

## **Managing Over-Tourism In Kodagu: A Circular Economy Approach**

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**Abstract:** Kodagu, a picturesque district in Karnataka, is often referred to as the "Kashmir of Karnataka" and the "Scotland of India." Known for its scenic beauty, it stands as one of South India's premier hill stations and tourist hotspots, attracting a steady influx of visitors year-round. Recognized as one of Karnataka's standout destinations, Kodagu has been awarded „India's Favourite Rising Destination“ three times since 2015 by *Conde Nast Traveler* magazine. Tourism has significantly boosted the local economy, leading to the development of various infrastructures and facilities, including hotels, resorts, homestays, transportation services, fast-food outlets, and recreational activities. However, rapid tourism expansion coupled with unscientific land alterations, risks long-term environmental degradation. In this context, it is essential to explore the potential long-term impacts of tourism to mitigate risks and prevent future challenges by implementing circular economy approach for Sustainable Development. This research focuses on analyzing the effects of over-tourism on Kodagu with the help of GIS based primary data and also with secondary data analysis. The research outcomes suggest suitable approaches to ensure the balanced growth for the future.

**Keywords:** Kodagu, Sustainability, Tourism impacts, GIS.

### **1. Introduction:**

Tourism is a multifaceted sector and one of the most significant service industries globally, contributing substantially to GDP. This smoke-free industry generates employment and revenue while having a relatively low environmental and social impact. However, the rapid and unchecked growth of tourism in recent years has led to numerous negative consequences for both wildlife and human well-being. Unplanned tourism development is threatening the future of many destinations. In response to these challenges, the concept of sustainable tourism has gained prominence worldwide. According to the United Nations World Tourism Organization (UNWTO), sustainable

tourism is defined as “tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities” (UNWTO, 2005). This approach emphasizes the importance of balancing the benefits of tourism with the need to protect natural and cultural resources for future generations. Achieving sustainability relies fundamentally on the combined responsibility of individuals and the actions taken by others to fulfill that responsibility (2017 Declaration of Cape Town). Sustainable development encompasses long- term positive economic, social, and environmental outcomes (Hunter, 1997). In order to address the major environmental issues faced by the tourism sector, the circular economy strategy is essential since it encourages sustainability, resource efficiency, and community involvement. The tourism industry may drastically lessen its ecological impacts by converting trash through techniques including reducing, reusing, and recycling.

**Table 01 depicts the rise of tourism in the Kodagu district over time Milestones of tourist Arrivals in Kodagu District for the Period 2000-2024**

<b>Year</b>	<b>Domestic Tourists</b>	<b>Foreign Tourists</b>	<b>Total Tourists</b>
<b>2000-01</b>	7,57,984	348	<b>7,58,332</b>
2005-06	11,27,654	383	11,28,037
2008-09	16,32,729	401	16,33,130
2011-12	20,15,355	419	20,15,774
2012-13	21,07,499	423	21,07,922
2017-18	14,78,113	1704	14,79,817
2018-19	8,32,124	328	8,32,452
2022-23	NA	NA	27,29,711
<b>2023-24</b>	NA	NA	<b>43,69,507</b>

Source: Vidya Aiyappa 2009 and online sources adapted

## **2. Profile of the Study Area:**

Kodagu, a notable highland station in South India, is situated in a small landlocked district in Karnataka and is part of the UNESCO World Heritage Site known as the Western Ghats, historically known as "Kodimalai Nadu," which translates to "dense forest land on the steep hills.". This region is celebrated for its cool weather, lush greenery, and thriving coffee plantations. The district also produces oranges and black pepper, making it a key agricultural hub. As one of India's most popular hill stations, parts of Kodagu fall within the UNESCO World Heritage Site of the Western Ghats. The

district boasts a rich biodiversity, housing approximately 25% of India's faunal species. Notable tourist attractions include Naagarahole/Rajiv Gandhi National Park, Mandalapatti Hills, Brahmagiri Hills, Talacauvery Hills, Triveni Sangama, Abbey Falls, and several others along with engaging in outdoor activities like river rafting and trekking on trails like Tadiandamol Hill. Over the past two decades, tourism has emerged as a crucial source of revenue for the Kodagu economy, with a steady increase in visitor inflow to the region (refer Table 01 for details). The growth in tourism has facilitated rapid infrastructure development, with the sector contributing 14.64% to Kodagu's GDP (Vidya Aiyappa, 2019).



