SUSTAINABLE TRANSPORT SYSTEM IN ANANTNAG TOWN

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Anantnag town –An Introduction

Anantnag city is located in the heart of the District which encompasses in its jurisdiction Anantnag, Bijbehera, Dooru and Phalgam Tehsil.

The township is situated between 75-7' to 75-12' East longitude and 33-41' to 33 -46' North latitude, at an altitude of 1600 meters above mean sea level and at an distance of 53 Km in the South-East of Srinagar Metropolis.

The town has originated closer to the confluence of two important tributaries Lidder and Arapat which contribute substantially to the discharge of river Jhelum. Important roads like Khanabal – Phalgam leading to (Amaranth cave) Anantnag – Kulgam, Anantnag – Kokernag, Veerinag – Dooru and Jammu- Srinagar (National Highway) converge in and around the Anantnag town and have shaped the town structure.

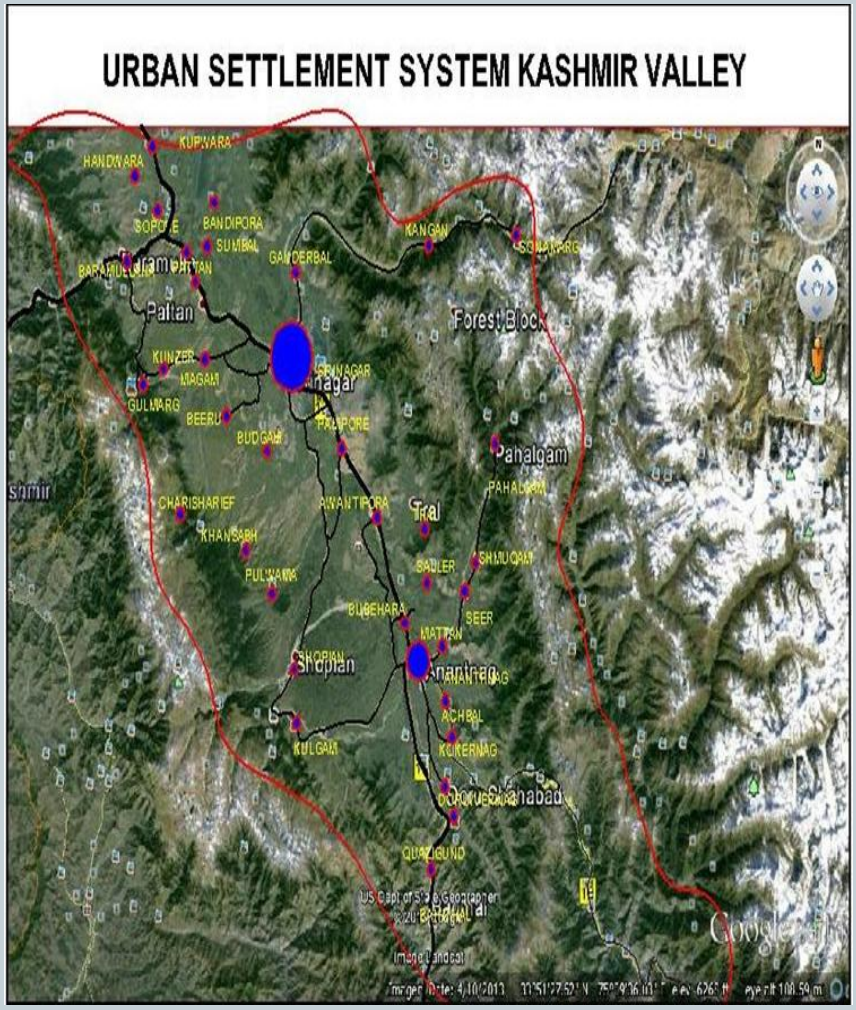
Like any other typical city of India the urban structure of Anantnag city has evolved from the interaction among key systems of accessibility to water, safety from floods ,climate and infrastructure availability.

