

# Demographic Dynamics and Sustainable Environmental Management in Gangtok Ward 14, Deorali, Upper Siyari Goan, Sikkim

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## **ABSTRACT:**

This study explores the demographic profile and environmental sustainability in Gangtok, Ward Number 14, Deorali Upper Siyari Goan, Sikkim. The demographic analysis highlights population dynamics, literacy rates, age distribution, and livelihood patterns, reflecting the socio-economic fabric of the area. Concurrently, the research examines the environmental conditions, emphasizing challenges such as urbanization, waste management, deforestation, and conservation efforts. The findings reveal a growing population with increasing pressure on local resources, underscoring the necessity for sustainable development practices. The study advocates for integrated strategies that promote ecological preservation while accommodating socio-economic growth, aiming to achieve a balanced, sustainable environment in this rapidly developing region of Sikkim.

**KEY WORDS:** Demographic, Sustainability, Cultural Diversity, Dynamics, Environment.

## **INTRODUCTION:**

Sikkim, a picturesque Himalayan state renowned for its rich biodiversity and cultural heritage, has experienced significant demographic changes over recent decades. Gangtok, the capital city, serves as the political, economic, and cultural hub of the region, with Ward No. 14 at Deorali Upper Siyari Goan exemplifying the intersection of rapid population growth and environmental sustainability challenges. This study aims to explore the demographic dynamics of this locality, including population size, density, age distribution, and migration patterns, while also examining the sustainability of its environment amidst urbanization and development pressures. Understanding the relationship between demographic conditions and environmental sustainability in this area is crucial for formulating effective policies that promote balanced growth and ecological conservation in Sikkim. This journal delves into these aspects to provide insights into how demographic trends influence environmental health and sustainability initiatives within this unique Himalayan setting.

## **OBJECTIVE OF THE STUDY:**

The study is undertaken with the following objectives.

1. To study the socio-economic dynamics of the population.
2. To assess the impact of urbanization and infrastructure development.
3. To evaluate environmental challenges and sustainability initiatives.

**LOCATION:** It is the most important work in geography and any other social science that survey about physical and socio-economic circumstances of people for better planning and development of the nation. Basically, India is a land of village, the percentage of urbanization as well as quantity of towns is moderate; most of the people of India live in the village area. As India is an agricultural country about 65% of the population lives in the country side.

The selection of Gangtok as a study area for geographical research provides a unique and rich opportunity to explore a variety of physical, cultural and socio-economic aspects. Below are the main reasons and criteria for choosing Gangtok as the study area:

### 1. Geographical Significance:

- **Topography:** Gangtok is located in the Eastern Himalayas, offering a varied topographic landscape that includes steep hills, deep valleys and panoramic views of the Kanchenjunga range.
- **Climate:** The area experiences a temperate climate with distinct seasons, providing an opportunity to study climate patterns and their effects on the environment and local livelihoods.
- **Biodiversity:** The region is part of the Eastern Himalayan Biodiversity hotspot, home to a variety of flora and fauna. This makes it ideal for environmental and ecological research.

### 2. Cultural and Socio-Economic Diversity:

- **Cultural Heritage:** Gangtok is a melting pot of different cultures, mainly influenced by Tibetan Buddhism. It is home to several important monasteries, festivals and traditional practices.
- **Population:** Gangtok has a diverse population, with several ethnic groups including Lepchas, Bhutia and Nepalis. This diversity is helpful for socio-cultural studies.
- **Economic Activity:** Gangtok's economy is based on tourism, agriculture and trade. Analysing these sectors can provide insight into regional developments and economic patterns.

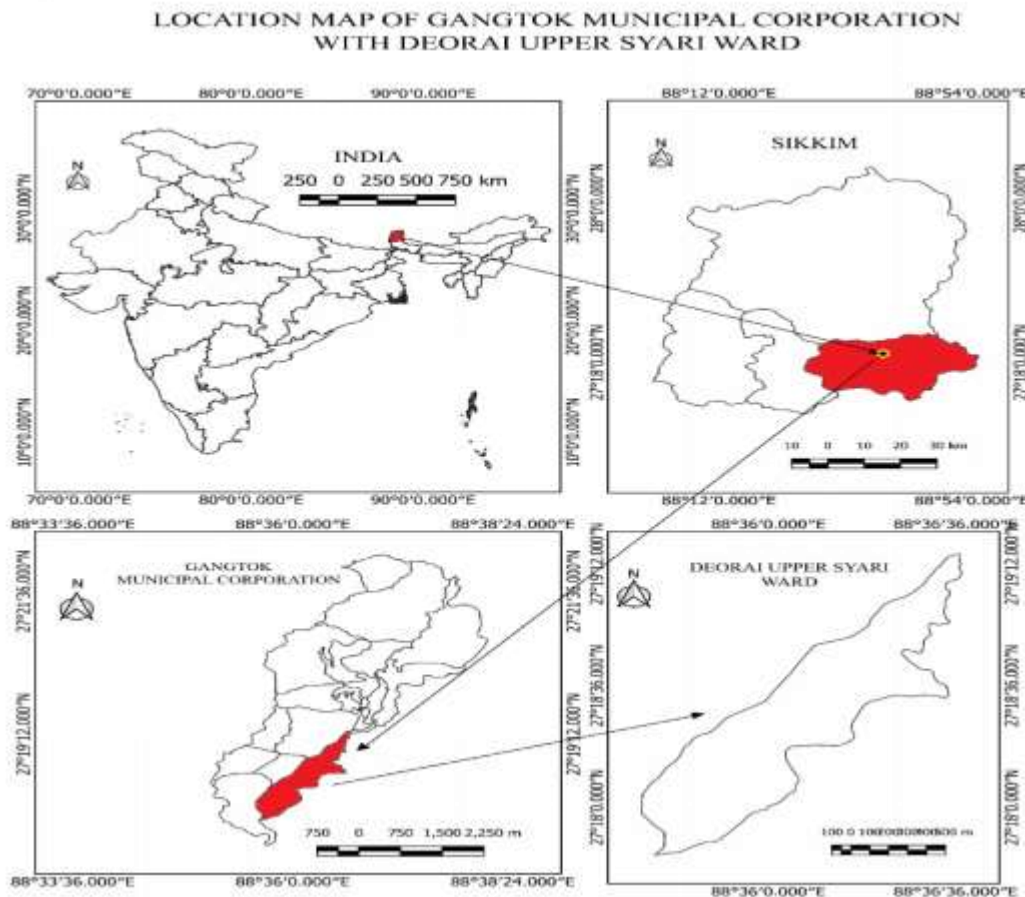
### 3. Urban Development and Infrastructure:

- **Urbanization:** Gangtok has seen significant urban development, making it a suitable area for studying urbanization trends, land use patterns and infrastructure development in a mountainous region.
- **Transportation:** The city serves as a major hub connecting various parts of Sikkim and the neighbouring states, offering a case study on the transport network and accessibility in the mountainous region.

### 4. Tourism:

- **Tourist Attractions:** Gangtok is a major tourist destination with attractions like Tsomgo Lake, Nathula Pass, and the Rumtek Monastery. Analysing tourism's impact on the local economy and environment can provide comprehensive insights.
- In order to study the socio-economic profile of the city from various sources including Gangtok Municipal Corporation, East Sikkim district information Centre, Census of India etc. were collected and analyzed. To supplement the secondary data, primary door to door, survey was collected from representative ward no. 14 of Gangtok Municipal Corporation The ward no. 14 was selected as representative sample ward of the municipality because of the following reasons:
  - (i) Its present mixed Land use pattern incorporating almost all economic functions.
  - (ii) The population of this ward is almost high and so the demographic characteristics of this ward is very diverse. Therefore, it makes an advantage to analyzed the data with significant diagrammatic representation.
  - (iii) Most of the tourists stay in this ward, so it is easy to interact with them.

