

# An Empirical Analysis of the Impact of the Tourism Sector on the Indian Economy since 2001

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## Abstract

*In recent years, researchers have increasingly focused on the economic aspects of tourism. This research paper analyses the impact of the tourism sector on the Indian economy. The study presents an evidence-based description of the changes observed in India's tourism sector over recent years, supported by authentic data. It concludes that the tourism sector in India has experienced valuable growth. Using data from 2001 to 2022, this study examines the impact of the tourism sector on India's economic growth and finds that tourism has had a positive and statistically significant effect on the country's economic growth. Consequently, the study emphasises the need for policy reforms to promote the sustainable growth of the tourism sector in India, ensuring its long-term contribution to the nation's economic advancement.*

**Keywords:** Economic Growth, Tourism, Foreign Exchange Earnings (FEEs), Gross Domestic Product (GDP).

## **Introduction**

Tourism has become a crucial driver of economic growth within the global economy. For India, a nation rich in cultural heritage, diverse landscapes, and historical landmarks, the tourism sector holds significant potential for advancing economic progress. Recent years have seen noteworthy expansion in India's tourism industry, driven by government policies, enhanced infrastructure, and improved international connectivity. As of 2023, tourism contributed approximately 6.8% to India's GDP while creating millions of job opportunities (World Travel & Tourism Council [WTTC], 2023).

India's tourism sector is multifaceted, comprising leisure, business, medical, and religious tourism, each making unique contributions to the economy. Beyond direct revenues from tourism-related activities, the sector stimulates indirect benefits, such as job creation in sectors like hospitality, transportation, and handicrafts. According to the Ministry of Tourism, Government of India (2022), the sector's development plays a vital role in reducing poverty, fostering regional growth, and improving infrastructure, especially in rural areas.

However, despite its economic significance, the tourism industry encounters numerous challenges. Issues like seasonal demand fluctuations, environmental degradation, and the risk of cultural erosion need to be managed for sustainable development. Moreover, external factors such as geopolitical tensions, global

economic downturns, and health crises like pandemics can considerably impact tourism performance (Ghosh, 2020).

This study seeks to examine the diverse effects of tourism on India's economic development, focusing on areas such as GDP contribution, employment creation, foreign exchange earnings, and regional disparities. By analyzing recent trends and available research, the paper will provide insights into the role of tourism in shaping India's economic landscape and identify strategies for ensuring its sustainable growth over the long term.

## Literature Review

Tourism has consistently been acknowledged as a key driver of economic development, significantly contributing to GDP, job creation, and infrastructure enhancement across the globe. In India, with its rich cultural diversity, scenic landscapes, and historical landmarks, tourism plays a crucial role in driving economic progress. This literature review examines existing research on the economic impact of tourism in India, highlighting important findings and identifying gaps in current studies.

Numerous studies have analyzed the relationship between tourism and economic growth in India, frequently emphasizing the strong positive connection between the two. For example, Bhattacharya and Pradhan (2020) utilized time-series data to demonstrate that tourism substantially contributes to India's GDP through foreign exchange revenue, employment creation, and infrastructure investments. Likewise, Kumar et al. (2018) observed that an increase in international tourist arrivals directly fosters the growth of related industries such as hospitality, transportation, and retail.

Das and Mukherjee (2017) shed light on the significance of domestic tourism in promoting regional economic growth, especially in rural and semi-urban areas. Their research highlighted how tourism could reduce regional inequalities by channeling economic gains to underdeveloped regions. Additionally, Chand and Chauhan (2019) examined government initiatives like the "Incredible India" campaign and the introduction of e-visas, which have enhanced India's global appeal and bolstered economic growth.

As a labour-intensive industry, tourism has immense potential to generate employment, a point widely explored in the literature. According to the World Travel and Tourism Council (WTTC), tourism contributed 8.1% of India's total employment in 2019. Sharma and Gupta (2020) noted that the sector not only creates direct jobs in areas like hotels, airlines, and travel agencies but also generates indirect opportunities in agriculture, handicrafts, and construction. Furthermore, they emphasized the need for skill development initiatives to align the workforce with the growing demands of the tourism sector.

