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## **Ecotourism source of poverty alleviation and natural conservation in Kashmir India**

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### **Abstract**

Ecotourism is associated with nature and poverty alleviation. Ecotourism is believed to be significant for the generation of income, sustainability of the environment, political enablement of local societies as well as for educational purposes. Ecotourism generate economic benefits at local to national level and thus create incentives to preserve the resources. With its backward and forward linkages with other sectors of the economy, ecotourism is an effective tool for poverty alleviation and ensuring growth with equity. The Union Territory of Jammu and Kashmir has a vast potential to become one of the India's best ecotourism destination and having numerous attractive and beautiful tourist spots. Ecotourism helps in sustainable development. Ecotourism is believed to be associated with various challenges which are environmental deterioration, inability to contribute to local economy as well as cultural exploitation and deterioration. The study would attempt to explore the potential sites of ecotourism for future development in Kashmir and would examine the correlation between ecotourism and natural conservation with regard to the perception of tourist and conservation agencies. The study is exploratory in nature but empirical tools are also applied to highlight the potential of ecotourism. Jammu and Kashmir being a large Union Territory, blessed with diverse geographical features, offers a plethora of attractions to tourists. A balance between development and the environment should be created.

**Keywords:** Ecotourism, poverty alleviation, linkages, environmental deterioration and conservation

### **Introduction**

The eco-friendly tourism movement evolved in the 1970s as a reaction to many negative consequences of tourism prostitution, crime, drugs trafficking, and cultural devastation, destruction of natural landscape and natural resources, and economic discrepancies. The movement grew to include cultural organizations, educational groups, ethnic institutions and friendship tours. Active participation and grass root involvement of local communities at different level is felt. Benefit sharing was greatly highlighted where the local community stands at the core of the debate. Conservationists and planners were realized the role of community in controlling the wilderness of the tourist destinations.

To better understand ecotourism and its development, one should look at the interplay between tourism and the conservation of the environment. Since the 1970s, environmental conservation became a topic broadly covered by mass media, while governmental and non-governmental organizations across the globe recognized that it is a high priority for action.

The concept of ecotourism was coined in 1981 by Hector Ceballos-Lascurain, a Mexican environmentalist, through the Spanish term "turismoecológico". He has been involved in the conservation of rainforest areas by promoting ecological tourism and he was one of the very first promoters of ecotourism. In the 1990s, he took part, along other practitioners and established scholars, in international discussions on the potential of ecotourism, and offered guidelines for active involvement by local communities and on the management of protected areas (Ceballos Lascurain, 1993) <sup>[9]</sup>.

Ecotourism is a subset of the tourism industry that reflects an ethos of responsible involvement with the environment and with local cultures. Ecotourism includes, but is not limited to, nature hiking, diving, wildlife viewing, and cultural tourism, usually with some attention given to the ecosystem, biodiversity education, or sustainability. Hector Ceballos Lascurain used to describe nature based travel to relatively undisturbed areas with an emphasis on education. Since then, ecotourism has been one of the fastest growing sectors of global tourism. Ecotourism has been widely promoted as an important conservation tool and one way for people to have a positive impact on the environment.

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Ecotourism has the potential to improve public education on cultural and biological diversity, conserve wild habitats, and improve economic conditions for host nations (Buckley 2009). Ecotourism guarantees the sustainable use of environmental resources, while generating economic opportunities for the local people (Kiper T. 2013).

The foundation of ecotourism is associated with poverty alleviation all over the world. That is, ecotourism is believed to be significant for income generation, improvement of people's standards of living, sustainability of the environment, political enablement of local societies as well as for educational purposes. The interaction between tourists and poor local communities through ecotourism has an immense potential to enhance the political, economic, social and cultural aspects of those poor local communities (Ahmad, 2014) <sup>[1]</sup>.

The most accepted and agreeable definition of ecotourism today is defined by, The Ecotourism International Society in North Bennington. By 1989, the International Ecotourism Society was launched and they defined ecotourism as, "responsible travel to natural areas that conserves the environment and improves the well-being of local people".

### Research Methodology

The data for the study was collected from both primary and secondary sources. Primary data was collected from tourists and conservation agencies with the help of structured questionnaires. The survey was intended to understand the perception of tourists and conservation agencies towards Ecotourism and Environmental conservation. Secondary data is collected from government agencies, research reports, statistical reports and articles published in newspapers, electronic media and websites.

The primary information can be used as supplementary in the form of comments, interviews, observations, opinion, site analysis and community analysis etc. Mostly primary data was collected through interviews with the local community and local authorities.

### Objectives

The proposed study would attempt to achieve the following objectives:

1. To explore the potential sites for future development of ecotourism in Kashmir.
2. To examine the correlation between ecotourism and natural conservation with regard to the perception of tourist and conservation agencies.

Data collection process proceeded by an interplay of questionnaire and unstructured interview. Although the data collected is largely based on quantitative research techniques but face to face, unstructured interviews were also conducted simultaneously to substantiate the results obtained from questionnaire. The results were checked for reliability through Cronbach's alpha and the validity was ensured through measurement of total item correlation. As the results fulfilled the given criteria for initial assessment and purification, the researcher proceeded with the updated questionnaire for data collection. The data collected through questionnaires was analyzed using a multi-method statistical approach. Predominantly, statistical methods such as Factor analysis, Principal Component Analysis (PCA), Reliability Analysis, Spearman's correlation, Pearson's correlation and

T-Test were used to analyze the collected data.

### Discussion and Findings

Ecotourism has immense potential to help the global fight against poverty. A WTO initiated study that in developing countries, particularly in the least developed countries, tourism is almost universally the leading source of economic growth, foreign exchange, investment and job creation. Ecotourism has the potential to help reduce rural outmigration to urban areas, increase employment opportunities for the urban poor, and give them additional income to provide for their families in the rural areas. Tourism provides employment opportunities by diversifying and increasing incomes that help reduce the vulnerability of the poor. Through increased national income, additional funds can be diverted to poverty reduction programs.

Ecotourism is accepted as a means that can satisfy local people. "It provides a means of empowerment to disadvantaged groups such as many native people (including women) by opening an economic and management role for them in ecotourism" (Gauthier, 1993) <sup>[14]</sup>. Tourism can contribute in other significant ways to poverty reduction. For instance, it can help communities to reclaim their cultural pride, sense of ownership and control over local development, reduce vulnerability through diversification and develop skills and entrepreneurial capacity (WTO, 2002) <sup>[35]</sup>.

Ecotourism is now one of the fastest growing segments of the economy in many parts of the world. It signifies travel to relatively remote and undisturbed natural settings where flora, fauna and cultural heritage are seen as the main attractions. Besides protection and conservation of environment, it involves empowerment and participation of the local communities as important beneficiaries of the tourist activity. Earnings from visitors are generally ploughed back into preserving and conserving the natural environs of the destination and enhancing the cultural integrity of the local people. It is now being widely recognized that ecotourism, if properly envisioned, can have a substantial impact on both rural economy and poverty alleviation.

It is essential to involve the local communities in these activities as one of the primary stakeholders, as tourists expect to see ecotourism as a sustainable practice and, besides acquiring new knowledge and experience, they want to ensure that their visit also has a positive impact on the local community and natural resources. This would require formulation of stringent policies across a number of public services, so as to permit a new balance of social forces to meet the needs and aspirations of host communities while at the same time safeguarding the environmental resource base concerned (Dar, 2014) <sup>[10]</sup>.

Kashmir is a land of numerous valleys and places which are very beautiful and attracts and fascinate the tourists throughout world. In this work, the researcher aimed to assess the contribution of ecotourism in alleviating poverty in Kashmir valley, which is covered by the mighty Himalaya blessed with coniferous forests, large lush green meadows, rich wildlife and fresh water bodies in the form of lakes, rivers, streams and springs. The Kashmir Valley has a long list of places which reflects the nature's beauty at its best which attract tourists and ecotourism becomes accessible and conceivable and places are universally acknowledged by different names.

