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Resilience and Recovery of Kashmir Valley's Tourism: A Study of Impacts of Turmoils and Strategies for Post-Pandemic Revival

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Abstract: ***The tourism sector, a vital pillar of economic development, faced unprecedented challenges during the COVID-19 pandemic, particularly in the picturesque Kashmir Valley. Renowned as the "Paradise on Earth," the valley's tourism industry, already susceptible to political unrest and natural disasters, suffered a dramatic decline during the pandemic. This study evaluates the historical trends in tourist arrivals from 1991 to 2022, emphasizing the multifaceted impacts of external shocks, including the COVID-19 pandemic and the abrogation of Article 370, on the region's tourism economy. Utilizing a combination of statistical analyses, GIS techniques, and secondary data, the study examines the interplay of tourism dynamics with public health and socio-economic disruptions. The findings reveal a sharp decline in tourist arrivals in 2020, coinciding with global lockdowns and health crises. However, partial recovery in 2021 and a notable rebound in 2022 underscore the sector's resilience. Key challenges persist, including health concerns, changing travel preferences, and economic uncertainties. This research proposes comprehensive revival strategies encompassing sustainable practices, enhanced health infrastructure, targeted marketing, and leveraging Kashmir's unique geographical and cultural assets to ensure long-term resilience. By providing actionable insights for policymakers and stakeholders, this study highlights the critical role of adaptive strategies and community participation in revitalizing the tourism industry. It underscores the necessity of balancing economic growth with environmental sustainability, paving the way for a more equitable and resilient tourism future for Kashmir Valley.***

Keywords: ***Kashmir Valley Tourism, COVID-19 Impact, Tourism Recovery Strategies, Sustainable Tourism, Economic Resilience, Geospatial Analysis***

I. INTRODUCTION

Tourism is one of the rapidly growing sectors of the world economy. The development of the tourism sector not only increases economic growth directly, but also stimulates the growth of other sectors through backward and forward linkages and increases domestic incomes and effective demand (Gokovali and Bahar, 2006). This is an attractive tool for the economic growth, specifically in the developing world. Tourism has supported many developing countries to move away from a dependency on agriculture and manufacturing sectors (Vaugeois, 2000). Ability of tourism to earn foreign exchange and to raise income and employment has been well recognized in economic literature (Vaugeois, 2000). This sector has an extraordinary complex integration with many industries spread over many sectors and is considered as an umbrella industry containing a set of inter-related business participants (Verma, 2011). Like all other economic activities, it is also an economic activity and an organized industry; its dimensions are very large, its locations vary and its benefits are scattered over large segments of the population (Yadav and Sharma, 2010). This sector round the globe is considered as a major tool of development and in the recent past it has proved its potential by emerging as the fastest growing industry contributing about 9% to global Gross Domestic Product (GDP) and generating 8.7% of total employment (Mir, 2014). As per the estimates of United Nations World Tourism Organisation (UNWTO), global tourism receipts hit a record by earning US $1075billion in 2012 (Mir, 2014).

Recently, tourism has emerged as a major industry of the Indian economy, contributing substantially to foreign exchange earnings and serving as a potential generator of employment opportunities (Kulwinder and Unjum 2006). Amongst other Indian tourist states, Jammu and Kashmir is an important one and has been remained a place of attraction for tourists since centuries. The lush green forests, sweet springs, perennial rivers, pictures que, alpines scenery and pleasant climate of Kashmir valley have remained an internationally acclaimed tourist destination, whereas Jammu region- the land of temples is attracting a large number of pilgrims, tourists and the important destination has been Shri Mata Vaishno Devi (SMVD) (Sharma et al., 2012).

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Jammu and Kashmir is known as the 'Paradise on Earth'. There are about 696 tourist attractions in the three regions of the state viz, Jammu, Kashmir and Ladakh that attracts thousands of domestic and foreign tourists. Jammu and Kashmir provides various types of tourism for tourists, a few of them are Health tourism, Adventure tourism, Ecotourism, Pilgrim tourism, Wildlife tourism etc. The picturesque beauty, large natural lakes, the snow-clad mountains surrounded by thickly populated pine forests with rivers flowing through have made Jammu and Kashmir as a prime tourist attraction (Government of India, 2001). In Jammu and Kashmir, tourism has a great potential for employment generation, even for people without specialized skills. Due to its spillover effect, it provides impetus to allied sectors like Handicrafts, Handlooms and Transport. It has the capacity to provide jobs in the unorganized sector and acts as an incentive to preserve cultural and heritage assets (Government of J&K, 2013). In the state like Jammu and Kashmir where the scope of large-scale industrialization is very limited and the potentialities of agricultural development are scarce, the role of tourism is immense in the development of the economy (Gadoo, 2011). The economy of Jammu and Kashmir profited significantly from tourism during the past few decades (Mir, 2014). It is a notable source of state income for Jammu and Kashmir. Being a labor-intensive service industry, it has vast potential to provide jobs to people with a minimum of investment, which may be an added advantage to labour-surplus economies over the world (Mukhtar, 2013). Tourism is one of the State's major industries and has played an important role for developing the economy, particularly in the region of the Valley and Ladakh. This industry has given jobs to a large number of people, particularly of the younger generation and generated economic activities in the primary, secondary and tertiary sectors in the State, which owes dependence to a large extent to this industry (GOI, 2001). Tourism is stated as the life line of Jammu and Kashmir in several studies and all possible efforts need to be undertaken for retaining, maintaining and sustaining it (Bhat, 2013). It opens up new window for resources, both investment generation and revenue generation leading to employment generation as well as socio-economic development of the local populace (Bhat, 2013).

