

## Tourism v/s Environment: A Case Study of Kashmir Valley

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### Abstract

Kashmir is one of the most preferred destination of national and international tourists. However, considering the description of the valley, which is primarily a mountainous region and hence an entirely sensitive area, significantly negative impacts are produced by even the slightest negative aspects attached with tourism industry operating therein. Present development at the cost of future is not acceptable; thus the tradeoff between environment and economy is one of the biggest aspects of sustainable tourism. This study focuses on biophysical carrying capacity which deals with the extent to which the natural environment is able to tolerate external interference and with creating a systematic balance between the negative effects of tourist influx against its socio-economic benefits. The outcomes of the analysis show that the valley has a tremendous potential to absorb tourism, but at the same time the results propose that for increasing human welfare we have to set environment at priority and limit tourism to the carrying capacity of the region; promote sustainable tourism.

**Keywords:** Tradeoff; Carrying Capacity; Natural Habit; Sustainable Tourism; Regression; R-square.

### Introduction

Researchers have shown that an increase in the number of visitors does not only make the area over – crowded, but at the same time, it also leads to the over exploitation of the natural resources, leading to serious damage done to the natural habitat. The tradeoff takes an account of the damage done to the environment, including the generation of more pollution and the inability of the local authority to maintain a balance between environmental protection and the promotion of tourism.

The trade-off between the environment and the economy is one of the biggest questions of sustainable tourism. How do we balance the negative environmental effects of tourist influx against the socio-economic benefits of tourism?

Present development at the cost of future is not acceptable; thus the tradeoff is the most important issue to deal with. Environmentalists say, we have to stop tourism to an extent if we are to avert environmental change, while the industry argues, communities that rely on tourism will suffer if we stop tourism to an extent to distant places (Tackling Tourism's Economic Trade-off, 24th April 2009). The history of events can impact the community socio-culturally, environmentally, economically and politically (Omoregie Etiosa 2012). The protected area are major tourism assets for a nation, particularly for developing countries providing sustainable benefit to the local community while funding for the maintenance and rehabilitation of the protected areas. It is reported that because of the heavy influx of tourists and improper management practices the problems of solid waste is increasing at an alarming

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rate (Pananjay et al 2011). The tourist industry generally overuses water resources for hotels, swimming pools, golf courses and personal use of water by tourists. This can result in shortage, waste of water and degradation of water supplies. The majority of visitors are always at the attraction for different purposes and motives such as research, amusement, visit, relaxation etc therefore they may not be aware of their behaviour during the trip of the attraction. Local people are important while developing a destination as a tourism attraction. The strategies should include awareness, education and self-employment opportunities and vocational trainings education programme for ecology preservation and natural resources and environmental conservation. In the literature we come across a number of studies like Mishra and Thangamni (1982), Chadha (1989), Chadha (1990), Chaurasia (1992), Ashworth and Turnbridge (1990), Pearson (2000), Cernat and Gourdon (2004), Romila (2004), Chawla (2006), Hazel H. (2007), David W. (2005), Zainub I. (2009), Stephanie (2009), Goodstein (2010), Kaloo (2012), Subramani (2012), Bijindra (2012), Lucian and Julien (2014), who discussed tourism development and environment.

Tourism has both bad and good effects on our art, craft and culture, on our beliefs and most important, on our environment. On the one hand tourism has led to the preservation of physical environment, historical sites and monuments and wildlife. On the other hand it has caused irreversible damage to some of these. The problem before the administration is that of protecting the environment from pollution and to maintain the ecosystem in balance. Increasing deforestation, unplanned infrastructural development, instruction and pollution have caused severe environmental disturbances in the natural phenomenon. When interrelation between plants, animals and human species and their environment gets disturbed it creates serious consequences for the tourism development also. Kashmir, which is known for its wonderful air, lovely scenery and excellent beauty, suffers some setbacks due to several things.

However, much tourism is desired to be developed with minimum acceptable pollutants. The present study views the potential and prospect of eco-tourism in J&K with special emphasizes on Tradeoff between environment and tourism. This investigation will try to find out a trade-off point between tourism and environment.

#### *Purpose*

The purpose of the is to study the following

objectives.