**Table 1:** Famous Tourist Places

Srinagar – Heaven On Earth	Srinagar is undoubtedly one of the most beautiful and famous places to visit in Kashmir as well as in India. From boating to trekking, bird watching to water skiing, Srinagar place has it all. Srinagar is a first stopover for every traveler and there are long list of places to visit in Srinagar. This city is enclosed by the green mountains and the main highlight being the Dal Lake which is the gem of the city. This place gives a close outlook to the Kashmiri cuisine and the state's culture.
Gulmarg – Ski Your Way	Famously known as the 'Meadow of Flowers', Gulmarg is a treat to the eyes with its spread of vibrant flowers against snowcapped mountains as backgrounds. Gulmarg is considered to be one of the best places to visit in Kashmir for all right reasons. This region of Kashmir is also known as the adventurer's paradise because of its vast options of skiing in the snow while enjoying the views around. The best time to visit Kashmir for snowfall is in winter season i.e. December-January.
Sonamarg – The Land Of Gold	Sonamarg, as the name suggests, is famous as the 'Meadow of Gold'. An endless stream of stunning flowers and undulated trekking routes are its attractions. The best season to visit Kashmir would be in summer i.e. May-June.
Pulwama – All About Natural Springs & Apple Orchards	Famously named as the "Rice Bowl Of Kashmir", this quaint village in Jammu and Kashmir is a great place to witness the nature's real beauty. Situated at a distance of 40 Kms from Srinagar, this place has many tourist sites. This multi-hued city offers amiable weather, pleasant odor saffron fields, and malleable citizens.
Pahalgam – Get Allured By Picturesque Views	Pahalgam is considered as an illustration of the heaven on earth which is situated at an altitude of 2740 m. It is situated at distance of 95 Kms from Srinagar and surrounded by dense forests, beautiful lakes and meadows of flowers. Tranquility and serenity are the other names of Pahalgam. This tiny town is known to suck out all the stress of every visitor and is therefore counted amongst the best places to visit in Kashmir.
Anantnag – Home To Temples	Adorned with flourishing gardens and freshwater springs, Anantnag is a divine destination. There is a number of famous tourist places such as Verinag and Daksum which everyone comes Kashmir visits here.
Nishat Garden – Perfect For A Laid-Back Day	This one is considered to be amongst the largest Mughal Gardens located on the banks of Dal Lake. Nishat Garden is also known by the name the Garden of Bliss and rightly so, as there are breathtaking Zabarwan Mountains in the backdrop. This garden is historically famous and Asaf Khan, who was the brother of Nur Jahan designed it.
Shalimar Garden – Photographer's Paradise	This garden was established in the year 1616 by the well-known Emperor Jehangir especially for his wife, Nur Jahan. After some time, another garden named Faiz Baksh was added to this one. One sees a canal inside the garden that has been embellished with polished stones at the boundaries.
Jama Masjid – Marvel At The Intricate Architecture	This mosque is located in Nowhatta and is considered amongst the most pivotal ones in Srinagar. The mosque was constructed by Sultan Sikandar during the 1400 AD. The mosque was expanded by Sikandar's son, Zain-ul-Abidin. One sees 370 wooden pillars in this mosque and a mesmerizing courtyard.
Yusmarg – Sit In Tranquility	This is considered to be the best place when it comes to observing the natural aspects of Kashmir. This is one of the top tourist places in Kashmir that is not much explored. 4 kilometers downhill from this place, one sees the beautiful Nil Nag Lake.
Vaishno Devi – Haven For Pilgrims	Nestled in Trikuta Hills, Vaishno Devi is a town famous for the temple that goes by the name of the town. It is said that Vaishno Devi is a manifestation of Goddess Durga from Hindu mythology. This place is sacred as it is counted among one of the 108 Shakti Peeth. Services like palanquins, ponies, and helicopters are also available for those who cannot walk or wants to read early.
Patnitop – Picture-Perfect Paradise	Endless meadows and picturesque views describe Patnitop the best. Blanketed by the sky-high Himalayas covered with snow, Patnitop has created a niche in the tourism industry due to its surreal beauty. Along with this, the place also offers some thrilling activities. It proves to be one of the top tourist places in Kashmir.
Amarnath – Marvel At The Natural Occurrences	Amarnath is a haven for pilgrims and is counted among the top places to visit in Kashmir. Worshippers of Lord Shiva visit this place every year to take blessings and witness the enshrined image of Shiva. People from all over the world resort to this place and indulge 'Amarnath Yatra'. It is believed that this is the same cave where Lord Shiva told about the secret of life and eternity to Goddess Parvati.
Dachigam National Park -Flora & Fauna	Kashmir not only has an abundance of beauty but also has abundant flora and fauna. Dachigam national Park is where you will find indigneous species of plants and animals. Even the landscapes of this place are truly mesmerizing. It is only 22 km from Srinagar and can be reached easily by taking a private taxi. Its natural beauty makes it one of the most-visited Kashmir tourist places.
Khilnarmarg – Paradise For Skiing	Only those who have visited Khilandmarg will agree that it is the most beautiful place in kashmir. The valley put you in a trance because of its alluring landscapes and breathtaking panoramas. It is 6 km ahead of Gulmarg and only a few people dare to visit this place. In summers, the aromatic flowers are the major attraction while skiing in winters lures tourists to this place.

The list of beautiful places to visit in Kashmir is quite long. These places are quite famous and boast nature's finest beauty. These tourist places that one must visit strengthen and revitalize tourism industry and enlighten and appraised ecotourism.

Kashmir attracts lots of tourists to visit the religious and historical sites due to great cultural heritage and social cohesion. The annually holy Hindu pilgrimage traditionally culminated on the auspicious day of Shravan Purnima as per Hindu Calender depicted from 2001-18 chanting of religious hymns and prayers.

**Table 2:** Pilgrims Visited Amarnath Shrine

Year	Pilgrims Visited Amarnath Shrine
2001	1.91
2002	1.10
2003	1.70
2004	4.00
2005	3.88

2006	3.47
2007	2.96
2008	5.33
2009	3.81
2010	4.55
2011	6.21
2012	6.35
2013	3.54
2014	3.72
2015	3.5
2016	2.2
2017	2.60
2018	2.85

**Sources:** Deccan Herald (DH) News Service, Srinagar, July 27, 2019, [www.deccanherald.com](http://www.deccanherald.com)

Report: Additional Chief Executive Officer (ACEO) of Shri Amarnathji Shrine Board, 2018<sup>[38]</sup>

Ecotourism resulted into participation of local communities in tourism sector which has improved the socio-economic condition of people in Kashmir and helped in reduction of poverty. It can lead to social, educational, economic and technological empowerment in Kashmir (Malik, I, 2016)<sup>[22]</sup>. Ecotourism promotes an enhanced appreciation of natural environments and environmental education by exposing visitors and locals to nature and conservation. It encourages travelers to protect the environment and contribute to local communities. Tourism meets the needs local residents while protecting future opportunities. The valley of Kashmir is dotted with the places of great tourism potential. However, natural resource depletion and environmental degradation associated with tourism are often serious problems in tourism rich region of Kashmir. There is a greater need to regulate tourism and the environment, not only to preserve environment for future generation but in the interest of

tourism business and quality of life of local residents.

**Table 3:** Tourist Arrivals to Kashmir Valley since 1955

Year	Indian	Foreign	Total
1955	48190	2830	51020
1965	35700	7430	43130
1975	148320	19300	167620
1985	465600	38020	503620
1995	320	8200	8520
2005	585700	19680	605380
2010	701504	25984	736488
2015	1274276	37666	1311942

**Source:** Directorate of Tourism Kashmir

**Note:** 2020 Trend not evaluated due to outbreak of COVID-19.

The current status of ecotourism development in Jammu and Kashmir is still young and very small. It has gradually grown since eighties. The potential ecotourism activities attractive to different type of visitors/ tourist in Jammu and Kashmir are:

**Table 4:** Potential Ecotourism Activities

<b>Forest based activities</b>	Travelling to natural areas, taking part in treks and long excursions, trekking, jeep safari jungle tours, camping, wildlife viewing, bird watching and visit to wetlands.
<b>River bound activities:</b>	Viewing of river borders wildlife, rafting, canoeing, fishing, boating.
<b>Culture bound activities:</b>	In view of the immense possibilities and spread of cultural riches in the state, we also propose that some cultural visits can be involved within the larger framework of ecotourism activities. These include visitations to temples located within parks and so on.

Ecotourism is accepted as a means that can satisfy both local people in need of gainful economic activity as well as conservationists. Tourism can contribute in other significant ways to poverty reduction. For instance, it can help communities to reclaim their cultural pride, sense of ownership and control over local development, reduce vulnerability through diversification and develop skills and entrepreneurial capacity (WTO, 2002)<sup>[35]</sup>.

Ecotourism to some degree and other forms of tourism have been successful in reducing poverty in the areas where this business is established. With sufficient care and planning ecotourism has great potential for poverty alleviation. It can be a tool not only for the economic improvement of local host economy but also the country as a whole. It can also help address other dimensions of poverty and complement conservation efforts (Richard, Paul & Trent, 2017)<sup>[34]</sup>.

Ecotourism has become an important strategy for local development in underdeveloped regions. Many studies show that tourism development has significant impacts on impoverished rural communities where the option for development is limited. Development of ecotourism impact poorer positively and help them to come out of poverty. It is an approach to open opportunities for the poor. There is a

need for enhancement of the linkage between ecotourism and poor so that they can reap the benefits of tourism development. Evidence shows that sustainable tourism is a great tool for development and poverty alleviation in developing region. Forecasts of high tourism growth in developing regions, where widespread poverty exists, has led to considerable interest in tourism as a tool for poverty alleviation (Wear & Neil, 2009)<sup>[41]</sup>.

It is a powerful tool for growth in developing countries. Tourism creates important opportunities to diversify the local economy by providing jobs, generating income, diversifying the economy, protecting the environment, and promoting cross-cultural awareness. Many international initiatives have revealed that tourism can make a substantial contribution to socioeconomic development and help to improve living conditions for local people in different destinations. The study reveals that tourism has not only provided a supplementary income and new employment opportunities to the rural community, but also has increased the appreciation of local culture and rural lifestyle. The following ecotourism sites have been explored that act as a Catalyst of Poverty Alleviation.



**Table 5:** Ecotourism sites as a catalyst of poverty alleviation

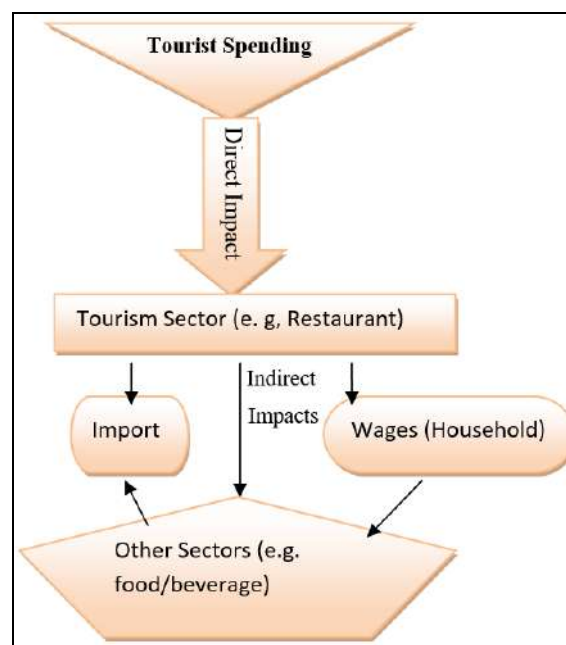
Hokersar	This wetland is located close to Srinagar and can be developed as a popular ecotourism site with basic accommodation for overnight guests. This will provide an opportunity for the birdwatcher to make the most of the visit rather than travelling back and forth to Srinagar. In conjunction with Dachigam, this site holds great potential for further development and transformation into an ideal ecotourism venture. The wetlands of Hokersar and Shallbaug could be used for bird watching by the bird lovers by travelling through Shikaras. Watch towers at strategic locations should be planned.
Dachigam National Park	Dachigam is a beautiful National Park with lush forests, fast flowing rivers, stunning landscapes and of courses the dramatic seasonal changes. The park is proximate to the popular tourist destinations of Gulmarg and also not very far from Srinagar city. The park has tremendous tourism potential considering the diversity in terrain and its proximity to Srinagar. With the revival of tourism over the past few years, there has been an unprecedented increase in the flow of tourists to this National Park. The famous Mughal Gardens Nishat, Shalimar and Cheshmashahi are located near to the Dachigam National Park.
Overa – Aru Wildlife Sanctuary	Overa - Aru Wildlife Sanctuary is close to the famous Pahalgam and thousands of national and international tourists throng every year to enjoy the spectacular landscape and the serenity of the area. The flow of pilgrims and tourists peaks during summer months. These tourists throng the Aru area of the sanctuary to see wildlife heritage therein. Since, people living inside or adjacent to the protected area have limited resources for their livelihood; their morale can be boosted up if involved under ecotourism.
Gulmarg Wildlife Sanctuary	Much of the sanctuary is suitable for mountaineering. Sites like Alphatri, Khilanmarg, etc. located in this area have since a long time remained favourite destinations for rock climbers and trekkers. The sanctuary, therefore, can have a vital role in boosting the tourism potential of the area. Gulmarg like Pahalgam is also a popular tourist destination. However, the Gulmarg Wildlife Sanctuary needs a large-scale infra-structure development for habitat improvement/protection/conservation and management for developing as an ecotourism spot.
Bangus Valley	An unexplored region, Bangus Valley is situated in the northwestern region of <i>Tehsil Handwara</i> in the Kupwara district. <i>128 kilometres away from Srinagar</i> , this pristine site is perched at an altitude of 10,000 ft above the sea level. A unique blend of ecological systems can be found here including <i>grasslands, flora, fauna, Coniferous forests</i> etc. Sprawling over an area of more than 300 square kilometres, <i>the valley is bifurcated into two: the main valley, known as “Bodh Bangus”, and the smaller valley or “Lokut Bangus”</i> .
Sattbarran Kalaroos	Located in the gorgeous Lolab Valley in Kupwara, Sattbarran Kalaroos is a unique sight. A beautiful place bathed in the ancient architecture, it is situated in the region of Kalaroos on the outskirts of the <i>Madmadav village</i> . The ancient caves dating back to the stone-age are located on the backside of Sattbarran, where one can witness the hand paintings done on the walls dating back to the period of stone-age. It is believed that these caves hold tunnels which lead till Central or North Asia, all the way up to Russia.
Wayan	<i>Wayan</i> is a beautiful place, which is a famous picnic spot for the locals in Kupwara. Recently Kashmir University Satellite Campus has been established here.