History reminds us that pandemics go beyond health impact and leave tracks on the economy of nations and the world in direct and indirect matters; the fourteenth-century pandemic, named the Black Death, changed the direction of the global economy as it brought feudalism to an end and created capitalism (Bobdey and Ray 2020). According to the World Health Organization (WHO), viral infections keep appearing and can emerge as a serious problem for global public health. It is of great importance to learn from previous occasions to not only identify the probable economic impacts of the outbreaks but also to utilize previous experiences in dealing and managing the adverse economic effects effectively, efficiently, and in time (Jabbari et al. 2020). Numerous viral epidemics, including the severe acute respiratory coronavirus syndrome (SARS-CoV) from 2002 to 2003 and H1N1 influenza in 2009, have been reported in the last two decades (Cascella et al. 2020). Not long ago, Saudi Arabia declared an outbreak of the Middle East Respiratory Coronavirus Syndrome (MERS-CoV) in 2012 (Cascella et al. 2020). In December 2019, an outbreak of unexplained pneumonia in Wuhan attracted massive attention on a global scale (Hanaei and Rezaei 2020). After investigating the etiology, it was revealed that a new coronavirus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), is the causative microorganism (Lotf and Rezaei 2020) of the so-called coronavirus pandemic 2019 (COVID-19).

The current COVID-19 pandemic has caused immediate impacts across the whole spectrum of economic and social activity of the global community. The whole world is faced with a health crisis that has a tremendous impact on our societies and people's lives. The ongoing crisis has affected many sectors, among which travel and tourism have been negatively affected to the greatest extent. Taking into account that millions of jobs are at risk, urgent support must be offered. The COVID-19 outbreak has paralyzed the tourism industry, leaving travelers scrambling to return home and devastating economies that are mostly dependent on tourism (Niestadt 2020). Global international tourism arrivals declined by 20–30% in 2020 as compared to 2019. It can be translated into a loss of US$300–450 billion (€270–407 billion) in spending by international visitors (international tourism receipts) (Organization 2020). Against this backdrop, this research seeks to analyse the historical trends of tourist arrivals in Kashmir Valley, focusing on the impact of external factors such as political unrest, natural disasters, and the COVID-19 pandemic. Through a geographical lens, the study aims to assess the repercussions of the pandemic on the tourism industry in the region and explore strategies for its revival amidst and post-COVID-19. By understanding the complex interactions between tourism, geography, and external shocks, this research aims to contribute to the resilience and sustainability of the tourism industry in Kashmir Valley, ensuring its continued growth and prosperity in the face of adversity.

II. MATERIALS AND METHODS

A. Study Area

The Kashmir Valley, often hailed as the "crown of India" and "Paradise on Earth," lies in the extreme north of India, renowned for its stunning snow-capped peaks, lush meadows, Chinar-lined valleys, and rich biodiversity that make it a premier destination for leisure and adventure tourism(Fig.1).

Located between latitudes 33˚30´ N to 34˚40´ N and longitudes 73˚45´ E to 75˚35´ E, the valley spans approximately 15,853 square kilometres within Jammu and Kashmir, bordered by China to the east, Pakistan to the west, Afghanistan to the north, and the plains of Punjab and Himachal Pradesh to the south. Nestled between the Pir Panjal range to the southwest and the Great Himalayan range to the northeast, this bowl-shaped basin features