Foreign exchange earnings from tourism represent a vital revenue source for India. Studies by Singh and Kaur (2018) revealed that the rise in foreign tourist arrivals has a direct positive impact on India's balance of payments, strengthening foreign exchange reserves that can be reinvested in development projects. Verma

and Jain (2019) also highlighted the role of private sector investments in tourism infrastructure, including airports, hotels, and transportation systems, as key drivers of economic growth.

While the economic advantages of tourism are well-established, challenges and potential downsides have also been highlighted in research. Banerjee and Singh (2021) discussed issues such as over-tourism, environmental damage, and cultural commodification in popular destinations like Rajasthan and Goa. They emphasized the importance of adopting sustainable tourism practices to address these concerns. Similarly, Bose et al. (2018) examined the seasonal nature of tourism in India, which leads to income fluctuations and underutilization of resources during off-peak times.

India's regional diversity provides a unique opportunity for tourism development. Reddy and Rao (2019) explored the economic impact of specialized tourism segments, including heritage, medical, and eco-tourism, noting that promoting these niche areas could improve India's global competitiveness while delivering localized economic benefits. Cultural tourism also emerged as a significant economic driver, with festivals, religious pilgrimages, and cultural events attracting millions of domestic and international tourists annually, as observed by Mishra and Sinha (2020).

### Objectives of Study

- To study the development of the tourism sector in India.
- To analyse the impact of tourism on India's economic growth.

### Hypotheses of Study

**H<sub>0</sub>:** There is no significant impact of tourism on the economic growth of India.

**H<sub>1</sub>:** There is significant impact of tourism on the economic growth of India.

### Research Methodology

This study relies on secondary data obtained from the official websites of the Ministry of Tourism, the Government of India, and the World Bank. We have used both descriptive and analytical methods according to our objectives. The research considers Gross Domestic Product (GDP) at constant 2015 prices as the dependent variable, representing India's economic growth, and Foreign Exchange Earnings (FEE) from tourism as the independent variable. Since the data covers the time period from 2001 to 2022, the stationarity of the timeseries was tested using the Augmented Dickey-Fuller (ADF) test. Following this, a simple linear regression model was developed to analyse the effect of tourism on India's economic growth.

Equation:

$$Y_t = a + bX_t + U_t$$

Where;

$Y_t$  = India's GDP at 2015 constant price,

$X_t$  = Foreign Exchange Earnings (FEEs) from Tourism in India.

$U_t$  = Error Term

$a$  = The Intercept,

$b$  = The Slope Coefficient.

### **Analyses of data & Interpretation:-**

#### **Development of the Tourism Sector in India:**

India's tourism industry has demonstrated strong growth and resilience, as highlighted;

##### **International Tourist Arrivals:**

- In 2022, India recorded 6.19 million international tourist visits, a significant improvement from the 1.52 million arrivals in 2021.
- Despite this progress, the numbers remain lower than the 10.93 million foreign visitors seen in 2019, reflecting the sector's ongoing recovery from the pandemic's effects.

##### **Economic Impact:**

- Tourism contributed notably to the economy, with Foreign Exchange Earnings (FEEs) climbing to ₹2,31,927 crore in 2023, up from ₹1,39,935 crore in 2022.
- This growth underlines the sector's importance in boosting national revenue.

##### **Growth in Domestic Travel:**

- Domestic tourism has witnessed a sharp rise, with 2,509.63 million visits recorded in 2023 compared to 1,731.01 million in the previous year.
- This increase signals a growing interest among Indian travellers in exploring destinations within the country.