Source: Ecotourism Development Plan for Jammu and Kashmir, 2015

These Ecotourism sites has become a major source of income for local people either through direct employment such as managers, guides, housekeepers, and boat drivers, or from sales of foods, handicrafts, transportation or other

services. Eventually have implications in the livelihoods of local people; particularly of those whose paid work opportunities and income sources are somehow limited.

### Ecotourism's Economic Impact and Leakage



Source: WTO (2000) <sup>[35]</sup> cited in UNEP, 2001

Apart from natural beauty, this region is dotted with several religious sites, places and other historical monuments which are important determinants of ecotourism development in the region. There are various determinants of ecotourism potential including physical, cultural, social and historical in this region.

### **Physical Determinants**

#### **Valleys**

Kashmir is famous for the elongated Valley through which the river Jhelum flows, and this main Valley is garlanded by various small side valleys. These side valleys are dotted with transparent lakes, gushing streams, green turf, magnificent trees, mountains and cool and pleasant atmosphere (Hussain, 1998). Lidder Valley is a picturesque valley that forms one of the main attractions among the tourism destinations in and around the pleasant hill station of Pahalgam. The Lidder Valley is decorated with beautiful brooks and streams. One remarkable feature of the Lidder Valley is the presence of pleasing glaciers.

Sind Valley is another beautiful small side valley which lies to the northeast of Srinagar and is carved by the river Sind. This is an area of massive snow-capped mountains, glacial lakes and fast flowing rivers. The majestic Zojila pass marks the boundary from the Sind valley to the Ladakh region. Lolab Valley is another beautiful valley which is an untouched and unexplored tourist destination with dense forest ranges. Bangus Valley is also an upcoming destination which is surrounded all sides by dense forests and snow covered mountains. This Valley is most attractive and is famous for adventure tourism.

#### **Meadows**

Meadows are considered as an important determinant of tourism development and form a very prominent part of tourist attractions in Kashmir. The slopes available at Sonamarg, Yusmarg, Pahalgam and Gulmarg etc. provide a wide scope for development of summer as well as winter tourism. These meadows attract tourists in large numbers due to its mesmerizing beauty. Some of the famous meadows in Kashmir are:

#### **Nagmarg**

Nagmarg is one of the most beautiful and attractive meadows located at the head of Wullar Lake. This picturesque grassy meadow land along with glassy waters of lake attracts the hearts and minds of tourists. Lovely mountains of the Kaji-Nag and Kaghan and Pir Panjal ranges are also visible which adds more beauty.

#### **Gulmarg meadow**

Gulmarg is undoubtedly the best-known meadow of the Kashmir and one of the most splendid hill resorts. This green meadow of flowers receives tourists throughout the year. It has an undulating topography which adds to its scenic beauty and majestic charm. The scenery here is comparable with the loveliest regions of Switzerland. Apart from the beautiful scenery, nature has provided this region with a great variety of flora and fauna. All the basic amenities i.e.; hotels, market, boarding houses and transport etc. are available at Gulmarg (Hussain, 2005) <sup>[15]</sup>. It also has the highest golf course in the world at an altitude of 2,650 m, which is one of the major attractions of hill stations.

#### **Sonmarg**

The word Sonmarg literally means the meadow of gold. This beautiful tourist resort lies in the Sindh Valley of Kashmir 87 kilometers away from Srinagar at an altitude of 3000 meters and is situated on the Srinagar-Ladakh road. This green meadow is surrounded on all sides by mountains and spread with bright colored flowers. This golden meadow is girdled by dense forests of fir, birch and sycamore with river Sind meandering quite slowly and steadily. It provides a base to the snow line and number of glaciers. These mighty glaciers and silent lakes add to the magnificence of this place.

#### **Yusmarg**

Yusmarg green meadow plays an important role in attracting tourists to Kashmir valley. This green meadow is located 47 Km from the Srinagar and lies in the Budgam district of Jammu and Kashmir. It is referred to as “mini Gulmarg” as its scenic beauty and topography resemble that of Gulmarg.

#### **Daksum**

Daksum meadow is counted as one of the best meadows of Kashmir Valley in terms of tourist attraction. It is a natural scenic spot situated at a distance of 40 km from Anantnag District and about 85 km from Srinagar. It offers trekking to the Sinthan top. The landscape of Daksum is quite irregular. There are snowcapped mountains in the background that further add to the beauty of this place.

#### **Lakes**

Kashmir is decorated by a number of big and small lakes found all along the length and breadth of the valley. Besides these lakes, which are fed by melting snows from the mountains, there are hosts of mountain tarns formed glared by the glacial action and other phenomenal activities of range nature. Some of the beautiful lakes that attract the hearts and minds of the tourists are:

#### **Dal Lake**

Dal Lake is counted among the best and well-known tourist destinations of Kashmir. It is famous all over the world and is described as Lake par excellence by Sir Walter Lawrence. Dal Lake houses the world famous shikaras and houseboats which provides an opportunity for tourists to enjoy the atmosphere of peace and calmness in the lake. It is one of the most beautiful lakes and is second largest in the Jammu & Kashmir. The lake is 8 Km long and 4 Km wide and covers an area of 26 sq. kms. It lies in the east of Srinagar city, at the foot of Zabarwan hills, with Shankaracharya hill (Takhti-Sulaiman) in its south and the Hariparbat fort on its west (Khan, 2007) <sup>[21]</sup>. The fascinating lake is dotted by islands, floating gardens, fields of lotus blossoms and houseboats that add more charm to this picturesque splendor of nature.

#### **Nageen Lake**

Nageen Lake is small and most lovely part of Dal Lake and is separated from the large Dal Lake by a small narrow causeway. It is known as the “Jewel in the Ring”. It has deep blue waters and is encircled by a ring of green trees from which it derives its name. It has also a number of houseboats moored around its parameter. Nageen Lake is

another popular venue for water sports like water skiing, swimming, diving and sailing. This lake is also favorite among tourists who are in search of peaceful houseboat holiday.

### **Wullar Lake**

Wullar Lake is said to be the largest freshwater lake of Asia. It is approximately 60 Km from the city of Srinagar and falls in under the jurisdiction of district Baramulla. The lake is 19 km long and 10 km wide and is spread over an area of 125 km in an elliptical form. The average depth of the lake is about 12 feet. This lake is surrounded by mountains and hills. The sunset is worth seen at Wullar Lake which creates a magical show by reflecting the magic of surrounding hills. The lake is popular for adventure sports activities like water sports, yachting, and water skiing. The river Jhelum enters the lake in the south and leaves it from the west. The streams of Madmati, Erin and Bohnar flow into the lake from the eastern side.

### **Manasbal Lake**

Manasbal Lake is considered as one of the best lakes of Kashmir in terms of tourist attraction. This lake is located in Ganderbal district about 30 Km north of Srinagar city. It is a popular bird-watching area and is ideal water sport resort. It offers one of the best campaign sites in Kashmir (Khan, 2007) <sup>[21]</sup>.

### **Harwan Lake**

Harwan Lake is situated at a distance of 21 km from Srinagar and is about 278 meters long, 137 meters wide and 18 meters deep. This lake is the main source of water supply to Srinagar city. The scenic beauty of this lake attracts visitors in large numbers especially local visitors.

### **Hokarsar Lake**

Hokarsar Lake is located on the Baramulla road about 13 km from Srinagar. This Lake is surrounded by willow trees grown in abundance on its bank. The willow trees enrich the beauty of this lake in all seasons. It is spreading on about 5 km in length and 1.5 km in width and is worth beautiful.

### **Mountain Lakes**

Kousarnag Lake is the largest mountain lake in Kashmir. This lake is surrounded by some of the most picturesque peaks of Pir Panjal range and this lake lies at an altitude of 13,000 feet above sea level. This lake is fed by glaciers and is said to be the source of river Jhelum. In spring and summer, the water is some 40 feet higher than in winter. In the spring season, the surface is covered with icebergs which are driven about by the wind. Sheshnag lake is another mountainous lake lies beyond Pahalgam. This three kilometers stretch of water has an exquisite pale-blue colour similar to that of Lake Lucerne. The Apharwat Lake or Alpathar Lake is also a mountainous lake that lies near Gulmarg. This lake is also called frozen lake because of its freezing cold water. It remains snow-covered for most of the year and is 13,000 feet above sea level.

