

Department of Geography, SHMM GDC Anantnag.

Report on “One Day geographical Tour to Purani Tunnel and its Surroundings (10th of September 2026)”

**Department Of Geography
Govt. Degree College Anantanag**

A Report
On

One Day Field Study Tour To
Purani Tunnel and its Surroundings
(10th of September 2026)

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1. INTRODUCTION

Field study, commonly referred to as fieldwork, is an essential component of geographical education. It involves systematic observation, investigation, and analysis of geographical phenomena in their natural settings, beyond the conventional classroom environment. Geography is fundamentally a field-oriented discipline. Geographical enquiry becomes more meaningful when theoretical knowledge acquired in the classroom is supplemented by direct field observations and well-planned field surveys. Fieldwork enables students to understand the spatial distribution, characteristics, associations, and interrelationships of natural and cultural features at the local and regional levels. Field studies also provide an opportunity to collect first-hand information that may not be available through secondary sources. They help students understand the nature and characteristics of physical, social, economic, and cultural environments and, more importantly, the complex interactions among their various components. Fieldwork is therefore essential for developing an analytical and observational approach among students towards their geographical environment. It enables learners to identify geographical processes, interpret landscapes, examine human–environment relationships, and relate theoretical concepts to real-world situations. Thus, fieldwork constitutes an important part of geographical learning, teaching, and research. It contributes not only to a better understanding of the Earth's surface but also to the development of practical skills such as observation, data collection, interpretation, geographical analysis, and field-based problem solving.

As an integral part of the undergraduate Geography curriculum, the Department of Geography, Government Degree College Anantnag, organized a one-day geographical field study tour to Purani Tunnel and its surrounding areas on 10 September 2026. The field study was organized for students of UG NEP 3rd and 5th Semesters with the objective of providing them with first-hand knowledge of the physical and human geographical characteristics of the Banihal region. The field visit focused on a range of geographical themes, including mountain passes, glacial and fluvio-glacial landforms, fluvial processes, alpine pastures, mountain ecology, transhumance, the cultural geography of the Gujjar community, historical transportation infrastructure, tourism, and human–environment interactions.

The students were also introduced to the strategic geographical importance of the Banihal region and its extensive road, railway, and tunnel networks, which facilitate connectivity between the Kashmir Valley and the Jammu region. The tour party comprised **120** students (male 75, female 45) accompanied by faculty members and non-teaching staff of the college.

2. FACULTY AND STAFF ACCOMPANYING THE STUDENTS

The following faculty members and staff accompanied the students during the field study tour:

- 1. Dr. Muzafar Ahmad Wani — Head, Department of Geography**
- 2. Dr. Jahangeer Afzal — Assistant Professor, Department of Geography**
- 3. Dr. Abid Hussain Rather — Lecturer, Department of Geography**
- 4. Dr. Adil Manzoor Nanda — Lecturer, Department of Geography**
- 5. Mr. Shahid Gulzar — Guest Lecturer, Disaster Management**
- 6. Ms. Tariq Ahmad — Laboratory Bearer, Department of Geography**
- 7. Mr. Himayat Rafiq — LFE, Department of Geography**
- 8. Ms. Bilqesa Jan — LFE, Government Degree College Anantnag**

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3. OBJECTIVES:

The major objectives of the field study were:

- To acquaint students with fluvio-glacial processes and their associated landforms.
- To understand the climate, vegetation, and ecology of the Pir Panjal Mountains.
- To study the alpine pastures and understand their ecological and economic significance.
- To introduce students to practice of transhumance of Gujjar and Bakarwal communities.
- To understand the cultural geography and livelihood practices of pastoral communities.
- To study the geographical and historical significance of Banihal Pass and Purani Tunnel.
- To understand the relationship between mountainous terrain and transportation infrastructure.