Source: [Coorg Map | AnAka Homestay \(anaka-homestay.blogspot.com\)](http://AnAkaHomestay.blogspot.com)

### 3. Research Objectives :

- To analyze Over tourism and it's impacts on Kodagu region
- To investigate Circular Economy strategies aimed at promoting sustainable tourism development in Kodagu.

#### **4. Research Methodology:**

In the context of sustainable tourism, an exploratory study was conducted to thoroughly understand the situation in Kodagu and to provide insights into the development of tourism and its various impacts on the region. The research utilized both primary and secondary data sources. Primary data were collected through GIS images, while secondary data were sourced from a variety of materials, including books, articles, reports, journals, and newspapers. This exploratory study adopts constructivist and interpretative perspectives to analyze the findings and implications of tourism in Kodagu.

**GIS Data Collection and Analysis:** For collection of relevant geographical data, the research uses Google Earth Pro historical imagery. Images from different years are compared and analyzed to draw interpretations. The sample places of Kadagu are randomly selected for the analysis.

#### **5. Review of literature:**

**5.1 The tourism industry** is one of the world's largest service industries. "Tourism comprises the actions of persons travelling to and staying in areas outside of their typical environment for not more than one consecutive year for leisure, business, or other purposes" (UNWTO 1991 a). Accommodation, food and beverage, transportation, travel agencies and other reservation services, transportation equipment and rental services, cultural services, sports, and recreational services, retail trade of country-specific goods and services, and other country-specific tourism characteristics activities are all included in the tourism industry. Tourism is a socio-cultural and economic phenomenon in which individuals leave their normal surroundings for personal or professional Purposes. (UNWTO 2005 b).

**5.2 The need for a long-term tourism development strategy:** Tourism has experienced significant expansion and diversification throughout the years, and it is a critical engine of socioeconomic success. Tourism's rapid global expansion in developed economies has resulted in economic and employment gains in a variety of allied industries, ranging from agriculture to technology. The contribution of tourism to well-being in developing economies is determined by the quality and revenue of the tourism offer. Then there's the need for long-term tourism development (UNWTO c). Tourism growth, like other forms of development, can result in environmental degradation, cultural asset loss, economic reliance, and social displacement. (UNESCO). Concerned stakeholders, including

academia, policymakers, and tourism and hospitality business owners, must take the required steps to ensure the development of a sustainable workforce for the tourism and hospitality industries (SintayehuAynalem, Kassegn Birhanu and SewentTese fay 2016).

**5.3 The Concept's Elaboration And Explanation:** Based on the consequences and resource consumption, we classify tourism as either environmentally sensitive tourism or environmentally dependent tourism. We call it Eco-tourism or Sustainable Tourism when there is a high level of environmental awareness. (Carlo for the entire year of 2014) In his 1987 report, Bruntland defined sustainable development as "meeting the requirements of the present without jeopardising future generations' ability to fulfil their own needs." Following that, the need of sustainability was emphasised at the Rio Earth Summit in 1992. Edward Inskip (1991) established five primary criteria for sustainable tourism, addressing tourism's economic, environmental, and social responsibility, as well as its dedication to tourists and global justice and equity. Sustainable tourist development principles and management techniques cover all sorts of tourism. In the tourism industry, sustainability principles refer to balancing the environmental, economic, and socio- cultural aspects of tourism development in order to ensure its long-term viability. It entails the informed participation of local residents and other essential stakeholders, as well as strong political leadership from the government to ensure an effective and broad range of implementation. Which necessitates regular impact monitoring, as well as preventive and corrective steps as needed? Tourist satisfaction and awareness are also important aspects of sustainable tourism growth. 2005d (UNEP/UNWTO) Economic growth is insufficient on its own: economic, social, and environmental factors are all intertwined. Considering any one of these can lead to erroneous decisions ""unsustainable" results The necessity to consider "three pillars" together: society, economy, and environment, is at the heart of sustainable development. The core principle remains the same regardless of context: people, environments, and economic systems are all interconnected ". We may have to pay the price if we neglect interdependence for a few years or decades. (Source: OECD Insights).