### **Rivers and Streams**

Kashmir region is gifted with a large number of rivers and streams. The rivers and streams form a secondary component of the physical landscape and play an important role in attracting tourists. Jhelum River which originates in

Verinag spring has emerged as a major tourism attraction. The Mangla Dam built on the river is one of the largest earth-fill dams and a great tourist spot. The nine bridges which were built long ago over the river Jhelum also provide as hot tourism sites. The river is navigable from Khanabal to Baramulla and is one of the prime beauties of the valley. Dudhganga River is another important river of Kashmir which rises in the central part of the Pir Panjal range round mountain Tata Kut. The source of Sindh River lies in the sacred Gangabal Lake on mount Haramukh and passes through the famous resort of Sonamarg. The river of Veshav is an important river flowing through the district of Kulgam in south Kashmir. Aharbal's waterfall, on this river, is very much famous and attracts a large number of visitors to enjoy the beauty of nature.

### **Glaciers**

Glaciers of Kashmir Valley play a prominent role in attracting tourists. The higher reaches of Kashmir are spread with small and large glaciers. The most important of all the glaciers in Kashmir region is Kolahoi glacier which lies in the north western Himalayan range at an elevation of 4700 meters. It is situated 26 kilometers north of Pahalgam and 16 kilometers south from Sonmarg. Kolahoi glacier is the source of Lidder River. Thajiwas is another important glacier from the tourist point of view. This glacier provides trekking source to tourists. Apart from these two glaciers, there are many small glaciers of local importance (Mir, 2013) <sup>[26]</sup>.

### **Ecological Determinants**

#### **Biodiversity Regions**

Kashmir is rich in forest wealth. It occupies about 8,128 Sq Km of forest area which is about 50.97 percent of the total forest area of J&K. District Kupwara covers largest forest area in Kashmir and has about 1703 Sq. Kms. (71%) of its area under forests followed by Baramulla district which has 2690 Sq. Kms. (59%) of its areas under forests. The forest area of Kashmir is covered by a tall and wide variety of trees along with a wide variety of bushes. In different seasons they appear in different colours adding more beauty to the Kashmir. With its variety of geographical regions, climate and vegetation has many delights to offer the wildlife enthusiast. The presence of mountains, foothills and plains in the region abode a diverse species of flora and fauna. Some of the best-known animals found in the region are snow leopard, Common leopard, Brown bear, Hangul or Kashmiri stag, Bharal, red fox, Musk deer, langur, Himalayan black bear etc. Some birds which are found in Kashmir are Black eagle, Griffon vultures, Black and yellow grosbeak, Hobbys, Kestrels and Monal pheasants. There are several National parks and Wildlife Sanctuaries that have been established in Kashmir for the conservation of rare species of animals. Some of them are touristically very much importance such as (Mir, 2014) <sup>[26]</sup>.

### **Dachigam National Park**

Dachigam National Park has attained global fame for its rich faunal and floral wealth. This Park was constituted into a national park in 1981 with the main purpose of protecting the Kashmir stag or Hangul. It is located in the Zabarwan Range of the western Himalayas about 18 km northeast of Srinagar. Dachigam National Park comprises an area of 141 Sq. Km and is approximately 22.5 Km long, 8 Km wide.

The National Park is divided into lower and upper Dachigam areas on the basis of forest types and altitudinal range. Dachigam National Park is famous for the Kashmir Stag or "Hangul" endangered red deer species in the country.

### **Gulmarg Biosphere Reserve**

Gulmarg Biosphere Reserve is one of the most important and beautiful tourist places which capture the hearts and minds of tourists towards this tourist destination. It is located in Gulmarg 48 Km away from Srinagar summer capital of Jammu and Kashmir. It covers an area of about 180 Sq. Km and is situated at an altitude of 2400 to 4300 meters above sea level. Nature has gifted this Biosphere Reserve with multiple species of rare, endangered and protected species. The main species found in Gulmarg Biosphere Reserve are Hangul, Brown Bear, Musk Deer, Serow, Leopard, Red Fox, and Black Bear etc. This Biosphere Reserve is also dominating in the rich green cover of the area accounting for over ninety percent of vegetation. The principal species are *Aesculus indica*, *Pinus griffithii*, *Cedrus deodar*, *Abies pindrow* etc. The major shrubs are *Sorbaria tomentosa*, *Indigofera heterantha*, etc. The ground surface of Gulmarg Biosphere Reserve is also very rich and Dicotyledonous herbs dominate the area, comprising of *Rumex patientia*, etc. The Gulmarg Biosphere Reserve also provides a home to a good population of pheasants and upland birds both resident and migratory.

### **Overa Wildlife Sanctuary**

Overa Wildlife Sanctuary is located at Pahalgam in Anantnag district of Jammu and Kashmir about 76 Kms away from Srinagar. It covers an area of about 32.27 Sq. Kms. The Sanctuary lies in Lidder Valley Forest Division surrounded by Sindh Forest Division in the north; Lidder Forest in the south; Pahalgam in the east; and Dachigam National Park in the west. This wildlife sanctuary is characterized by stunning mountain landscapes, grass-clad hills and deep valleys (Khan, *et al.* 2012) <sup>[21]</sup>. The sanctuary provides refuge to 13 species of mammals most of which are on the verge of extinction. Some of them are musk deer, hangul, serow, langur, leopard, etc. The Overa Wildlife Sanctuary gives the glimpse of the rich variety of Kashmir's floral species. The main species are *Pinus griffithii*, *Cedrus deodara*, *Morus alba*, *Abies pindrow*, *Juglans regia* etc.

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### **Historical Determinants**

The beautiful valley of Kashmir attracted the kings and emperors who constructed numerous temples and palaces, which are still present in elegance and grandeur. This region is dotted with a number of gardens, shrines, monuments and historical sites.

### **Historical Mughal Gardens**

The beautiful valley of Kashmir boasts a number of historical gardens which are considered as one of the best determinants of tourism development. These gardens are both visited by both domestic as well as foreign tourist throughout the year. Some of the famous historical gardens of Kashmir Valley are:

#### **Shalimar Garden**

Shalimar garden is the most beautiful of all the gardens of Kashmir. It lies 15 Km to the east of Srinagar and is situated on the shore of Dal lake. This beautiful garden was laid out by Jahangir in 1619 A.D. for his wife Noor Jahan. This garden covers an area of approximately 539 m by 182 m and is arranged into four terraces, rising one above the other. The top and fourth terrace of the garden which is called the "Adobe of Love" was at one point of time reserved for Mughal Emperors and ladies of the court. There is also a water canal lined with polished stones running through the center of the Shalimar Bagh. Shalimar garden offers an amazing view over the other gardens, lakes and shallow terraces. Other attractions of Shalimar garden include a number of fountains and innumerable varieties of flowers that bloom in spring and autumn.

#### **Nishat Garden**

Nishat garden is one of the largest Mughal gardens of Kashmir. It is located on the bank of Dal Lake. The garden was designed by Asif Khan Brother of Noor Jahan in 1633 A.D. Within the garden are ruins of some of the building dating back to the Mughal period. Nishat garden offers a splendid view of the Dal Lake as well as the snow capped Pir Panjal mountain range which stands far away to the west of the valley. The garden is arranged in a number of terraces one above another, each representing a different zodiac sign. The terraces are ornamented with a beautiful flower, the cypresses and the mighty Chinars. The other attractions of Nishat garden include its blooming flowerbeds, trees, fountains, etc. This famous tourist spot also offers shopping facilities to its visitors.

#### **Cheshmashahi Garden**

Cheshmashahi garden is architecturally the most charming Mughal garden, located about 9 Kms from the heart of Srinagar city. This garden was set up by Shah Jahan in 1632 A.D on the foot hills of Zabarwan Mountains. This garden is quite famous for spring of energizing digestive mineral water inside it. This water is credited with medicinal properties and is highly prized. Cheshmashahi garden offers a striking view of the scenic Dal Lake and Jawahar Lal Nehru Botanical garden. The garden has a number of terraces and fountains built right through its center. The variety of fruits, flowers and chinar trees that grow in the garden also adds more beauty and charm to Cheshmashahi garden.



### Naseem Bagh

Naseem Bagh of Srinagar is the oldest of the Kashmiri's Mughal Gardens. This garden was built by Akbar in 1586 and is situated on the western side of Dal Lake and offers a splendid view of the Dal Lake. It is about one kilometer beyond Hazratbal. Naseem Bagh is one of the favorite destinations in tourism itinerary. This garden is dotted with hundreds of magnificent chinar trees which are very much beautiful and attractive. The breezes of the Dal Lake make it an abode of calm and peaceful (Khan, 2007).

### Harwan Garden

Harwan garden has very much importance from the tourist point of view. This famous beautiful garden is located in the district of Srinagar. It is beautiful tourist spot and is very much popular among excursionists. A beautiful canal, fed from a lake just behind the garden passes through its center. The canal is bordered with blossoming flowerbeds and Chinar trees. Harwan garden does not have the usual terraces, artificial fountains, etc like other gardens of Kashmir. It has been deliberately kept devoid of these man-made things. The main attraction of Harwan garden which has made it one of the best tourist spot is its natural beauty that is present in plenty.

### Achabal Garden

Achabal Garden is situated in Anantnag district at a distance of 58 Km from Srinagar. It served as the pleasure retreat of the Mughal Empress Noor Jahan. Achabal Garden is adorned with one of the best Mughal Gardens in India. The beautifully laid out garden in the Mughal (Persian) style sparkles with a charm and character, which is quite unique to it. This garden is beautifully decorated with chinar trees. The other attractions of Achabal Garden that make this garden more attractive are its stepped terraces, conventional elegance, ornamental shrubs, gleaming fountains and flowering water (Rehman, 2005) <sup>[33]</sup>

### Tulip Garden

Tulip garden is one of the most beautiful flower garden located in the foothills of the Zabarwan mountain range with an overview of picturesque world famous Dal Lake. Tulip Garden is surrounded on three sides by the Nishat Bagh and Chashma Shahi Mughal Gardens of Srinagar. It spreads over an area of about 12 hectares. Earlier this garden was known as Siraj Bagh but later its name was renamed as Indira Gandhi Tulip Garden (Naik, 2008) <sup>[27]</sup>.

