

Economic Impact of Ecotourism in Fostering Rural Self-Employment in Kerala

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Abstract: Ecotourism in Kerala, India, has emerged as a significant strategy at the intersection of environmental conservation and socioeconomic development, particularly in its rural areas. This paper examines the dual role of ecotourism in fostering rural self-employment while simultaneously promoting ecological stewardship, arguing that its most transformative potential lies in its capacity to interweave these into a cohesive model for sustainable development. Kerala, renowned for its rich biodiversity encompassing the Western Ghats' biodiversity hotspots, backwaters and forest ecosystems, faces persistent challenges of rural unemployment, economic disparity and environmental degradation. The traditional model of resource extraction often proves detrimental to both ecosystems and long-term community resilience. In this context, ecotourism presents an alternative pathway by valorizing the intact environment as the primary economic asset. It facilitates rural self-employment by creating a diverse ecosystem of micro-enterprises directly linked to the conservation of local natural and cultural capital. This is evidenced in the proliferation of community-managed homestays, locally-guided nature tours, agro-tourism ventures, traditional culinary experiences and handicraft cooperatives that utilize sustainable materials. These activities not only generate income but also revitalize indigenous knowledge and cultural practices, embedding conservation ethics within economic incentives. Furthermore, the decentralized nature of ecotourism empowers local communities and community-based organizations, fostering participatory governance and ensuring a more equitable distribution of tourism revenues. In conclusion, ecotourism in Kerala demonstrates a promising, though complex, framework for addressing the twin imperatives of conservation and livelihood security offering a replicable model for other biodiverse regions grappling with similar developmental dilemmas.

Keywords: Ecotourism, Self-employment, Sustainable Livelihoods, Conservation

INTRODUCTION

Ecotourism has emerged as one of the most transformative development interventions in Kerala, standing at the intersection of environmental conservation and rural economic empowerment. The state's unique geographical positioning between the Western Ghats and the Arabian Sea, coupled with its exceptional biodiversity, has positioned it as a global exemplar of sustainable tourism practice. Unlike conventional mass tourism that prioritizes immediate economic returns at the expense of ecological integrity, ecotourism in Kerala represents a deliberate effort to interweave conservation objectives with livelihood generation for forest-dependent and marginalized communities (Haider-e-Karrar, 2014). This dual mandate of protecting biodiversity while simultaneously creating income-generating opportunities for rural populations has characterized Kerala's ecotourism trajectory since the late 1990s, achieving what many development practitioners consider a remarkable balance between seemingly competing interests (Haseena and Mohammed, 2014).

The significance lies not merely in its economic outcomes, but in its fundamental recognition

that conservation is sustainable only when local communities perceive direct tangible benefits from the protection of natural resources. The involvement of local communities in ecotourism activities helps in the conservation of the ecology and biodiversity of the area, which in return provides economic incentives to the local community. This virtuous cycle, where conservation generates income and income sustains conservation commitment, forms the conceptual foundation of Kerala's ecotourism model. This paper examines the dual role of ecotourism in fostering rural self-employment while simultaneously promoting ecological stewardship, arguing that its most transformative potential lies in its capacity to interweave these into a cohesive model for sustainable development.

The emergence of ecotourism as a rural development strategy

Kerala's formal engagement with ecotourism as a development strategy emerged during the late 1990s, though its conceptual roots trace back to the growing environmental consciousness of the 1970s and 1980s. The state's decision to shift from consumptive mass tourism to non-consumptive nature tourism

represented a significant paradigm shift in how Kerala envisioned its tourism sector. This transition was not spontaneous but rather emerged from recognition of mounting conservation pressures on Kerala's protected areas and the dire economic circumstances of forest-dependent populations. Prior to the advent of ecotourism projects, the local population in rural Kerala largely relied on forest-based work and other limited alternatives for casual employment, with employment opportunities being extremely limited. The formalization of this approach crystallized with the identification of ecotourism destinations across the state, with emphasis on conservation, ecological sustainability, environmental education and local community benefits. The Kerala government's establishment of a separate ecotourism wing within the Tourism Department provided the institutional framework necessary for coordinated policy support and systematic development of ecotourism destinations. This administrative commitment signified that ecotourism was no longer peripheral to Kerala's development agenda but rather central to how the state conceived its future economic trajectory.