4. DESTINATION AREA: BANIHAL PASS

Banihal is located in the Pir Panjal Range of the Western Himalayas and has historically served as an important gateway between the Jammu region and the Kashmir Valley. Banihal Pass is situated at an elevation of approximately 2,800 metres (about 9,200 feet) above mean sea level. The pass and its surrounding mountain landscape have considerable physical, historical, cultural, and transportation significance. The difficult mountainous terrain of the Pir Panjal Range historically presented a major barrier to movement between Jammu and Kashmir. Consequently, the development of roads and tunnels in the Banihal sector has played an important role in improving regional connectivity. The historic Banihal Cart Road was developed as a motorable/wheeled route through the Pir Panjal Mountains and was opened to the general public around 1922. The later construction of the Jawahar Tunnel represented another major stage in the development of transportation infrastructure through the Pir Panjal Range. The project was initiated in the 1950s, with the tunnel designed to provide more reliable year-round connectivity between the Kashmir Valley and the Jammu region.

Department of Geography, SHMM GDC Anantnag.

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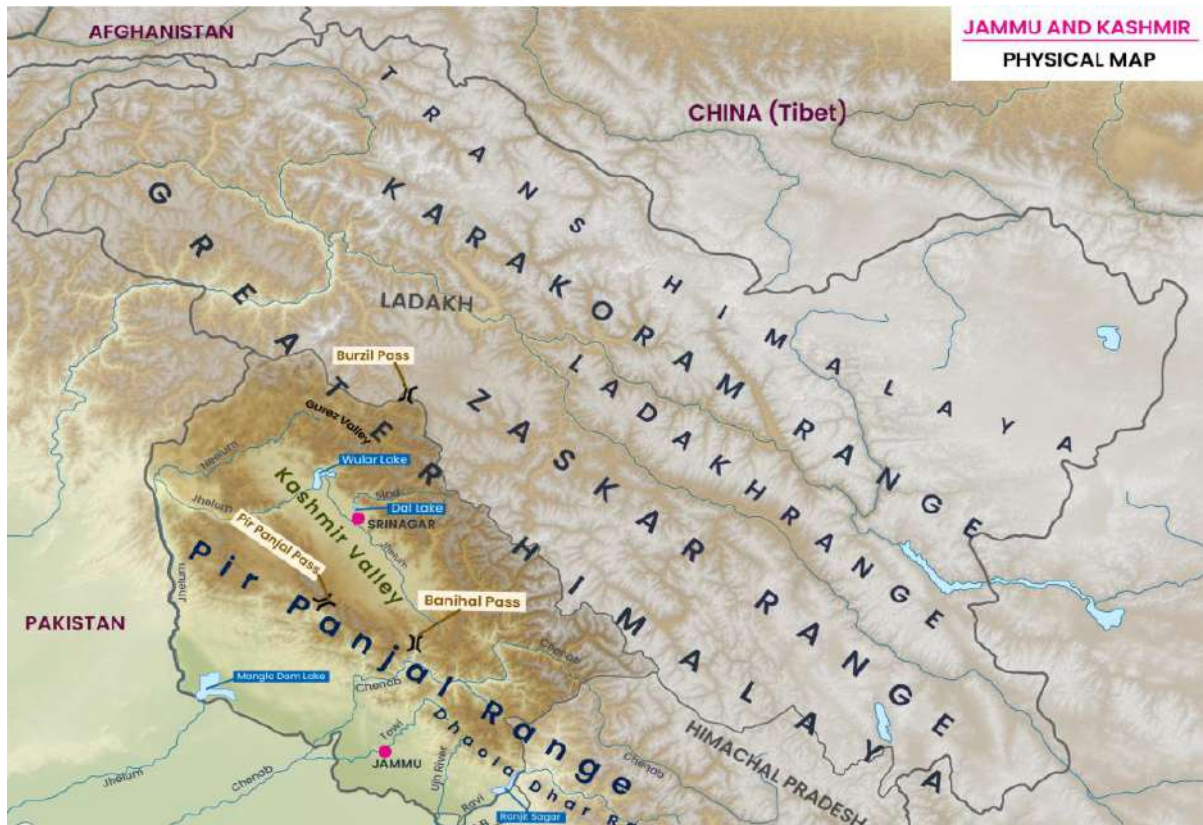


Fig. 1: Location Map of Banihal Pass

DETAILED ACCOUNT OF FIELD ACTIVITIES

5. Departure from Government Degree College Anantnag

The Department of Geography organized the field tour on **10 September 2026**. The tour party departed from the college campus at approximately **9:16 A.M.**

Before departure, the students were briefed about the objectives of the field study, field discipline, safety precautions, and the major geographical features that they would observe during the journey.