1. To study and understand the potential and prospects of eco-tourism in Kashmir valley with special emphasis on trade-off between the environment and tourism.
2. To study the possible factors effecting tradeoff decisions in relation to environment

#### *Hypothesis*

The study is carried out with the objectives to find out tradeoff between environment and tourism, in this background the following hypotheses has been verified.

1. The Valley of Kashmir being ecologically very sensitive needs sound policies to protect its environment.
2. Tourism Industry is the most important Industry from the economic point of view, so no trade-off estimation is needed.

#### **Methodology**

The methodology undertaken for investigation has been underlined the identification and quantification of environmental entities with the purpose to highlight the appropriate strategy to investigate the case study of Kashmir valley in the context of the trade -off between tourism and environment. The required data has been collected by integrating the primary as well as secondary research approaches. In order to find the inference the following tools of analysis has been widely utilized.

#### *Regression Analysis*

This is the technique of developing a statistical model, used to predict the value of the dependent variable by at least one independent variable and

$Y = a + bx$ . Where, Y is the dependent variable, a is the intercept, b is the slope

#### *Trend Analysis*

A linear trend can be obtained by using the least squares method. The line has the equation  $y = a + bx$ , where  $x = 1, 2, 3 \dots$ , b = slope of the line, and a = value of y when  $x = 0$ . The coefficients of the equation, a and b, can be determined with usual notations as

$$a = \bar{y} - b_{yx} \bar{x} \text{ and } b_{yx} = \text{Cov}(x, y) / \text{Var}(y).$$

### **Moving Average Method**

Fitting of trend by the method of moving averages is based on computing a series of successive arithmetic means over a fixed number of years. This method smoothes out the fluctuations of the given data reducing the effect of extreme observations in the series. If the cyclical variations are regular both in period and amplitude then this method eliminates the fluctuations to a great extent provided the period of the moving average is equal to or a multiple of the period of cycles and trend is linear.

The primary data required has been collected by questionnaire survey with 600 tourists of Kashmir Valley was conducted in order to obtain the first hand information. The questionnaires were distributed to six hundred tourists at various tourism destinations. In our study, it is observed that out of 600 tourists only 400 responded distinctly for the study and the response rate obtained was approximately 66.67 percent.

### **Results and Discussion**

Kashmir is one of the most preferred tourist destinations, both for national and international visitors, which is evident from the constant inflow of tourists. The primary research conducted with the

help of questionnaires administered to the tourists and have been designed to collect information regarding the purpose and duration of visit, mode of transport, styles of accommodation, occupational composition, traveling approach etc.

#### *Demographic Information*

The gender of the respondents is reported in **Table 1**, as 66.8% are males and 33.3% of them are females.

The age groups of the respondents as observed from **Table 2**, reveals that 38.5% of the respondents belong to the age group of 31-40. Following this, significant percentages of tourists in age groups of 21-30, 41-50, less than 20 and greater than 60 are obtained, revealing that the splendor of Kashmir is enjoyed by every age group.

The occupation of the respondents is apparent from the **Table 3**. It can be seen that 41% are in the service sector. It pertains, Kashmir is a state where tourism related packages like accommodation, food and transport can be easily afforded by the service class to stay and above all the tax burden is very low, relating that Kashmir is a reasonably priced, reasonable place to visit and offers great pleasure at a much reduced amount. Following this the respondents in the fields of business, learning,

**Table 1:** Frequency of the gender

Gender	Frequency	Percent (%)
Male	267	66.8
Female	133	33.2
Total	400	100.0

**Table 2:** Frequency of the age group

Age Group	Frequency	Percent (%)
Upto20	18	4.5
21-30	130	32.5
31-40	154	38.5
41-50	59	14.8
51-60	25	6.2
61 & above	14	3.5
Total	400	100.0

**Table 3:** Frequency of the occupational status

Occupational status	Frequency	Percent (%)
Business	157	39.2
Service	164	41.0
Student	42	10.5
Agriculturalist	22	5.5
Others	15	3.8
Total	400	100.0

agriculture and others are also experimented with.

The modes of transportation opted by the visitors as reported in **Table 4**, reveals that 69.2% of the respondents used road and 30.8% of them went for air transport. Statistically, frequency distribution is not uniform ( $P < 0.01$ ). From the **Table 4**, it can be concluded that the association of most of the visitors with the service sector accounts for the reduced use of the air travel systems. Another factor may be the picturesque highway of J&K.