The Western Ghats regions of Kerala, with their tropical forest ecosystem, provided a natural advantage for development of ecotourism and could be projected as an Ecotourism Zone in true sense. The state's possession of Wildlife Sanctuaries, National Parks, an array of scenic mountains, freshwater lakes and mangroves created an unparalleled natural asset base. Thus, ensuring sustainable benefits for local populations while maintaining their ecological integrity is crucial for its success.

Rural labour market

The structural transformation of rural labour markets represents perhaps the most quantifiable impact of Kerala's ecotourism initiatives. Kerala's tourist arrival growth rate is more than six times higher than the global tourist arrival growth rate in 2010. In 2010, there were 6,59,265 foreign visitors to Kerala, or 11% of all foreign visitors to India, whereas there were 85,95,075 domestic visitors. In comparison to 2009, the total revenue from tourism in 2010 was Rs 17348 crores, a 31% increase. The foreign exchange profits from tourism were Rs 3797 crores (Muraleedharan, 2015). However, the foreign tourist arrival in Kerala in the year 2011 is 7.3 lakhs and domestic tourist arrival is 93 lakhs. The total earnings from tourism in the year 2011 are Rs 19037 crores which is 9.7 per cent more, compared to the previous year 2010 and foreign exchange earnings from tourism are Rs. 4221 crores.

Before the advent of ecotourism destinations, people who are not engaged in any form of employment, indicating that the establishment of

ecotourism destinations had contributed to increase in employment opportunities within the informal labour market of rural Kerala. The same situation was observed by Snyman (2014) where the impact of ecotourism employment on rural household incomes and social welfare in six southern African countries was studied. The findings demonstrate that rural households rely significantly on the market economy, mostly in the form of ecotourism, for support and emphasize the critical role that ecotourism employment plays in the local socioeconomic development of remote rural areas in the region.

Likewise in Kerala too, ecotourism results in creation of employment opportunities for previously unemployed and casually employed populations, especially the employment landscape in forest-fringe regions (Venkateswarlu and Bala Mura, 2014). Ecotourism destinations serve as the primary employment source. The nature of employment generated through ecotourism extends across multiple occupational categories, creating what can be characterized as an employment ecosystem. Although issues with fair wages and working conditions still exist, ecotourism dramatically changes Kerala's rural labour market by giving local, frequently marginalized communities jobs (guides, shopkeepers, conservationists), decreasing reliance on forests and empowering women. It also promotes eco-friendly enterprises like handicrafts and organic farming, which support sustainable rural development and cultural preservation.

The Periyar Tiger Reserve Model

The Periyar Tiger Reserve at Thekkady stands as the emblematic case study through which Kerala's community-based ecotourism approach can be understood and evaluated. The reserve represents one of the most extensively studied and carefully managed ecotourism operations in India. The implementation of the India Eco-Development Project (IEDP), funded by the World Bank, at Periyar Wildlife Sanctuary marked a watershed moment in operationalizing the theoretical commitment to community participation in conservation (Thampi, 2005). The conceptual framework guiding Periyar's approach centered on a deceptively simple yet profoundly powerful recognition: local communities living in and around protected areas must be treated not as obstacles to conservation but as essential partners whose economic interests must be aligned with conservation objectives. To implement this philosophy, local communities living off the forest were organized into eco-development committees (EDCs), with two basic objectives: to reduce the negative impact of local people on the sanctuary and also to involve encroachers in conservation, instead of exploitation. This institutional

arrangement transformed individuals who had previously engaged in illegal resource extraction and forest degradation into active stakeholders in conservation activities. In other words, the EDCs offer a rural labour workforce with crucial role in conservation of natural resources.

The income generation initiatives undertaken at Periyar demonstrated concrete results. According to Mathew and Kuriakose (2015) the eco-development activities resulted in an overall increase of income for the participating community by 24%, with user group eco-development committees experiencing an income increase of 70%. These gains were not distributed equally across all participants; targeted investment in specific activities and user groups created differential benefits. The success of such income growth led to broader adoption of the model across Kerala's protected areas. Specific eco-tourism activities developed at Periyar illustrate the innovation in creating conservation-compatible livelihoods. The eco-tourism activities in Periyar are significant sources of income for Mannan and Paliyan communities where these activities were deliberately designed to leverage the unique knowledge, skills and cultural heritage of these tribal communities, transforming what had been viewed as obstacles to conservation into valuable assets attracting tourists.