Tulip garden is the Asia's largest garden that has around two million multicolored tulips of more than 70 varieties that ornament and add colour to 12 acres of the Kashmiri Landscape. This garden resembles beautiful carpets that has hundreds of colours and provide a heavenly view and display their beauty to the thousands of visitors. A Tulip Festival is held annually in Kashmir in the month of April since 2007 to promote tourism of Kashmir and has been quite successful in attracting people from all over the globe. This traditional event greets spring with thousands of tulips blooming in innumerable colours and varieties. Thousands of tourists from different places come each year to celebrate tulip festival in Kashmir.

### Religious Determinants

Kashmir Valley is well-known for its cultural uniqueness right from the olden days. It has from times immemorial

been the home of gods and goddess, renowned mystics, sadhus, pandiths, rishis, peers and faqirs. The numerous temples, shrines, mosques, which have survived the ravages of time and in clemencies of weather are living testimonials to prove the fact. There has been a very unique tradition among the people of Kashmir for preaching and worshipping of each other's religious and pilgrimage centers. There are well renowned Hindu shrines co-existing with the equal famous Muslim pilgrimage centers that are in the highest esteem by the people of every faith. Kashmir is the abode of Holy shrines; this aspect is responsible for attracting a large number of devotees every year, which has ultimately led to a boom in the tourism industry (Bhat, 2013) <sup>[6]</sup>. Some of the important sacred places that attract tourist are:

### Masjids and Shrines

#### Jamia Masjid of Srinagar

Jamia Masjid is located in the core of the old city of Srinagar. This mosque was originally built by Sultan Sikandar in 1400, and enlarged by his son Zain-ul-Abidin. The principal characteristics of the mosque are the four minars (Pillars) and eight wooden columns as support. This mosque is visited by thousands of people for the Friday prayers. It has also very much importance from the tourist point of view and it plays an important role in increasing the economy of Kashmir (Naik, 2008) <sup>[27]</sup>.

#### Hazratbal Shrine

Hazratbal Shrine is the most sacred Muslim shrine located on the western shore of Dal lake. The architecture of the shrine is a combination of Mughals and traditional Kashmiris. This shrine has special sanctity as the Prophet Mohammad's (S.A.W) relic that is the *Moi-e-Muqqadus* is preserved in this shrine. This relic was brought thousands of years ago from Medina by Sayed Abdullah in 111 A.H and is usually displayed to the public on certain sacred and holy days (Hussain, *et al.*, 1985). This shrine provides an opportunity for the people to participate in the colourful and exciting fairs that are being held every year. This shrine attracts thousands of devotees from all over the country who pay homage at the shrine (Rehman, 2005) <sup>[33]</sup>.

#### Khanqah of Shah-E-Hamdan

Khanqah of Shah-E-Hamdan shrine-cum-mosque stands on the right bank of Jhelum in Srinagar city. This historical shrine was built in 1395 by the renowned Iraqi mystic, scholar and poet Mir Sayed Hamdani, popularly known as Shah Hamdan in the Kashmir Valley. He came from Persia in the 13th century and spread Islam in Kashmir. At Khanqah Mohalla a festival is held every year on 6th Zilhaj (the 12th lunar month) at the anniversary of the great saint in which thousands of people participate.

#### Chatti Padshahi Gurudwara

Chatti Padshahi Gurudwara is situated just outside the south gate of Hari Parbat fort. It is one of the most important Sikh Gurduwaras in Kashmir. It is dedicated to the sixth guru of Sikhism who stopped here to preach occasionally while travelling through this place.

#### Kheer Bhavani

Kheer Bhavani spring is the most sacred place for Hindus. It is situated at Tulmulla in the Srinagar district. Hindus must

abstain from meat on the days when visiting Kheer Bhavani or the milk goddess. An annual festival is being held here in May or June when a number of devotees visit this place to offer prayers. The beautiful spring of clear water overshadowed by fabulous shady trees and full of sacred fish adds an ethereal beauty to this place (Mir, 2008) <sup>[26]</sup>.

### **Charar-e-Sharief Shrine**

Charar-e-Sharief shrine is located in Budgam district about 35 Kilometres from Srinagar. It is 600 years old Muslim shrine. This pilgrimage destination is considered one of the most sacred Muslim shrines because it entombs leading Rishi (Saint) of Kashmir, popularly known as Hazrat Sheikh Noor-Ud-Din Wali. On the eve of festival his wooden stick, shoes etc are displayed to pilgrims. This sacred place provides an opportunity for tourists to learn about the history of the sacred place of worship (Hussain, 2000) <sup>[16]</sup>.

### **Amarnath Shrine**

Amarnath cave is one the most sacred pilgrimage destination of Hindus. It is located at an altitude of 5000 meters inside the glacial gorge in the Himalayas about 141 Kms from the Srinagar and 45 Kms from Pahalgam tourist destination. The cave is 9 meters deep and is 14 meters high in the middle (Raina, 2002) <sup>[31-32]</sup>. It is one of oldest and the holiest of all Hindu shrines and is said to be over 5000 years old. This sacred shrine has a mythological and historical importance as according to the Hindu mythology, Lord Shiva has explained the secret of creation and immortality to his wife, Goddess Parvati in this cave.

The Amarnath cave is visited by millions of Hindu pilgrims on the full moon day on the month of Sawan (July-August) every year. According to a common faith, the self-formed ice lingam in the cave reaches the maximum height on Purnima in the month of Sawan (July-August), when Shiva is supposed to have divulged to Parvati the secret of salvation. On this day millions of pilgrims negotiating the most difficult ridges arrive at the holy cave for worship or Dharshan of Lord Shiva. The Holy "Amarnath Cave", enclosed by the awe-inspiring Himalayas, attracts tourists to experience the beauty, apart from offering worship. (Naik, 2008) <sup>[27]</sup>.

### **Shrine of Khwaja Moinuddin Naqshbandi**

The shrine of Khanqah of Khwaja Moinuddin Naqshbandi is popularly known as Naqshband Shrine, which is located in the core of Srinagar city. It was built by Emperor Shah Jahan. This shrine has an important religious significance because the sacred hair of Prophet Muhammad was kept at this mosque before moving it to the Hazratbal Mosque. This sacred place is visited by thousands of Muslim devotees every year.

### **Ziarat Muqam Shah Wali Sahib**

The shrine is of famous Saint Zaiti Shah Wali, located in village Muqam Shah in district Kupwara. The Shrine of Zaiti Shah, his sister's tomb, his brother's tomb and a Jamia Masjid are located in the same premises in the village. The shrine is treated equally sacred by Hindus, Muslims and Sikhs. There are so many spiritual and super natural activities attributed to the saint. The shrine is a hot spot of pilgrimage tourism. A three day mela (Festival) is being held in May every year at the Shrine in which people are participating in large numbers (Mir and Ahmed, 2015) <sup>[24]</sup>.

### **Makhdum Sahib Shrine**

Makhdum Sahib Shrine mainly a double story mosque lies the Srinagar city. This shrine has been built after the name of Sufi Saint Makhdum Sahib or Hazrat Sultan. It is located below the historical Hari Parbat Fort and has been constructed as per the archaeological values and ancient culture of the Mughals. This shrine is open all round the year for the visitors.

### **Dastgir Sahib Shrine**

Dastgir Sahib Shrine is considered as one of the most sacred places of worship and an important historical religious site in Kashmir. For many centuries, this shrine has been well known for its communal harmony and syncretism. There are panels in this shrine are colourful and have been carved for wrenching down the Aytal Kursi. This shrine is open throughout the year for visitors. Pilgrims come to this shrine and tie threads or pieces of clothes to the wooden ledge for fulfilling their needs.

### **Shrine of Shah Zain-ud-Din**

Shrine of Shah Zain-Ud-Din is very much famous shrine located at Aishmuqam Village of Anantnag district of J&K. It is about 74 Kms away from the Srinagar city. Inside the shrine there lies a grave of famous Sufi saint Sheikh Zain-Ud-din. His anniversary is celebrated on the 13th of Baisakhi. Not only Muslims but people from every faith and from far and wide in the valley participate (Hussain, et., al, 1985). Besides these there are many other historical shrines which have very much significance among pilgrims and that plays a key role in boosting the tourism sector, such as Baba Rishi Shrine, Mosque of Saint Madin Sahib, Temple of Sarika Devi, Pandrethan, Shrine of Syed Janbaz wali, Pampur shrine etc.

### **Historical Heritage Sites**

Kashmir has a complex cultural and historical fabric. The many historical monuments and places of worship are long-standing evidence of the historical unity of Kashmir. There are several temples that are more than 1000 years old as well as ancient mosques that are landmarks of Kashmir. Numerous Gurudwaras and monasteries can be found in many places of Valley which are most significant in the development of tourism of Kashmir.

### **Monuments**

#### **Shankaracharya Temple**

Shankaracharya Temple is one of the best historical monuments of Kashmir which is situated on the top of Takht-e-Sulaiman hill, to the south-east of Srinagar city. The ancient temple is believed to have been built about 2500 years ago by King Gopaditya. Dating back to 250 BC, it is believed that it was the place where the great philosopher and saint Shankaracharya stayed when he visited Kashmir ten centuries ago. It was then this place came to be known by his name instead of its former name Gopadri. The temple of Shankaracharya commands one of the finest views in the whole Kashmir. The view of the city with its green, turfed roofs, covered in the spring with iris, tulip and variety of other flowers is without a doubt unique.

#### **Pari Mahal**

Pari Mahal is situated in Srinagar and the Mahal was initially a Buddhist Monastery, which was later converted

into an observatory and a school of astrology by Dara Shikoh, the eldest son of Mughal Emperor Shah Jahan. He devoted the Place to his Sufi teacher Mulla Shah. It is enriched with a number of charming fountains. The five storey building is almost ruined, but the remnants are still maintained by the Government. The picture sight of Dal Lake and illuminative images of Pari Mahal at night is an important tourist attraction.

### Hari Parbat Fort

The Hari Parbat hill crowned by the Pathan fort, which is able to be seen from every part of the city, has from time immemorial been a place of great sanctity in Kashmir. It is an ancient Mughal Fort which is situated to the western side of the Dal Lake. The surrounding walls of the fort were built by Mughal Emperor Akbar in 1590. But the present fort was built in 1808 under the reign of Shuja Shah Durrani and Atta Muhammad Khan, an Afghan governor. The presence of the Muslim shrine Makhdoom Sahib, Hindu temple, Sikh shrine Chatti Padshahi and the Chakreshwari in the vicinity add to the significance of the fort.

