IMPACT OF ATAL TUNNEL ON THE TOURISMINFRASTRUCTURE ALONG SISSU-KEYLONG STRETCH, LAHAUL VALLEY

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Abstract:

The Rohtang Pass Highway Tunnel in Northern India's Western Himalaya area is one of the world's longest highway tunnels over 10,000 feet. Throughout the year, the Atal Tunnel connects remote areas of Lahaul. After opening of the Attal Tunnel, 22,000 visitors visited Lahaul Valley in a single day, accounting for nearly one-fifth of all visitors in the previous year. Tourism is rapidly expanding in Lahaul, with a wide range of effects. The study examined the effect of the Attal tunnel on the Lahaul Valley's tourism infrastructure. Sudden increase in tourist inflow creates a lot of pressure on the tourism infrastructure and services. The research is based on the study of tourism inflow rate, Attraction points, tourism infrastructure and services, relevant reports of Tourism Development Corporation, newspapers, previous studies, together discussions made with tourism authorities and field visits undertaken.

Keywords: Tourist inflow rate, Attraction points, Highway Tunnel and Tourism infrastructure.

1. INTRODUCTION:

Lahaul Valley is located in the Lahaul-Spiti district of Himachal Pradesh's northern province, with a total area of 4924 square kilometres. The Chandra and Bhaga mountain rivers in India provide water to Lahaul.

Tourism is a multifaceted practise that involves both physical and psychological aspects. Accommodation, lodging, tourist attractions, and entertainment are all factors to consider. The Tayul Monastery, Keylong, Kunzum Pass, Gondhla village, Guru Ghantal Monastery, Kardang Monastery, Sissu, Koksar, and Lady of Keylong glacier are just a few of the tourist attractions in the Lahaul valley. The valley of Lahaul Summer and monsoon seasons are ideal for hiking, trekking, and adventure drives. During this winter, the tunnel has become the most popular tourist attraction. Many tourists travel through the valley on their way to Leh. Their journey is supported by a variety of tourism facilities and services located across the valley.

Recordings from the Atal Tunnel On a single day, 22,000 visitors put a strain on the valley's tourism infrastructure and services. Different hotels/guest houses, home stays, and travel agencies make up the tourism infrastructure. Aside from tourist lodges, various tents and camping sites assist a large portion of visitors. Adventure-seeking visitors not only get beautiful memories of living in the middle of nature, but they also help to encourage eco-friendly and temporary tourist accommodations. Tourists are equally assisted by banking facilities, medical services, local restaurants and dhabas at the district headquarter (Keylong) and many other tourist attractions in the valley.

The Border Road Organisation (BRO) designed the world's longest highway tunnel, the 9.02 km long Rohtang Pass Highway Tunnel, which connects Manali to the Lahaul-Spiti valley. It will cut through a mountain west of the Rohtang pass, shortening the distance between Solang Valley and Sissu by 46 kilometres and taking about 15 minutes to complete. It provides all-weather access to the landlocked

valley of Lahaul-Spiti, which is cut off for nearly six months of the year due to snow on the Rohtang pass between November and April. In the Lahaul valley, it boosts tourism and winter sports.