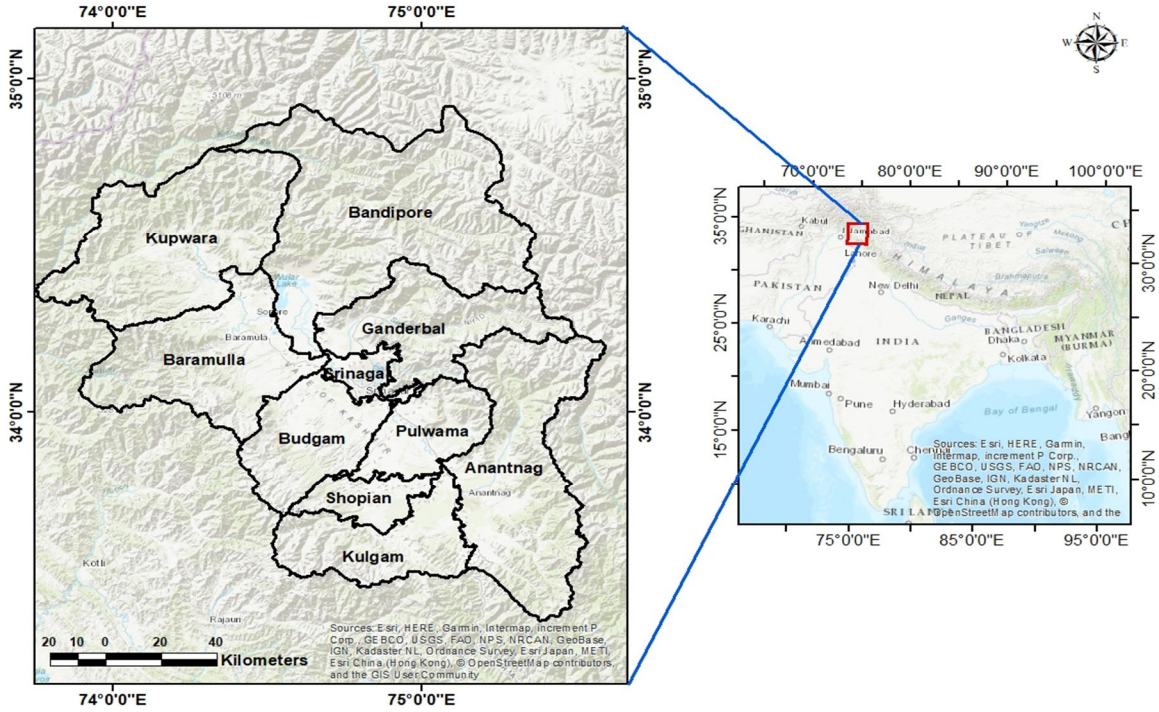

Fig. 1 Geographical location of the study area

elevations ranging from 1,600 meters to peaks over 5,500 meters, with the Jhelum River and its numerous tributaries, such as the Vishav, Romushi, and Lidder rivers, creating a vital hydrological network that flows through the Baramulla Gorge to exit the valley. Fertile terraces known as Karewas, formed from ancient lake deposits, cover much of the valley floor, fostering agriculture, particularly in the southwestern regions. The climate of Kashmir varies from subtropical to arctic due to its elevation and mountainous terrain, resulting in four distinct seasons: Spring (March to May), marked by temperatures from 10°C to 16°C and vibrant blooms with 30–40% of the annual rainfall; Summer (May to September), with highs reaching 37°C but limited monsoon rains blocked by the Pir Panjal range; Autumn (September to November), transforming the landscape into golden and russet hues and ideal for harvesting apples, nuts, and saffron; and Winter (November to February), defined by freezing temperatures and heavy snowfall, perfect for winter sports like skiing in Gulmarg. The tourism industry in Kashmir is a crucial economic pillar, attracting visitors to renowned spots like Srinagar's Dal Lake, the scenic ski slopes of Gulmarg, and trekking trails in Pahalgam. Supporting local livelihoods, tourism fuels hotels, handicrafts, transportation, and food services, with seasonal tourism from snow sports in winter to scenic tours in warmer months driving year-round income. However, the industry faces challenges, including political instability and environmental concerns, underscoring the need for sustainable practices to protect Kashmir's unique landscapes and secure long-term growth.

III. METHODS

The methodology of this study focuses on evaluating the effects of COVID-19 on tourism in the Kashmir Valley and formulating strategies for the revival of the sector post-pandemic. An interdisciplinary approach was adopted, utilizing various analytical techniques and secondary data sources. The data collected was systematically processed and tabulated to derive meaningful conclusions. The tourism data used in this study was sourced from the Directorate of Tourism, Kashmir (2022), which provided annual and monthly statistics on tourist arrivals, including domestic and international categories. Additionally, COVID-19 data was obtained from the COVID Dashboard, Jammu & Kashmir (https://coviddashboard.jk.gov.in), comprising daily and cumulative data on confirmed cases, active cases, recoveries, and deaths specific to the Kashmir Valley.

Geographic and topographic data were incorporated using various topographic maps—such as slope, stream feature, hill-shade, aspect, contour, and curvature maps—along with a Digital Elevation Model (DEM) map, which was prepared by the researcher.

For data analysis and map preparation, several tools and software were utilized. Microsoft Excel was employed for data organization, statistical analysis, and graphical representation, while ArcGIS was used for spatial analysis, and map creation. The analysis of tourism data involved trend analysis using line graphs and bar charts to depict changes in tourist arrivals before, during, and after the COVID-19 pandemic. Comparative analysis was conducted to assess the extent of the pandemic's impact and subsequent recovery by comparing pre-COVID and post-COVID tourism data. The COVID-19 data was analyzed through time series analysis to track the progression of confirmed cases, active cases, recoveries, and deaths over time. Correlation analysis was performed to examine the relationship between COVID-19 case trends and fluctuations in tourist arrivals.

To synthesize and interpret the data, an integrative analysis combined insights from statistical and trend analyses, resulting in a comprehensive assessment of COVID-19's impact on tourism in the Kashmir Valley. The study evaluated the short and long-term effects of the pandemic on the tourism sector, taking into account economic, social, and geographic factors. Finally, revival strategies were proposed, focusing on marketing initiatives, infrastructure development, safety protocols, and leveraging geographic advantages to support the post-pandemic recovery of tourism in the region. This comprehensive approach enabled the study to provide valuable insights for policymakers and stakeholders by combining sophisticated GIS techniques with secondary data.

IV. RESULTS AND DISCUSSION

Kashmir Valley, nestled in the Himalayas and known as "Paradise on Earth," attracts global tourists with its serene lakes, meadows, and snow-capped peaks. However, its tourism industry has long been impacted by political unrest and social tensions. The COVID-19 pandemic brought new challenges, with travel restrictions and closures sharply reducing tourist arrivals and causing economic hardships for locals reliant on tourism. This crisis underscored the need for resilience in the industry, prompting stakeholders to focus on strategies for revival, including destination marketing, improved infrastructure, enhanced safety, and sustainable practices to rebuild trust and support long-term growth.

A. Tourists' arrivals from 1991-2022

The analysis of Figure 2, presenting the tourist arrivals in Kashmir Valley from 1991 to 2022, offers valuable insights into the historical trends and fluctuations in tourism activity in the region. This interpretation will delve into the patterns observed over the years, identify significant events impacting tourist arrivals, and discuss the implications for the tourism industry amidst and post-COVID-19.

