

# FIELDWORK ON THE STUDY OF PHYSIO-CULTURAL LANDSCAPE IN GANGTOK AND ITS SURROUNDING <u>AREA (2023)</u>

THE FIELDWORK of 2023-24 HAS BEEN CONDUCTED UNDER THE GUIDANCE OF <u>PROFESSOR AMAL MAHATO</u>, <u>PROFESSOR PRADIP CHANDRA PATRA</u> ALONG WITH ONE OF THE NON-TEACHING STAFF OF THE GEOGRAPHY DEPARTMENT, <u>MR. CHANDAN DAS.</u>

# **INTRODUCTION:**

Field trips play a crucial role in the study of Geography, allowing students to observe and analyse geographical phenomena in real-world settings. Our field trip to Gangtok, the capital city of Sikkim from 3<sup>rd</sup> June to 9<sup>th</sup> June, 2023 offered a unique opportunity to explore the region's diverse physical, cultural, and socioeconomic landscapes. Nestled in the Eastern Himalayas, Gangtok is renowned for its stunning natural beauty, strategic location, and distinct environmental features, including steep terrains, rich biodiversity, and a subtropical highland climate. This trip aimed to provide hands-on experience in understanding geomorphologic processes, land-use patterns, urban development, and sustainable practices in a hilly terrain. By engaging in site-specific observations, interactions with local communities, and data collection, we aimed to develop a deeper appreciation of the interrelationship between human activity and the natural environment in this ecologically sensitive region.

### **OBJECTIVE:**

The field study was undertaken for the following purpose:

- 1. To ground survey the available topography of the study area with the help of prismatic compass, dumpy level and other survey instrument.
- 2. To examine the prevailing pattern of land-use.
- 3. To assess the pattern of Economic structure of the study area.
- 4. To understand the demography, social condition and settlement pattern of the study area.
- 5. To assess the problem and prospects of the study area.
- 6. To understand the physical and cultural features and their relationship.
- 7. To assess the role of tourism role in Gangtok's economy.
- 8. To understand the level of environmental sustainability achievement of the study area.



#### **METHODOLOGY:**

The following methodology outlines the approach for conducting geographical research in Gangtok, Sikkim:

1. <u>Research Design</u>- Defining the research goals, such as studying urban development, land use patterns, environmental sustainability, or cultural geography in Gangtok and specifying the area of focus (e.g., urban core, surrounding villages, or natural landscapes).

2. <u>Data Collection Methods</u>- Primary and Secondary data collection by conducting onground surveys to gather firsthand data on land use, infrastructure, vegetation, or community activities, engaging with local residents, government officials, and other stakeholders to understand their perspectives on geography-related issues and at the same time, collecting data from government reports, Sikkim State government publications, and local institutions like the Sikkim University, using satellite imagery and existing maps from sources like the Survey of India and access to research papers, books, and online resources for contextual information.

3. <u>Sampling Techniques</u>- Using stratified sampling to ensure diverse representation of different zones in Gangtok, such as urban, semi-urban, and rural areas and conducting random sampling for household or individual-level interviews.

4<u>. Tools and Instruments</u>- GIS software (e.g., ArcGIS or QGIS) for spatial analysis and map-making; field notebooks, voice recorders, and cameras for documentation and finally Questionnaires and structured interview formats.







### **Results and Discussions**

- <u>Market survey:</u>- A market survey has been done in M.G.Marg, Gangtok. Diverse shop types have been found in M.G.Marg which is a vibrant and iconic pedestrian only street. There are handloom and handicraft stores selling authentic Sikkimese hand woven textiles and intricate thangkas. There are many boutiques and jewelry shops. Food shops selling local goodies and bakeries selling cakes pastries, etc. are also found. There are a lot of souvenir shops also.
- <u>Health survey</u>:- A health survey has been done in ward no. 11 of Gangtok. It has been observed that most of the children have got polio vaccines as well as hepatitis and BCG vaccines. Upon surveying families, many of them have said that the distance of the medical centers from their homes is more than two kilometers and not close to their homes. It has been found out that 75% of the people are using medical camps which indicates that they are under the low income group. Maximum people prefer allopathic treatment as it includes antibiotics and surgeries that can save lives in a faster way. Most people prefer government hospitals as it offers a wide range of services including emergency services and scheduled surgeries at a lower cost.
- <u>Demographic status</u>:- It has been found out that maximum number of people speak Hindi and Nepali. The highest number of inhabitants are Hindus and Buddhists and the number of Christians is very low. Most of the families that have been surveyed consists of four to six members. Maximum people belong to the Nepali or Gurung or Chhetri castes. People mostly prefer government schools and colleges and males have higher literacy rate compared to females.

#### FINDINGS:

1. <u>Disaster Preparedness and Early Warning Systems</u>- A comprehensive review assessed Gangtok's early warning systems for geological and hydrometeorological hazards. The study highlighted the need for improvements in technical capabilities, communication strategies, and community engagement to enhance the effectiveness of these systems.

2. <u>Tourism Attractiveness</u>- An analysis using a probabilistic travel model identified 15 key tourist attractions in and around Gangtok. The study emphasized the city's strong tourism infrastructure, including well-connected roads, transportation networks, banking services, and medical facilities..

3. <u>Climate Vulnerability</u>- A rapid climate vulnerability assessment indicated that Gangtok is susceptible to landslides and earthquakes due to its geographical location in the eastern Himalayas. The assessment called for the development of disaster resilience action plans and the prioritization of risk reduction measures to mitigate the impacts of these natural hazards.

4. Public Health and Quality of Life- A study assessing health-related quality of life among Gangtok's population found that a majority (82%) of participants reported satisfactory health status. The survey utilized the WHOQOL-BREF module to evaluate various health domains, providing insights into the well-being of the city's resident.



#### **CONCLUSION:**

There is unique correlation between the physical and cultural landscapes in Sikkim. The lifestyle of the people and the economic sector of the ward no.11 are always influenced by elements of the physical environment. The economic development is to some extent hampered due to lack of infrastructural facilities.

Integrated and socio – economic development of the ward can be achieved through careful planning and application of modern science and technology in various economic sector.

In spite of the drawbacks, the cultural landscape of the ward is rapidly changing owing to the development of various industries. The development of tourism in Gangtok gives impacts to its growth.