2. LOCATION OF STUDY:

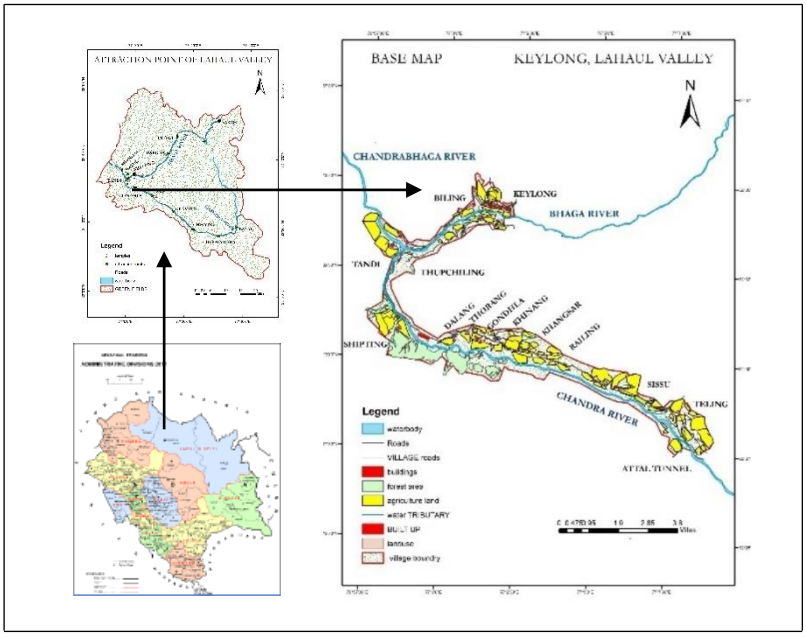


Figure 1: Location of Study area

3. STUDY AREA:

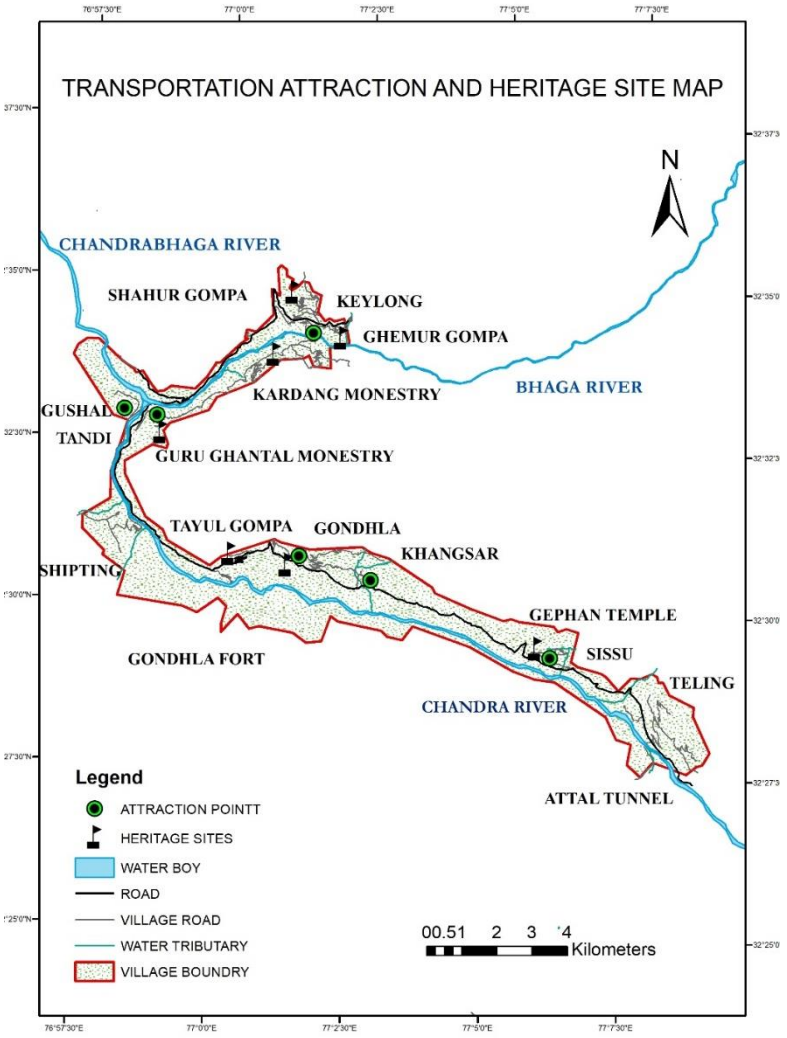
The Figure 1 is showing the location map of the study area. Study area is situated in Lahaul Valley that is in LahaulSpiti District in Himachal Pradesh. Study Area consist of 14 village from Sissu-Keylong Stretch. The Sissu to Keylog Stretch is 43Kms.