**5.4 Guidelines Towards Achieving Sustainable Tourism Development:** Individuals who take responsibility are the only ones who can make sustainable tourism development principles a reality. The term "responsible tourism" refers to taking responsibility for making the globe a more sustainable place. In 2002, with the World Summit on Sustainable Development, the Cape Town Declaration defined Responsible Tourism as "building better environments for people to live in and better places for people to visit."

(Harold Goodwin, Responsible Tourism, <https://haroldgoodwin.info/responsible-tourism>). It necessitates that tour operators, hoteliers, governments, residents, and visitors work together to make tourism more sustainable. There is a distinction between Sustainable Tourism and Responsible Tourism "Tourism is a growing industry in the United States. Sustainability is a goal that can only be accomplished if individuals take responsibility for it and work together to attain it. It is about what people do to address the numerous specific difficulties we face, and it is about taking responsibility for making tourism sustainable." (Declaration of Cape Town, 2002) Tourism has the potential to transform the world's sociocultural, environmental, and economic landscapes, and it is a significant contributor to India's economic growth. Tourism is India's largest service business, accounting for 6.23 percent of the country's GDP and 8.78 percent of total employment.

## **Discussion**

"Kodagu is a small district in Karnataka regarded as the "Kashmir of the South" or the "Switzerland of India," and is noted for its scenic environment, unique culture, and tourism activities." The district is one of the 25 environmental hotspots in the Western Ghats (Norman Myers, 2000). In Kodagu, the tourism sector contributes 14.64 percent of GDP, and tourism activities in the region are growing at a rapid pace.

### **Major Impacts of Tourism on Kodagu are Analysed based on Secondary data :**

**5.5 Tourism Expansion and Ecology:** It is obvious from the data that the number of tourists visiting Kodagu has doubled in the last 18 years, from 2000 to 2018. The district's Sustainable Development faces severe issues such as the proliferation of homestays and the steady deterioration of the ecosystem (Vidya Aiyappa. 2019). Human interventions in terms of roads, built-up projects, land use, and land cover changes, long-term impacts of human activities like road expansion, unplanned large-scale land-use alterations, stream alteration, deforestation due to commercial activities like homestays, villa construction activities, human-wild animal conflicts, and so on are causing environmental degradation in Kodagu. One of the main causes of deforestation and disturbed forest regions is unscientific land transformation. More human interference will wreak havoc on ecology, hydrology, and livelihood, resulting in an increase in human-caused disasters such as landslides, mudslides, floods, and droughts. They need politicians and the general public intervening in a sustainable and responsible manner.

A restriction on monoculture crops, strongly advocated ginger growing, and eviction of forest encroachment, boosting deforestation initiatives, and preventing uncontrolled development could be the answer to the current problems.(T.V. Ramachandra, SetturuBharath, S. Vinay 2019). Pollution, traffic and parking, deforestation, a scarcity of rental dwellings, uneven development, an increase in crime rate, Naxalism and terrorism, an increase in the cost of living, a loss of culture, and a decline in interest in agriculture are some of the issues that tourism in Kodagu faces. Kodagu has a lot of potential for tourism growth; nevertheless, all of these developments are dependent on the Kodagu people, who bear a lot of responsibility for overcoming problems and moving toward sustainable development. (K.C. Dayannda, 2014). A major landslide struck Kodagu in 2018. Landslides were generated by both natural and manmade factors, resulting in massive losses. Kodagu's geography is biologically vulnerable, and any changes in land usage can result in landslides or slope failures, posing a threat to the local population. The rapid increase in population and commercial activity in the area, as well as infrastructural development in the form of constructions and road development, is producing instability in the hilly terrain. Abdul - AleamAhamedAhamed D. AL - Qadhi 2016 (R. Janardhana1, D. N. Vinutha, Abdul - AleamAhamedAhamed D. AL - Qadhi 2016). When done sustainably with the encouragement of concerned people, local authorities, and the government, the Kodagu district has the desirable potential for growth and development of ecotourism (Vishwanatha S, Chandrashekara B. 2014).