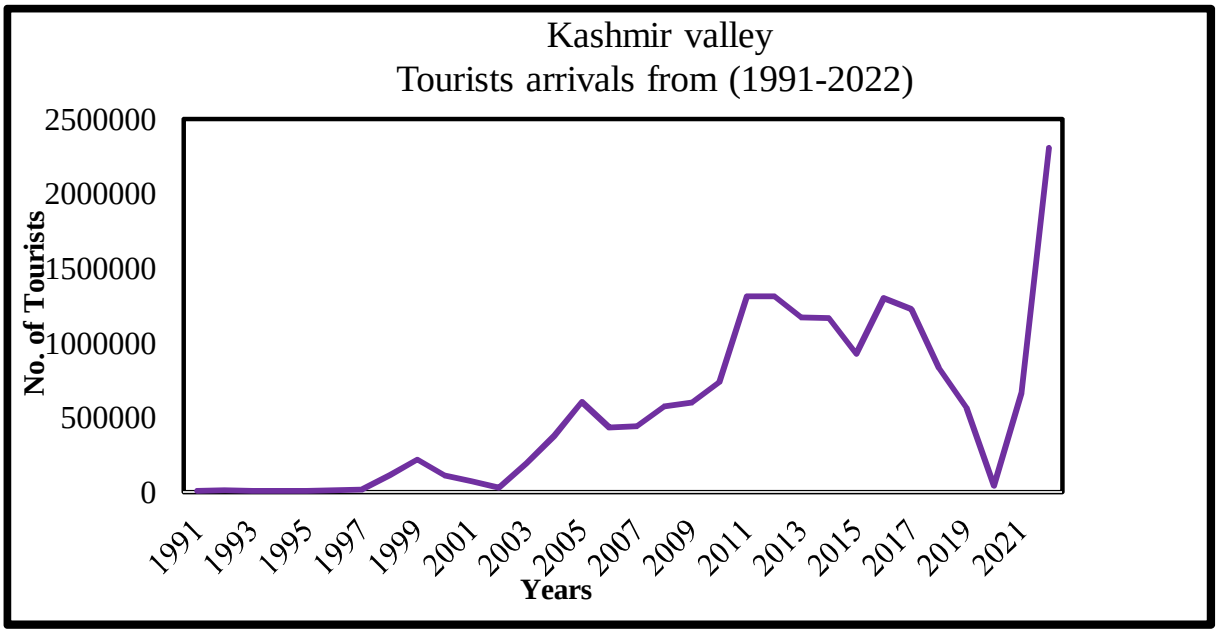

Fig. 2 Flow of tourists to Kashmir valley from 1991-2022

Source: Directorate of Tourism, Kashmir (2022)

The data reveals distinct phases of growth, decline, and recovery in tourist arrivals over the three-decade period. From 1991 to 1999, there was a gradual increase in tourist numbers, with the peak reached in 1999, recording 217,292 visitors. This period of growth coincides with relative stability in the region and increased tourism promotion efforts. However, in 2000, there was a notable decline in tourist arrivals, dropping to 111,912, indicating a possible external factor influencing tourism activity. The early 2000s witnessed fluctuating trends in tourist arrivals, with significant drops observed in 2002 and 2003, followed by a resurgence in 2004, reaching 376,729 visitors. This period reflects the impact of external events such as political unrest and security concerns, which deterred tourists from visiting the region. Despite these challenges, there is a gradual recovery in tourist arrivals until 2007, reaching 441,840 visitors, before experiencing a slight decline in 2008. The years 2009 to 2012 mark a period of steady growth in tourist arrivals, with numbers surpassing one million visitors in 2011 and 2012. This growth can be attributed to improved security conditions, infrastructure development, and increased tourism promotion efforts. However, from 2013 to 2019, there is a gradual decline in tourist arrivals, with fluctuations observed in some years but overall showing a downward trend. This decline may be influenced by various factors, including geopolitical tensions, natural disasters, and economic downturns. The most significant disruption to tourism in Kashmir Valley occurred in 2020, with tourist arrivals plummeting to 41,267, reflecting the unprecedented impact of the COVID-19 pandemic. The closure of tourist attractions, hotels, and transportation services, coupled with travel bans and quarantine measures, severely affected tourism activity in the region. The sharp decline in tourist arrivals highlights the vulnerability of the tourism industry to external shocks and the need for resilience and adaptation in the face of crises. In 2021, there is a partial recovery in tourist arrivals, increasing to 665,814 visitors, albeit still below pre-pandemic levels. This recovery can be attributed to the easing of travel restrictions, vaccination efforts, and pent-up demand for travel after the lockdowns. However, it is essential to note that the tourism industry continues to face challenges such as lingering health concerns, changing travel preferences, and economic uncertainties. The year 2022 marks a significant rebound in tourist arrivals, with numbers surging to 2,310,309 visitors, surpassing pre-pandemic levels. This remarkable recovery can be attributed to various factors, including vaccination rollouts, relaxation of travel restrictions, and enhanced safety measures. The surge in tourist arrivals signals a promising outlook for the tourism industry in Kashmir Valley, albeit with the need for sustainable recovery strategies to ensure long-term resilience and growth.

Overall, the analysis of tourist arrivals in Kashmir Valley from 1991 to 2022 underscores the dynamic nature of the tourism industry and its susceptibility to external factors such as political unrest, natural disasters, and pandemics. The COVID-19 pandemic, in particular, has had a profound impact on tourism activity in the region, leading to unprecedented disruptions and challenges. However, the data also reveals the resilience of the tourism industry, with periods of recovery and resurgence following downturns.

B. Tourists visited before the abrogation of Article 370

Figure 3, which presents data on tourist arrivals in Kashmir valley before the abrogation of Article 370 (1991-2018), provides valuable insights into the historical trends and patterns of tourism activity in the region. This analysis is crucial for understanding the baseline tourism scenario before significant political changes and disruptions occurred, particularly in light of the COVID-19 pandemic and its impact on tourism.