- (iv) For better understanding of the mixed socio-economic circumstances of the people, we choose this urban ward, because, in this we see some agricultural rural characteristics on one hand and urban socio-economic characteristics on the other.



**Fig: Location Map**

### **DEMOGRAPHIC PROFILE AT DEORALI UPPER SYARI GOAN**

Deorali Upper Syari Goan, located in Ward No. 14 of Gangtok, Sikkim, is situated in the eastern part of Gangtok city, nestled on the hilly terrain that characterizes the region. This area is known for its lush greenery, scenic landscapes, and proximity to natural features such as forests and small water bodies. As part of the urban landscape of Gangtok, Deorali Upper Syari Goan is accessible through a network of winding roads that connect it to the main city center and neighboring localities. The location's geographical setting influences the demographic composition, with a mix of local residents and migrant populations, and presents unique challenges and opportunities for sustainable environmental management. Its strategic position atop the hills makes it a significant area for studying the interplay between demographic growth and environmental conservation efforts in Sikkim.

Man is a social animal. Population is an internal part of large social, economic and cultural structure. Demographic phenomena are the events that occur in an individual life. They are the great significance to both the individual and also to society.

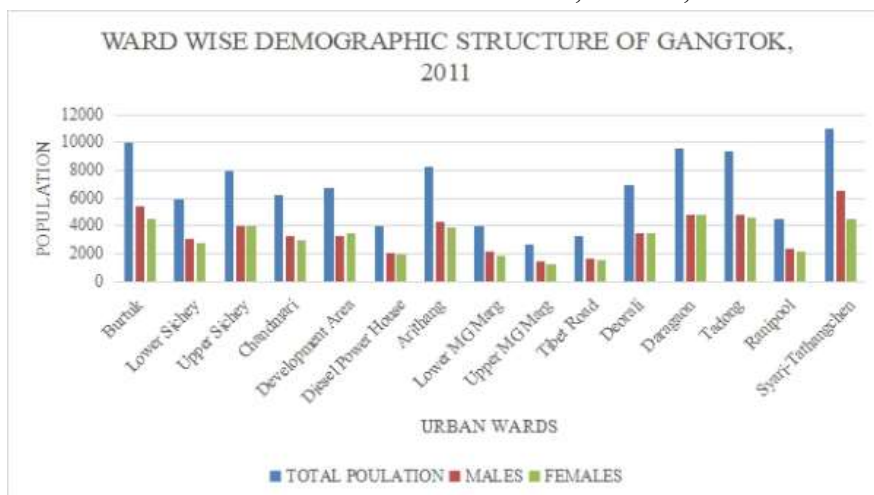
The pattern of population distribution over the Indian sub-continent is very general. Density of population varies with the changes of climate, land form, soil, socio-cultural factors. Demographic factors, historical aspects determine.

The surveyed Deorali Upper Syari Gaon ward of Gangtok had been selected as sample unit. The total household number of Deorali Upper Syari Gaon ward were 2343 with 11,028 persons in 2011 at the time this ward is named as Syari-Tathangchen but in 2015, the all-urban ward of Gangtok city was reconstructed so at present there are total 19 urban wards. Presently Deorali Upper Syari is ward no. 14 under Gangtok Municipal Corporation and it has total 2677 households with 14,729 persons. The below table shows the ward wise demographic structure of Gangtok Municipal Corporation, 2011.

TABLE

SL. NO.	NAME OF THE WARD	TOTAL POPULATION	MALES	FEMALES
01.	BURTUK	9957	5435	4522
02.	LOWER SICHEY	5873	3073	2800
03.	UPPER SICHEY	7979	3984	3995
04.	CHANDMARI	6177	3240	2937
05.	DEVELOPMENT AREA	6723	3283	3440
06.	DIESEL POWER HOUSE	3987	2038	1949
07.	ARITHANG	8212	4291	3921
08.	LOWER MG MARG	4032	2154	1878
09.	UPPER MG MARG	2664	1455	1209
10.	TIBET ROAD	3266	1681	1585
11.	DEORALI	6938	3464	3474
12.	DARAGAON	9605	4791	4814
13.	TADONG	9323	4759	4566
14.	RANIPOOL	4520	2319	2201
15.	SYARI-TATHANGCHEN	11028	6492	4536
Σ	<b>TOTAL</b>	<b>100286</b>	<b>52459</b>	<b>48827</b>

Source: District Census Handbook, Sikkim, 2011



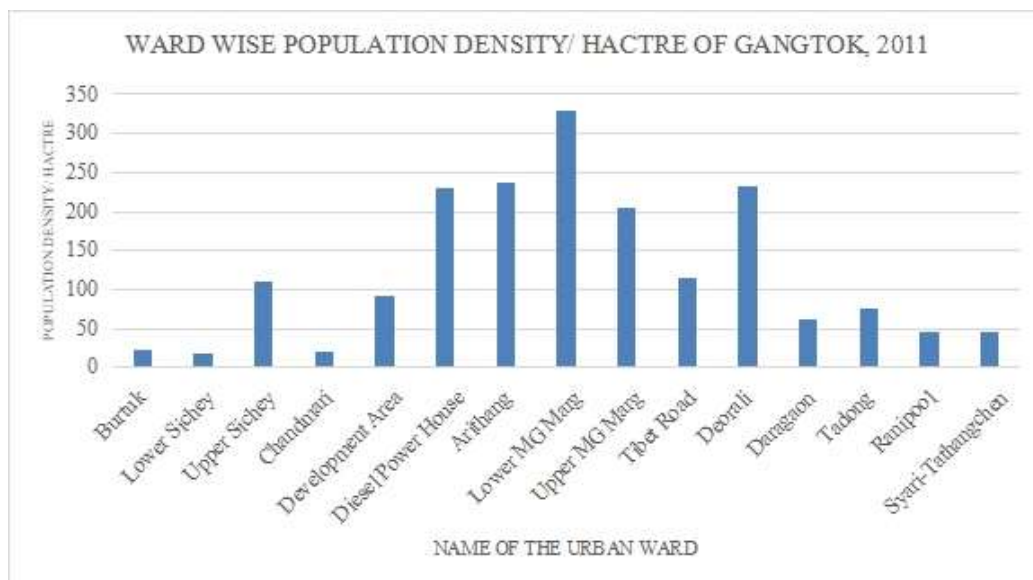
**POPULATION DENSITY**

Population density of any region shows the socio-economic as well as cultural development. In Deorali Upper Syari Gaon ward of Gangtok, the density of population is 26 persons per hectares while it was 46 persons per hectares at that time it was joined with Syari-Tathangchen in 2011. On the basis of population density and total population it is a low population density ward.