The growth being spontaneous in nature has its manifestation in ribbon development, incompatible land uses, along transportation corridors. The unique character which nature has bestowed to Anantnag is innumerable rivers and rivulets traversing through it generating all impediments to connectivity, mobility, and development.

The Ministry of Railways, Government of India has embarked upon an ambitious rail project of Jammu – Baramulla Rail Link. The rail link connects important townships in the Kashmir Region viz; Qazigund, Anantnag, Bijhebera, Pampore, Srinagar, Budgam, Magam, and Baramulla etc.

Rail link is passing in the west of the Anantnag town which is still open and is likely to act as the area for absorption of future growth of Anantnag city.

ANANTNAG TOWN –URBAN STATUS IN KASHMIR VALLEY

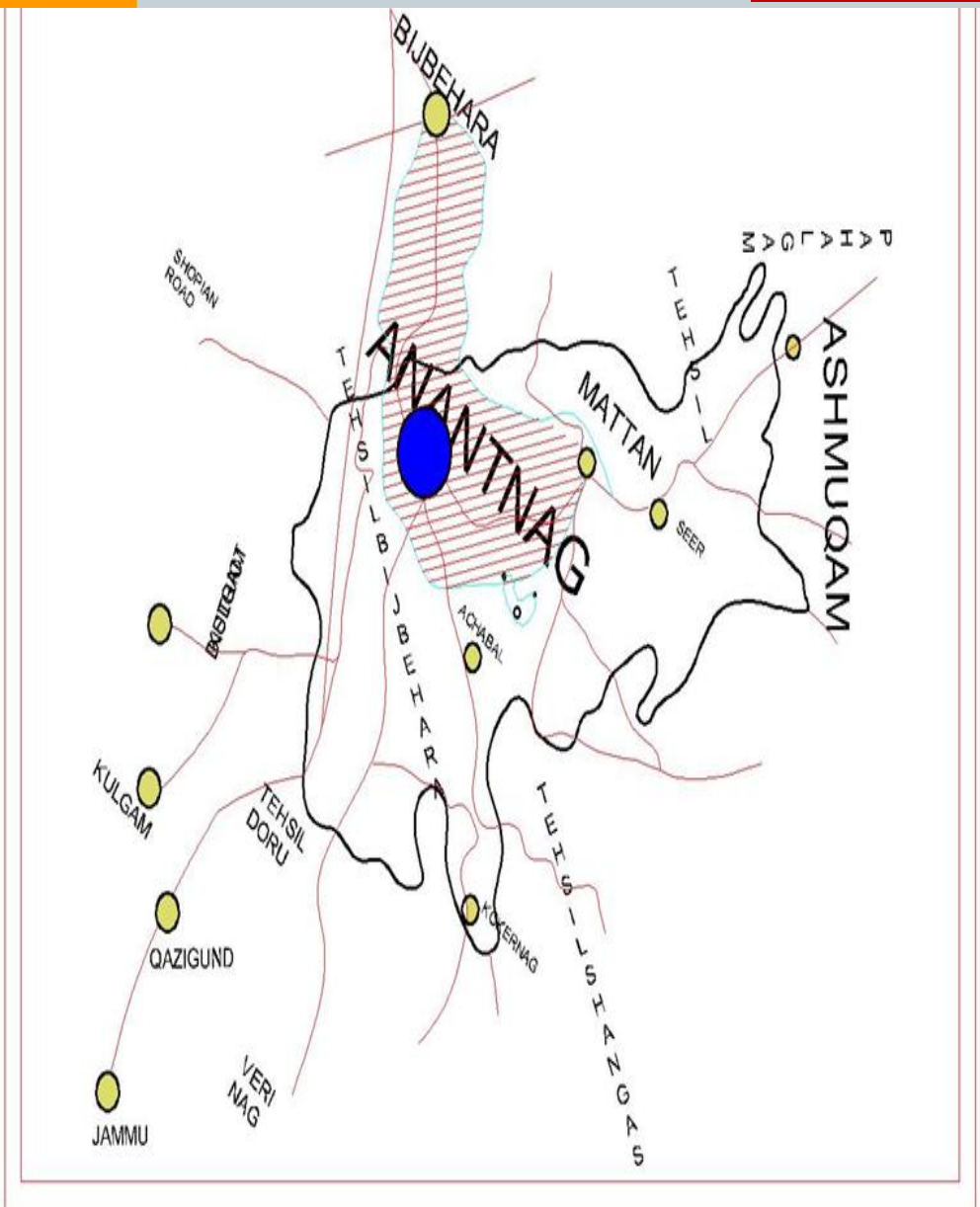