During the journey, faculty members encouraged students to observe the changing landscape from the Kashmir Valley towards the mountainous terrain of the Pir Panjal region.

Department of Geography, SHMM GDC Anantnag.

Report on “One Day geographical Tour to Purani Tunnel and its Surroundings (10th of September 2026)”

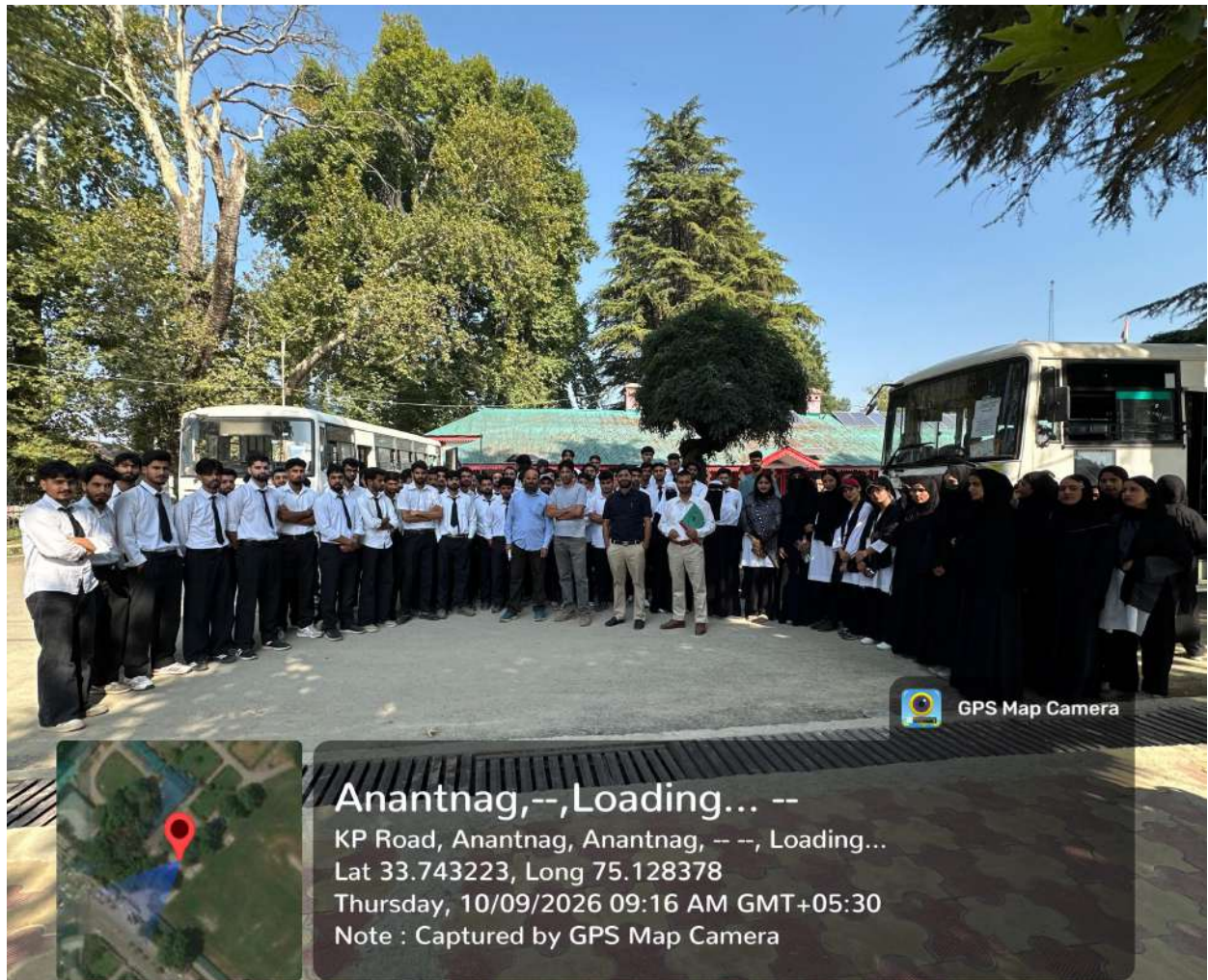


Fig.2: Department of geography all set to proceed for the geographical tour to Banihal pass and its surroundings

The tour party departed from the College campus at 9:16 A.M in the morning. During the initial part of the journey, the students observed the agricultural landscape around Nipora, Anantnag, along the National Highway-44 (NH-44). The area provided an opportunity to observe extensive paddy cultivation and the associated rural landscape. The faculty members explained the relationship between agricultural practices, soil characteristics, relief, drainage, water availability, and land use. Students were also able to observe brick kilns located along the transportation corridor. This provided an opportunity to discuss the relationship between raw-material availability, land use, accessibility, transportation, and local economic activities. The halt enabled students to connect classroom discussions on agricultural geography, soils, land use, rural landscapes, and human modification of the environment with direct field observations. On reaching Banihal around 12:PM the students had lunch

Department of Geography, SHMM GDC Anantnag.

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after having rest for some time. After Lunch the students grouped together and teacher took them around the valley to explore the geographical personality of the destination.

6. Arrival at Banihal

After reaching Banihal, the students and accompanying staff took a short break and had lunch. Following the break, the students were organized into groups and taken to different observation points under the supervision of the faculty members. The teachers explained the physical and human geographical characteristics of the area and guided students in observing the distinctive geographical personality of the Banihal landscape. The students were encouraged to examine the relationship between relief, climate, vegetation, drainage, transportation, settlement, tourism, and human activities.