Employment transformation and skill development

The conversion of previously marginalized populations into skilled tourism workers represents one of ecotourism's most significant but often underappreciated achievements. The establishment of employment-generating opportunities through ecotourism required systematic capacity building and skill development, as forest-dependent communities often lack the specific competencies required for tourist interactions, hospitality management, or guiding services. Thus, targeted skill development, aligned with specific employment opportunities within the ecotourism sector, can create pathways from unemployment to skilled wage employment.

Tribal populations, among India's most marginalized groups, have constituted a particular focus of Kerala's ecotourism development initiatives. Prior to significant ecotourism development, tribal communities faced severely constrained livelihood options, with most forest-dependent tribal communities relying on non-timber forest product (NTFP) collection, which provided uncertain and inadequate income. The incorporation of tribal communities into ecotourism operations represented a deliberate effort to provide alternative livelihoods while simultaneously converting potential antagonists of conservation into active participants.

The scale of tribal incorporation into ecotourism employment is considerable. The diversification of tribal livelihoods through ecotourism extended beyond direct employment to include product-based self-employment opportunities. The Vanasree initiative, implemented by the Kerala Forest Department in collaboration with eco-development committees, empowered forest-dependent tribal communities by aiding them in the collection, processing and sale of Non-timber Forest Products (NTFP). Direct market access through Vanasree Ecoshops eliminated middlemen, ensuring fair pricing and improved income for these communities. The institutional arrangement proved transformative: instead of selling collected forest products to exploitative middlemen at depressed prices, tribal collectors gained direct access to markets through Vanasree units established at tourist destinations. By collaborating with the Forest Department via the eco-development committee and Vanasree unit, the forest-reliant tribal communities established a more sustainable source of income. This arrangement particularly benefited women collectors, who have historically borne a disproportionate burden of NTFP collection work. Rather than merely increasing labour input for minimal returns, women could now participate in processing activities that added value to raw forest products, capturing a larger share of the final consumer price. The involvement of the Forest Department in the processing and marketing of these products through the Vanasree initiative enhanced their value and guaranteed equitable pricing for the community.

The economic significance of ecotourism to Kerala's rural economy, while important, must be contextualized within the broader rural economic landscape. Ecotourism in Kerala has been recognized as a viable option for rural households to secure a job either as a major income-earning activity or a subsidiary income-earning activity. The state's emphasis on sustainable tourism ensured that ecotourism revenues were directly reinvested in conservation programs and local communities, creating a positive cycle where tourism helped preserve natural resources while funding local development. The direct and indirect employment opportunities generated through ecotourism activities under the dynamic initiatives of Kerala Forest Department have been substantially beneficial to the less privileged sections of the rural community.

Women empowerment and gender dimensions of rural self-employment

While rural development initiatives have often inadvertently reinforced gender inequalities, Kerala's ecotourism model has incorporated explicit mechanisms for women's empowerment and economic inclusion.

The quantitative scope of women's engagement is substantial: ecotourism generates new income opportunities for indigenous communities by providing jobs for women, with regular employment for women across ecotourism sites. The nature of employment opportunities for women extended beyond simple wage employment to encompass entrepreneurial self-employment and enterprise development. Members of indigenous communities have embarked on ventures such as dairy farming, tailoring and other small enterprises, capitalizing on the profits and skills acquired from ecotourism centres. These secondary enterprises, built upon income and savings derived from ecotourism employment, demonstrate the catalytic role of initial ecotourism income in enabling broader livelihood diversification. Koshy Moli *et al.* (2014) evaluated 18 village tourism destinations across Kerala and reiterated the extensive role of rural tourism in generating employment for the rural population. The specific empowerment of tribal women constituted a targeted priority within ecotourism development.