**5.6 Tourism and Land Transformation:** Tourism, as one of the world's most important economic activity, is intimately linked to land usage and land cover. In both urban and rural areas, there is a strong link between land-use policies, social development, and macroeconomic trends and variations. Rico-Amoros, Olcina - Cantos, and Sauri (2009) (Gossling, 2001; Rico-Amoros, Olcina - Cantos, and Sauri, 2009). Tourism development, which includes lodging establishments, transportation infrastructure, leisure activities, and other human activities, significantly contributes to changes in land cover and land use (OECD 2017). Tourism infrastructure grows rapidly, occupying fertile farmland, while urban expansion leads to a rise in commercial property and a loss of agriculture. Tourism development gradually restructures land use patterns, resulting in landscape fragmentation, vegetation degradation, and coastline erosion. As a result, it's critical to coordinate tourism- driven land development and growth. (J. Wang and Y. Liu, 2013)

Restoration of the stream network, catchment treatment by planting native species, halting deforestation, and limiting large-scale development projects with adverse land- use changes are all urgently needed. (T.V. Ramachandra, SetturuBharath, S. Vinay 2019)

**5.7 Tourism Development and Culture:** "Tourism is widely acknowledged as a catalyst for social and cultural change, particularly among indigenous peoples. Tourism has been characterised as both a driver for cultural enrichment or rejuvenation and a force for cultural erosion in many circumstances." Tourism growth, social displacement, shifting social structures, acculturation of traditional livelihoods and cultural practises, and commoditization of local culture are all expected outcomes that have a significant impact on the local community and culture. (Equations, Rosemary Viswanath et al., 2017) To put it another way, tourism acts as an external force that influences locals' traditional values and lifestyles in tourist areas. (Jun(Justin) Li and Xiaoping Zhuang, 2019). Tourism development promotes social cohesion and aids in the preservation of local cultures, as well as facilitating cultural interchange. On the contrary, it has the potential to undermine a community's culture. Acculturation effects, hybrid culture, and cultural commoditization are all negative effects of tourism on culture. To maximise the positive influence and limit the negative, a responsible tourist policy is essential. Government actions such as adopting a code of conduct and heritage preservation, as well as establishing a cultural research centre for cultural education, training, workshops, exhibitions, and performance, could assist properly manage the effects of tourism on culture. Md Shahzalal (Md Shahzalal, 2016) Tourism boom in Kodagu is eroding traditional values, causing conflict with local culture, fighting with the local community's historical heritage, and fighting with the local community's religious heritage (Shivaraju H. P and Anil Kumar K.M 2015). The tourism industry has made Kodagu's unique and rich culture known to the rest of the globe. Tourism expansion has resulted in cultural awareness and unity in the preservation of local traditions. It is undeniable that the industry has commoditized local culture. The negative outputs of tourism in Kodagu are the demonstration effect and cultural divergence.

**5.8 Tourism and Human–Nature Interaction:** "Tourism has the potential to significantly disrupt animals in their natural habitats. This could startle animals, especially at vulnerable stages in their lives, and cause breeding problems. Tourists' feeding of wildlife has the potential to alter social behaviour patterns." (Source: WGEA, 2013). Humans have significantly altered environments that are critical to the survival of many wild animals (Mortelliti et al., 2010). In all regions where nature and human populations share natural resources, human interactions with animals are becoming a major concern (Woodroffe et al., 2005). In tropical P.A.s, human-elephant conflict is one of the most common human-wildlife conflicts (Linkie et al., 2007; Hedges and Gunaryadi, 2010; Nyirenda et al., 2011).