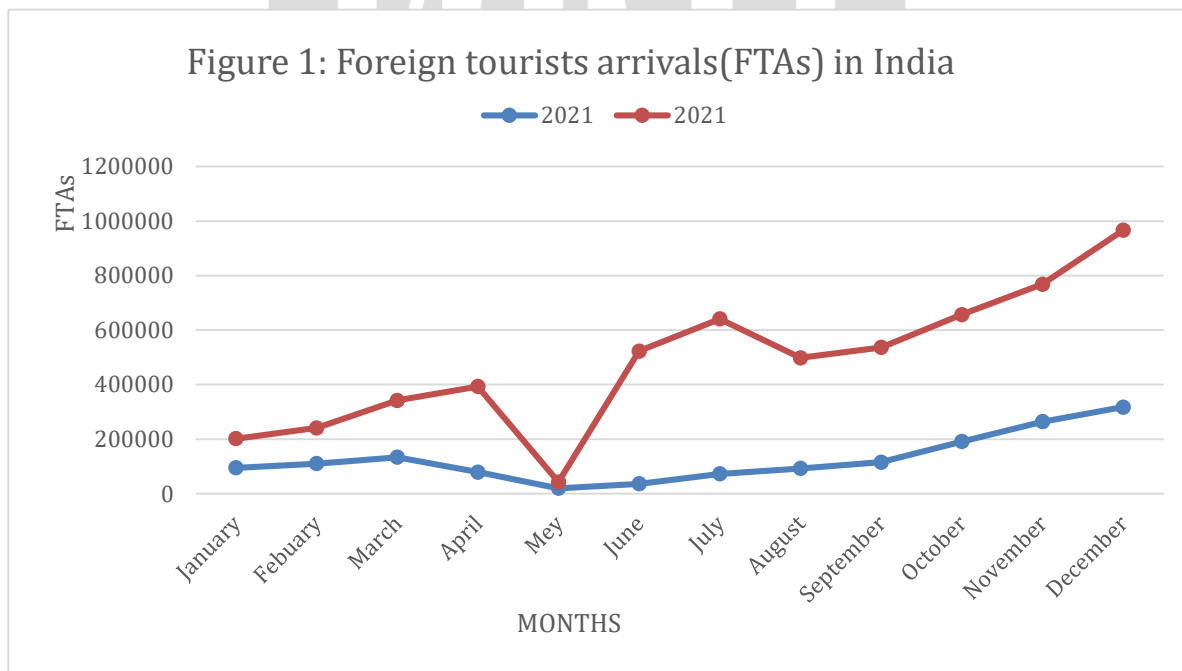
#### **Infrastructure Development:**

- Efforts to enhance tourism infrastructure are evident in initiatives like the Swadesh Darshan Scheme, under which 76 projects were approved, and 75 have been completed. This scheme aims to create theme-based tourism circuits.
- Similarly, the PRASHAD Scheme has approved 48 projects, focusing on the development of heritage and pilgrimage destinations.

**Table 1.1: Status of foreign Tourist arrivals in India (2019-2023)**

Month	2019	2021	2022	2023	Relative Growth of FTAs (in %)		
					2022/21	2023/22	2022/19
January	11,11,040	94,662	2,01,546	8,68,160	112.91	330.75	-8.86
February	10,90,516	1,10,312	2,40,896	8,65,779	118.38	259.40	-77.91
March	9,78,236	1,33,768	3,42,308	7,95,827	155.90	132.49	-65.01
April	7,74,651	78,718	3,92,930	6,03,985	399.16	53.71	-49.28
May	6,15,136	19,765	4,23,70	-	2043.69	-	-31.12
June	7,26,446	36,070	5,22,737	-	1349.23	-	-28.04
July	8,18,125	72,501	6,40,858	-	783.93	-	-21.67
August	8,00,837	92,728	4,98,243	-	437.32	-	-37.78
September	7,51,513	1,15,661	5,36,340	-	363.72	-	-28.63
October	9,45,017	1,91,415	6,56,895	-	243.18	-	-30.49
November	10,92,440	2,63,867	7,68,675	-	191.31	-	-29.64
December	12,26,398	3,17,647	9,66,270	-	204.20	-	-21.21
Total (Jan-April)	39,54,443	4,17,460	11,77,680	31,33,75	182.11	166.09	-75.22
Total (Jan-Dec)	1,09,30,355	15,27,114	61,91,399		305.43		-43.36