- **Anantnag is the second largest urban settlement in Kashmir.**
- **Gateway to Kashmir valley.**
- **Gateway to holy Amarnath shrine.**
- **Focal point for famous tourist places like Pahalgam, Acchbal, Kokarnag, Daksum, Samthan, etc.**
- **Important service town with rich horticultural hinterland.**
- **Seat of district administration.**

Intra District Connectivity-Anantnag Town

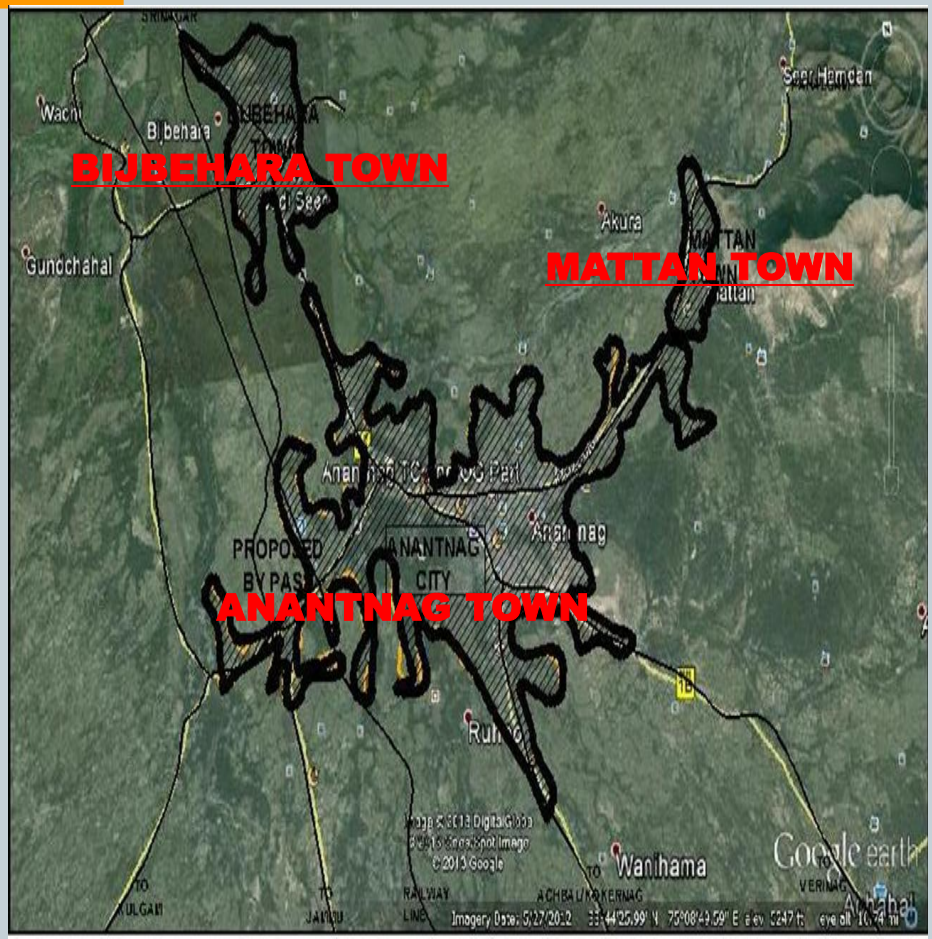
- Located on the vertex of Anantnag district.
- National highway passes through it.
- All district highways converge in Anantnag town.
- Generates excessive inter-state and inter-district traffic in the town.
- Problems of traffic jam, inefficient mobility, congestion on roads, bottlenecks on major intersections, inadequate road width, poor riding quality, encroachment, lack of cycle tracks, footpaths, identified bus stops/ bus bays, lack of parking space.