Another effect of wildlife on nearby populations is livestock attacks. As the world's population grows, woods and rangelands are being converted into agricultural lands, increasing the area where people and elephants interact. Outside of protected areas, elephants must move through pasture or agricultural lands, residential areas, and other human land conversions, which increases the human-elephant contact and the potential for unpleasant interactions. Sitatiet al., 2003; Garcia et al., 2007; Balet al., 2011)

**5.9 Tourism Expansion and Economy:**

Considerable Increase in the growth of tourism infrastructures in Kodagu is observed over years in the tables 02 as shown below.

**Table No. 2: Decadal growth of Tourism establishments in Kodagu 2010 -2020**

<b>Tourism establishments in Kodagu</b>	<b>2010 (estimated)</b>	<b>2015 (estimated)</b>	<b>2024 (estimated)</b>
Home Stays	900	More than 1000*	More than 8000*
Resorts	04	More than 30*	More than 100*
Travel Agency	01	64	More than 100*
Hotels/restaurants	37	1207	More than 2000*

*(Source: Internet sources) (\*Exact statistics are available)*

In recent years, tourism has become one of the most important contributions to the Kodagu economy, giving significant employment opportunities. Direct, indirect, and induced jobs have all been created by the tourism industry. Every year, the district's tourist influx grows, and as a result, tourism activities and infrastructure are improving. Tourism-related industries such as homestays, hotels, resorts, adventure activities, transportation, and other small-scale businesses have benefited from the increasing tourist visits. According to the aforementioned data, visitor arrivals in Kodagu is have been steadily increasing and had multiplied. Tourism began as a means of supplementing revenue for Kodagu's local planters, but it has now grown into a considerable business.

In the current situation, the number of families is dependent on tourism income, and the evolution of the tourism industry has changed the district. Hotels, resorts, homestays, restaurants, spice businesses, honey businesses, homemade wine businesses, pottery manufacturing enterprises, and so on are examples of alternative businesses that employ locals and contribute considerably to the local economy.

**5.10 Tourism Expansion and Urbanization in Kodagu:** Kodagu is experiencing significant urbanization as a result of its rapid tourism growth. Many individuals gain from road growth, electrical supplies, the emergence of towns and cities, city and housing expansion, commercial areas, and so on. On the one hand, urbanisation may be economically advantageous, yet unchecked urbanisation can pose a harm to the surrounding environment and animals. Significant agricultural lands are currently being converted for tourism operations, and land rules that have been liberalised may have an impact on the environment and biodiversity in Kodagu. Urban expansion processes in fragile ecoregions, like as Kodagu's, must be properly examined, planned, and controlled.

**5.11 Tourism Expansion and Tribes of Kodagu:** In tourist sites such as Nagarhole national park, tribes are very much affected by tourism activities. Displacement of tribes to build tourism sites and shifting them out of their usual residence can pose a threat to human rights, and it can also threaten the existence of forests and wildlife of the region.

## **6. Tourism Impacts On Coorg: A Geo Spatial Analysis**

**6.1 Loss of Agriculture and Fertile land:** The loss of agriculture in Coorg has been significant over the decades, influenced by both environmental challenges and human activities. Historically, the region thrived on diverse crops, especially coffee and spices, until the late 20th century. However, from 2000 to 2010, approximately **13,000 acres** of agricultural land were converted for non-agricultural purposes, driven by urbanization and tourism development. This ongoing transformation underscores the urgent need for sustainable agricultural practices and policies to mitigate further losses in Coorg's agricultural heritage.

