequently, for the remainder of the month, workers must turn to minimal non-ecotourism jobs available in their vicinity. Despite these constraints, respondents were not overly critical of the situation, as employment at ecotourism destinations entails fewer physical hardships and provides greater job satisfaction. This pattern holds true across other ecotourism locations in Central Kerala as well. Again, 25.57% of the respondents in South Kerala confirmed that they depend on casual labour outside the tourism industry for the same reasons as above. For instance, Ponmudi Hill Station and Kallar waterfall in Thiruvananthapuram district provides each employee only with 10 days of casual employment each month, at a rate of Rs. 350 per day.

Ecotourism and localized structural changes in the rural labour market

With the structural shifts in the economy, workers have increasingly transitioned from agriculture to the industrial and service sectors for their livelihoods. Structural changes, as defined by Sanitha and Singla (2016), signify alterations that reshape the relative importance of various sectors and economic activities over time. Typically, economic growth and development drive labour migration towards the modern industrial sector—often identified as capitalist, non-agricultural, or urban—away from the subsistence agricultural or rural sector (Reddy, 2015).

In this context, the role of ecotourism becomes particularly significant. The ecotourism initiatives in Kerala have, to a notable degree, facilitated structural changes within the rural

informal labour market by creating viable employment opportunities. These changes, while localized, signify a transformative impact on the rural labour dynamics, showcasing ecotourism's potential as a mechanism for economic restructuring and sustainable development in rural areas.

The impinging effects of ecotourism projects in Kerala on the structural changes in the rural local labour market cannot be disregarded today since these projects are generating employment opportunities to the rural communities especially those in forest fringe areas. The localized structural changes incurred due to ecotourism projects of Kerala are analyzed on the basis of the following observations made in the study.

- **The major employment status of the workers before and after joining ecotourism destinations**

The major employment status of the respondents before and after the launch of ecotourism related works is illustrated in table 4.

Table 4: The major employment status of the respondents before and after the start of ecotourism related works

Major employment status	After joining ecotourism		Before joining ecotourism	
	Workers	percent	Workers	percent
Self-employed	49	5.6	163	18.67
Casually employed	824	93.4	557	63.80
No employment	0	0	153	17.53
Total	873	100	873	100

Before the advent of ecotourism destinations, 17.53% of the workers had not engaged in any form of employment. This indicates that the establishment of ecotourism destinations has contributed to a 17.53% increase in employment opportunities within the informal labour market of rural Kerala. Furthermore, the percentage of self-employed workers has decreased

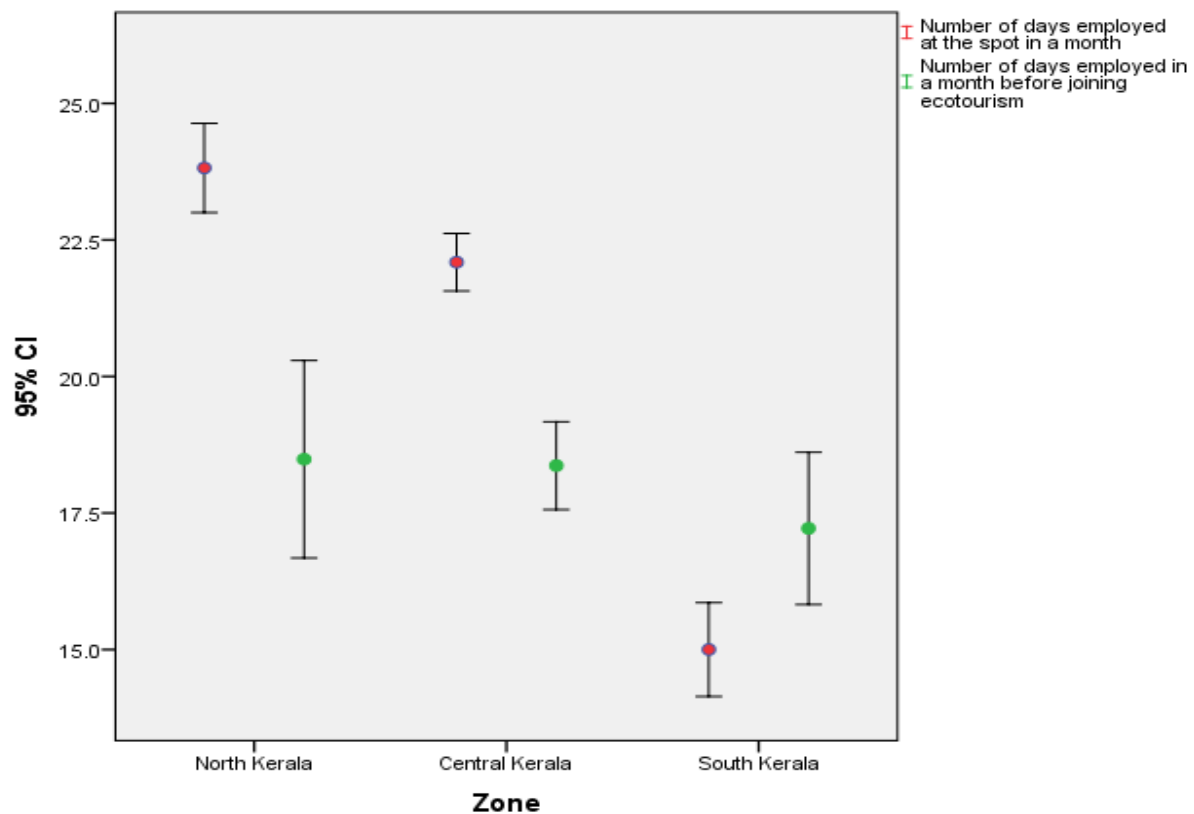
significantly, from 18.67% to 5.6%, reflecting that approximately 70% of self-employed individuals have transitioned to casual employment due to the introduction of ecotourism projects.