Regional setting of Anantnag in South Kashmir



- Focal point in South Kashmir.
- Requires improved transportation connectivity for carrying out service, functions and dissemination of benefits of development.
- Anantnag receives large service population from surrounding towns.
- In absence of appropriate mass transportation system, there are often delays and huge number of man hours are lost in the process.
- Radial road pattern is also affecting efficiency of mobility in the town.

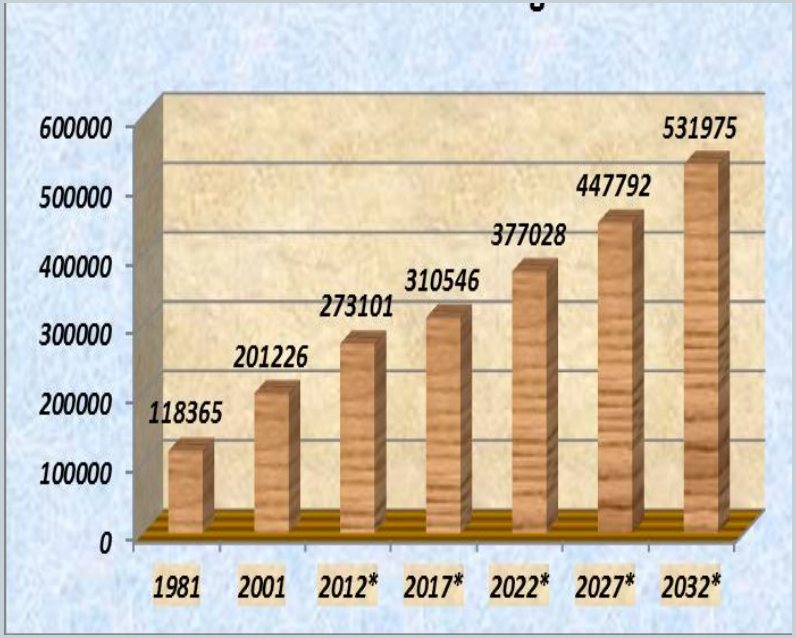
Spatial spread and road linkages: Greater Anantnag



- Anantnag is a fast growing town.
- It has engulfed Mattan and Bijbehara town within its urban extends.
- Future urban sprawl of Anantnag would include these three townships as Greater Anantnag.
- Greater Anantnag would act as counter magnet to urban growth of Srinagar.

Urban growth of Greater Anantnag:

year	Anantnag M.C.+ out Growth	Urban village	Bijbehera M.C.+ out growth	Urban village	Mattan M.C.+ out growth	Urban village	Total
1981	47231	34609	10791	15796	6804	3134	118365
2001	85583	56138	19794	28437	6537	4737	201226
2012*	118430	73783	27694	38217	9146	5831	273101
2017*	140247	81751	32261	45633	10654	6963	310546
2022*	166569	97095	38315	54198	12654	8197	377028
2027*	197832	115318	45507	64370	15029	9736	447792
2032*	234962	136962	54153	76451	17884	11563	531975