Chandra and Bhaga are the major rivers that flows in Lahaul Valley and merges in Tandi village forms Chandrabhaga. Manali Leh Highway is The Major Road Connecting Attal Tunnel to Lahaul. Dispersed Settlement is there in the Lahoul Valley. These villages are famous for its heritage sites, natural scenic sites and for adventure tourism. Keylong is the administrative centre for the Lahaul and Spiti district. All weather Connectivity through Atal Tunnel to Lahaul Valley attract tourist to Lahaul valley is one of the biggest strengths.

4. DATA ANALYSIS:

4.1 Attraction points:

The Map 1 shows the major tourist attraction points along Sissu-Keylong stretch, Lahaul Valley. There are 6 major tourist attraction points that attracts the tourist to this valley. Major Attraction points in Lahaul are Gondhla, Tandi, Gushal, Sissu, Khoksar and Keyong. These villages are famous for its heritage sites, Culture values, Natural scenic sites and for Adventure tourism. Keylong is the administrative centre for the Lahaul and Spiti district.Keylong is home to the government offices and commercial activities. Snow is also the attraction to the Tourits to all these spots. The Chandra And Bhaga Rivers and the confluence point Chandrabhaga at Tandi and Sissu waterfall among the natural attraction.



Map 1: Transportation, Attraction and Heritage Site Map



Figure 2: Sissu Village



Figure 3: Khoksar Village

4.2 Heritage sites:

The figure 2 shows the Heritage sites along Sissu-Keylong stretch, Lahaul Valley. There are Seven heritage sites that attracts the tourist to this valley. One temple i.e., Gephan temple and two Monestry (The Guru Ghantal Monastery, KardangMonestry) and three Gompa(Tayul Gompa,Shashur Gompa, Ghemur Gompa) and one Fort (Gondhla Fort) are famous for their Historical and Architecture values.

The Gondhla Fort is about 20 generations old and situated in Gondhla Village. Gondhla castle or fort, attracts large number of tourists. Tayul gompa above the village of Satingri has the biggest statue of Padma Sambhava and his two manifestations as Singhmukha and Vajravarahi. The statue is 12 feet tall. Tayul gompa written in Tibetan as Ta – Yul means chosen place. It is one of the oldest Dugpa sect



Figure 4: Gondhla Fort

Guru Ghantal Monastery monastery is situated on a hill above the Tupchiling village at the confluence of the rivers Chandra and Bhaga. This gompa was founded by Padma Sambhava and is more than 800 years old. Kardang Monastery is the biggest monastery of the area. This was founded about 900 years ago. The monastery is perched on a ridge below the 15000 feet high Rangcha peak. The Ghemur Gompa is situated at a distance of 18 kms from Keylong. It has a gompa where in the month of July devil dance is enacted by the Lamas.

4.3 Transportation:

The tourism and transportation industries have a close working relationship. The Figure 2 shows the Transportation map along Sissu-Keylong Stretch, Lahaul Valley. The major Highway in Lahaul is Manali Leh Highway. That road is maintained and prepared by Border Road Organization. Manali Leh Highway connect the Attal Tunnel to the Lahaul. The distance between Atal Tunnel to Keylong stretch is 43 kms. There are 5 link road to the villages. There are only two helipads in SissuKeylong stretch one is Sissu helipad and second is Gondhla Helipad. Bus services two electric buses run between Manali and Keylong. 13 buses routes are there for different different states and within neighbouring districts. Border Roads Organization and Centre Public Works Department, in partnership with H.P.P.W.D., have been maintaining the major infrastructure division, namely roads (Himachal Pradesh Public Works Department).