### Tomb of Zain-ul-Abidin's Mother

Tomb of Zain-ul-Abidin's Mother is located in the area of Sri Ranbir Ganj of old city Srinagar. This monument has very much importance because it is that historical monument which is unlike and unparallel from others. However, it is attractive in a couple of ways, the first being in the structural design of the main mausoleum itself, and second in the evidence of it having being built at the site of an earlier Hindu temple. This ancient monument was built by Zain-ul-Abidin (A.D. 1421-1472) in the memory of his beloved mother. The main characteristics of this tomb are the glazed and moulded blue bricks, which are studded at intervals in the exterior walls, the semicircular brick projections, on the drum of the main dome.

### Awantipora Temples

The famous Awantipora Temples are believed to have been built in honour of God Mahadev by Awanti Varma. These temples are located in Awantipora twenty-nine kilometers away from Srinagar. The temples although in ruins, are of great archaeological importance. King Awantivarman founded the city in the 9th century. There are two main temples, one of which is Shiva-Avantishvara, which is larger and marked by massive walls. The sculptured relief is principally found on the walls of the entrance and the flank walls of the stairs depict men and women in the act of drinking, lovemaking and other such merriments. The base is either a plain square block with the upper edge (Rehman, 2005) [33].

### Patthar Masjid

Patthar Masjid is one of the most important historical monuments of Kashmir located in the heart of Srinagar city. It is said that the mosque has been built by the Emperor Nur Jahan in 1623 A.D. The facade consists of 9 arches, including the large convex opening in the center. The domes are ridged inside. The roof is supported inside on eighteen extraordinarily substantial square columns having projections on two sides.

### Sri Pratap Singh Museum

Sri Pratap Singh Museum has a historical well as archaeological importance, as it was the one-time summer

place of the past kings of the princely state of Kashmir. Sri Pratap Singh Museum was established in 1898. The main characteristics of this museum are that it houses some of the exceptional terracotta heads of 3rd century that were collected from the Buddhist place in Ushkur Baramulla of Kashmir. It has many moulded terracotta plaques dating back to 4th and 5th century from Harwan (Mir and Ahmed, 2015) [24].

### Tomb of Madin Sahib

Tomb of Madin Sahib is a unique tomb and is has historical importance from the very beginning. This historical monument was built in the memory of Saint Madin Sahib and the inscription on the lintel of the entrance of the tomb records the date of its erection as A.H 1483 in the regin of Zain-Ul-Abidin. This tomb lies towards the north side of Madin Sahib Mosque in Zadibal area of Srinagar city of Kashmir. It has the 15th century Kashmiri architectural style with the peripheral walls decorated with tiles (Bhat, 2014) [3, 4, 5].

The main objective of study is to analyze the correlation between Ecotourism and natural Conservation based on primary data collected from tourists and Conservation Agencies. Keeping in mind the mentioned objectives, a structured questionnaire was developed and used as an instrument to gauge the factors measuring Ecotourism and natural Conservation. For this purpose factor analysis was done to extract various constructs. In the present study Spearman's and Pearson Correlation is used to study the correlation between Ecotourism and natural Conservation with regard to the perception of Tourists and Conservation agencies.

**Table 6:** Demographic profile of respondents

Demographics	Category	Frequency	Percent
Gender	Male	210	52
	Female	198	48
	Total	408	100
Type	Tourist	378	92.6
	Conservation Agency	30	7.4
	Total	408	100
Nationality	Indian	366	89.70
	Foreigner	42	10.29
	Total	408	100
Age	20 – 39	342	83.8
	40-59	62	15.2
	60-79	4	1
	Total	408	100
Education	Primary school	11	2.6
	High school	28	6.8
	College	72	17.64
	University	297	72.8
	Total	408	100
Income	Below Rs. 50000	152	37.25
	Rs. 50000 – 99999	168	41.17
	Rs. 100000 -149999	48	11.76
	Rs. 150000- 199999	40	9.80
	Total	408	100

As shown in the table above, it is observed that the gender composition of the tourists was nearly even, male (52%) and female (48%). The large number of the respondents were tourists (92.6%) followed by conservation agency (7.4%). More than half of the respondents were Indian (89.70%) and the rest (10.29%) were foreigners. Majority of the

respondents (83.8%) were of the age group of 20-39 years while only 1% of the respondents were above 59 years of age. Most of the respondents had an education till university level (72.8%) followed by the college level (17.64%), only a handful had been to primary school (2.6%). The majority of the respondents had an income between Rs. 50000 – 99999 below (41.17%).

In the current study, factor analysis was carried on two data sets i.e. Ecotourism and natural conservation to reduce the variables and to determine the underlying factors of two constructs. Moreover, it explained the dimensions associated with data variability.

### Measures of Ecotourism

20 items (20 Questions in questionnaire) of ecotourism were explored retained by pilot study statistics. All the preliminary number of items (20) was subjected to factor analysis, which later got reduced to 18 items and were retained for attaining reliable results. After initial refinement and purification, 5 factors were produced by PCA.

### Comprehensive Process of Factor Analysis on Ecotourism

The process of factor analysis conducted has been explained below:

**Table 7: KMO and Bartlett's Test**

<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</b>	<b>0.594</b>
Bartlett's Test of Sphericity	Approx. Chi-Square
	Df
	Sig.
	1952.511
	191
	0

From the above table it can be seen that the dataset understudy is suitable for Exploratory Factor Analysis, as the KMO value is 0.594. The dataset indicates that the sample is adequate and we may proceed with the Factor Analysis. For Factor Analysis to be recommended suitable, the Bartlett's Test of Sphericity must be less than 0.05. Bartlett's Test of Sphericity in the table above also indicates that our results are statistically significant. Bartlett's Test of Sphericity relates to the significance of the study and thereby shows the validity and suitability of the responses collected to the problem being addressed through study.

**Table 9: Variance Calculation**

Component	Total Variance Explained (Ecotourism)								
	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.757	18.784	18.784	3.757	18.784	18.784	2.297	11.486	11.486
2	1.923	9.614	28.397	1.923	9.614	28.397	2.157	10.787	22.273
3	1.785	8.926	37.323	1.785	8.926	37.323	2.125	10.626	32.899
4	1.546	7.729	45.052	1.546	7.729	45.052	1.916	9.581	42.48
5	1.353	6.766	51.818	1.353	6.766	51.818	1.867	9.337	51.818
6	-	-							
19	0.29	1.448	98.751	0.29	1.448	98.751			
20	0.25	1.249	100	0.25	1.249	100			

As per the methodology of PCA, the total factors that will be made are 5 as there are five Eigen values greater than 1 and those 5 factors will comprise of 51.818% of the total information. Another important aspect that needs mention is the Rotated Component Matrix. While deciding how many factors one would analyze is whether a variable might relate to more than one factor. Rotation maximizes high item

Therefore, Factor Analysis can be used for the dataset. Principal Component Analysis (PCA) has been used as Extraction Method. PCA is an extraction procedure that tries to reduce the number of variables to a smaller set of variables. With the help of this method unique results may be determined. Thus, the original data may be reconstructed from the result. As this method takes the total variation among the variables, therefore, the solution generated will include as many factors as there are variables although it is unlikely that they will meet all the criteria for retention. In other words, the variables which have over 30% extracting are included to study further. PCA uses an orthogonal transformation to convert a set of observations of possibly correlated variables into a set of values of linearly uncorrelated variables called principal components that are interpreted as dimensions.

**Table 8: Communalities (Ecotourism)**

	Initial	Extraction
ECET4	1	0.554
ECET5	1	0.563
ECET6	1	0.476
ECET7	1	0.411
ECET8	1	0.534
ECET10	1	0.383
ECET11	1	0.675
ECET12	1	0.519
ECET13	1	0.563
ECET14	1	0.694
ECET16	1	0.608
ECET17	1	0.415
ECET18	1	0.531
ECET21	1	0.391
ECET22	1	0.623
ECET23	1	0.489
ECET24	1	0.307
ECET46	1	0.411
ECET48	1	0.552
ECET57	1	0.655
Extraction Method: Principal Component Analysis		

Since there is no single variable in the table above that is less than 30%, all the items will be considered for making the factors.

loadings and minimizes low item loadings, thereby producing a more interpretable and simplified solution. The rotated component matrix is one which helps to inspect the extracted factors from different angle to see if the inference from all of them points to one output. On the basis of this matrix, the factors are constructed; that is, a specific variable gets a place in a particular factor. In the present



study PCA with Varimax rotation is used. Varimax is an orthogonal rotation that from the perspective of individual subjects measured on the variables, seeks a basis that most economically represents each individual-that is, each

individual can be well described by a linear combination of only a dimensions. Varimax is so called because it maximizes the sum of the variances of the squared loadings (squared correlations between variables and dimensions).

**Table 10: Component Matrix (Ecotourism)**

<b>Rotated Component Matrix (Ecotourism)</b>					
<b>Components</b>					
	1	2	3	4	5
ECET5	0.739				
ECET57	0.685			0.346	
ECET6	0.567				
ECET46	0.487				
ECET22		0.684		0.336	
ECET8		0.666			
ECET17		0.607			
ECET21		0.488			0.334
ECET48	0.429	0.486			
ECET13	0.345	0.409		0.384	-0.335
ECET11			0.795		
ECET23			0.627		
ECET12			0.555		
ECET10			0.489		
ECET14				0.817	
ECET7				0.472	
ECET24				0.447	
ECET4					0.729
ECET16	0.413				0.649
ECET18			0.472		0.504
Extraction Method: Principal Component Analysis.					
Rotation Method: Varimax with Kaiser Normalization					
a. Rotation converged in 12 iterations					

Principal component analysis with varimax rotation was used to factor the belief statements of the respondents. This analysis yielded five factors with Eigen values greater than 1. The factors on the basis of Rotated Component Matrix by using Varimax with Kaiser Normalization method are:

**Factor 1:** ECET5, ECET6, ECET46, ECET57 explained 18.784% of the total variance.

**Factor 2:** ECET8, ECET17, ECET21, ECET22 explained 9.614 % of the total variance.

**Factor 3:** ECET10, ECET11, ECET12, ECET23 explained 8.926% of the total variance.

**Factor 4:** ECET7, ECET14, ECET24 explained 7.729% of the total variance.

**Factor 5:** ECET4, ECET16, ECET18 explained 6.766% of

the total variance.