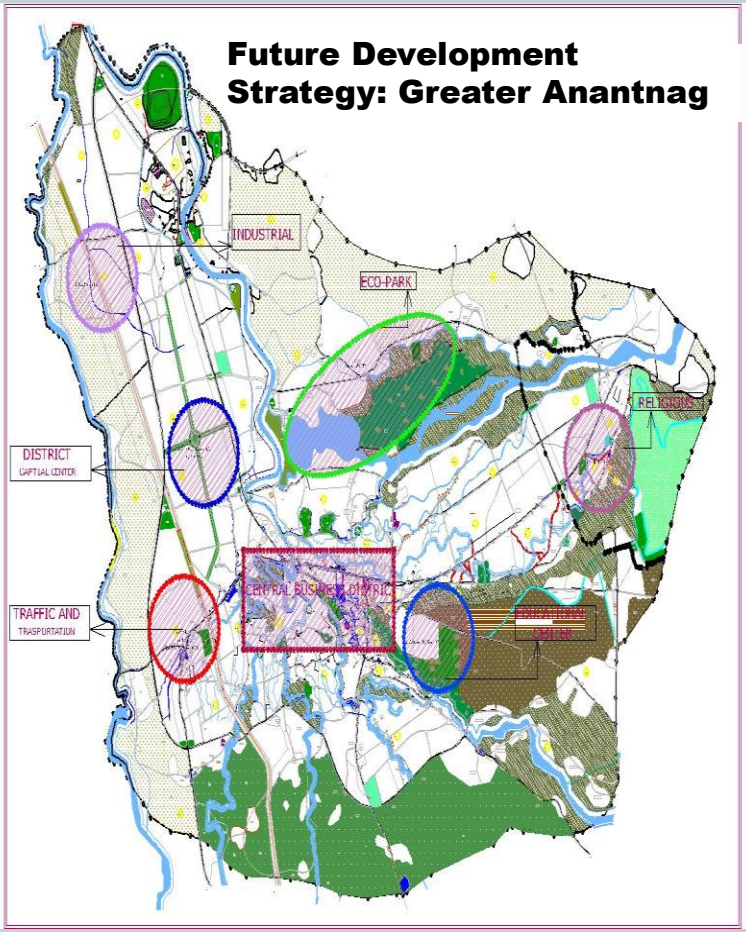
- Greater Anantnag will form single urban entity with a population of about 3.0 lakhs in 2016, 5.31 lakhs in 2023 with an overall growth rate of 3.5%.
- South Kashmir constitutes 30% of the urban population of Kashmir.
- The increase in population is bound to propel the mobility of people and goods.

Major Development Issues -Anantnag

The excessive concentration of administrative activities, trade and commercial activity in the city coupled with poor enforcement and unplanned expansion has resulted:

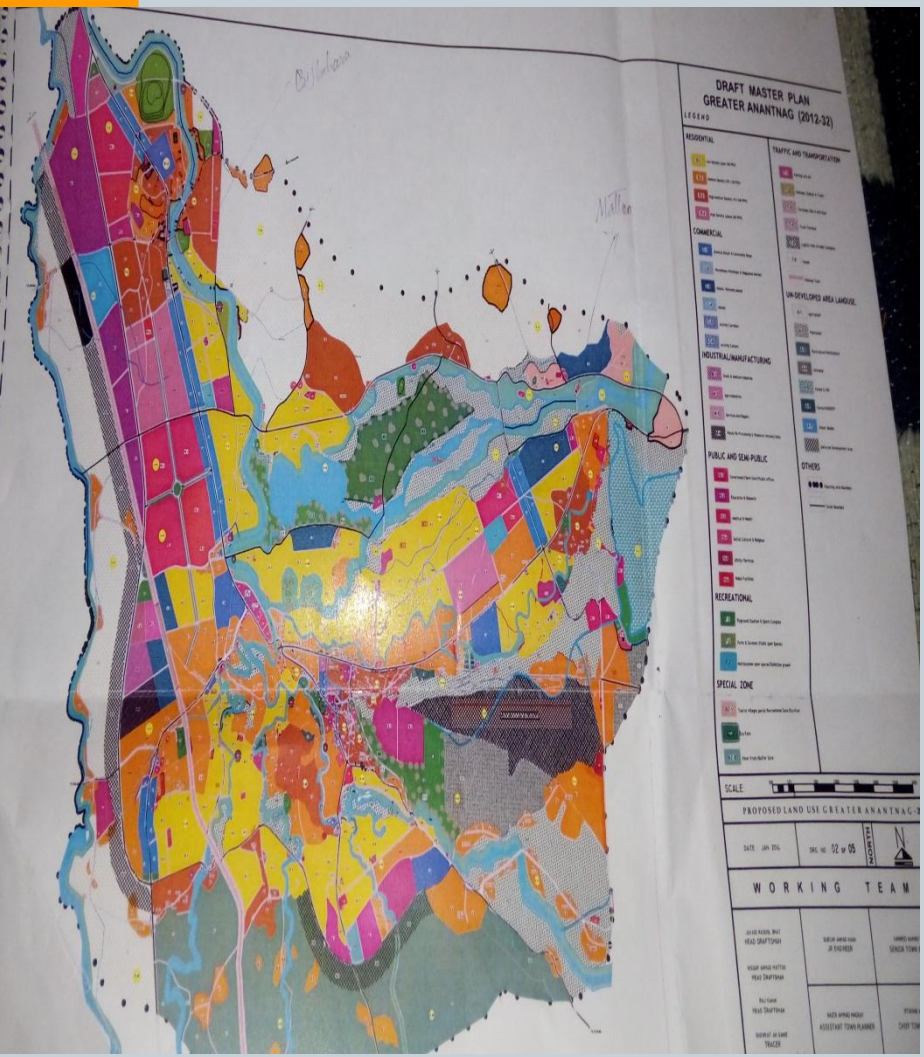
- City is reaching to a built out point due physical thresholds and its merger with Mattan and Bijhbhera town is eminent to form a greater urban agglomeration
- Deterioration of existing services and facilities;
- Excessive congestion and saturation of core city with poor sanitation, unhygienic living environment;
- Unintended and spotty growth amidst rich agricultural land posing problems of extension of urban infrastructure;
- Unauthorized growth of commercial areas by encroaching carriage way of various roads leading to traffic congestion, obstruction of vehicular and pedestrian movement;
- Lack of integration between various parts of the city resulting excessive travel and increased travel time
- Problems of inadequate open spaces which have been further aggravated due to encroachment and poor maintenance.
- Pollution of precious water bodies (river/outfall channels of springs) whose water is used for domestic purposes;
- Absence of comprehensive drainage facilities;
- Poor maintenance of General Bus Stand generating all sorts of problems to Passengers;
- Provision of street lighting;
- Reconstruction of urban infrastructure destroyed during turmoil and militancy;
- Lack of organized wholesale market/fruit mandi.
- Encroachment of ecologically sensitive areas, weak economic base, and weak industrial base

Urban Development Strategy-Anantnag



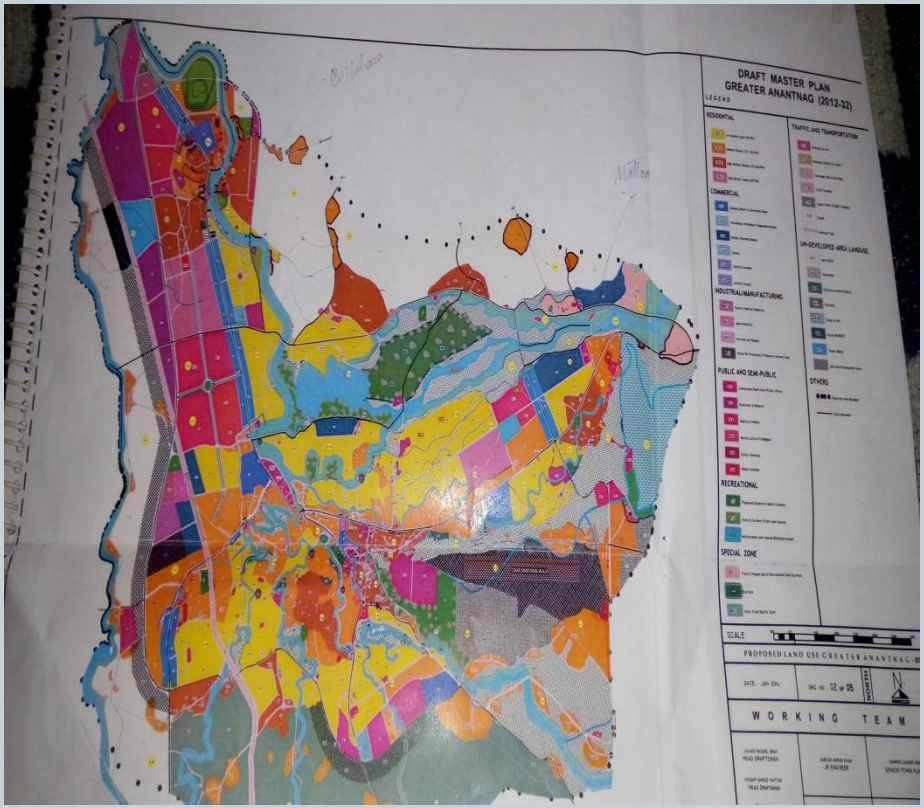
- Proposed as multi nuclei city.
- Focus on greater connectivity of radials, efficient mobility, creation of new activity centers.
- Mass transportation system.
- Integration of townships into single urban entity.
- Improved road network system.
- Transit oriented development.
- Introduction of mass transportation system, cycle tracks and appropriate road furniture for sustainable transport, with focus on passenger movement and freight.
- Development of alternative corridors for through traffic.