The associations of the respondents during their travel are perceived from the **Table 5** as 51.2 % of the

respondents are in family associations while the others are either in groups or single. The data refers to the fact that the state of affairs in the valley is not as debased as portrayed by the agencies.

The distribution in terms of travel planning can be observed from the **Table 6** as 64% of the respondents fall in the category of self-planning. Following this, the respondents in associations with travel agents and other associations are also surveyed. The above observation recounts that the tourism related authorities are not publicizing the beauty of Kashmir up to the level of satisfaction, thereby exemplifying

**Table 4:** Frequency of the transportation

Mode of transportation	Frequency	Percent (%)	Chisquare	P-value
Road	277	69.2	59.29	<0.01
Air	123	30.8		
Total	400	100.0		

**Table 5:** Frequency of the association during travel

Association during travel	Frequency	Percent (%)
Single	90	22.5
Family	205	51.2
Group	105	26.3
Total	400	100.0

**Table 6:** Frequency of the distribution by travel planning

Distribution by travel planning	Frequency	Percent (%)
Self	256	64.0
Conducted tours	78	19.5
Other	66	16.5
Total	400	100.0

**Table 7:** Frequency of the purpose to visit

Purpose to visit	Frequency	Percent (%)
Holiday	25	6.3
Pilgrimage	274	68.5
Business	44	11.0
Adventure sport	24	6.0
Education	13	3.2
Other	20	5.0
Total	400	100.0

**Table 8:** Frequency of the tourist places visited

Tourist places visited	Frequency	Percent (%)
Pahalgam	232	58.0
Gulmarg	98	24.5
Srinagar	67	16.7
Other	3	0.8
Total	400	100.0

the weak marketing strategies of the concerned departments.

The 'purpose of visit' can be noticed from the **Table 7** as 68.5% of the respondents are on

pilgrimage, revealing that pilgrim tourism is totally disproportionate in comparison with the other forms of travel. Subsequently, the respondents on holiday, business and educational trips, adventure sprees and other categories are examined.

The tourist destinations visited by the respondents are clear from the **Table 8** as 58% of the respondents visited Pahalgam, pertinent with the pilgrimage tourism. Following this, the remaining percentage visited Gulmarg, Srinagar and other places of interest.

The frequency of number of visits of the respondents as observed from the **Table 9** reveals that 80.2% of the respondents are on their first visit to the valley. Following this, the frequencies of the respondents on their second, third, and additional visits are also observed.

The accommodation of the respondents as observed from the **Table 10** reveals that 54.2% of the respondents decide on hotels followed by the house

boats. Following this, the respondents preferring guest houses, lodges, and other arrangements are also experimented with.

The 'length of stay' of the respondents is observed from the **Table 11** as 52.5% of the respondents are on a 4 – 6 days` stay. Following this, the respondents on a stay of 1-3 days, 7-9 days, and 10 days and above are also observed. Despite the fact that the valley has an enormous potential for tourism, the lack of information and resources holds the tourists from new-fangled destinations.

The income of the respondents as observed from the **Table 12**, though this question was not answered by maximum visitors, yet the information collected shows that a middle class society mainly visits the

**Table 9:** Frequency of visits

Number of visit	Frequency	Percent (%)
1 <sup>st</sup> visit	321	80.2
2 <sup>nd</sup> visit	50	12.5
3 <sup>rd</sup> visit	19	4.8
Frequently	10	2.5
Total	400	100.0

**Table 10:** Frequency of the accommodation

Accommodation available	Frequency	Percent (%)
Hotels	217	54.2
House boat	147	36.8
Lodges/guest houses	20	5.0
Other	16	4.0
Total	400	100.0

**Table 11:** Frequency of the length of stay

Length of stay	Frequency	Percent (%)
1-3 days	36	9.0
4-6 days	210	52.5
7-9 days	130	32.5
10 & above	24	6.0
Total	400	100.0

**Table 12:** Frequency of the monthly income

Monthly income	Frequency	Percent (%)
up to 15000	92	23.0
15001-25000	151	37.8
25001-35000	89	22.2
35001 & above	68	17.0
Total	400	100.0

**Table 13:** Frequency of the plan to revisit

Plan to revisit	Frequency	Percent (%)	Chisquare	P-value
Yes	203	50.8	0.09	>0.05
No	197	49.2		
Total	400	100.0		

valley, which is already prominent from the above study that 41% of the visitors belong to the service sector.