7. Old Banihal Tunnel

One of the major academic attractions of the field visit was the Purani Tunnel, or Old Banihal Tunnel, and the associated historic Banihal Cart Road. The old Banihal route represents an important stage in the historical development of transportation across the Pir Panjal Mountains. Historical accounts describe the Banihal Cart Road as an important route linking the Kashmir Valley with the Jammu region. Tunnel was a short, 150-yard passage completed in the 1920s along the Banihal Cart Road that connected Jammu and KASHMIR. The main Kashmiri engineer for the Banihal project was Pt. Laxman Joo Tickoo. 1920, Old Banihal tunnel after completion — a remarkable engineering marvel of its time that connected the Kashmir Valley through the mighty mountains, symbolizing progress, resilience, and the timeless history of the region. The road was completed in the early twentieth century and opened to the general public around 1922. The development of this route significantly improved accessibility across the Pir Panjal Mountains. Before the development of modern road infrastructure, movement across the mountain barrier was considerably more difficult and was affected by terrain, snowfall, and other environmental constraints. The historical tunnel and cart road therefore provide an important example of the relationship between physical geography and transportation development. The students were briefed about the historical evolution of the route and the engineering challenges involved in establishing transport connectivity through a mountainous environment. The subsequent development of the Jawahar Tunnel during the 1950s further transformed connectivity across the Pir Panjal Range. The Jawahar Tunnel was constructed to provide a more dependable route beneath the mountain barrier and became an important component of the Jammu–Srinagar Road connection. The development of successive tunnels and improved road infrastructure demonstrates how technological interventions have enabled transportation networks to overcome geographical barriers.

Department of Geography, SHMM GDC Anantnag.

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Fig.3: Old tunnel When it was operational in 1922

Source: <https://www.banihal-tunne-in-around-1920s-dutta-photographers-the-main/4963949373662480/>

Department of Geography, SHMM GDC Anantnag.