Source: India Tourism Statistics at a Glance, 2022 & 2023



### Analysis of Monthly and Annual Foreign Tourist Arrivals (FTAs): 2019–2023

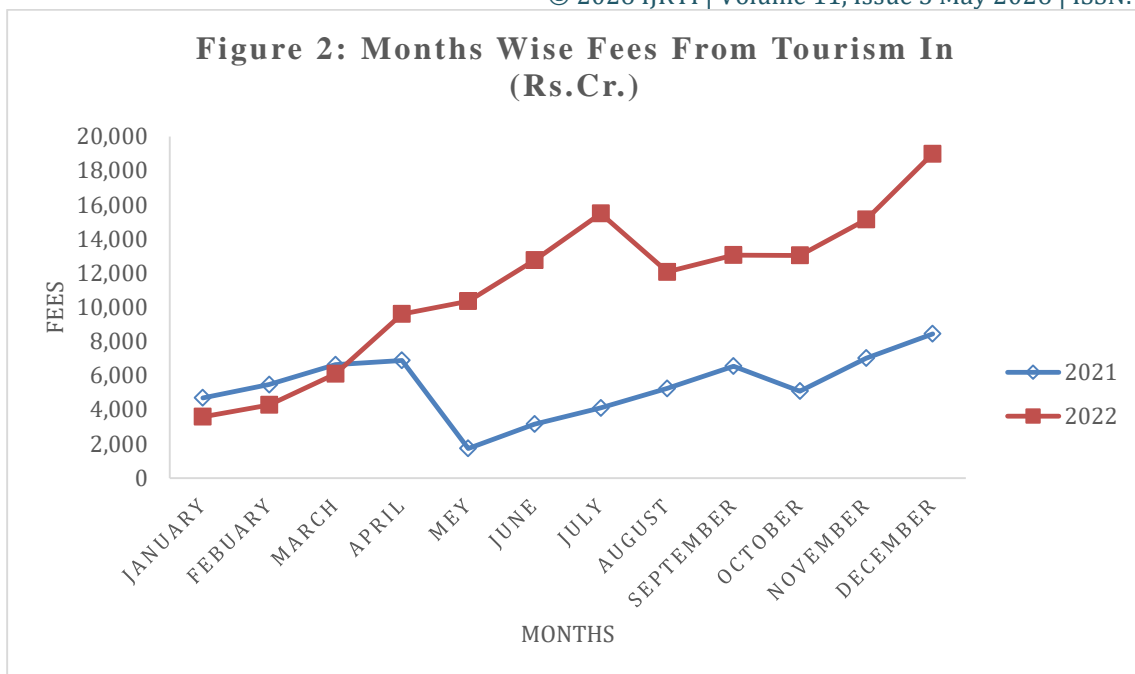
According to Table 1 & Figure 1 the monthly and annual data on Foreign Tourist Arrivals (FTAs) in India from 2019 to 2023 clearly illustrates the severe disruption caused by the COVID-19 pandemic and the subsequent recovery phase. In 2019, India recorded approximately 1.09 crore FTAs, reflecting a strong year for inbound tourism. However, with international travel restrictions in place, FTAs plummeted to just 15.27 lakh in 2021, a decline of nearly 86% from 2019. This sharp fall was especially evident in months like

January 2021, which saw only 94,662 tourists compared to 11.1 lakh in January 2019. In 2022, as travel resumed globally, FTAs increased substantially to 61.9 lakh—305.43% higher than 2021—but still 43.36% below pre-pandemic levels. The extraordinary growth in April, May, and June 2022 (399.16%, 2043.69%, and 1349.23%, respectively) highlights a statistical rebound from a low base rather than full recovery. By early 2023 (January–April), FTAs reached 31.3 lakh, already surpassing total 2021 figures and registering a 166.09% growth over the same period in 2022. However, certain months still lag behind 2019 levels (e.g., January 2023 was -8.86% compared to January 2019), indicating that while recovery is strong and ongoing, India’s inbound tourism is yet to return fully to its pre-pandemic momentum. This pattern emphasizes the vulnerability of tourism to global shocks and the importance of sustained efforts in rebuilding international tourist confidence and enhancing tourism infrastructure.

**TABLE 2 : Status of Foreign Exchange Earnings From Tourism in India(2019-2023)**

Month	FEEs from Tourism (in Rs. Crore)				Growth Rate (in %)		
	2019	2021	2022	2023	2022/21	2023/22	2022/19
January	18,672	4,700	3,587	18,492	-23.68	415.53	-80.79
February	18,327	5,477	4,281	18,435	-21.84	330.62	-76.64
March	16,440	6,642	6,105	16,903	-8.08	176.87	-62.86
April	17,693	6,891	9,611	17,405	39.47	81.10	-45.68
May	14,050	1,730	10,363	-	499.02	-	-26.24
June	16,592	3,157	12,766	-	304.37	-	-23.06
July	18,577	4,105	15,496	-	277.49	-	-16.59
August	18,184	5,251	12,074	-	129.94	-	-33.60
September	17,064	6,549	13,064	-	99.48	-	-23.44
October	17,623	5,094	13,046	-	156.11	-	-25.97
November	20,372	7,022	15,148	-	115.72	-	-25.64
December	22,873	8,452	19,002	-	124.82	-	-16.92
Total (Jan to April)	71,132	23,710	23,584	71,235	-16.92	202.04	-66.84
Total	2,16,467	65,070	1,34,543	-	106.77	-	-37.85