#### *The Plan of Reconsidering a Visit to Kashmir*

Most of the respondents show a positive response. As observed from the **Table 13**, 50.8% of the

respondents plan to revisit while the remaining 49.2% show a negative riposte. Statistically, frequency distribution is uniform ( $P > 0.05$ ). The visitors do not want to revisit mainly because the facilities provided are not up to the mark when with roughly the same budget other pleasant destinations may possibly be explored.

From the **Table 14**, it is strikingly evident that the natural beauty of Kashmir attracts most of the people. The future of tourism industry is diligently related to the natural beauty, thus its maintenance is extremely imperative. It is seen that 63.3% of the respondents fall for the natural beauty. Following this, the frequencies of the respondents yearning for

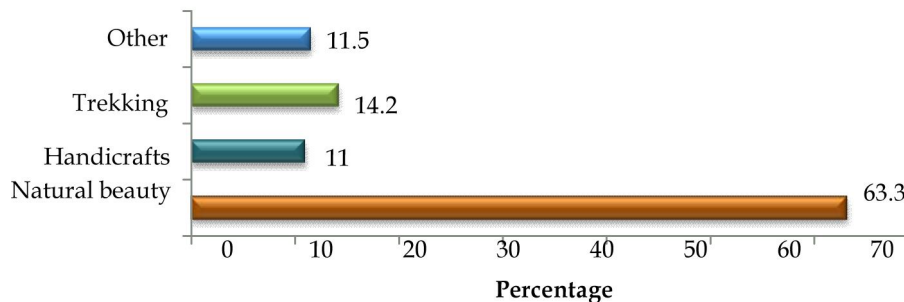
**Table 14:** Frequency of the major attractions

Major attractions	Frequency	Percent (%)	Chisquare	P-value
Natural beauty	253	63.3	313.1	<0.01
Handicrafts	44	11.0		
Trekking	57	14.2		
Other	46	11.5		
Total	400	100.0		

handicrafts, trekking and other attractions are also calculated. Statistically, frequency distribution is not uniform ( $P < 0.01$ ).

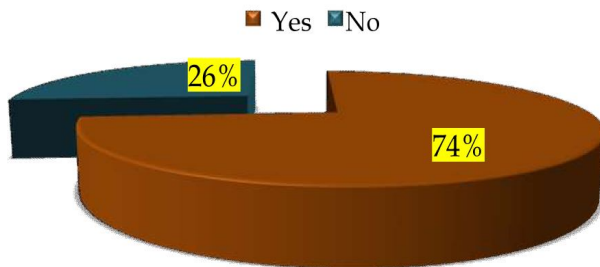
The result shows that the visitors are just captivated by the natural beauty of the valley. This either confirms the importance of ambiance in the

**Major attractions**



**Fig. 1:** Percentage of the major attractions

**Recommendations for others to visit Kashmir valley**



**Fig. 2:** Percentage of the recommendations

industry of tourism or in economic terminology it shows that nature and tourism are complementary to each other.

Tourism is an asset, an endowment of the nature on the state. Unless we are not able to spawn the requisite infrastructure and other facilities of international standards for the tourists, in

consideration with the environmental norms, the real benefits will not flow to our people. Demographic and socio economic characteristics somehow portray the basic differences that are the real determinants of the traveler’s behavior. It may be assumed that the best way to gauge the successful management of tourism development is to determine the level of consumer satisfaction.

Service and business classes constitute the largest group of visitors to the valley with sightseeing and pilgrimage as the major purposes. The principal mode of haulage is road transport. “Contented Tourist” itself is the best tourism promotional method as it is noticeable from our field survey that many tourists visit valley on the recommendations of their friends and relatives. In chorus, the disappointed tourists prove injurious to the interests of tourism industry. The analysis shows that the tourists are attracted mainly by the natural beauty of Kashmir; so under such circumstances the concerned are suggested to take care of the pristine environment,

which is the basic stuff of the industry. It is encouraging that tourists visiting Kashmir encourages plays a significant role in encouraging others to visit ( $p < 0.01$ ).