**The below picture depicts loss of agricultural land for tourism.**

**Club Mahindra resort area in Madikeri, Coorg in 2024**



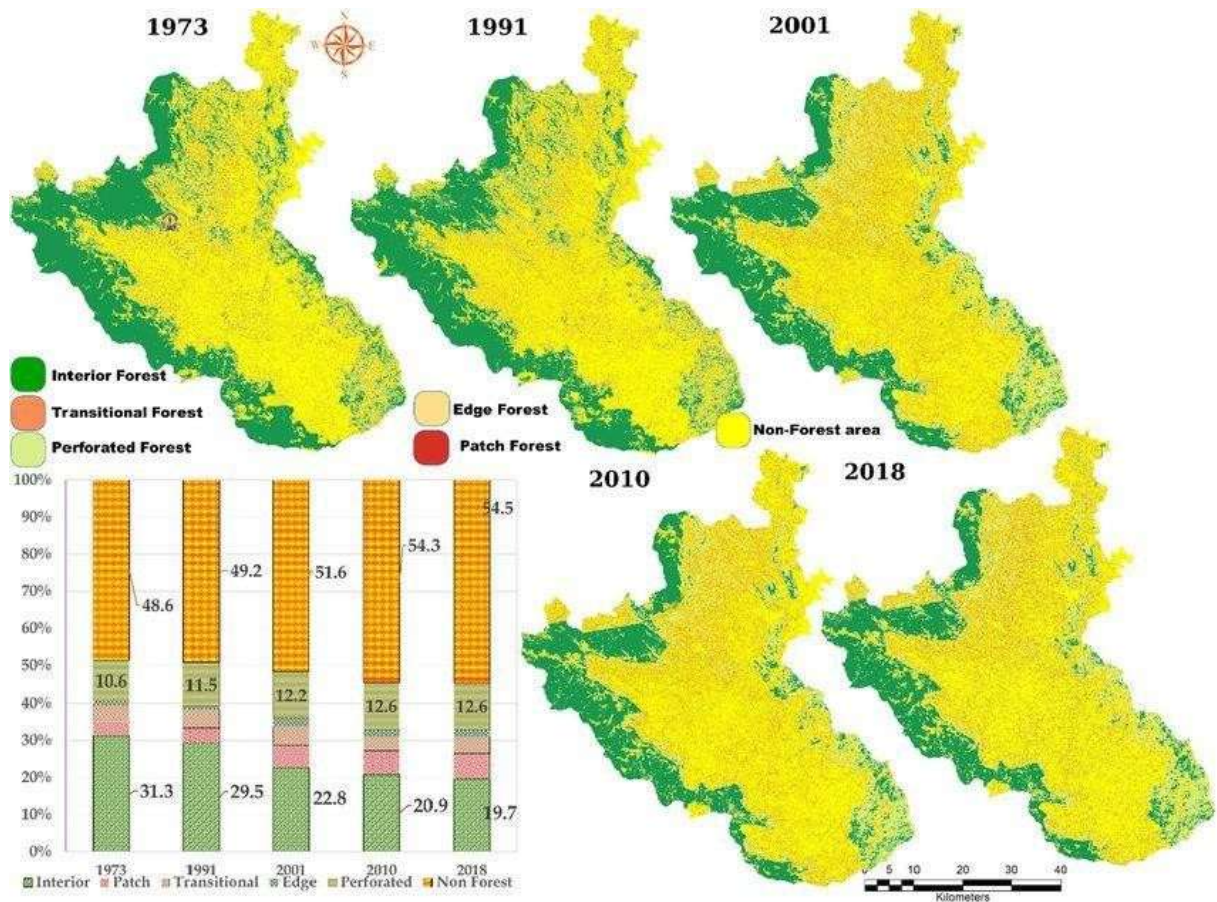
**Source: Google Earth Pro**

**Club Mahindra resort area in Madikeri, Coorg in 2014**



Source: Google Earth Pro

**6.2 Loss of Forest:** The loss of forest cover in Coorg has become a significant concern, largely attributed to urbanization, agricultural expansion, and natural disasters. Historically abundant in biodiversity, the region has experienced a decline of approximately **11,309 hectares** of forest land in recent decades, mainly due to the development of tourism infrastructure and residential areas. This ongoing deforestation is exacerbated by illegal logging and agricultural practices that further encroach upon natural habitats (S.Ananda 2019).