Source: India Tourism Statistics at a Glance, 2022 & 2023



### Analysis of Foreign Exchange Earnings (FEEs) from Tourism: 2019–2023

Table 2 & Figure 2 show that Foreign Exchange Earnings (FEEs) from tourism serve as a vital indicator of the sector's financial impact on the national economy. In 2019, India earned ₹2,16,467 crore through inbound tourism, marking strong pre-pandemic performance. However, the COVID-19 pandemic severely disrupted this momentum, with earnings plunging to ₹65,070 crore in 2021—a decline of nearly 70% from 2019. January 2021 alone saw FEEs of just ₹4,700 crore compared to ₹18,672 crore in January 2019, reflecting a monthly drop of over 75%. A recovery began in 2022, with total FEEs rising to ₹1,34,543 crore, a 106.77% increase over 2021, albeit still 37.85% below 2019 levels. Certain months like May, June, and July 2022 showed exponential year-on-year growth (499.02%, 304.37%, and 277.49%, respectively), mainly due to the low base effect of 2021. In early 2023, FEEs rebounded more strongly: from January to April, earnings totaled ₹71,235 crore—202.04% higher than the same period in 2022 and even marginally above the ₹71,132 crore earned in Jan–Apr 2019. January 2023 nearly matched January 2019 earnings, with ₹18,492 crore versus ₹18,672 crore, signaling a near-complete financial recovery in the tourism sector by early 2023. This trend demonstrates the sector's resilience and the rapid pace of post-pandemic revival, especially in terms of revenue generation.

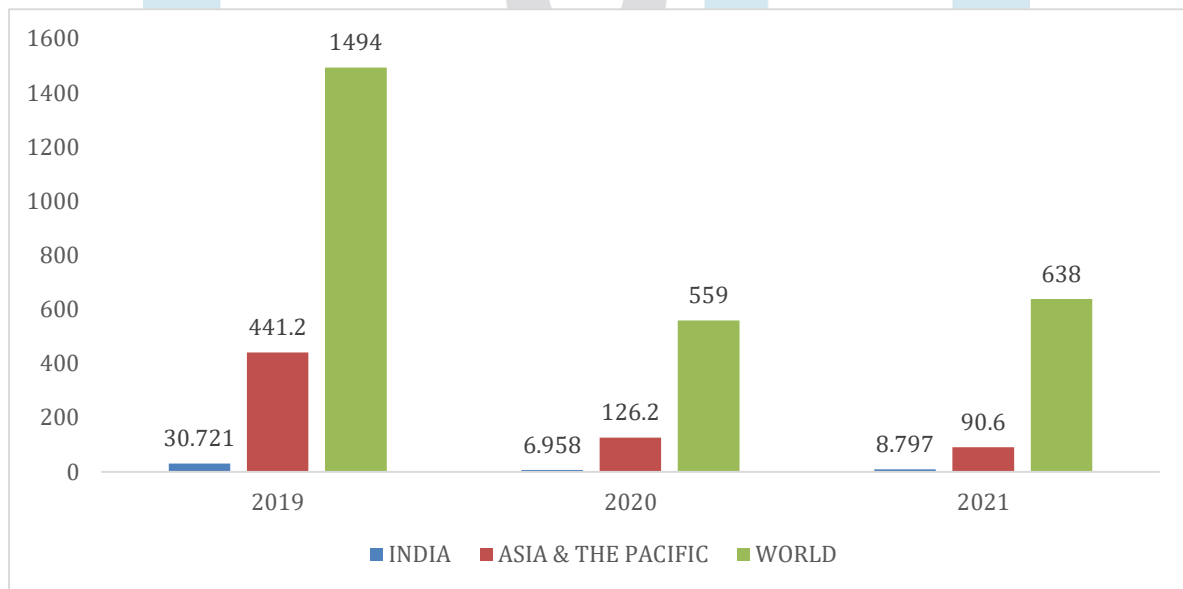
**TABLE 3: India's Share of World and Asia-Pacific Tourism Receipt (2011-2022).**