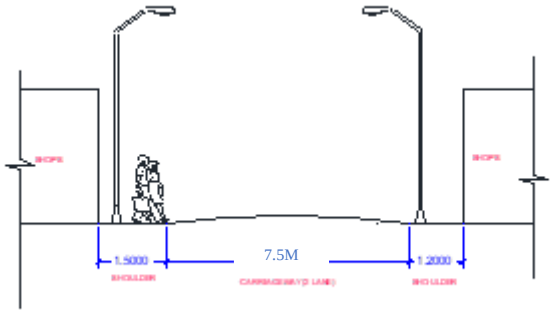


Figure 5: Manali-Leh NH Crossection

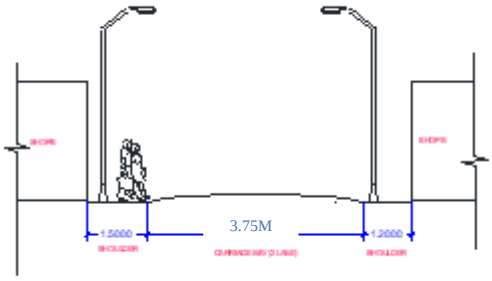


Figure 6: Village Road Crossection

The width of the Manali-Leh highway is 7.5M with bituminous pavement. The width of the village Road is 3.75M, There are five link road that emerges from the Manali-Leh Highway. The link road goes to Teling Village, Kardang Monastery, Shipting Village, Gushal Village and Shashur Gompa. There are no bus services to the Kardang Monastery, Shashur Gompa, Shipting Village and Teling Village. Two bus services are there For Gushal Village. All the people have to dependent on own or private vehicles.



Figure 7: Manali-Leh NH



Figure 8: Village Road Teling

4.4 Touri

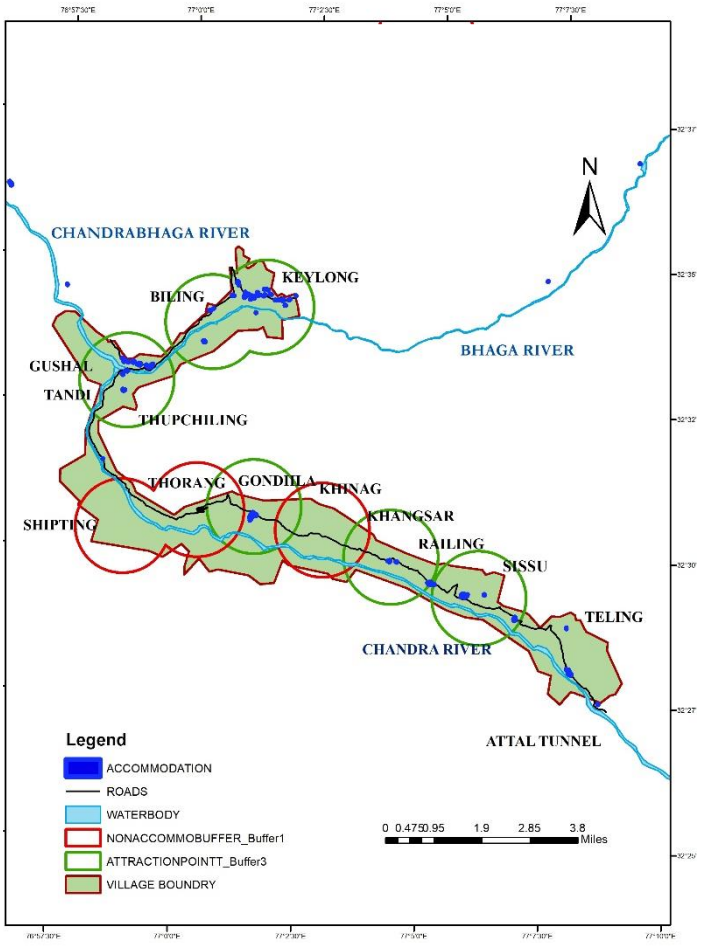
In the month of October after the tunnel opening There is sudden increase in the tourist inflow ofLahaul valley22,000 visitors in a single day, nearly one-fifth of the total tourists in the Lahaul valley in the previous year, puts a strain on the valley's infrastructure. In 2019 before opening of Atal Tunnel the tourist inflow is 108000 in whole year. After opening of Atal Tunnel, the tourist inflow rate is increased by 12% every month. This increase directly put a strain on the infrastructure of Sissu-Keylong Stretch.