Report on “One Day geographical Tour to Purani Tunnel and its Surroundings (10th of September 2026)”



Fig.4: Teachers explaining the historical significance of the tunnel to the students

8. Practice of Transhumance in jammu and kashmir UT

During the geographical tour, the students were introduced to the traditional practice of **transhumance** followed by the Gujjar and Bakarwal communities of Jammu and Kashmir. They were explained how these pastoral communities undertake seasonal migration from the subtropical regions of Jammu to the alpine pastures of Kashmir during the summer months and return to the lower-altitude areas during winter. This centuries-old practice reflects the close relationship between human societies and their physical environment and provides an important example for understanding the deterministic perspective in Human Geography. The transhumant way of life is particularly significant as it demonstrates how pastoral communities adapt their livelihood and movement patterns to seasonal variations in climate, availability of pasture, water resources, and terrain. During their seasonal movement, the communities also face various environmental and geographical challenges, including harsh weather conditions, difficult mountainous terrain, scarcity of resources, and risks associated with high-altitude environments. The study of transhumance therefore provided the students with valuable

Department of Geography, SHMM GDC Anantnag.

Report on “One Day geographical Tour to Purani Tunnel and its Surroundings (10th of September 2026)”

field-based insight into the interaction between people, environment, mobility, and livelihood in the Himalayan region.



Fig.5: Dr. Muzafar Ahmad Wani HOD Geography Explains the significance of Transhumance in Western Himalayas

9. Alpine Pastures of Pir Panjal Mountains

During the geographical field tour to the Pir Panjal Mountains, the professors explained the alpine pastures, their ecological significance, and their role in supporting biodiversity and livestock grazing. Students learned about the climatic conditions of high-altitude areas, including low temperatures, snowfall, and a short growing season. The vegetation characteristics of alpine grasslands and their adaptation to harsh conditions were also discussed. Important geographical concepts such as the tree line and snow line, and their relationship with altitude and climate, were explained through field observations. Overall, the tour helped students connect geographical concepts with real mountain landscapes.

Department of Geography, SHMM GDC Anantnag.

Report on “One Day geographical Tour to Purani Tunnel and its Surroundings (10th of September 2026)”



Fig.6: Dr. Muzafar Ahmad Wani, HOD Geography, explaining the alpine pastures, their ecological significance, forests, and climatic conditions of the Western Himalayas.

10. Study of Fluvio-Glacial Landscape Around Banihal Pass

During the geographical field tour around Banihal Pass in the Pir Panjal Mountains, students were given first-hand exposure to a variety of glacial and fluvio-glacial landforms. To achieve this purpose students were then guided to the higher reaches of Banihal pass where they learnt about various glacial processes and features like moraines, glacial till etc. The students also came across a U-shaped valley carved out by the glacial erosion. The professors explained how the movement of glaciers, glacial erosion, transportation, deposition, and meltwater activity have played an important role in shaping the present mountain landscape. Various landforms were identified and explained to the students in the field, including U-shaped valleys, cirques, tarns, moraines, arêtes, horns, pyramidal peaks, drumlins, till deposits, and glacial erratics. Students were also introduced to hanging valleys, glacial troughs, Roche moutonnée, glacial striations, outwash plains, glaciofluvial terraces, braided channels, alluvial fans, and meltwater deposits. The professors explained the characteristics and formation processes of these features and helped students distinguish between erosional and depositional landforms. Particular emphasis was given to the role of glaciers in carving valleys and mountain slopes, while meltwater streams were discussed in relation to the transportation and deposition of sediments. The field observations provided students with a practical understanding of glacial geomorphology and enabled them to relate classroom concepts to actual landforms and landscapes. The tour thus offered valuable first-hand experience of the glacial and fluvio-glacial processes operating in the Pir Panjal Mountains.

Department of Geography, SHMM GDC Anantnag.