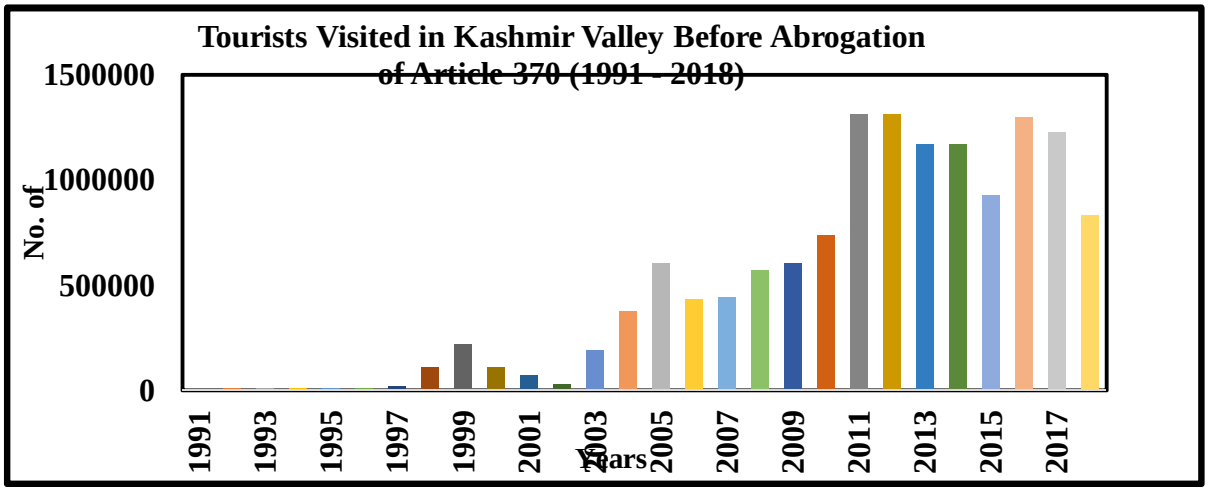

Fig. 3 Tourists visited in Kashmir valley before abrogation of article 370, (1991 -2018)

Source: Directorate of Tourism, Kashmir (2022)

The data reveals a significant increase in tourist arrivals over the years, with fluctuations observed in certain periods. In 1991, the number of tourists visiting Kashmir Valley stood at 6,287, marking the beginning of the time series analysis. From 1991 to 1999, there is a gradual increase in tourist numbers, with an average annual growth rate of approximately 27.5%. This period of growth can be attributed to various factors such as improved infrastructure, political stability, and increased tourism promotion efforts. The year 1999 emerges as a pivotal point in the tourism landscape of Kashmir Valley, witnessing a remarkable surge in tourist arrivals to 217,292 visitors. This substantial increase can be attributed to a combination of factors, including the easing of travel restrictions, peace initiatives, and the opening up of new markets. The surge in tourist arrivals reflects the growing popularity of Kashmir Valley as a tourist destination and the positive impact of peace-building efforts on tourism development. Following the peak in 1999, there was a slight decline in tourist arrivals in 2000, dropping to 111,912 visitors. This decline may be attributed to external factors such as geopolitical tensions, natural disasters, and economic downturns, which affected tourist confidence and travel patterns. However, the tourism industry in Kashmir Valley demonstrates resilience, with a gradual recovery observed in subsequent years. The early 2000s witness fluctuating trends in tourist arrivals, with significant drops observed in 2002 and 2003, followed by a resurgence in 2004. The period from 2004 to 2007 marks a period of steady growth in tourist arrivals, with numbers surpassing 400,000 visitors in 2005 and 2006. This growth can be attributed to improved security conditions, infrastructure development, and increased tourism promotion efforts, which enhanced the region's appeal as a tourist destination. However, from 2008 to 2018, there is a gradual decline in tourist arrivals, with fluctuations observed in certain years. This decline may be influenced by various factors such as political unrest, security concerns, and economic uncertainties, which deterred tourists from visiting the region. Despite these challenges, Kashmir Valley continued to attract a significant number of tourists, with numbers exceeding 1 million visitors in 2011 and 2012.

The year 2019 emerges as a critical juncture in the tourism landscape of Kashmir Valley, with the abrogation of Article 370 leading to a significant disruption in tourism activity. The political changes resulted in widespread unrest, curfews, and communication shutdowns, severely affecting tourist arrivals and infrastructure in the region. The data for 2019 reflects this impact, with tourist arrivals dropping to 830,758 visitors, the lowest recorded number since 2008.

Overall, the analysis of tourist arrivals in Kashmir Valley before the abrogation of Article 370 highlights the region's significance as a tourist destination and the challenges it faces in maintaining tourism growth amidst political uncertainties and external shocks. The data underscores the resilience of the tourism industry in Kashmir Valley, with periods of growth, decline, and recovery observed over the years. Understanding these historical trends is crucial for assessing the impact of the COVID-19 pandemic on tourism and developing strategies for its revival amidst and post-COVID-19.

C. Tourists visited after abrogation of Article 370 and Covid-19

Table 1 provides a detailed understanding of tourist arrivals in Kashmir Valley after the abrogation of Article 370 and during the COVID-19 pandemic, spanning the years 2019 to 2022. This analysis is crucial for evaluating the impact of significant political and public health events on tourism activity in the region and identifying patterns and trends in tourist arrivals. The data presented in Table 1 reveals fluctuations in tourist arrivals across different months and years, reflecting the complex interplay of political, economic, and environmental factors influencing tourism in Kashmir Valley. In 2019, before the onset of the COVID-19 pandemic, tourist arrivals in Kashmir Valley exhibited seasonal variation, with peak visitation during the summer months and a decline during the winter season. The months of May, June, and July recorded the highest tourist numbers, with arrivals exceeding 150,000 visitors per month. These months coincide with the peak tourist season in Kashmir Valley when the weather is pleasant, and the region's natural beauty is at its peak. However, tourist arrivals also remained relatively high during the autumn months of October and November, indicating sustained interest in visiting the region even during the off-peak season. The year 2020 marks a significant departure from previous trends, with tourist arrivals plummeting to near-zero levels from April onwards due to the COVID-19 pandemic and associated travel restrictions and lockdown measures. The months of April, May, and June recorded no tourist arrivals, reflecting the severity of the impact of the pandemic on tourism activity in Kashmir Valley. The closure of tourist attractions, hotels, and transportation services, coupled with travel bans and quarantine measures, led to a complete cessation of tourism activity in the region during this period. In 2021, as travel restrictions began to ease and vaccination efforts ramped up, there is a gradual recovery in tourist arrivals, albeit still below pre-pandemic levels. The data shows a gradual increase in tourist numbers from January to December, with peaks observed during the summer months of June and July. However, tourist arrivals remained significantly lower compared to previous years, indicating the lingering impact of the pandemic on tourism activity in Kashmir Valley.