### Measures of natural Conservation

Initially it was performed on all 29 items that were explored and retained by pilot study. But based on the initial exploratory results, preliminary number of items (29) was further reduced to 21 for attaining reliable results. After initial refinement and purification, only 5 factors were produced by Principal Component Analysis.

### Comprehensive Process of Factor Analysis on natural Conservation

The process of factor analysis conducted by the researcher has been explained below

**Table 11: KMO and Bartlett's Test of Sampling Adequacy**

<b>KMO and Bartlett's Test (Against items that measure Ecotourism)</b>		
<b>Kaiser-Meyer-Olkin Measure of Sampling Adequacy</b>		<b>0.817</b>
Bartlett's Test of Sphericity	Approx. Chi-Square	5816.666
	Df	406
	Sig.	0

From the above Table it can be seen that the dataset understudy is suitable for Exploratory Factor Analysis, as the KMO value is 0.817. The dataset indicates that the sample is adequate and we may proceed with the Factor Analysis. This also gets satisfied as the Bartlett's Test of Sphericity in the table above indicates that our results are statistically significant.

In case of factor analysis of natural conservation Principal Component Analysis (PCA) has been used as Extraction Method. With the help of this method unique results were determined. The variables which were extracted over 30% were included to study further.

The below table indicates that all the variables may be considered for constructing factors because all extractions are over 30%.

**Table 12:** Communalities (Natural Conservation)

<b>Communalities (Natural Conservation)</b>		
	<b>Initial</b>	<b>Extraction</b>
ECET15	1	0.514
ECET20	1	0.635
ECET26	1	0.476
ECET27	1	0.673
ECET28	1	0.557
ECET29	1	0.407
ECET30	1	0.593
ECET31	1	0.507
ECET32	1	0.648
ECET33	1	0.678
ECET34	1	0.491
ECET35	1	0.636
ECET36	1	0.66
ECET37	1	0.393
ECET38	1	0.593
ECET39	1	0.654
ECET41	1	0.449
ECET42	1	0.572
ECET43	1	0.637
ECET44	1	0.58
ECET47	1	0.511
ECET50	1	0.484
ECET51	1	0.492
ECET52	1	0.505
ECET53	1	0.613
ECET54	1	0.387
ECET58	1	0.667
ECET59	1	0.639
ECET60	1	0.526

Extraction Method: Principal Component Analysis

Total Variance Explained (Natural Conservation)

**Table 13:** Calculation of Variance

<b>Component</b>	<b>Initial Eigen values</b>			<b>Extraction Sums of Squared Loadings</b>			<b>Rotation Sums of Squared Loadings</b>		
	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>	<b>Total</b>	<b>% of Variance</b>	<b>Cumulative %</b>
1	9.015	31.086	31.086	9.015	31.086	31.086	5.278	18.199	18.199
2	2.341	8.072	39.157	2.341	8.072	39.157	3.231	11.142	29.341
3	1.843	6.356	45.514	1.843	6.356	45.514	2.931	10.106	39.447
4	1.642	5.663	51.177	1.642	5.663	51.177	2.684	9.255	48.703
5	1.327	4.576	55.753	1.327	4.576	55.753	2.045	7.05	55.753
--									
20									

Extraction Method: Principal Component Analysis

Since there are five Eigen values which are greater than one in table, this indicates that one may construct five factors by using PCA approach of extraction. The constructed five factors explained 56.22% of the variations as a total. On the

basis of this matrix, the factors were constructed; that is, a specific variable was placed in a particular factor. In the present study PCA with Varimax rotation was used.

**Table 14:** Component Matrix (Natural Conservation)

<b>Rotated Component Matrix (Natural Conservation)</b>					
<b>Components</b>					
	1	2	3	4	5
ECET32	0.723				
ECET27	0.698			0.301	
ECET15	0.682				
ECET33	0.673	0.301			0.364
ECET20	0.662				-0.404
ECET28	0.651				
ECET39	0.639	0.305	0.37		
ECET26	0.609				
ECET44	0.547	0.373		0.303	
ECET42	0.541	0.34			
ECET29	0.522				

ECET53		0.709			
ECET41		0.614			
ECET36		0.6			0.53
ECET52		0.596			
ECET51		0.533		0.3	
ECET38			0.706		
ECET30			0.652		
ECET31			0.645		
ECET60			0.506	0.396	
ECET59			0.501	0.464	-0.341
ECET47		0.434	0.445		
ECET58				0.79	
ECET50	0.322			0.522	
ECET43	0.378	0.493		0.497	
ECET37				0.452	
ECET54			0.327	0.348	
ECET35				0.302	0.665
ECET34	0.349				0.561
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization					
a. Rotation converged in 10 iterations					

The Rotated Component Matrix helps us to construct factors as given below.

**Factor 1:** ECET15, ECET20, ECET26, ECET27, ECET28, ECET29, ECET32, ECET33, ECET39

**Factor 2:** ECET41, ECET51, ECET52, ECET53

**Factor 3:** ECET37, ECET50, ECET58

**Factor 4:** ECET30, ECET31, ECET38

**Factor 5:** ECET34, ECET35

### Reliability Analysis

The purpose of a reliability analysis is to determine how well a set of items, i.e., observed variables, go together into a single scale. Reliability analysis also reveals how strongly each item in the scale is associated with the overall scale. This is called item-total correlations.

Reliability analysis is usually based on reliability coefficient which is named as Cronbach's alpha. This coefficient has a maximum value of 1.0. Generally speaking, when a collection of items (i.e., a scale) has a Cronbach's alpha of .70 or larger; the scale is considered to be reliable. The value of this measure shows the percentage of reliability of

the data. It has been proposed that Cronbach's measure  $\alpha$  can be viewed as the expected correlation of several tests that measure the same construct. By using this definition, it is implicitly assumed that the average correlation of a set of items is an accurate estimate of the average correlation of all items that pertain to one construct. In the current study, the researcher has run a separate reliability analysis for the items related to Ecotourism and a separate reliability analysis for the items measuring natural conservation.

### Reliability Analysis (For items that measure Ecotourism)

The dataset under study comprises of the reliability analysis of the items that measure "Ecotourism" and the same have been shown below. Throughout the analysis the researcher bears in mind that for a scale to be considered sufficiently reliable, the Cronbach's measure  $\alpha$  must be greater than 0.70.

Scale and Reliability Statistics (Against items that measure Ecotourism)

**Table 15:** Mean, Variance and SD

No. of Items	Mean	Variance	Std. Deviation
20	38.64	45.393	6.737

The mean value of 20 items is 38.64 with 6.737 average distances from mean.

Reliability Coefficient (Against items that measure Ecotourism)

**Table 16:** Calculation of Cronbach's Alpha

Total Cases	No. of Valid Cases	No. of Exclude Cases	No. of Items	Cronbach's Alpha ( $\alpha$ )
408 (100%)	364 -89.20%	44 -10.80%	20	0.749

As  $\alpha = 74.9\%$ , one may conclude that the study (data set) is reliable.

**Table 17:** Item- Total Statistics (Ecotourism)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Cronbach's Alpha if Item Deleted
ECET4	36.51	42.627	0.167	0.751
ECET5	36.85	42.054	0.325	0.738
ECET6	36.92	41.954	0.33	0.738
ECET7	36.59	42.884	0.20	0.747
ECET8	36.2	41.077	0.244	0.747
ECET10	36.83	41.899	0.348	0.737
ECET11	36.99	41.911	0.301	0.74
ECET12	36.87	41.459	0.366	0.735
ECET13	36.67	41.161	0.342	0.737

ECET14	37.09	42.737	0.221	0.745
ECET16	36.44	39.96	0.356	0.735
ECET17	36.61	42.173	0.354	0.737
ECET18	36.68	42.143	0.308	0.739
ECET21	36.42	41.008	0.307	0.74
ECET22	36.26	38.129	0.497	0.721
ECET23	37.02	41.917	0.374	0.736
ECET24	36.37	41.075	0.231	0.748
ECET46	36.77	41.391	0.339	0.737
ECET48	36.87	40.027	0.416	0.73
ECET57	37.15	42.58	0.306	0.74

ECET... is the item code of the statements used in questionnaire. Please refer to Annexure.

Table shows the correlation between each item and a scale score that excludes that item (uses all the other items, but not that one). The maximum item- total correlation is of ECET22 which is 0.497 and minimum item-total correlation is of ECET4 which is 0.167. One may look for items that, if deleted, will lead to substantial increase in the scale of  $\alpha$ .

#### Reliability Analysis (For items that measure Natural Conservation)

The dataset under study comprises of the reliability analysis of the items that measure

“Natural Conservation” and the same have been shown below. Throughout the analysis the researcher bears in mind

that for a scale to be considered sufficiently reliable, the Cronbach’s measure  $\alpha$  must be greater than 0.70.

Scale Statistics (Against that measure Natural Conservation)

**Table 18:** Mean, Variance and SD

No. of Items	Mean	Variance	Std. Deviation
29	47.81	137.121	11.71

The mean value of 29 items is 47.81 with of 11.710 average distances from mean.

Reliability Coefficient (Against that measure Natural Conservation)

**Table 19:** Calculation of Cronbach’s Alpha ( $\alpha$ )

Total Cases	No. of Valid Cases	No. of Exclude Cases	No. of Items	Cronbach’s Alpha ( $\alpha$ )
408	386	22	29	0.92
(-100%)	-94.60%	-5.40%		

As  $\alpha = 92\%$ , one may conclude that the under study data set is reliable.