Source: Ramachandra, T V & Setturu, Bharath & Shivamurthy, Vinay. (2019).

### **6.3 Loss of Plantation:**

In Kodagu (Coorg), the coffee industry is indeed seeing significant changes, partly due to the impact of tourism on agricultural land use. Coffee plantations in Kodagu are increasingly being transformed into homestays, resorts, and other tourism-focused establishments, mainly driven by the area's popularity as a scenic, cooler getaway.

#### **Eg: Coorg Cliff resort region in 2013**



Source: Generated using Google Earth Pro

#### **Coorg Cliff resort region in 2024**



Source: Generated using Google Earth Pro

**6.4 Solid Waste and Pollution:** With the surge in tourism, the amount of solid waste generated in Kodagu has escalated dramatically. Reports indicate that the district generates around **300 tons of waste daily**, with a significant portion attributed to tourist activities. The rise in visitors, particularly in peak seasons, has overwhelmed local waste management systems. Many popular tourist spots lack adequate facilities to handle the influx of waste, leading to littering and the improper disposal of solid waste. (S.Ananda 2019).



Source: [kodagu: Karnataka: Kodagu seeks curb on tourists' inflow \(indiatimes.com\)](https://www.indiatimes.com)

**6.5 Alteration of Water Sources:** The alteration of water sources in Kodagu, particularly near resorts, has become a pressing environmental issue, significantly impacting the region's ecosystems and local communities. As tourism has surged in Coorg, the demand for water resources has escalated, leading to several concerning practices.

Many resorts in Coorg, such as those near Madikeri and Kushalnagar, heavily rely on groundwater extraction to meet their water needs. This practice has led to a significant decline in the water table in surrounding areas. Studies indicate that certain regions have experienced a drop of more than **5 meters** in groundwater levels over the last decade. Such depletion not only threatens the water supply for local residents but also affects nearby agricultural activities.

**Waste water from homestays entering river cauvery near Siddapura in Kodagu district.**



Source:: <https://www.deccanherald.com/india/karnataka/pollution-on-the-rise-in-river-cauvery-in-kodagu-719844.html>

**6.6 Mashrooming of Homestays:** Despite their benefits, the proliferation of homestays has also raised concerns regarding environmental sustainability and infrastructure strain. Increased foot traffic and development have led to issues such as waste management, water supply shortages, and traffic congestion in popular areas. Moreover, the lack of regulations governing homestay operations can result in inconsistent quality and service standards, which may affect the overall tourist experience.

**Proliferation of Homestays in Madikeri town**



Source: Google Earth Pro

**Eg: Katekallu Homestay Galibeedu**

**In 2016**

**In 2014**



Source: Google Earth Pro

The Historical imagery of homestay location analyses transformation of land and surroundings over a period of time depicting the possible disadvantages to the sensitive eco district Kodagu.

### **6.7 Dislocation of Natives and Indegenious**

With the increasing popularity of Kodagu as a tourist destination, there has been a surge in land acquisition for resorts, homestays, and other tourism-related developments. This often results in the appropriation of ancestral lands that native tribes have relied on for generations, leading to significant displacement and loss of livelihood.

**Eg: Diddalli Tribal dislocation: 2016**



Source: [Karnataka: Evicted Kodagu tribals' protest gains momentum | Karnataka: Evicted Kodagu tribals' protest gains momentum \(deccanchronicle.com\)](https://www.deccanchronicle.com/karnataka-evicted-kodagu-tribals-protest-gains-momentum)

### **6.8 Human induced natural disasters:**

Landslide near Taj Resorts and Spa Madikeri



Source: Google Earth Pro

The image depicts landslide adjacent to Taj Resorts and Spa in Madikeri clearly showing human interference in nature causing landslide in the region.

## **7. The Need of Circular Economy Approach to Kodagu Tourism:**

The effective and efficient use of resources determines the viability of tourism development. Kodagu is a delicate hill station with a wealth of natural resources. For human welfare, efficient resource utilisation and conservation are just as crucial as development initiatives. If we fail to maintain the resources, there will be no 'Kodagu' hill station with its cool climate and foggy forest! The Kodagu region's general development would be aided by the concepts of sustainable development, which would conserve the region's natural resources and landscape for future generations.