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The year 2022 marks a notable rebound in tourist arrivals, with numbers surpassing pre-pandemic levels in some months. The months of April, May, and July recorded the highest tourist numbers, exceeding 250,000 visitors per month, indicating a strong recovery in tourism activity in Kashmir Valley. This remarkable rebound can be attributed to various factors,
including vaccination rollouts, relaxation of travel restrictions, and pent-up demand for travel after the prolonged lockdowns. However, it is essential to note that tourist arrivals remain below pre-pandemic levels in some months, indicating ongoing challenges and uncertainties in the tourism industry. The months of February, March, and August recorded lower tourist numbers compared to previous years, highlighting the uneven nature of the recovery and the need for continued efforts to rebuild trust, enhance safety, and promote tourism in Kashmir Valley.

Table 1 Tourist visited in Kashmir valley after abrogation of article 370 and covid-19, (2019-2022)

Month	2019	2020	2021	2022
JAN	25095	4863	19102	61468
FEB	15903	8182	26182	100509
MAR	21237	4643	48162	180171
APR	61815	0	32594	272377
MAY	81139	0	1128	375021
JUN	164759	0	15254	333589
JUL	152525	186	48858	389876
AUG	10130	284	49719	337419
SEP	4562	848	61347	124562
OCT	9327	2697	92769	183208
NOV	12086	6327	127605	158778
DEC	6954	13237	143057	156464

Source: Directorate of Tourism, Kashmir (2022)

Overall, the analysis of tourist arrivals in Kashmir Valley after the abrogation of Article 370 and during the COVID-19 pandemic underscores the resilience of the tourism industry in the face of adversity. Despite significant disruptions and challenges, the region has demonstrated the ability to bounce back and attract visitors, albeit with fluctuations in tourist numbers and ongoing uncertainties. Moving forward, it is crucial for stakeholders in the tourism sector to adopt adaptive strategies, leverage technology, and promote sustainable tourism practices to ensure the long-term resilience and sustainability of the tourism industry in Kashmir Valley.

D. District-wise Covid-19 cases in Kashmir Valley (2019-2024)

Table 2, which presents district-wise COVID-19 cases in Kashmir Valley from 2019 to 2024, provides essential insights into the public health situation in the region and its impact on tourism amidst and post-COVID-19. By correlating this data with the previously interpreted tables regarding tourist arrivals and the overall tourism landscape, we can better understand the interplay between public health factors, tourism activity, and the challenges faced by the tourism industry in Kashmir Valley.

Table 2 District wise covid-19 cases in Kashmir valley (2019-2024)

District	Confirmed	Recovered	Deceased
Anantnag	22386	21972	219
Kulgam	16287	16149	118
Pulwama	18398	18147	201
Shopian	6301	6149	60
Budgam	34716	34353	237
Srinagar	101845	99703	907
Ganderbal	13620	13433	84
Bandipore	13631	13248	118
Baramulla	37487	36996	304
Kupwara	21610	21188	174

Source: https://coviddashboard.jk.gov.in

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The data in Table 2 reveals the district-wise distribution of COVID-19 cases, including confirmed cases, recoveries, and fatalities, providing a comprehensive overview of the pandemic's impact on different parts of Kashmir Valley. Anantnag, Kulgam, and Pulwama are among the districts with the highest number of confirmed COVID-19 cases, reflecting the significant spread of the virus in these areas (Fig. 4 and Fig. 5). Despite the high number of cases, the majority of individuals have recovered, indicating effective healthcare and containment measures in place. However, the presence of fatalities underscores the severity of the pandemic and its impact on public health and safety. The districts of Shopian, Budgam, and Srinagar also report a substantial number of COVID-19 cases, highlighting the widespread transmission of the virus across different parts of Kashmir Valley. While the number of recoveries is encouraging, the presence of fatalities underscores the need for continued vigilance and adherence to public health guidelines to prevent further spread of the virus. Ganderbal, Bandipore, Baramulla, and Kupwara are among the districts with relatively lower numbers of COVID-19 cases compared to other areas (Fig. 4 and Fig. 5). However, the presence of confirmed cases, recoveries, and fatalities indicates that no part of Kashmir Valley is immune to the impact of the pandemic. Despite efforts to contain the spread of the virus, ongoing challenges remain, necessitating continued monitoring and intervention to mitigate the impact on public health and safety.