**TABLE**

SL. NO.	NAME OF THE WARD	AREA (HACTRE.)	TOTAL POPULATION	POPULATION DENSITY/ HECTARE
01.	BURTUK	432.2	9957	23
02.	LOWER SICHEY	303.67	5873	19
03.	UPPER SICHEY	72.54	7979	110
04.	CHANDMARI	288.63	6177	21
05.	DEVELOPMENT AREA	73.06	6723	92
06.	DIESEL POWER HOUSE	17.38	3987	229
07.	ARITHANG	34.32	8212	236
08.	LOWER MG MARG	12.20	4032	330
09.	UPPER MG MARG	12.98	2664	205
10.	TIBET ROAD	28.66	3266	114
11.	DEORALI	29.80	6938	233
12.	DARAGAON	157.92	9605	61
13.	TADONG	124.28	9323	75
14.	RANIPOOL	101.61	4520	45
15.	SYARI-TATHANGCHEN	238.64	11028	46
$\Sigma$	<b>TOTAL</b>	<b>1914.91</b>	<b>100286</b>	<b>1839</b>

Source: Town Directory of Census, 2011



**POPULATION GROWTH**

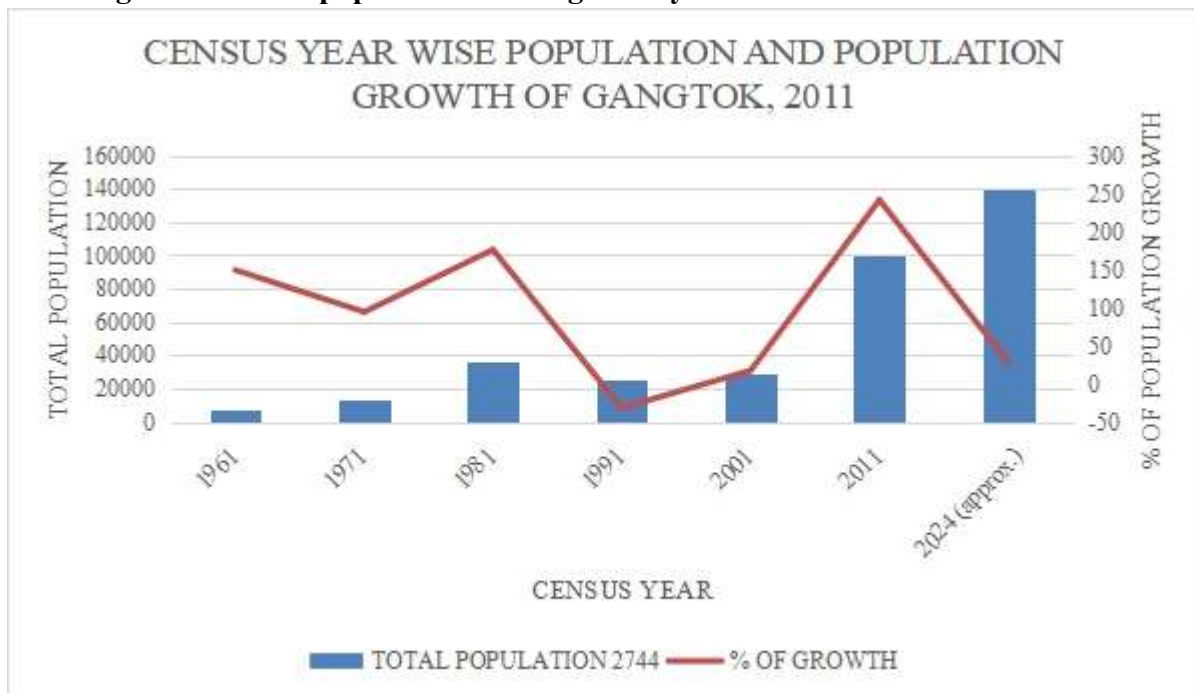
Population growth is the most fundamental demographic process, which determines density, distribution pattern and composition of population. It essential for students of population geography, which is, related study of the dynamics of population as it is found on the earth's surface. Population growth refers to the growth of human population in particular area during a specific period of time. The growth may be positive or negative or zero. This component of population is calculated as follows:

**TABLE**

SL. NO.	CENSUS YEAR	TOTAL POPULATION	% OF GROWTH
01.	1951	2744	--
02.	1961	6848	149.56
03.	1971	13308	94.33
04.	1981	36747	176.13
05.	1991	25024	-31.90
06.	2001	29354	17.30
07.	2011	100286	241.64
08.	2024 (APPROX.)	140000	28.36

Source: Town Directory of Census, 2011

Here the Population growth rate of Gangtok city in the last decade was 241.64 and in 2024 the approximate growth rate of population in Gangtok city is 28.36 %.



**FLOATING POPULATION**

Gangtok attracts a significant number of tourists and floating population due to its natural beauty, cultural heritage, and pleasant climate. Here are some details about the floating population visits in Gangtok.

❖ **Seasonal Variation:**

- **Peak Tourist Season:** The peak tourist season in Gangtok is from March to June and from September to November. During these months, the weather is pleasant, and many festivals and events are held, attracting a large number of tourists.
- **Off-Peak Season:** The monsoon season (July to September) sees a drop in the number of visitors due to heavy rainfall, which can lead to landslides and roadblocks. The winter months (December to February) also see fewer tourists, though some visit for the snow and winter sports.

**TABLE**

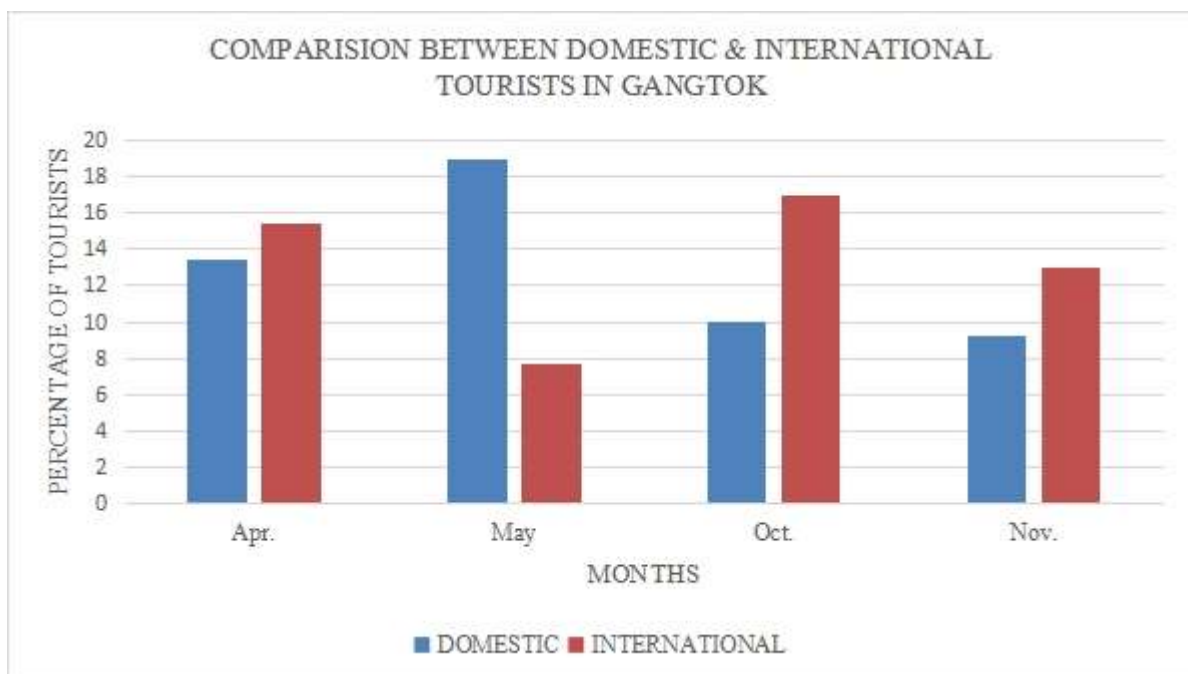
PEAK PERIOD PROJECTIONS OF VISITORS- DOMESTIC					
		2008	2015	2025	2040
APR.	13.39	55424	102141	272217	826124
MAY	19.00	71252	145152	386845	1173998
OCT.	10.06	NA	76854	204824	621601
NOV.	9.24	NA	70590	188129	570934

Source: Strategy Development Process, Tourism Prospectus, Gangtok

**TABLE**

PEAK PERIOD PROJECTIONS OF VISITORS- INTERNATIONAL					
		2008	2015	2025	2040
APR.	15.42	2411	5186	11458	37629
MAY	7.70	1857	2590	5722	18790
OCT.	16.99	NA	5714	12625	41461
NOV.	12.97	NA	4362	9637	31651