Table 1: Showing Tourist Inflow

Sr. No.	Month	st Inflow
1	October	135000
2	November	153000
3	December	179000

4.5 Accommodation:

The Map 2 is showing Tourism Infrastructure within the Lahaul area include Hotels, Guest houses, Home stay and Travel Agencies in Accommodation. There are 91 Home stays, 15 Hotels, 13 Guest houses, 8 Government Guest Houses and 14 Travel Agencies. Keylong has maximum numbers of Hotel, Guest house and Home stay (8 Hotels, 41 Home stay, 12 Guest House).Sissu is having second Highest no. of accommodation for the tourists (3Hotels, 21 Home stay and 5 Guest House). This map is showing the area around villages that are serving accommodation. The green Colour Buffer is showing the villages with the accommodation facilities. The Red colour shows the Villages where no accommodation is there. Thorang, Shipting and Khinag are the villages serving with no accommodation.



Map 2: Accommodation Map

All the hotels/guest houses, home stays, and travel agencies listed above have been registered with the Deputy Director of Tourism and Civil Aviation, Kullu, Manali.

Table 2 Showing the Accommodation data of 2016 and 2020 and the percentage increase. Before the Opening of Atal Tunnel there are only 32 Numbers of Structures because of less Tourism inflow and Blockage of Road For 6 Months. After the Opening of Tunnel,the sudden Increase in the Accommodation is there. Total of 129 Structures are there i.e. catering 3000 numbers of tourists per day. According to theOffice of Deputy Director tourism and civil aviation, KeylongLahaul-Spiti 7000 Tourist is coming to Lahaul every day and maximum Tourists are coming back to Manali because of lack of Accommodation facility. There is a daily accommodation shortage of 4000 people.So as per the tourist inflow there is lack of accommodation, burden on the infrastructure is there.

Table 2: Showing Accommodation Data of 2020 and 2016.

Sr. No.	NATUREOF ACCOMMODATION	DATA 2020	DATA 2016	%INCREASE
1	HOTEL	15	12	20%
2	HOME STAY	91	07	92.3%
3	GUEST HOUSE	13	09	30.76%
4	GOVT.GUEST HOUSE	8	4	50%
5	TOTAL	129	32	75.19%

Source: Office of Deputy Director tourism and civil aviation, Keylong Lahaul-Spiti

Table 3 is Showing the village wise Accommodation data of 2020. Keylong Village is having maximum number of Accommodation (61 Structures) because of city administration. Sissu Village is having second Highest Accommodation facility.

Table 3: Showing Village Wise Accommodation

Sr. No.	VILLAGE	HOTEL	HOME STAY	GUEST HOUSE
1	SISSU	3	21	5
2	KHANGSAR	-	4	-
3	GONDHLA	1	7	1
4	TANDI	2	11	1
5	THORANG	-	2	-
6	BILING	1	5	2
7	KEYLONG	8	41	12

Source: Office of Deputy Director tourism and civil aviation, KeylongLahaul-Spiti

4.7 TOURISM SERVICES:

Telecommunication and Internet:

P&T and mobile services from BSNL are available. Cellular services from BSNL, AIRTEL, and JIO are available. Keylong, Tandi, Sissu, Goushal, Koksar (from the Sissu-Keylong Stretch), and Keylong are all covered by BSNL.

Petrol Pump:

There is only one petrol pumps one at Tandi (Lahaul valley) which is 105 Km away from Manali.



Figure 10: Petrol Pump

Banking Services:

State Bank of India branches in Keylong, i.e. in the administration centre, have primarily provided banking services. In Keylong and Sissu, there are two Punjab National Bank branches.

Hospital:

Medical services have been provided by the divisional hospital in Keylong. Ayurvedic Divisional Hospital is also in Keylong. Sissu, Gondhla and Ghemur Villages is having Primary Health centre. The local police have offered security services that were not needed due to the residents' honesty and calm demeanour.