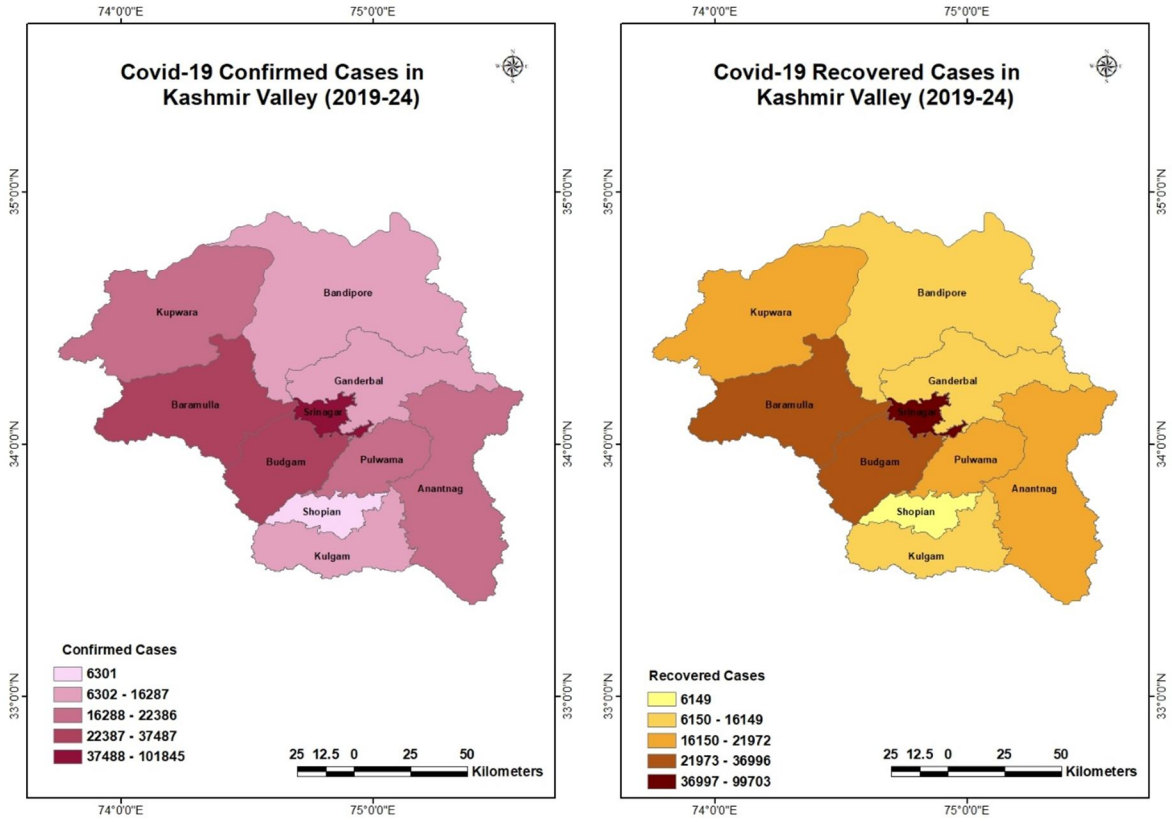

Fig. 4 Covid-19 Confirmed and Recovered Cases in Kashmir valley, (2019-2024)
Source: https://coviddashboard.jk.gov.in

Correlating the data on COVID-19 cases with the previously interpreted tables on tourist arrivals provides valuable insights into the impact of the pandemic on tourism activity in Kashmir Valley. The decline in tourist arrivals observed in 2020 coincides with the peak of the COVID-19 pandemic, with travel restrictions, lockdown measures, and health concerns severely affecting tourism activity in the region. The closure of tourist attractions, hotels, and transportation services, coupled with travel bans and quarantine measures, led to a significant drop in tourist numbers, reflecting the impact of the pandemic on the tourism industry. Similarly, the gradual recovery in tourist arrivals observed in 2021 and 2022 corresponds with the easing of travel restrictions, vaccination efforts, and the reopening of tourist attractions. As the public health situation improved and confidence in travel returned, tourist numbers began to rebound, albeit still below pre-pandemic levels. The surge in tourist arrivals in 2022 reflects the pent-up demand for travel and the resilience of the tourism industry in Kashmir Valley.

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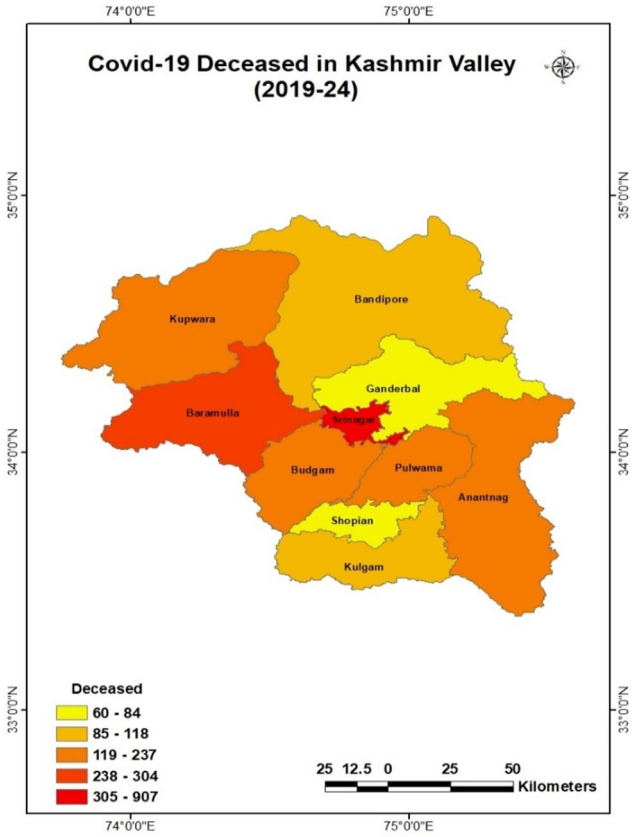

Source. https://coviddashboard.jk.gov.in

Fig. 5 Covid-19 Death in Kashmir valley from (2019-2024)

However, it is essential to recognize the ongoing challenges and uncertainties facing the tourism sector amidst and post-COVID-19. The presence of COVID-19 cases in different districts of Kashmir Valley underscores the continued threat posed by the pandemic and the need for continued vigilance and adherence to public health guidelines. The resurgence of COVID-19 cases in certain areas highlights the potential for future disruptions to tourism activity, necessitating adaptive strategies and contingency plans to mitigate the impact on the tourism industry. Overall, the interpretation of Table 2 provides valuable insights into the public health situation in Kashmir Valley and its impact on tourism amidst and post-COVID-19. By correlating this data with the previously interpreted tables on tourist arrivals, we gain a comprehensive understanding of the challenges faced by the tourism industry in the region and the strategies needed for its revival and sustainability in the face of the ongoing pandemic.