Source: Strategy Development Process, Tourism Prospectus, Gangtok



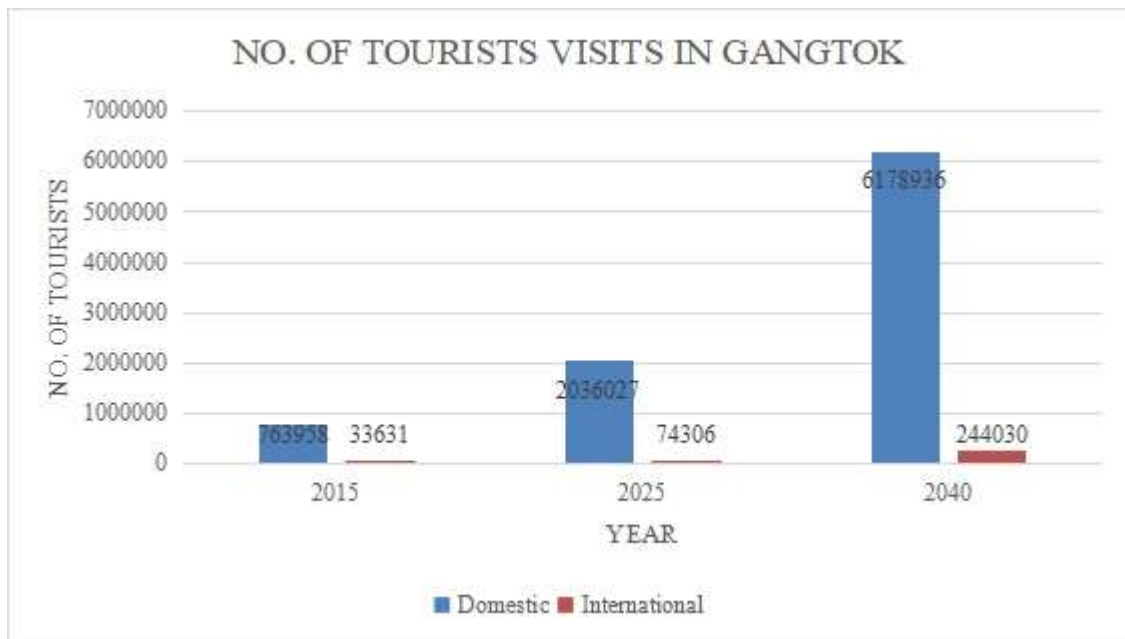
**Tourist Demographics:**

- **Domestic Tourists:** A significant portion of the floating population consists of domestic tourists from various parts of India. They visit Gangtok for leisure, pilgrimage, and adventure activities.
- **International Tourists:** Gangtok also attracts international tourists, particularly from neighboring countries like Bhutan, Nepal, and Bangladesh, as well as from Western countries.

**TABLE**

VISITORS' PROJECTIONS			
	2015	2025	2040
DOMESTIC	763958	2036027	6178936
INTERNATIONAL	33631	74306	244030
<b>TOTAL</b>	<b>797590</b>	<b>2110333</b>	<b>6422966</b>

Source: Strategy Development Process, Tourism Prospectus, Gangtok



**Causes of Attraction:**

- **Nature and Adventure:** Popular attractions include Tsomgo Lake, Nathu La Pass, and various trekking routes. Adventure sports like paragliding, river rafting, and mountain biking also attract enthusiasts.
- **Cultural Sites:** Monasteries like Rumtek, Enchey, and Ranka are significant cultural and religious attractions. Festivals such as Losar and Saga Dawa also draw many visitors.
- **Urban Attractions:** The MG Marg pedestrian street, local markets, and eateries offer urban charm and cultural experiences.

**Accommodation and Infrastructure:**

- **Hotels and Guesthouses:** Gangtok has a wide range of accommodation options, from budget guesthouses to luxury hotels, to cater to the varying preferences and budgets of visitors.

- **Transport:** The town is well-connected by road. The nearest airport is Pakyong Airport, and the nearest railway station is in Siliguri. Local transport includes taxis, shared jeeps, and buses.

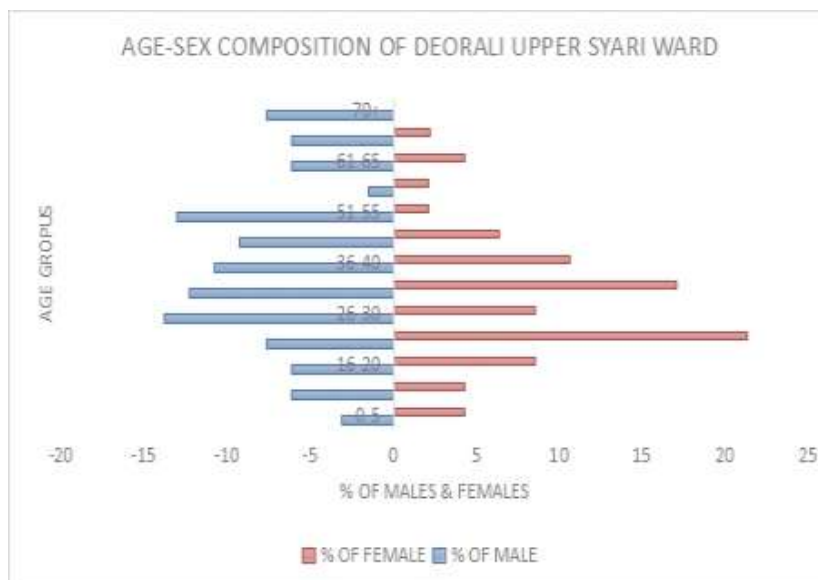
**AGE SEX COMPOSITION**

According to Census of India, 2011 the Adult Sex ratio of Gangtok city was 912/1000 while Child sex-ratio was 932/1000 against 926/1000 in 2001. In terms of sex ratio, the ward no. 14 is at a better position. It is 960/1000 and much higher than the town average. The field Survey in word no. 14 reveals the following pictures of age sex composition.

**TABLE**

AGE GROPUUS	PERCENTAGE OF MALE	PERCENTAGE OF FEMALE
0-5	3.08	4.255
6-10	6.15	4.26
11-15	6.15	8.51
16-20	6.15	8.51
21-25	7.69	21.27
26-30	13.84	8.51
31-35	12.3	17.02
36-40	10.76	10.63
41-50	9.23	6.382
51-55	13.02	2.13
56-60	1.54	2.13
61-65	6.15	4.26
66-70	6.15	2.16
70+	7.69	--

Source: Personal Field Survey, 2024



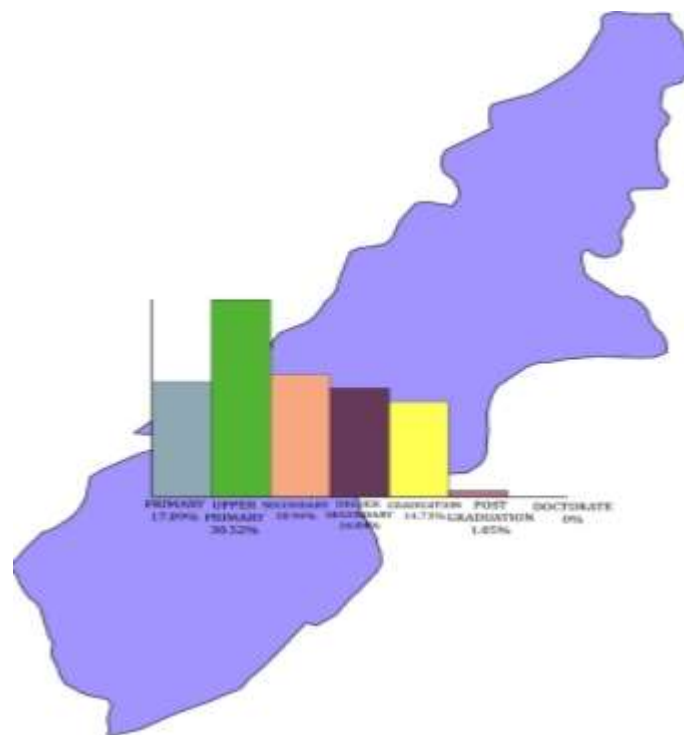
The diagram shows that the ward has highest number of populations in working class in both males and females. About 68%. of the total population fall in their Class whereas the dependent population in occupies about 32% of the total population in this ward the dependency ratio being 1:2 thus means that for every three members in a family there is one earning member, and two earning dependent member.