Year	International Tourism Receipts (in US\$ billion)		FEEs in India (in US\$ billion)	Percentage share and rank of India in World		Percentage share and rank of India in Asia and the Pacific	
	World	Asia and the Pacific		% Share	Rank	%Share	Rank
2011	1042.0	289.4	17.707	1.70	18th	6.19	8th
2012	1117.0	329.4	17.972	1.61	16th	5.46	7th
2013	1198.0	360.2	18.396	1.54	16th	5.11	8th
2014	1252.0	359.0	19.699	1.57	15th	5.49	7th

2015	1217.0	355.6	21.012	1.73	14th	5.91	7th
2016	1246.0	370.8	22.428	1.84	13th	6.05	7th
2017	1346.0	396	27.365	2.03	13th	6.91	7th
2018	1440.0	435.2	28.568	1.98	13th	6.56	7th
2019	1494.0	441.2	30.721	2.06	14th	6.96	6th
2020	559.0	126.2	6.958	1.24	13th	5.51	3th
2021	638.0	90.6	8.797	1.38	23rd	9.71	5th
2022	1031.0(P)	131.4(P)	16.926	1.64	14th	12.88	-

Source: India Tourism Statistics at a Glance, 2022 & 2023

**Figure 3: Share of India in International Tourists Receipts (ITRs) in World and Asia & Pacific Region (2019, 2020 & 2021)**



### Analysis of India's Share in Global and Asia-Pacific Tourism Receipts (2011–2022)

As shown in Table 3 and Figure 3, from 2011 to 2019, India experienced a consistent rise in international tourism receipts, growing from US\$17.7 billion to US\$30.7 billion. This upward trend was accompanied by a steady improvement in India's global share, increasing from 1.70% (18th rank) in 2011 to 2.06% (14th rank) in 2019. Similarly, in the Asia-Pacific region, India's share grew from 6.19% to 6.96%, with its regional rank improving from 8th to 6th. This growth reflects India's rising attractiveness as a tourist destination, boosted by expanded medical, heritage, and spiritual tourism, better visa policies (e.g., e-Visa), improved infrastructure, and greater international connectivity. However, the COVID-19 pandemic caused a sharp decline in 2020, with global receipts plummeting from US\$1,494 billion to US\$559 billion and India's earnings dropping to just US\$6.96 billion—a fall of ~77% from 2019. Despite this, India's world rank slightly improved to 13th, and its Asia-Pacific rank jumped to 3rd, suggesting relative resilience in the region. In 2021, India's FEEs increased modestly to US\$8.79 billion, though its global rank dropped to 23rd, while its Asia-Pacific rank rose to 5th with a 9.71% share. A robust recovery followed in 2022 as India's FEEs doubled to US\$16.93 billion, with its global share rising to 1.64% (14th rank) and Asia-Pacific share surging

to 12.88%. This recovery was likely driven by early reopening of international travel, a revival of business and medical tourism, and India's growing visibility through international events and G20 leadership initiatives.

**Table 4: Impact of Tourism on the Economic Growth of India:**

Year	GDP (constant 2015 US Million \$)	FEEs (in Million US\$)
2001	839151.9929	3198
2002	871073.1276	3103
2003	939542.7983	4463
2004	1013982.179	6170
2005	1094324.353	7493
2006	1182534.913	8634
2007	1273126.725	10729
2008	1312424.303	11832
2009	1415605.643	11136
2010	1535897.932	14490
2011	1616399.199	17707
2012	1704596.204	17971
2013	1813453.531	18397
2014	1947834.565	19700
2015	2103588.36	21013
2016	2277267.042	22923
2017	2432016.068	27310
2018	2588974.77	28586
2019	2689205.296	30058
2020	2533830.417	6959
2021	2779348.259	8797
2022	2973542.415	16926

Source: India Tourism Statistics at a Glance, 2022 & 2023(world Bank DataBank)