Additionally, ecotourism initiatives have led to a substantial 48% rise in casually employed workers, highlighting the sector's role in reshaping the employment landscape and absorbing a considerable portion of the rural workforce into its fold.

- **Comparison between Monthly Working Days before and After Joining Ecotourism**

The comparative analysis between monthly working days before and after joining ecotourism works by the casually employed workers among the three zones is illustrated with Paired Graph (Fig 2) and Paired t-test in Table 5. From the paired graph in Figure 3, it is observed that average monthly working days for each worker belonging to North Kerala and Central Kerala has increased after they joined the ecotourism destination. In northern Kerala, it has increased from 18.82 ± 10.51 to 23.82 ± 4.75 and for Central Kerala, it has risen from 18.37 ± 9.35 to 22.09 ± 6.12 . On the other hand, for a worker in South Kerala, the average monthly working days have been decreased from 17.22 ± 10.46 to 15.00 ± 6.45 after he has joined the ecotourism destination. This should not probe to the conclusion that ecotourism is a failure for Central Kerala, instead, there should be convinced that the forest department of Kerala has been paying more attention to follow the philosophy of utilitarianism; maximum happiness of the maximum number. It is observed that the Department is dedicated to extending employment opportunities to more families ensuring that at least one member from each local family should get employment.

Fig 2: Comparison of Working Days Enjoyed by the Casually Employed before and after the Enrollment in Ecotourism Destinations



The Paired Sample Test has also been administered to conclude that the ecotourism projects have been successful to generate more working days than that was enjoyed before launching the ecotourism projects in the local area.

Table 5: Paired t-Test Showing Working Days Enjoyed by the Casually Employed before and after the Enrollment in Ecotourism Destinations

Zone		Paired Differences		t	df	Sig. (2-tailed)
		Mean	Std. Deviation			
North Kerala	Number of days currently employed at the spot in a month	5.333	9.137	6.707	131	0.000
	Number of days employed in a month before joining ecotourism					
Central Kerala	Number of days currently employed at the spot in a month	3.724	11.034	7.711	521	0.000
	Number of days employed in a month before joining ecotourism					
South Kerala	Number of days currently employed at the spot in a month	-2.219	12.939	-2.538	218	0.012
	Number of days employed in a month before joining ecotourism					

From the Table 5, the current average net employment days for workers (average of monthly working days enjoyed by the worker at a spot at present—an average of monthly working days enjoyed by the worker before joining ecotourism) of each zone has been estimated. It is identified that the average net employment days enjoyed by the respondents in North Kerala,

Central Kerala and South Kerala are 5.333 ± 9.137 , 3.724 ± 11.034 and -2.219 ± 12.939 respectively.

During field visits and interviews with casually employed workers in both North and Central Kerala, it was reported that before the launch of ecotourism projects in their local areas, employment opportunities were extremely limited. In South Kerala, 38% of respondents are from the Ponmudi ecotourism site, and 27% are from the Kallar ecotourism site. Together, these two destinations account for 66% of all respondents, as Ponmudi and Kallar employed 121 and 64 workers, respectively, at the time of the survey.

It was also observed that these two destinations provide approximately 10 days of employment per month to local community members. Government officials and the VSS (Vana Samrakshana Samiti) secretary at these spots explained that the limited number of working days per worker was intentionally set to maximize employment opportunities for the largest possible number of VSS members. This approach ensures that the monetary benefits from ecotourism are distributed across a broad spectrum of local families, rather than being concentrated in the hands of a few.

From this, it can be inferred that the objective of ecotourism projects is to promote economic equality within the local communities, providing fair and widespread access to the benefits of tourism-related employment

Similar observations regarding the impact of ecotourism on local rural households' livelihoods have been made in various global contexts. For instance, Shi et al. (2022) reported improvements in the Livelihood Capital Index around the Wolong Nature Reserve in China, highlighting the positive effects of ecotourism on local well-being. However, Monterrubio and Espinosa (2013) emphasized that the characteristics of tourism employment vary by destination, influenced by the unique socioeconomic and cultural conditions of each locality. Therefore, the results of this

study align with findings from other countries, further supporting the broader applicability of ecotourism's benefits.