**LITERACY RATE**

It is an important indicator of social development of this region. It affects the demographic characteristics as well as Labor participation. As per Census of India 2011, 84% of the total population in literate. The Literacy in wards varies from 83%. to 897. The present ward 14 under study has the moderate Literacy in the city. This reflects the moderate social Status of the ward on the city.

EDUCATIONAL QUALIFICATION	PERCENTAGE OF MALE	PERCENTAGE OF FEMALE
PRIMARY-(I-IV)	20.37	14.63
UPPER PRIMARY-(V-VIII)	29.62	31.7
SECONDARY-(XI-X)	14.81	24.39
HIGHER SECONDARY-(XI-XII)	20.37	12.11
GRADUATION	12.96	17.07
POST GRADUATION	1.851	--
DOCTORATE	--	--

Source: Personal Field Survey, 2024



**OCCUPATIONAL STRUCTURE**

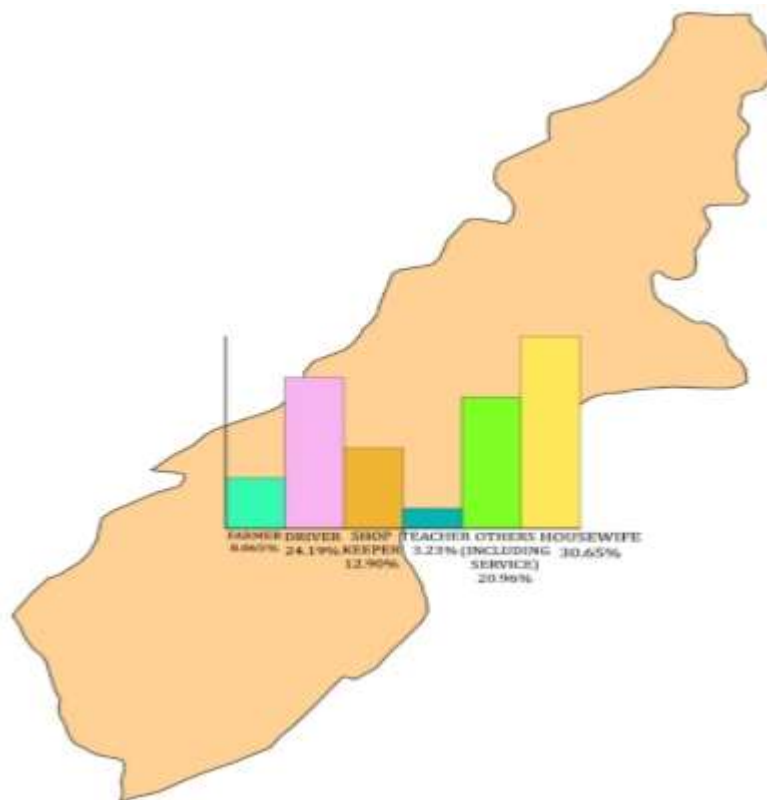
The field Survey in ward no. 14 Shows that the ward is composed of mixed occupation resident. The ward

is predominantly the word of businessman about 35% of the total residents of the ward is drivers and businessman. About one- fourth of the residents are govt. employee. As most of the important administrative offices are located within this ward, people prefer to stay in this ward. Apart from that, this ward is also tea- Cher Loving. About 14 % of the total population of the ward is composed of teachers. teachers include primary school teacher (1.97%), School teacher (5.88%) and college teacher (5.88%). Most of the female population are house wife.

**TABLE**

TYPES OF OCCUPATION STATUS	PERCENTAGE OF OCCUPATION STATUS (MALE & FEMALE)
FARMERS	8.06
DRIVERS	24.19
SHOP KEEPERS	12.9
TEACHERS	3.23
OTHERS (INCLUDING SERVICE)	20.96
HOUSE WIFE	30.65

Source: Personal Field Survey, 2024



**HOUSEHOLD INCOME**

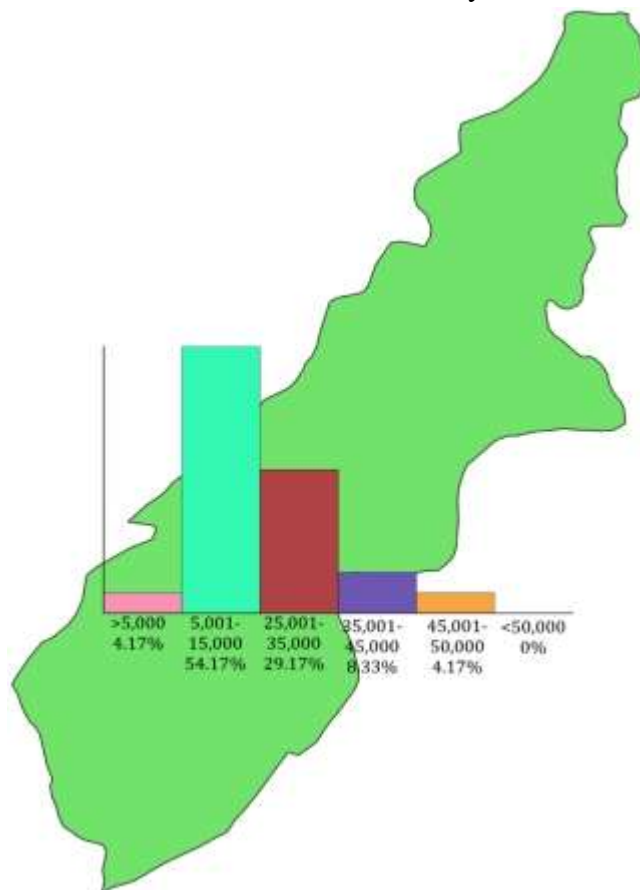
Majority of the households of Deorali Upper Syari Gaon ward were in middle to small income groups. About 54.17% of the households had average monthly income between ₹5,000/ to 15,000/ About 29.17 % population had monthly income within below ₹25,000/- to ₹35,000/- in ward no.14 of the city while

about 8.33% and 4.17% households had monthly income in between ₹35,000/- to ₹45,000/- and more than ₹45,000/- respectively (See table 3.6).