*Environmental Effect of Pilgrim Tourism/Tourist Destinations in Kashmir Valley: Pahalgam A Growing Concern*

Pahalgam is situated at an altitude of 2,133 meters amidst lofty deodars, fir and pine trees, junipers and many other conifers. The place gets lively during the tourist months of the summer, as well as during the weeks before the Amaranth Yatra. There is something about the pure and re-vitalizing air of Pahalgam. Perhaps dense pine and cedar forests make it oxygen rich. Limited accessibility combined with limited telecom connectivity makes it an ideal getaway from the grind of daily life and professional stress. The town is at the junction of the Aru and

Sheshnag rivers surrounded by, fir-covered mountains with bare, snow-capped peaks rising behind them. The Aru flows down from the Kolahi glacier beyond Lidderwat while the Sheshnag from glaciers of the great Himalayas.

According to the mountaineers from Jawahar Institute of Mountaineering (JIM) in 2008, the glacier has receded by half since 1985. The glacier is not safe to study because it is hollow and in places has 200-foot-deep (61 m) crevasses. The sounds of cracking ice can be heard from either side of the glacier, which indicates an imminent collapse.

Tourism in Kashmir is of different forms. Pilgrimage tourism, in particular, is of most significant forms, which is advantageous as well as disadvantageous for the society of Kashmir. Around 600,000 pilgrims have so far performed Yatra during 2012. (Digest of statistics and economics) Concerned

**Table 15:** Incoming pilgrim tourists (Sri Amarnath Ji Yatra) into the valley from 1989-2012

Year	Number of Yatries	Moving average	Growth Rate
1989	95238	81097.67	-0.85
1990	4824	65372.33	-94.95
1991	15599	38553.67	223.26
1992	54638	25020.33	250.27
1993	56000	42079.00	2.49
1994	37000	49212.67	-33.93
1995	60000	51000.00	62.16
1996	120000	72333.33	100
1997	79035	86345.00	-34.14
1998	149920	116318.33	89.69
1999	114366	114440.33	-23.72
2000	173334	145873.33	51.56
2001	119037	135579.00	-31.33
2002	110793	134388.00	-6.93
2003	153314	127714.67	38.1
2004	400000	221369.00	161.44
2005	388000	313771.33	-3
2006	265000	351000.00	-31.7
2007	213565	288855.00	-19.4
2008	498198	325587.67	133.2
2009	373419	361727.33	-25.04
2010	458212	443276.33	22.7
2011	542355	457995.33	18.4
2012	600000	533522.33	10.6

authorities like tourism department is only concerned on the huge tourist flow but care less particularly about the adverse impact on the environment.

The **Table 15** shows tremendous increase in Pilgrim tourism. It can be seen that the inflow of devotees visiting the holy shrine have been unremittingly increasing at an alarming rate over the period of time. No doubt there are various fluctuations in the devotees' influx but on the whole there has been a steady increase in pilgrims visiting the Holy cave. The number of pilgrims starts declining after 1990

due to turmoil in the valley, but after normalcy in valley the arrival of pilgrims again picked up due to the joint efforts of agencies involved. The Government take an initiative to provide various types of facilities and amenities to the Pilgrims for their safety and security. From the **Table 15** we can see that there is a continuous increase in tourists arrival after a major dip in 1990 and now the position is so that there is a continuous increase in tourist arrival after a major dip in 1990 and now the position is so that there are almost 1.2 lakh people visiting Amarnath Ji (ceiling on tourist arrivals has been imposed by the government). It is only because of these determined efforts that the

**Table 16:** Model Summary and Parameter Estimates

Equation	Model Summary					Parameter Estimates			
	R <sup>2</sup>	F	df1	Df2	Sig.	Constant	b1	b2	b3
Linear	.790	82.946	1	22	.000	-4.547E7	2.284E4		
Logarithmic	.790	82.550	1	22	.000	-3.468E8	4.566E7		
Inverse	.789	82.155	1	22	.000	4.585E7	-9.129E10		
Quadratic	.791	83.343	1	22	.000	-2.264E7	.000	5.710	
Cubic	.791	83.742	1	22	.000	-1.503E7	.000	.000	.002
Compound	.757	68.698	1	22	.000	5.741E-121	1.155		
Power	.758	68.778	1	22	.000	.000	288.688		
S	.758	68.858	1	22	.000	300.511	-5.776E5		
Growth	.757	68.698	1	22	.000	-276.865	.144		
Exponential	.757	68.698	1	22	.000	5.741E-121	.144		
Logistic	.757	68.698	1	22	.000	1.742E120	.866		