In Iran, Baniyadi and Naghavi (2022) found a significant relationship between the expansion of rural tourism and ecotourism in villages surrounding the tourism centers of Kerman province. They observed that the entrepreneurship of rural women improved in several key areas, including knowledge and awareness, management skills, environmental and economic factors, advertising, and psychological aspects. Moreover, rural tourism has created new business opportunities for women, allowing them to generate employment for others while balancing their personal, family, and social responsibilities.

Likewise, Snyman (2014) observed similar trends in six Southern African countries, where rural households heavily rely on the market economy, particularly ecotourism, for livelihood support. His findings highlighted the critical role of ecotourism employment in driving socio-economic development in remote rural areas, further reinforcing the positive effects of ecotourism on local economies and communities.

Conclusion

Until recently, the local population in rural Kerala largely relied on forest-based work and other limited alternatives for casual employment, with a scarcity of opportunities leading to fewer working days. However, the introduction of ecotourism projects has provided a valuable alternative source of livelihood for the local community. Despite regional differences, several key characteristics of ecotourism-related employment in rural Kerala stand out.

Casually employed workers at ecotourism destinations can be classified within the informal sector of Kerala's formal tourism industry. The majority are engaged as tour guides or protection watchers, roles that, despite their contribution to the tourism sector, do not come with social security benefits.

A notable trend is that more males are employed at wildlife sanctuaries and national parks compared to females. However, females tend to be employed more frequently in the territorial divisions of Kerala than in wildlife sanctuaries and national parks.

The relatively low physical demands and reasonable wages associated with casual employment at these destinations are often cited as key attractions for workers seeking jobs. These factors, coupled with the flexible nature of ecotourism work, make it an appealing option for many local residents.

The study highlights several productivity-enhancing initiatives aimed at informally employed workers at ecotourism destinations, including environmental education, personality development training, and skill-building programs. It is observed that the work at these destinations consistently aligns with the principle of "Learning by Doing," where workers are trained and encouraged to contribute to both environmental sustainability and their personal development. Through their involvement in various projects, workers engage in environmental conservation efforts, whether consciously or unconsciously.

In summary, ecotourism ventures in Kerala have led to both quantitative and qualitative changes in the informal rural labour market. The employment opportunities created by these ecotourism destinations are predominantly filled by the informal workforce in rural areas, where other economic activities are limited. The vibrant social and cultural life of Kerala, set against a backdrop of natural beauty, alongside the economic benefits offered to workers, fosters a sustainable, fulfilling, and harmonious lifestyle for those involved in ecotourism. This synergy between economic and environmental well-being could play a key role in ensuring the state's future remains green, clean, and sustainable. Ecotourism, therefore, holds the potential to guarantee a prosperous and environmentally-conscious future for Kerala.

References

- Baniasadi, N. and Naghavi, S. (2022). Evaluation of tourism and ecotourism development components in the development of rural women's entrepreneurship (case study: tourism villages of Kerman province). <https://assets.researchsquare.com/files/rs-1893522/v1/4c125ca0-ec0c-4d58-9316-0b4073e3cc3e.pdf?c=1663799568>. Retrieved on 12.04.2023.
- Cardoso, A.D.P.A. (2014). Current Development Level of Ecotourism and Eco-Touristic Products in Moldova. *International Journal of Business and Social Science*. 5(7):83-93.
- Kerala State Planning Board. (2009). *Economic Review 2009*. Thiruvananthapuram.
- Kerala State Planning Board. (2015). *Economic Review, 2015*. Thiruvananthapuram.
- Monterrubio, J.C. and Espinosa, B. (2013). Characterisation of ecotourism employment in a developing world destination. *GeoJournal of Tourism and Geosites*. 11(1):54-65.
- Reddy, A.A. (2015). Growth, Structural Change and Wage Rates in Rural India. *Economic and Political Weekly*. 2(L):56-65.
- Sanitha, V.P. and Singla, N. (2016). Structural Transformations in Kerala's Economy: Is There Any Role of Agriculture Sector? *Journal of Regional Development and Planning*. 5(2), 45-58.
- Shi, H., Zhang, L., Song, B. and He, C. (2022). The impact of ecotourism on local rural households' livelihood around Wolong Nature Reserve. *Forestry Economics Review*. 4(1): 2-18. DOI 10.1108/FER-06-2021-0013.
- Singh, S. (2009). *Eco-Tourism Development Management* (1st Ed.). A.K Publications, New Delhi.
- Snyman, S. (2014). The impact of ecotourism employment on rural household incomes and social welfare in six southern African countries. *Tourism and Hospitality Research*. 14(1-2):37-52.