### **7.1 Sustainable Tourism Development Strategies for Kodagu Tourism:**

Sustainable Development relies on effective management of Social, Cultural, economic and ecological resources. Thus there is an immediate need to focus on the management policies and approaches in Kodagu. Few major strategies are as given below.

- Tourism planning should consider natives opinions and contributions considering possible impacts on regional ecology, society and culture. Infrastructural development for tourism such as electricity, expansion of roads, construction of dams, construction of highways, construction of new tourist attractions etc must take consultation and consent of native people who lives in that region for inclusive growth.
- Few destinations such as Madikeri Taluk, Kushalanagar Taluk are facing over Tourism with over crowded tourists on every weekends causing traffic jam, littering, pollution, high pressure on natural resources. Carrying capacity of these taluks are exceeded due to high demand on accommodation and resources. Thus, alternative tourism should be introduced in Kodagu by channelizing tourists towards other taluks namely Somawarpet and Virajpet.
- Infrastructural development and efficient management of available resources such as roads, transport facilities, tourist attractions in Virajpet and Somawarpet Taluks should be focused to divert tourists to these regions.
- Effective analysis of carrying capacity and introduction of effective tourism policies
- Consutation of Scientists, Resarchers, Agriculturists, Planters, Businessmen, Media, public and Tourists while making tourism policies for the collaborative development.

## **8. Major Findings and Suggestions:**

- Tourism in Kodagu has grown rapidly over the years; it is critical to look into the careful management of vegetation and wildlife in Kodagu, since it is significantly linked to vegetation loss and disturbance of nature in the area.
- It is strongly advised that the local authorities in all of Kodagu's taluks strictly implement and impose a ban on plastic and non-recyclable harmful materials carried by both locals and tourists, as the destination is more fragile and ecologically sensitive.
- Authentic and credible information and guidance on the protection and preservation of natural and cultural resources must be provided to tourists and local service providers.
- One of the major issues of Kodagu tourism is guest safety and security. In tourist sites and lodgings such as hotels, homestays, and resorts, the district government and the department of tourism shall strictly enforce safety and security codes.
- To accomplish ethical and long-term tourism growth, awareness must be spread across Kodagu community.
- Environmental problems from homestay company constructions can be reduced by strictly measuring Homestays and their licences to run the business, as well as closely tracking their activities. Sustainable tourism concepts, when understood and implemented, can help to conserve Kodagu's fragile environment, rich biodiversity, and unique culture.
- Sustainable agricultural practices and conservation efforts are critical to reversing these trends and ensuring the future viability of agriculture in Coorg

## **9. Limitations of the Study:**

- The study is limited to the Kodagu region, and the findings may not be applicable to all hill locations.
- The project is time-limited, with construction taking place in September 2024.
- The involvement of Covid19 is not taken into account.
- The study looked at only major literature and there is a need for more particular research in this area.

## **10. Conclusion:**

The economy, ecology, and culture of the Kodagu region all benefit from tourism. It can also inflict widespread harm to the environment, culture, and economy if it is not tackled with the necessary techniques and concerns. As Kodagu is a sensitive natural and cultural zone, adaption of circular economy in Kodagu's tourism sector is essential for promoting sustainable development while preserving the region's rich biodiversity and cultural heritage. By focusing on resource efficiency, minimizing waste, and encouraging the use of local products and services, a circular economy can significantly reduce the environmental impact of tourism activities. This approach not only protects natural habitats and enhances biodiversity but also provides economic benefits to local communities through job creation and support for local businesses. Furthermore, it offers tourists authentic and unique experiences that emphasize sustainability and conservation, fostering a deeper connection between visitors and the environment. Ultimately, implementing circular economy principles in Kodagu tourism can create a resilient model that balances economic growth with ecological integrity, ensuring that the region remains a thriving destination for future generations.

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