**Table 20:** Item-Total Statistics (Natural Conservation)

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item Total Correlation	Cronbach's Alpha if Item Deleted
ECET15	46.17	127.889	0.511	0.918
ECET20	46.41	131.587	0.378	0.919
ECET26	46.12	126.97	0.472	0.918
ECET27	46.34	128.568	0.588	0.917
ECET28	46.21	128.238	0.604	0.916
ECET29	46.48	130.782	0.496	0.918
ECET30	46.16	126.965	0.517	0.918
ECET31	46.19	128.267	0.49	0.918
ECET32	46.33	127.577	0.672	0.916
ECET33	46.24	127.287	0.602	0.916
ECET34	46.16	129.653	0.445	0.918
ECET35	46.08	128.301	0.503	0.918
ECET36	46.02	129.916	0.389	0.919
ECET37	46.31	130.611	0.467	0.918
ECET38	46.08	125.739	0.495	0.918
ECET39	46.39	126.853	0.663	0.916
ECET41	45.84	128.997	0.329	0.922
ECET42	46.1	124.954	0.709	0.915
ECET43	46.1	126.416	0.622	0.916
ECET44	46.28	125.819	0.666	0.915
ECET47	46.01	129.333	0.468	0.918
ECET50	46.07	127.453	0.606	0.916

ECET... is the item code of the statements used in questionnaire. Please refer to Annexure

Table shows the correlation between each item and a scale score that excludes that item (uses all the other items, but not that one). The maximum item-total correlation is of ECET42 which is 0.709 and minimum item-total correlation is of ECET41 which is 0.329. All other items also have positively correlation. One may look for items that, if

deleted, will lead to a - substantial increase in the scale  $\alpha$ .

#### Respondents: Tourist Only

The below dataset has been achieved after taking into consideration the responses of the tourists group only. The Rotated Component Matrix, helped in constructing new factors as given below:



**Table 21:** Ecotourism - New Variables

<b>Ecotourism - New Variables (Respondents: Tourist Only)</b>	
<b>Factor-1:</b> Creating Awareness and Local Involvement.	The variable —Creating Awareness and Local Involvement <sup>l</sup> is the mean of the items ECET5, ECET6, ECET46 and ECET57
<b>Factor-2:</b> Minimizing Negative Impact on Environment	Factor -2: The variable —Minimizing Negative Impact on Environment <sup>l</sup> is the mean of the items ECET8, ECET17, ECET21 and ECET22
<b>Factor-3:</b> Mix of Tourism and natural Conservation	Factor -3: The variable — Mix of Tourism and natural Conservation <sup>l</sup> is the mean of the items ECET10, ECET11, ECET12 and ECET23
<b>Factor-4:</b> Upliftment of Local Communities	Factor – 4: The variable —Upliftment of Local Communities <sup>l</sup> is the mean of the items ECET7, ECET14 and ECET24
<b>Factor-5:</b> Responsible Travel to Natural Areas	Factor – 5: The variable —Responsible Travel to Natural Areas <sup>l</sup> is the mean of the items ECET4, ECET16 and ECET18
<b>Major Factor:</b> Ecotourism (Tourist)	The Variable —Ecotourism (Tourist) <sup>l</sup> is the mean of all the above new variables of Ecotourism. (i.e. Mean of Factor 1, 2 3, 4 & 5)

Natural Conservation - New Variables (Respondents: Tourist Only)

**Table 22:** New Variables

<b>Factor-1:</b> Efficient Planning and Proper Waste Disposal	The variable —Efficient Planning and Proper Waste Disposal <sup>l</sup> is mean of ECET15, ECET20, ECET26, ECET27, ECET28, ECET29, ECET32, ECET33 and ECET39
<b>Factor-2:</b> Green Building Standards and Efficient use of Resources	The variable —Green Building Standards and Efficient Use of Resources is mean of ECET41, ECET51, ECET52 and ECET53
<b>Factor-3:</b> Creating Awareness and Proper Site Inspection	The variable —Creating Awareness and Proper Site Inspection <sup>l</sup> is mean of ECET37, ECET50 and ECET58
<b>Factor-4:</b> Ambient Air Quality Water Quality and Noise Quality	The variable —Ambient Air Quality Water Quality and Noise Quality <sup>l</sup> is mean of ECET30, ECET31 and ECET38
<b>Factor-5:</b> Recycling	The variable —Recycling <sup>l</sup> is mean of ECET34 and ECET35
<b>Major Factor:</b> Natural Conservation (Tourist)	The Variable — Conservation (Tourist) is the mean of all new variables of natural conservation. (i.e. Mean of Factor 1, 2 3, 4 & 5)

### Respondents: Conservation Agency Only

The below dataset has been achieved after taking into consideration the responses of the Tourists group only. The

Rotated Component Matrix, helped in constructing new factors as given below:

**Table 23:** New Variables (Respondents: Conservation Agencies Only)

<b>Ecotourism - New Variables (Respondents: Conservation Agencies Only)</b>	
<b>Factor-1:</b> Creating Awareness and Local Involvement	The variable —Creating Awareness and Local Involvement <sup>l</sup> is the mean of the items ECET5, ECET6, ECET46 and ECET57
<b>Factor-2:</b> Minimizing Negative Impact on Environment	Factor-2: The variable —Minimizing Negative Impact on Environment is the mean of the items ECET8, ECET17, ECET21 and ECET22
<b>Factor-3:</b> Mix of Tourism and natural Conservation	Factor -3: The variable —Mix of Tourism and natural Conservation is the mean of the items ECET10, ECET11, ECET12 and ECET23
<b>Factor-4:</b> Upliftment of Local Communities	Factor – 4: The variable —Upliftment of Local Communities <sup>l</sup> is the mean of the items ECET7, ECET14 and ECET24
<b>Factor-5:</b> Responsible Travel to Natural Areas	Factor – 5: The variable —Responsible Travel to Natural Areas <sup>l</sup> is the mean of the items ECET4, ECET16 and ECET18
<b>Major Factor:</b> Ecotourism (Conservation Agencies)	The Variable —Ecotourism (Conservation Agencies) is the mean of all the above new variables of Ecotourism. (i.e. Mean of Factor 1, 2 3, 4 & 5)

Natural Conservation - New Variables (Respondents: Conservative Agencies Only)

**Table 24:** New Variables

<b>Factor-1:</b> Efficient Planning and Proper Waste Disposal	The variable —Efficient Planning and Proper Waste Disposal is mean of ECET15, ECET20, ECET26, ECET27, ECET28, ECET29, ECET32, ECET33 and ECET39
<b>Factor-2:</b> Green Building Standards and Efficient Use of Resources	The variable —Green Building Standards and Efficient Use of Resources is mean of ECET41, ECET51, ECET52 and ECET53
<b>Factor-3:</b> Creating Awareness and Proper Site Inspection	The variable —Creating Awareness and Proper Site Inspection is mean of ECET37, ECET50 and ECET58
<b>Factor-4:</b> Ambient Air Quality Water Quality and Noise Quality	The variable —Ambient Air Quality Water Quality and Noise Quality is mean of ECET30, ECET31 and ECET38
<b>Factor-5:</b> Recycling	The variable —Recycling is mean of ECET34 and ECET35
<b>Major Factor:</b> Natural Conservation (Conservation Agencies)	The Variable —Natural Conservation (C. Agencies) is mean of all new variables of natural conservation. (i.e. Mean of Factor 1, 2 3, 4 & 5)

### Normality Distribution

Assessing Normality of the data is paramount for the reason that it would determine the application of various statistical measures. In order to assess normality of variables the

Shapiro-Wilk and Kolmogorov-Smirnov tests are applied. Both these tests are suitable for numerical continuous or quasi-continuous variables. Significance level is set at  $\alpha=5\%$ .

**Table 25:** Hypothesis tests

H0: Data is normally distributed	H1: Data is not normally distributed
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**Table 26:** Tests of Normality (For Tourists)

	Kolmogorov – Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Ecotourism	0.061	378	0.002	0.985	378	0.001
Natural Conservation	0.08	378	0	0.932	378	0
a. Lilliefors Significance Correction						

As the test statistics of both variables assessed by both tests drive p-value below the significance level, it can be concluded that data are not normally distributed.

H0 is rejected for both variables.

### Perception of Conservation agencies

Tests of Normality (For Tourists)

**Table 27:** Tests of Normality for Tourists

	Kolmogorov – Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Ecotourism	0.15	30	0.083	0.958	30	0.274
Natural Conservation	0.142	30	0.127	0.936	30	0.072
a. Lilliefors Significance Correction						

As the test statistics of both variables assessed by both tests drive p-value above the significance level, it can be concluded that data is normally distributed. H0 is retained for both variables.

Thus, it may conclude that there is a positive relationship between ecotourism and natural conservation with regard to the perception of tourists arriving in Kashmir. There is also a positive relationship between ecotourism and natural conservation with regard to the perception of conservation agencies operating in Kashmir.

The ecotourism in Kashmir, where nature and culture is plentiful and to gain a greater understanding of the relationship between conservation and ecotourism, while at the same time adding to existing research and helping develop ecotourism in Kashmir. The study is conducted to determine the relationship of ecotourism and natural conservation with regards to the perceptions of tourists and conservation agencies. A total of 408 respondents were selected for the study, out of which 30 were local conservation agencies composed of government officials, NGOs and travel firms and 370 were tourists. A questionnaire is distributed measuring eco-tourism and natural conservation and the level of perception of the respondents to each, then; responses were tabulated, tested for normality and analyzed for significant results. The correlation between ecotourism and natural conservation is examined with regards to the perceptions of tourists and conservation agencies alike.

Data shows that there is a significant and positive relationship between eco-tourism and natural conservation as perceived both by tourists and conservation agencies. Also it was found that there is no significant difference between the perception of tourists and conservation agencies with regard to the relationship between ecotourism and natural conservation. This indicates a high level of awareness of the link between these two concepts as inextricable and necessary in any touristic activity.

Implications for on the conduction of tourism in Kashmir highlights a stronger local tourism policy and framework that is responsive to environmental concerns as well as strengthening awareness of both locals and tourists. Lastly, doing so has allowed us to suggest ways to strengthen the development of ecotourism in Kashmir.

### Conclusion

Various tendencies also occur in the understanding of ecotourism upon changing living conditions. Unless, attention is paid now for developing tourism in ecologically sustainable manner and maintaining environmental integrity, it may cause irreparable damage. To encourage community support for conservation and the consequent protection of natural resources, a direct connection needs to be ascertained between conservation, ecotourism and the benefits that accrue to the community from it, whether collective or individual. The study work starts with the Evolution of Ecotourism that provides the background information and definition of ecotourism. The main body of the study is an attempt to identify the unexplored tourist spots. It describes in detail the important unexplored ecotourism spots.

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