TOTAL FAMILY INCOME IN ₹ (Rs.)	PERCENTAGE OF POPULATION
LESS THAN 5,000	4.17
5,001-15,000	54.17
25,001-35,000	29.17
35,001-45,000	8.33
45,001-50,000	4.17
MORE THAN 50,000	0.00

TABLE

Source: Personal Field Survey, 2024



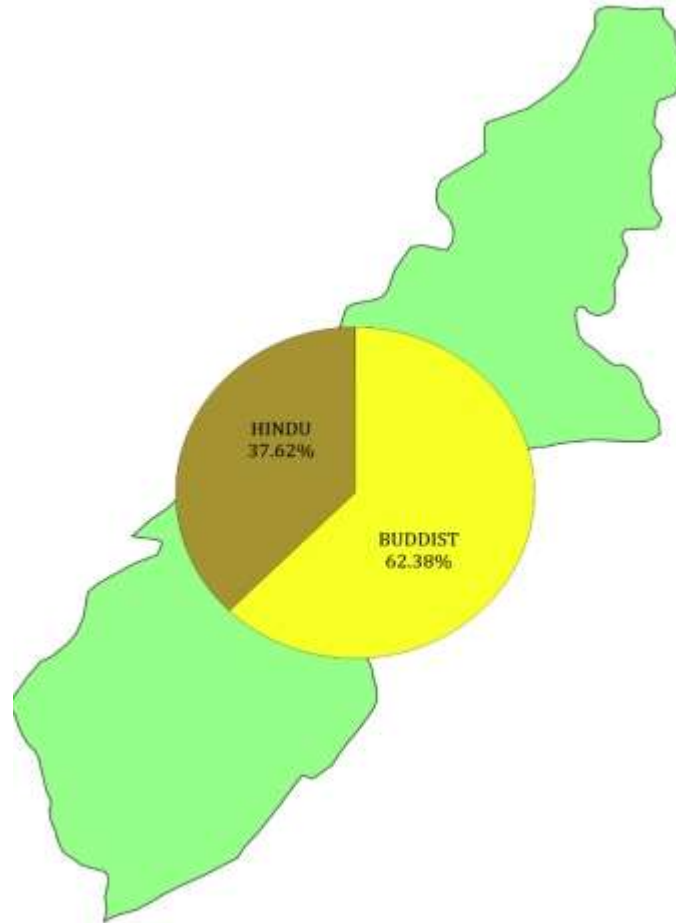
### **RELIGION AND CASTE**

The city of Gangtok is primarily a Buddhist and Hindu population dominated city. The field survey shows that about 62.38% of the residents of ward no.14 were Buddhists and the rest 37.62% were Hindus. In terms of Caste Structure, about 66.67% of total population were Scheduled Tribe Category about 31.37% were Scheduled Caste Category and the rest is composed of OBC category that is 11.76. No Unreserved Category population has not been found through field survey. While the Census, 2011 provides total 42.69% Scheduled Tribe and 36.37% of Scheduled Caste and the rest 20.94 were Other Backward Class population living in the Syari-Tathangchen ward of the city of Gangtok.

**TABLE**

<b>RELIGIOUS STUCTURE</b>	<b>PERCENTAGE OF RELIGION STRUCTURE</b>
BUDDHIST	62.38
HINDU	37.62
OTHERS	0.00

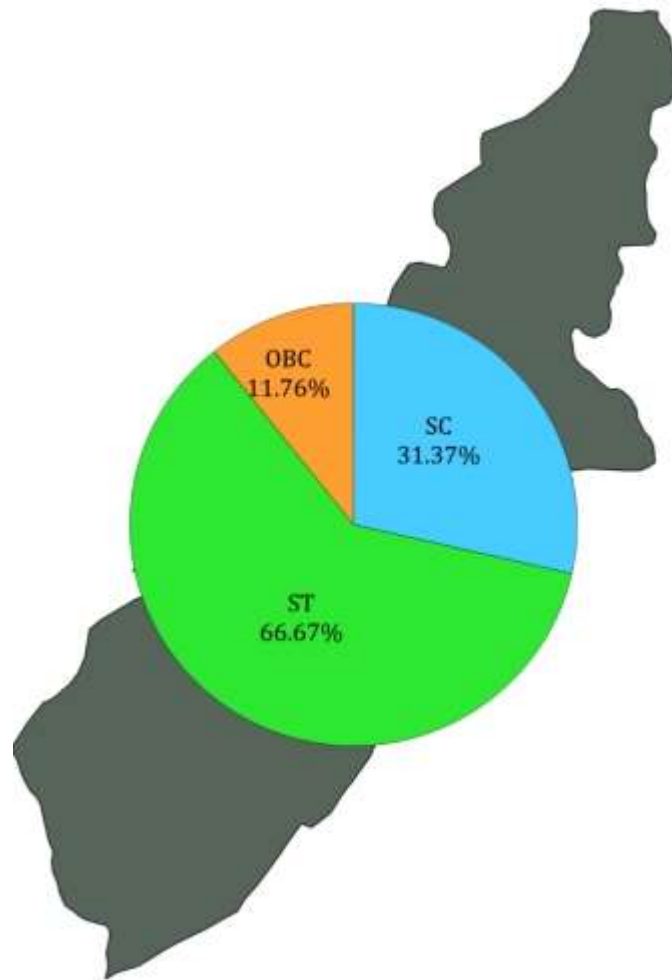
Source: Personal Field Survey, 2024



**TABLE**

<b>CASTE</b>	<b>% OF CASTE (MALE &amp; FEMALE)</b>
UR	0.00
ST	66.67
SC	31.37
OBC	11.76

Source: Personal Field Survey, 2024



**HOUSING CONDITION**

Gangtok has a unique housing condition influenced by its geography, climate, and socio-economic factors.

Here's an overview:

**Housing Types:**

**Traditional Houses:**

- Made from locally available materials like wood, stone, and bamboo.
- Typically designed to suit the hilly terrain and withstand the local climate.

**Modern Residences:**

- Multi-story buildings and apartments, increasingly common in urban areas.
- Constructed using modern materials and techniques.

**Rural Housing:**

- Houses in rural areas are often simpler, with many still using traditional construction methods.
- There is a growing trend towards concrete houses even in rural areas.

**TABLE**

ROOF	% OF TYPES OF ROOFS
TILES	0.00

PADDY	0.00
ADBESTAR	12.5
TIN	66.67
CONCRETE	20.83

Source: Personal Field Survey, 2024

**Housing Challenges:**

**Space Constraints:**

- Limited flat land leads to high-density housing and construction on slopes, which can be challenging.

**Landslide Risks:**

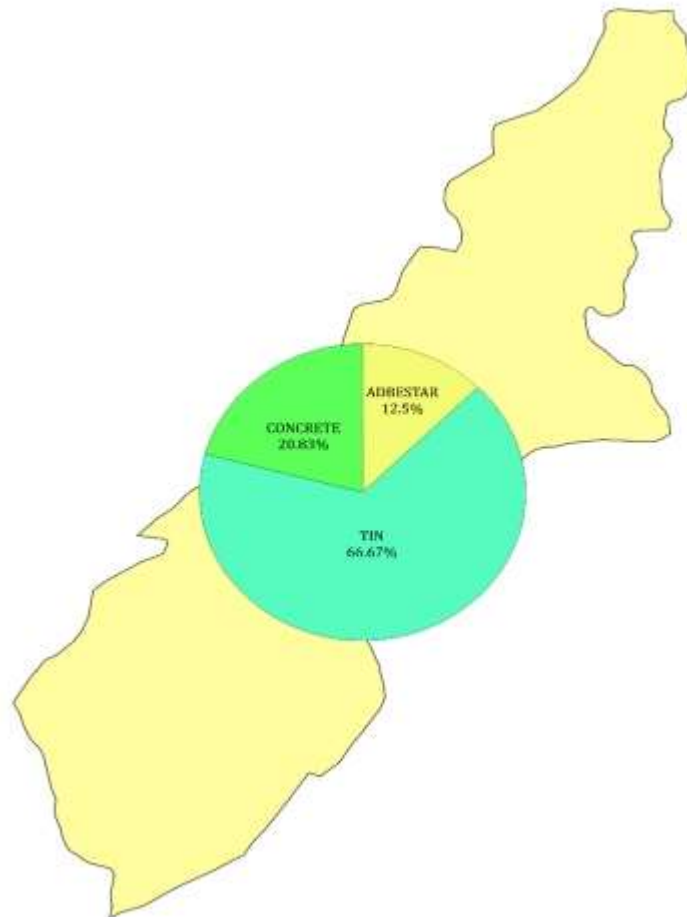
- The hilly terrain makes some areas prone to landslides, affecting housing stability and safety.