Table 4 highlights the relationship between India's economic growth and its foreign exchange earnings (FEEs) from tourism. The data from 2001 to 2022 highlights the strong correlation between India's economic growth and its foreign exchange earnings (FEEs) from tourism. Over this period, India's GDP at constant 2015 US dollars increased significantly from approximately \$839 billion in 2001 to over \$2.97 trillion in 2022, reflecting sustained economic expansion. Correspondingly, FEEs from tourism rose from \$3.2 billion in 2001 to a peak of \$30.1 billion in 2019, indicating tourism's growing contribution to the national economy. However, the sector faced a sharp decline in 2020 due to the COVID-19 pandemic, with FEEs plummeting to \$6.9 billion, despite GDP contracting only moderately. The following years showed a recovery trend, with FEEs rising to \$8.7 billion in 2021 and further to \$16.9 billion in 2022, though still below pre-pandemic levels. This pattern underscores the sensitivity of tourism to global disruptions, while also reflecting its potential as a high-growth sector aligned with overall economic performance.

## Stationarity Test

ADF Test Statistics	3.619671
Test Critical value at 5% Level	3.065585
P-Value	0.0178

*Source: Authors calculations*

The null hypothesis reveals that the dataset representing foreign exchange earnings from tourism exhibits a unit root. The Augmented Dickey-Fuller (ADF) test initially indicates non-Stationarity in the data. However, after applying the first differencing, the p-value (0.0178) and test calculated value (3.619671) surpasses the critical value at the 5% significance level (3.065585). Consequently, the null hypothesis is rejected, confirming that the dataset is stationary at the first difference.

ADF Test Statistics	4.387861
Test Critical Value at 1% Level	3.808546
Test Critical Value at 5% Level	3.020686
P- Value	0.0029

*Source: Authors calculations*

In the context of GDP, my null hypothesis is that the dataset exhibits a unit root. The results of the Augmented Dickey-Fuller (ADF) test indicate that, at the first difference, the p-value (0.0029) and test calculated value (4.387861) exceeds the tabulated critical values at both the 1% significance level (3.808546) and the 5% significance level (3.020686). Therefore, the null hypothesis of a unit root may be rejected, implying that the GDP data becomes stationary at the first difference.

## Regression Analyses

Number of Observations	21
R-squared	0.6540
Adjusted R-squared	0.6358
P-value	0.000
F-statistic	35.91

**ANOVA**

Statistical Test	DF	SS	MS
Regression	1	8.0291e+10	8.0291e+10
Residual	19	4.2479e+10	2.2357e+09
Total	20	1.2277e+11	6.1385e+09

First Lag GDP	Coefficient	Standard Error	t-statistics
First Lag FEEs	11.03026	1.840618	5.99
Constant	94427	10388.05	9.09

Source: Authors calculations

The regression results indicate a strong and statistically significant relationship between Foreign Exchange Earnings (FEEs) from tourism and Gross Domestic Product. The coefficient for first lag FEEs is 11.03, suggesting that for every 1million US\$ increase in FEEs, GDP increases by approximately 11.03 million US\$, holding other factors constant. The P-value of 0.000 confirms that this relationship is statistically significant at 1% level of significant. Additionally, the R-squared value of .0654 implies that about 65.4% of the variation in GDP is explained by changes in FEES, indicating a good model fit. The overall model is also statistically significant, as reflected by the F-statistic (35.91) and its P-value (0.000). The constant term is also significant, with a value of 94427, suggesting that even in the absence of FEEs; GDP would be around US\$ 94,427 million.

**Conclusion**

Our research highlights that tourism has a significant and positive impact on India's economic growth, driven by the nation's diverse cultural and natural attractions. Despite this, the potential for tourism in India remains largely untapped, signalling considerable room for sectoral expansion. Tourism can contribute significantly to various economic aspects, such as job creation, infrastructure development, and the growth of the service industry, by attracting both domestic and international visitors.

However, the study also acknowledges some limitations. Primarily, it relies on secondary data sources, which may not fully capture the dynamic, real-time developments in the tourism sector. Additionally, the focus on GDP as the sole measure of economic success neglects the multifaceted effects of tourism. While GDP serves as a general indicator of economic performance, tourism influences the economy in more nuanced ways—both positively, through job creation and foreign exchange earnings, and negatively, through environmental damage and social issues. A more holistic approach is needed to explore the diverse effects of tourism on the economy.

For India to fully harness the potential of tourism, the government must implement more strategic, targeted policies. This should include enhancing infrastructure, promoting sustainable tourism practices, and strengthening international marketing efforts to attract a wider range of tourists.

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