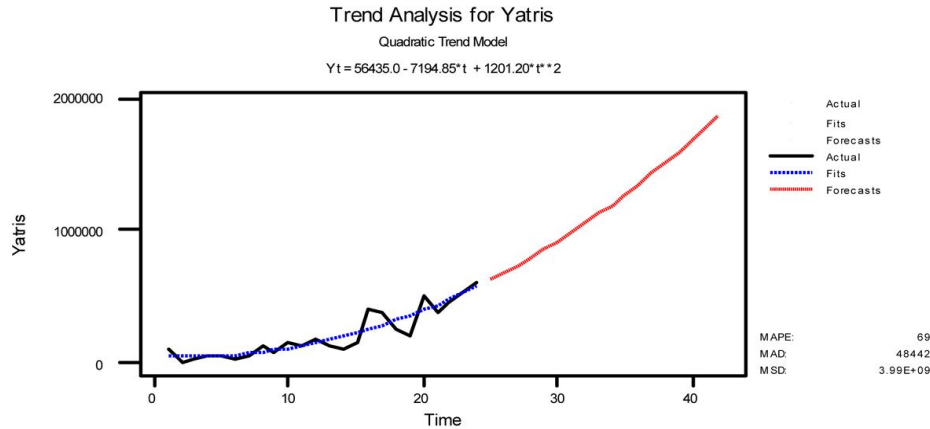
Fitted Trend Equation is given by  
 $Y_t = 56435.0 - 7194.85 * t + 1201.20 * t^2$

number of pilgrim tourists enhance again and went to 1,10793 in 2002 and 6,00,000 in 2012. On the whole it is ostensible from the data provided by the authorities that there has been a terrific growth in the inflow of Pilgrims visiting the valley.

Forecasting Yatris arrival is important as it would enable tourist related industries like airlines, hotels, food and catering services, etc., to plan and prepare their activities in an optimal way. From the data it is observed that Yatris arrivals has generally increased over the years and obviously it is not a stationary time series. On the basis of fitting various models as

reported in **Table 16** using statistical software SPSS version 20, taking number of Yatris visiting as dependent variable and year as independent variable, we forecast by applying a suitable model on the basis of the highest value of R-square.

The Accuracy Measures obtained from the data for the best fitted model are MAPE (Mean Absolute Percentage error) = 68.9261, MAD (Mean Absolute Deviation): 48442.2 and MSD (Mean Squared Deviation) = 3990588826 and R<sup>2</sup> = 0.791. The model having the smaller value of MAE, RMSE and MAPE is considered as a good model for forecasting. The



**Table 17:** Year wise projection of pilgrim tourists into Kashmir valley from 2008-2025

S. No.	Year	Yatris (000)
1	2008	498
2	2009	373
3	2010	458
4	2011	542
5	2012	600
6	2013	606.1
7	2014	643.4
8	2015	680.7
9	2016	718
10	2017	755.3
11	2020	1056.2
12	2025	1484.6

Source: Calculated by scholars



forecasting is of course based on the assumption that events, like government policy, promotion campaigns, natural or man made events, etc., do not change drastically.

The forecasts are given in the **Table 17**. The data presented in **Table 17**, shows that under the assumption of stable conditions in the valley the number of pilgrims will go on increasing as observed from **Table 17**. Forecasting the number of pilgrim tourists it is prominent from above analysis that the arrival will go on mounting as 643000 in year 2014, 680000 in 2015, 718000 in 2016 and in year 2025 the growth will reach to 1484.6. The terrific increase in the limited capacity of the destination is an alarming bell for the valley as a whole.