**Urbanization:**

- Rapid urbanization puts pressure on housing infrastructure, leading to overcrowding in some areas.

**Affordability:**

- Housing prices in Gangtok can be high, especially in prime urban locations.

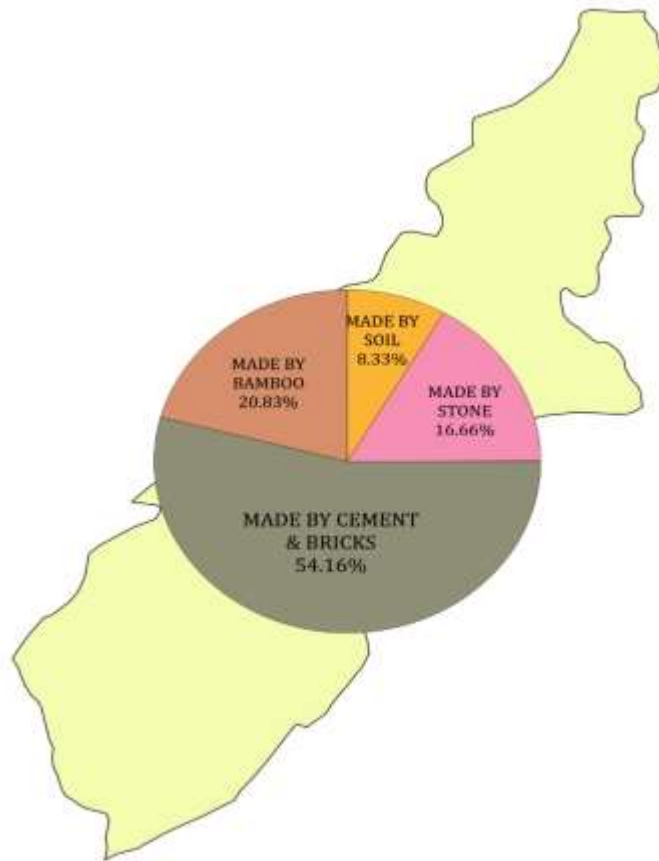


**TABLE**

HOUIING CONDITIONS: WALLS	% OF WALLS
MADE BY SOIL	8.33
MADE BY CEMENT & BRICKS	54.16

MADE BY STONE	16.66
MADE BY BAMBOO	20.83

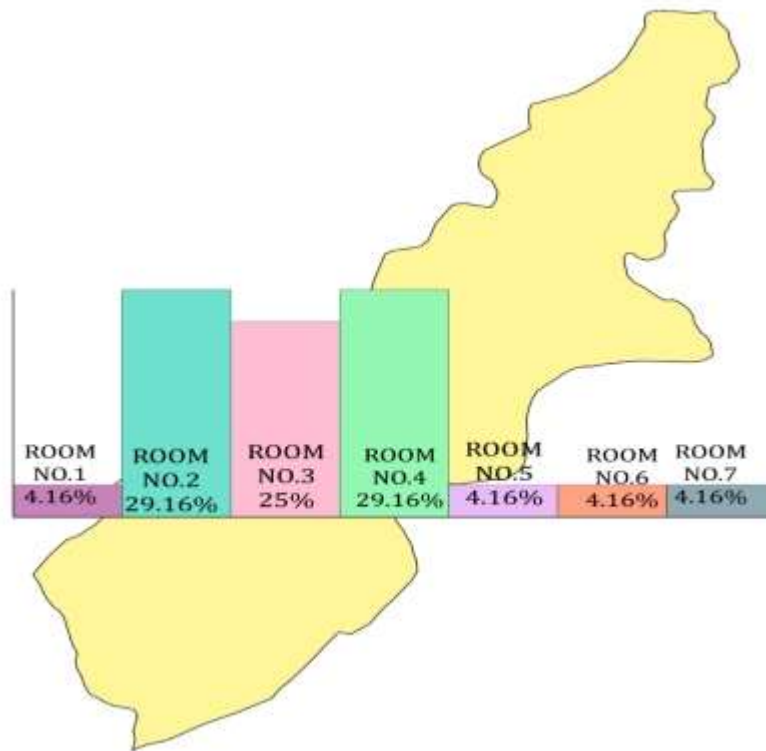
Source: Personal Field Survey, 2024



**TABLE**

NO. OF ROOMS	PERCENTAGE
1	4.16
2	29.16
3	25
4	29.16
5	4.16
6	4.16
7	4.16

Source: Personal Field Survey, 2024



### ACRICULTURAL ACTIVITIES

Agricultural activities in Gangtok are influenced by its hilly terrain and temperate climate. Key agricultural activities in the region include:

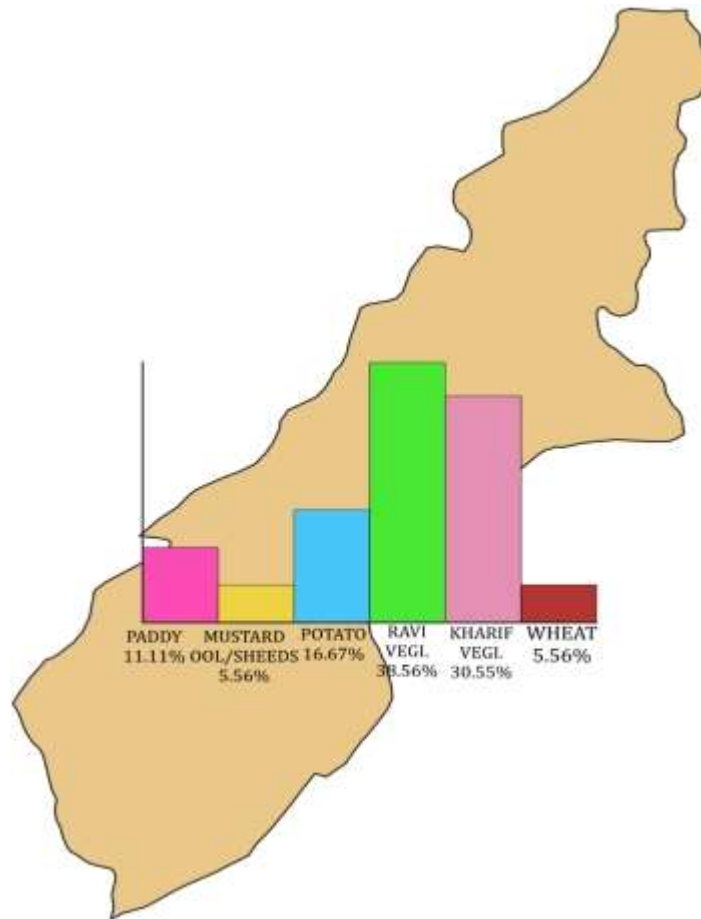
- **Horticulture:** Gangtok is known for its production of various fruits such as oranges, apples, and pears. The climate is favorable for growing these temperate fruits.
- **Vegetable Farming:** The region produces a variety of vegetables, including tomatoes, cabbage, cauliflower, and leafy greens. Organic farming practices are common, aligning with Sikkim's status as the first organic state in India.
- **Floriculture:** Flower cultivation, particularly of orchids and other ornamental plants, is a significant agricultural activity. Gangtok hosts the International Flower Festival, highlighting its importance in floriculture.
- **Cardamom Cultivation:** Large Cardamom is a major cash crop in Sikkim, including the Gangtok area. It is one of the largest producers of large cardamom in India.
- **Tea Gardens:** The Temi Tea Garden, located near Gangtok, is the only tea estate in Sikkim and produces high-quality organic tea.
- **Dairy Farming:** Livestock farming, particularly dairy farming, is practiced to meet the local demand for milk and dairy products.
- **Medicinal Plants:** The region is rich in biodiversity and medicinal plants, which are cultivated and harvested for traditional and commercial use.