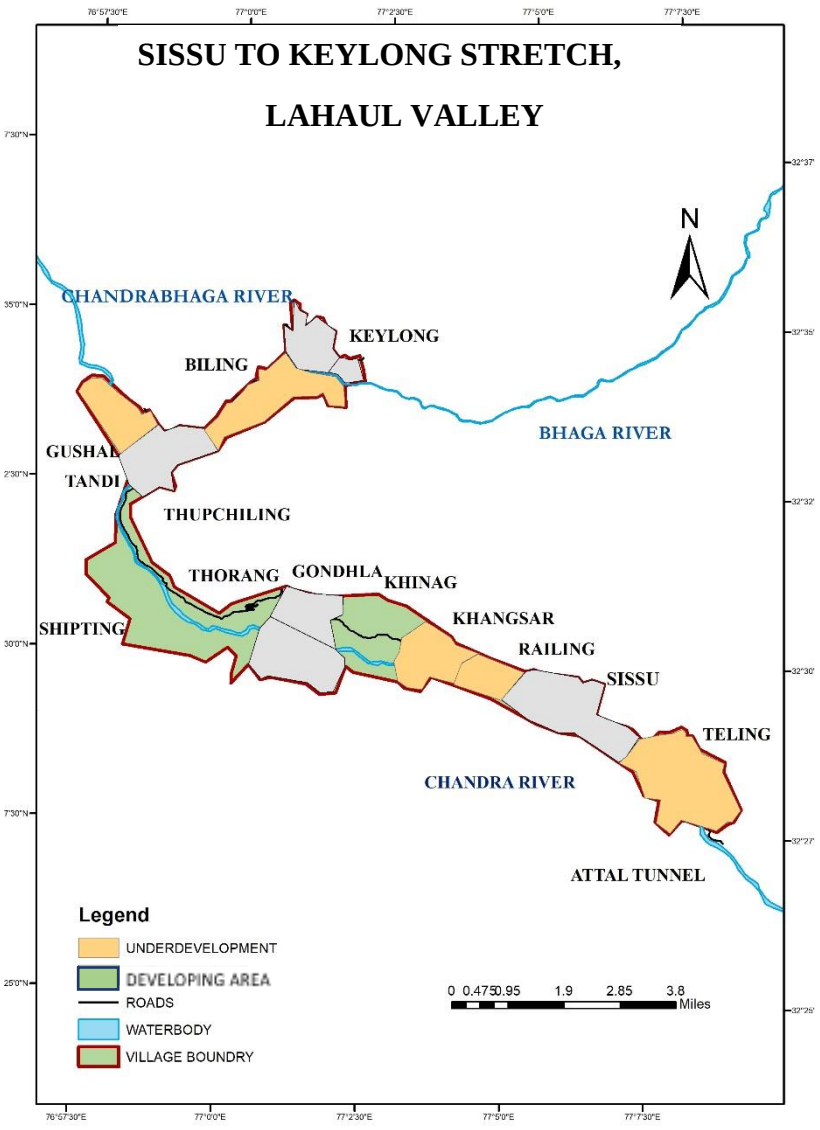


Figure 11: Petrol Pump

Keylong and Sissu are the Villages with maximum number of services in the Keylong Sissu Stretch.

5. FINDINGS AND DISCUSSION:

As shown in Fig 13 The Villages Keylong, Sissu, Gondhla and Tandi is having maximum number of Services and accommodation in SissuKeylong Stretch. The tourist Spot that is easily accessible by roads is mostly developed areas. The area where is no tourist spot is underdeveloped. No accommodation and services are there. i.e. Khinag, Shipting and Thorang. As per Deputy Director Tourism and civil aviation, Keylong, Lahaul-Spiti, 7000 tourists are coming every day and this stretch is having accommodation capacity of 3000 tourist per day. This sudden increase in tourist inflow i.e., because of opening of Atal Tunnel. Directly Put a strain on Tourism Infrastructure. So, accommodation capacity of 4000 Tourist per day is required.



Map 3: Combined Analysis Map

6. CONCLUSION:

The Atal Tunnel has opened up new possibilities for the Lahaul Valley. Because of the tunnel's completion, the district and state governments have become more interested in tourism and its infrastructure. Many hotels, guest houses, home stays, and travel agencies have provided tourism facilities and services to many tourists based on the preceding knowledge and discussion. The sudden rise in tourist inflow, on the other hand, puts a strain on tourism infrastructure. After the tunnel's completion, infrastructure and utility construction has increased. The administration set up a single-window registration camp for the Homestays Scheme, and over 400 people signed up in just three days to cater to tourists and improve tourism infrastructure.

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