The apex institution of India has recently raised two more points on Amarnath Yatra in the Kashmir valley. One, the most important from study point of view is, how this large number of people – seven times more than the handling capacity to be specific – had

been permitted to visit the cave. The apex institution has issued notice to the central and state governments and also the chief of the Amarnath shrine board, seeking their explanation on the points raising environmental issues vis-a-vis the fragile nature of the area. The apex court has rightly observed that the govt. is duty bound to control the pollution. On the basis of statement published in a local daily Greater Kashmir on 17 July 2012, this infers that the apex court found the number of pilgrims during 2011 as 542,355 being seven times more than the handling capacity of the destination. Thus estimating roughly the handling capacity of the destination is equal to 77,479 only and any further increase in influx would cause injuries to the pristine environment of the said destination. Tourism in Kashmir valley to an extent has been limited to pilgrimage by domestic tourists. The total figures on entry of domestic tourists into the valley has a significant input of such tourists and it should be the effort of the State administration to make the

**Table 18:** Compound growth rate of Total number of Devotees visiting Amarnath

Variable	C.G.R (percent)	Standard Error of C.G.R	't' value
Total	13.7	2.45	2.840*

**Source:** Calculated by Scholar.\*Significant at 5 percent level

movement of such pilgrims safe for the environment; the environment that should be prevailing in the future to attract the tourists in large. The compound growth rate of total number of devotees visiting Amarnath is reported in **Table 18**.

## Conclusion

The study have expressed concern over the number of people participating in the Amarnath Yatra which is having a negative impact on the area's ecology and to a some extent expressed support for government regulated limits on the number of pilgrims permitted to make the trek. The heavy rush of yatris creates a condition of excessive pollution. The sustained increase in tourist influx to Pahalgam cheers the concerned departments up, but there is something that will soon give a bad taste. A study by the directorate of ecology and environment has expressed serious concern over the surging scale of pollution and excessive use of polyethylene carry bags that have choked the streams in this region. In the earlier times these forests were so dense and that wild animals/birds would be seen roaming in the lanes of old towns especially in the winter season.

According to the Department of environmental Science, University of Kashmir, State pollution Control Board (SPCB) the physio-chemical properties of water quality of River Lidder indicate some parameters exceeding the prescribed permissible standards of IS resulting in significant degradation of water quality. This has created the epidemic threat in the villages dependent on these nallahs for portable water. The study maintains that although no industry with severe air emissions exists in pahalgam but the inflow of heavy vehicles and all types of two wheelers, four wheeler, trucks, buses, carriage vehicles, passenger vehicles, yatri load carriers, armed force convoys, building material carriages, carriages transporting tents etc. is disturbing the eco balance of the place. In view of the environmental concerns, the Government of Uttranchal has restricted the number of pilgrims visiting Gomukh and other Gangotari glaciers, the origin of the holy river Ganga to only 150 per day, while in Kashmir per day 20,000 the Amarnath yatris are allowed for Darshan near Kolihi Glacier which is a colossal source of drinking water for residents in south Kashmir. According to the surveys done by various environment and ecological departments, the Kolahai glacier has shrunk by 18 percent during the last three decades. Pumping of a millions of Pilgrims to Amarnath will vandalize the fragile

environment of Kashmir as the number of Pilgrims is much more than the assimilative or carrying capacity of the place. The ecosystem is a delicate phenomenon that cannot be thrown open to wanton exploitation or abuse. Preserving biodiversity in an area of increasing biodiversity erosions is not an option today; it is rather a necessity for a sustainable tourism development agenda. Given the huge environment issue related to it, the Amarnath Yatra should never be looked through the political prism but must be acknowledged as an economic activity which producing output that adds to environment pollution.

The present method being adopted for disposal of solid wastes at Pahalgam is of serious health concern, particularly during rainy season and high humidity conditions. The landfill sites, which are not well maintained, are prone to ground water contamination due to leachate percolation. Open dumping of garbage serves as breeding ground for disease. Strategies for better Environment Management are only beginning to see the light of the day. On one hand local authorities are incapable of handling the additional burdens of the floating population due to the lack of resources and on the other hand most Religious institutions which benefit directly from offerings made by Pilgrims, as well as local business are not contributing to improve the environment. Thus willingness to pay (WTP) is totally ineffective and yet it is the paramount of these institutions to feel the moral responsibility of propagating religious faith while incorporating environmental concerns.

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