**TABLE**

NAME OF THE CROPS	% OF CROPS
PADDY	11.11

MUSTARD /OIL SHEEDS	5.56
POTATO	16.67
RABI VEGETABLES	38.56
KHARIF VEGETABLES	30.55
WHEAT	5.56

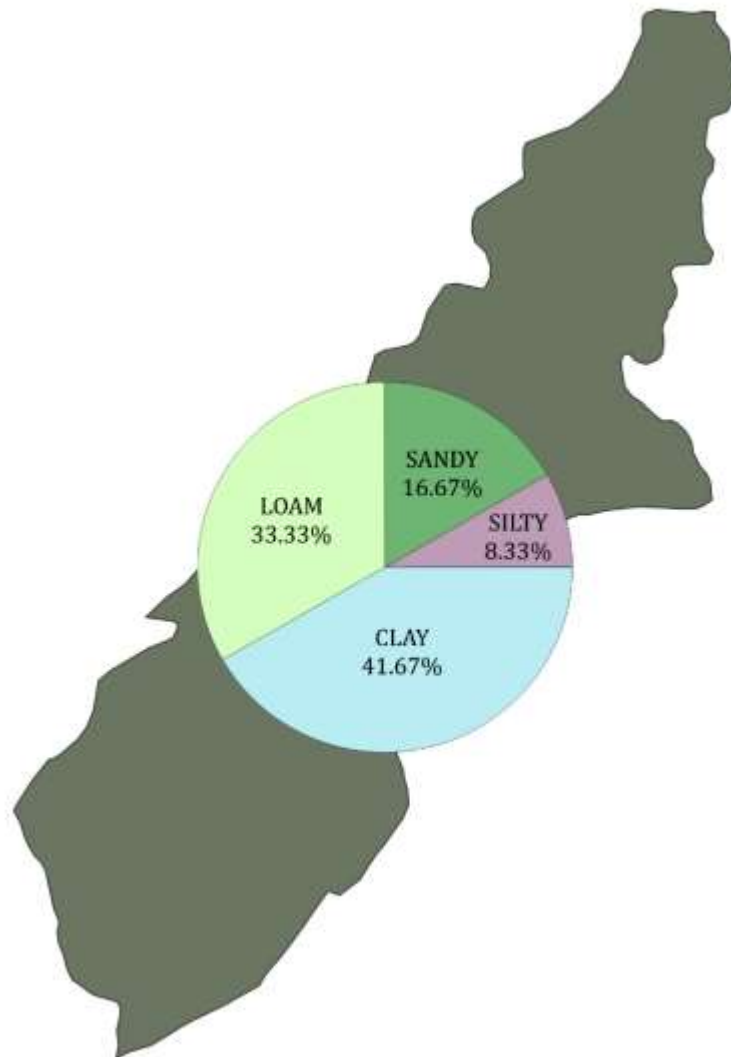
Source: Personal Field Survey, 2024



**TABLE**

TYPES OF SOIL	% OF SOIL
SANDY	16.67
SILTY	8.33
CLAY	41.67
LOAMY	33.33

Source: Personal Field Survey, 2024



### **URBAN ENVIRONMENTAL PROFILE**

In Gangtok about 97% of the household have latrine. people of different income ladder use different types of latrines. Among them the Common twin pit latrine is most popular in the city. About half of BPL family 677% of the poor and 100% of the high-class families use this system.

### **SOLID WASTE MANAGEMENT(SWM)**

Sweeping and SWM are conducted by State Government. The service of NNDP in this regard is excellent as report by the residents of tallital area, on average 94% of the surveyed household dispose thir wastes on the designated municipal vats. About 3.9% of the household dispose the domestic wastes on unused plots or streets, about 73% of the households have municipal drain in front of their house. Thus, it can be said that the domestic sewerage Is also managed properly in the ward 14 of the Gangtok town.

### **TOURISM AND RECREATION**

With Beautiful Natural Conditions and availability of all sorts of modern comforts, the hill resort of Gangtok has been popular both among domestic and international tourists. Linique features of Climate

and physical makeup of the town constitute the back bone of the tourist industry. During Long British occupancy, they gave all possible touch of Style to the westem this town. The local Lepcha culture with the influence of British Culture has given a unique personality to this resort town. Table 3.13 gives some details of a number of tourist places is and around Gangtok:

The household Survey in word no.14 attempted to identify the recreational Character of the dwellers. It reveals that maximum no. of residents choose either watching TV reading newspaper for their recreation. About 50% of the Surveyed households reported that their principal mode watching Television. The table 3.14 presents a picture of day! today mode of recreation of the resident of ward no.-14. According to Sikkim tourism information Board (NIIB), there are about 42 Commercial hotels and 50 other kinds of accommodation facilities with total 5107 Beds.

### **TRANSPORT AND COMMUNICATION**

Transportation plays an important role in the movement of people. Thus, the transport network is considered as the nervous system of a town. Nearly all economic activities are dependent on transport Gangtok has good no. of roads connecting all corners of it quite efficiently inspite of its physiography limitation. All the Roade are connected by mall road. --"the lifeline of the city

### **PROBLEMS AND PROSPECTS**

#### **City Problems in Gangtok:**

1. Rapid population growth has led to urban sprawl and congestion. Inadequate infrastructure to support the growing population, including housing, roads, and public services.
2. Narrow roads and increased vehicle numbers cause significant traffic jams. Limited parking spaces exacerbate the problem.
3. Inefficient waste collection and disposal systems lead to littering and pollution. Lack of recycling facilities and public awareness about waste segregation.
4. Inconsistent water supply, particularly during dry seasons. Poor sanitation facilities in some areas, affecting public health.
5. Deforestation and land degradation due to construction and agricultural activities. Pollution of water bodies and air quality deterioration from vehicle emissions.
6. High tourist influx strains local resources and infrastructure. Environmental impact from tourism activities, including littering and resource depletion.
7. Uneven economic development leading to disparities between urban and rural areas. Limited employment opportunities in certain sectors, driving youth to seek jobs outside the region.

#### **Prospects for Gangtok City**

- **\*Tourism Development\*:**
  - Potential to expand eco-tourism and adventure tourism.
  - Promotion of cultural and heritage tourism, showcasing local traditions and festivals.
- **\*Organic Farming and Agribusiness\*:**
  - Growth in organic farming can enhance food security and provide economic opportunities.
  - Development of value-added products and agri-tourism.
- **\*Renewable Energy\*:**
  - Investment in hydropower and solar energy projects can provide sustainable energy solutions.

- Potential to become a model for green energy adoption.
- **\*Infrastructure Improvement\*:**
- Upgrading roads, public transportation, and utilities to support urban growth.
- Development of smart city initiatives to improve livability and sustainability.
- **\*Education and Healthcare\*:**
- Expansion of educational institutions and vocational training centers.
- Improvement of healthcare facilities and services to cater to both residents and tourists.
- **\*Digital Connectivity\*:**
- Enhancing internet and mobile connectivity to support businesses and remote work.
- Promotion of digital literacy and e-governance.
- **\*Cultural and Artistic Promotion\*:**
- Encouraging local art, music, and crafts through festivals and markets.
- Support for local artisans and cultural preservation projects.
- **\*Environmental Conservation\*:**
- Implementation of conservation programs to protect natural resources and biodiversity.
- Promotion of sustainable practices in tourism, agriculture, and urban development.
- **\*Community Engagement\*:**
- Strengthening community participation in planning and decision-making processes.
- Encouraging local initiatives and partnerships for sustainable development.

### **REFERENCES & SOURCES OF INFORMATION:**

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