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Fig. 7: Teachers Explaining the students about the different fluvial-glacier land-forms

11. Transportation Network and Strategic Significance of Banihal Pass

The Banihal region occupies an important position within the transportation network of Jammu and Kashmir because of its location within the Pir Panjal Mountains. The mountainous terrain has historically posed significant challenges to transportation and communication. The construction of roads and tunnels has therefore played a crucial role in improving connectivity between the Jammu region and the Kashmir Valley. Students were introduced to the development of road and railway infrastructure in the Banihal sector. The field discussion emphasized the geographical relationship between:

Relief → Transportation → Accessibility → Settlement → Economic Activity → Regional Development

The development of tunnels demonstrates how engineering interventions can overcome natural barriers created by steep slopes, high mountain passes, snowfall, and difficult terrain.

The Banihal region has subsequently developed into an important transportation corridor, with road and railway infrastructure facilitating the movement of people and goods across the Pir Panjal Mountains

12. Anthropogenic Impact on Environment of the Banihal Pass

Department of Geography, SHMM GDC Anantnag.

Report on “One Day geographical Tour to Purani Tunnel and its Surroundings (10th of September 2026)”

The field study also provided an opportunity to examine the relationship between human activities and the mountain environment. Students were encouraged to observe the potential environmental effects associated with tourism, transportation, construction, waste generation, and increasing human pressure. The faculty members emphasized that mountain environments are ecologically sensitive and require careful management. Particular emphasis was placed on the need for:

Proper waste management

Protection of vegetation

Conservation of natural landforms

Responsible tourism

Protection of local cultural resources

Sustainable use of mountain ecosystems

Minimization of unnecessary environmental disturbance

The discussion helped students understand the concept of sustainable tourism and environmental conservation in mountainous regions.

13. Major Learning Outcomes

The field study tour resulted in several important academic and practical learning outcomes.

The students were able to:

- Relate theoretical geographical concepts to real-world landscapes.
- Identify and interpret selected glacial and fluvio-glacial landforms.
- Develop an understanding of mountain ecology and alpine vegetation.
- Understand the relationship between altitude, climate, and vegetation.
- Learn about the traditional practice of transhumance.
- Understand the relationship between pastoral livelihoods and the physical environment.
- Appreciate the historical significance of the Old Banihal Tunnel and Banihal Cart Road.
- Understand the relationship between topography and transportation infrastructure.
- Observe the importance of road and railway networks in regional connectivity.
- Develop an understanding of human–environment interactions in the Himalayan region.
- Examine the potential environmental impacts associated with tourism
- Strengthen their field observation, interpretation, and geographical analytical skills.

14. Conclusion

The one-day geographical field study tour to Purani Tunnel and its surrounding areas in Banihal was an academically enriching and practically valuable experience for the students of the Department of Geography, Government Degree College Anantnag. The field visit provided students with first-hand exposure to a wide range of geographical phenomena, including mountain landscapes, glacial and fluvio-glacial landforms, alpine pastures, mountain ecology, transhumance, transportation networks, historical infrastructure, and human–environment interactions.

The study of Purani Tunnel and the historic Banihal route enabled students to understand the relationship between physical geography and transportation development. The discussion on transhumance provided valuable insight into the cultural and livelihood practices of pastoral communities, while the study of alpine pastures and glacial landscapes strengthened students' understanding of mountain ecology and geomorphology. The field study also helped students

Department of Geography, SHMM GDC Anantnag.

Report on “One Day geographical Tour to Purani Tunnel and its Surroundings (10th of September 2026)”

appreciate the importance of responsible tourism and environmental conservation in ecologically sensitive mountain regions. Overall, the tour successfully supplemented classroom teaching with direct field experience and contributed to the development of students' observational, analytical, interpretative, and fieldwork skills. It demonstrated the importance of field-based learning in understanding the dynamic relationship between landscape, environment, society, culture, mobility, and regional development. After completing the field observations and academic activities, the tour party commenced its return journey and left for the college at approximately 6:30 P.M.


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