Conservation outcomes and environmental impact

While employment generation and livelihood creation represent the most visible outcomes of Kerala's ecotourism initiatives, the conservation achievements merit equal emphasis, particularly given the stated dual mandate of balancing conservation with development. The fundamental challenge facing protected area managers has been preventing local community members from engaging in resource extraction activities that threaten conservation objectives. The approach Kerala adopted, converting local dependence from extraction to conservation-compatible activities addressed this challenge at its root. The results of this approach manifest in concrete conservation achievements. At Parambikulam, post-2006 initiatives led to significant outcomes, including the transformation of the area into a cattle-free, plastic-free and poacher-free zone (Mane, 2015). These transformations represented not merely symbolic achievements but fundamental changes in the day-to-day management of the reserve and the activities undertaken within its boundaries.

The involvement of local communities in ecotourism operations directly supported conservation of flora and fauna, promotion of alternative energy sources and management of solid waste. This integration of conservation activities with livelihood generation created powerful incentives for local participation in day-to-day conservation work. Former poachers, now employed as guides or anti-poaching squad members, possessed intimate knowledge of forest conditions and wildlife patterns that proved invaluable for effective conservation. Additionally, the employment of community members as forest

protectors and monitors generated continuous surveillance that deterred illegal activities. Revenue reinvestment mechanisms ensured that conservation benefits extended beyond protection through changed behaviour. A portion of the income from park entry fees and tourism activities was directed towards conservation projects that benefited the park's wildlife, such as the monitoring of tiger populations and maintaining wildlife corridors to ensure genetic diversity among species.

The success of Kerala's ecotourism initiatives depended fundamentally upon the development of supportive policy frameworks and institutional architectures specifically designed to enable community participation while maintaining conservation objectives. The formulation of clear ecotourism policies at the state level provided the normative foundation for consistent implementation across diverse protected areas. The institutional innovation of Eco-Development Committees (EDCs) and their confederation proved crucial. These grassroots organizations created space for forest-dependent families to participate in planning and implementation of conservation and community development programs. Rather than imposing conservation measures externally, the EDC structure enabled communities to participate in determining their conservation responsibilities and livelihood strategies. The creation of Vana Samraksha Samithis (VSS) and EDCs as participatory forest management organizations transformed top-down conservation into negotiated processes involving affected communities.

The adoption of a "high value, low volume" perspective by Kerala represented a strategic choice to manage the impacts of tourism while maximizing revenues. Rather than pursuing mass tourism development, which would require large infrastructure investments and would inevitably stress ecosystems and cultural systems, Kerala deliberately pursued selective marketing and limited visitor numbers. This strategy preserved the authenticity of ecotourism experiences while protecting ecosystems from over-use impacts.

CONCLUSION

The experience of Kerala in developing ecotourism as a dual instrument of conservation and livelihood generation offers important lessons for sustainable development theory and practice. The structural transformation of rural labour market demonstrates the genuine employment-creation potential of well-designed ecotourism initiatives. The reliance of lion part of the ecotourism workforce on these activities as their primary source of livelihood underscores the significance of these opportunities for forest-dependent populations. More profoundly, the conversion of potential antagonists of conservation into

committed participants through income-generating activities represents a fundamental reimagining of the relationship between conservation and development. The 70% income increase experienced by user group eco-development committees at Periyar, combined with conservation achievements including tiger population increases and the transformation of reserves into poacher-free zones, demonstrates that conservation and livelihood generation can be mutually reinforcing rather than inevitably conflicting objectives. The specific focus on tribal communities and women's empowerment into regular ecotourism employment, reflects an approach to sustainable development that deliberately prioritizes the most marginalized populations. The creation of self-employment opportunities through initiatives such as the Vanasree NTFP marketing system demonstrates how ecotourism. The institutional innovations developed in Kerala, particularly the Eco-Development Committees, the Periyar Foundation model and the Vanasree initiative provide replicable frameworks for other regions seeking to balance conservation with community empowerment. The explicit policy commitment to "high value, low volume" tourism demonstrates how strategic choices about tourism intensity can protect ecosystems while still generating meaningful revenues and employment. The Kerala experience suggests that successful ecotourism requires not merely natural resources or market demand, but rather carefully designed institutional arrangements, committed policy frameworks and genuine commitment to community participation in both conservation planning and benefit distribution. The enduring lesson from Kerala's ecotourism experience is that conservation becomes sustainable when local communities perceive tangible benefits from maintaining ecosystem integrity.

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