V. CONCLUSION

The COVID-19 pandemic severely impacted Kashmir Valley's tourism industry, a crucial economic driver and cultural exchange hub. In 2020, tourist arrivals drastically dropped, with the number of visitors plunging from over a million in 2011–2012 to a mere few thousand. This decline highlighted the industry's vulnerability to global crises, as the region simultaneously faced over 300,000 COVID-19 cases and a death toll of 2,422. The study explored the dual impacts of tourism, noting its significant economic benefits, such as revenue generation, job creation, and infrastructure development. For example, between 2002 and 2020, the industry directly employed over 3.4 million people, with indirect jobs in related sectors. Additionally, tourism fosters cross-cultural understanding, enhancing mutual appreciation and promoting peace. However, negative effects also emerged, including environmental strain from unmanaged tourism, waste generation, resource depletion, and the potential erosion of Kashmir's cultural identity due to commercialization. As the region seeks to revive its tourism sector post-pandemic, a multi-faceted approach emphasizing public health, sustainability, and responsible tourism is essential. Key steps include strengthening health infrastructure, promoting eco-friendly practices, and leveraging digital platforms to attract a diverse range of tourists. Targeted marketing campaigns focused on adventure, culture, and wellness can help Kashmir regain its status as a premier destination. Collaboration between government, local communities, and environmental organizations is critical to ensuring a balanced and equitable recovery.

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Empowering locals through initiatives like homestay programs and handicraft promotion will ensure that tourism benefits are shared more widely. Ultimately, reviving Kashmir's tourism industry offers a chance for economic rejuvenation while showcasing the region's rich cultural heritage and natural beauty to a global audience, fostering peace, prosperity, and a more sustainable future for the valley.

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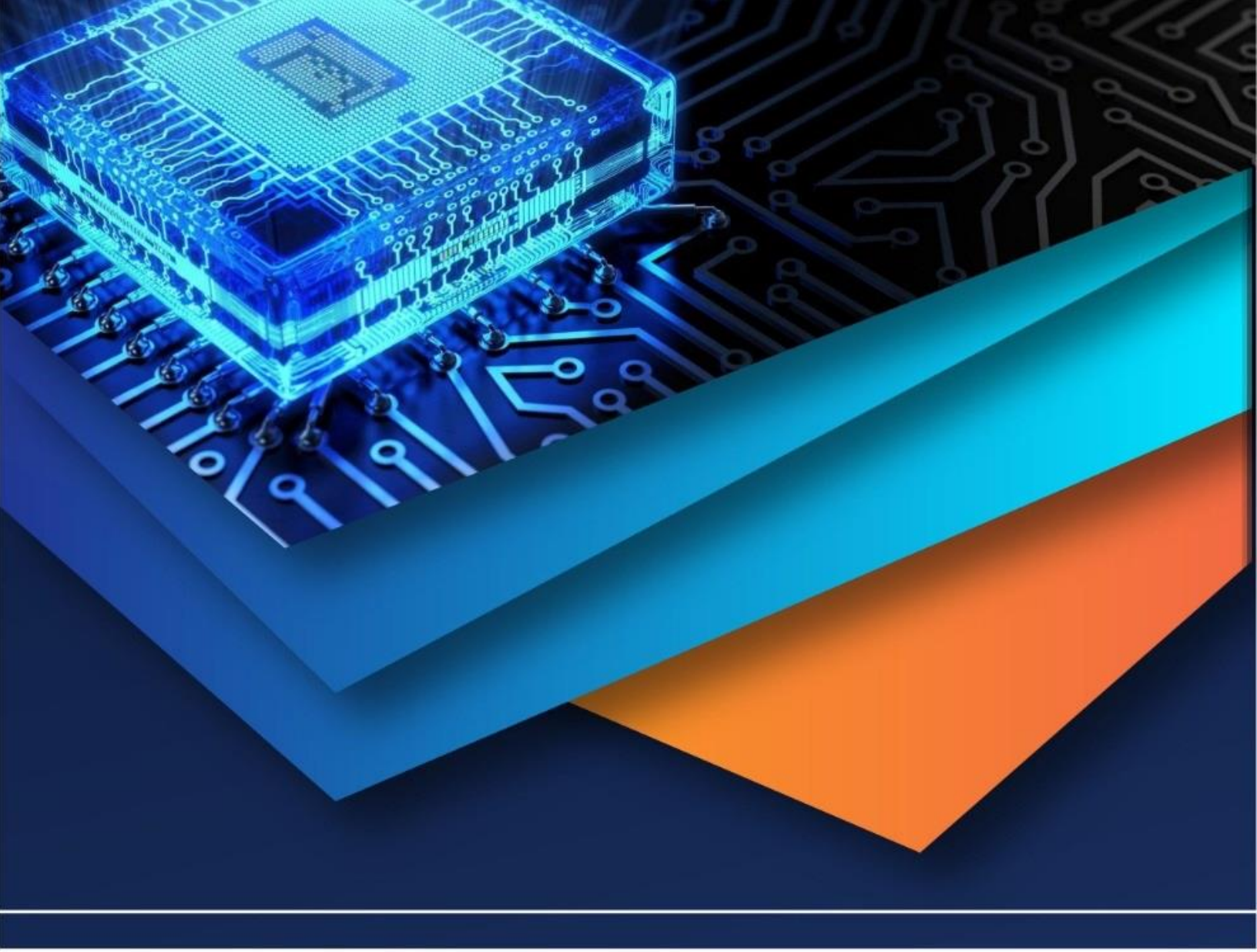

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