Development strategy: Greater Anantnag



- **Master plan envisages spatial spread from 49 Sq.Kms(ABM) To 147 sq.kms**
- **Proposes dispersal of core activities located in congested part of the city.**
- **Greater connectivity between three townships work centers & settlements**
- **Efficient mass transportation system in place of small mini buses**

Land Use Plan –Greater Anantnag



- Integrated and Compact city development
- Focus on delivery of service and service upgradation
- Transit oriented development
- Improved connectivity with peripheral towns
- Improved road network system ,creation of cycle tracks, footpaths, mass transit system,integration rail and road transport
- Creation of work centers
- Safeguarding environment and energy efficiency

REGIONAL ROAD NETWORK CHARACTERISTICS

The road network in the district although dispersed in its character, constitutes 13.48 percent of the total network of Kashmir region.

The district is, however, connected with Srinagar and Jammu by National Highway but it lacks connection with its neighbouring district of Kishtwar.

Attempts are being made by the State Government to link the Kishtwar town with Anantnag District through Chatru-Simthan pass and it is hoped that this road will be completed quickly in consideration with generating economic activity of both Doda and Anantnag at a rapid rate.

Anantnag town occupies a key position within the regional road network of the district. Roads leading to tourist resorts like Phalgam, Aru, Achabal, Kokernag, Daksum, Verinag, Pilgrim places of Martand, Amarnathji cave and Tehsil Headquarters of Kulgam, Shopian, Pulwama and Tral all meet at this town .

The convergence of different radial roads in Anantnag has given greater centrality and manifolds its importance in the regional perspective

Characteristics of Transport Network

Anantnag city is served by two dominant modes of transport viz. road, and rail. Of these, road network has a wide presence throughout the city due to its penetration into every nook and corner of the city and suitability to all terrain conditions.

Rail network, has very recently been established and has limited but dominating influence. It has increased mobility from south Kashmir to Srinagar city and North Kashmir.

Road network

The total length of roads in Anantnag City (arterial, sub arterials and network system) is 129.26 Km. The city has a road density of 0.67 km/1000 population and 110.60 sq. hectares of surface area. The roads in the city have been classified as arterial, sub-arterial, collector and local streets;

Arterial streets: This system of streets, along with National highway includes Phalgam –Anantnag road serve as the principal network for through traffic flows. Significant intra-urban travel, such as, between central business district and outlying residential areas or between major suburban centres takes place on this system and the sub arterial system.

The sub -arterial system includes district road of Achabal, Veerinag,/ Kokernag. Most of these are functionally similar to arterial streets but with somewhat lower level of travel mobility. Street like Laizbal Chee,Kadipora to University,Kralpora to Mattan Chowk,Uranhall to Gur Achabal Adda to Dantar etc act as collector streets and collect traffic from local streets and feed to the arterial and sub-arterial streets and vice versa.

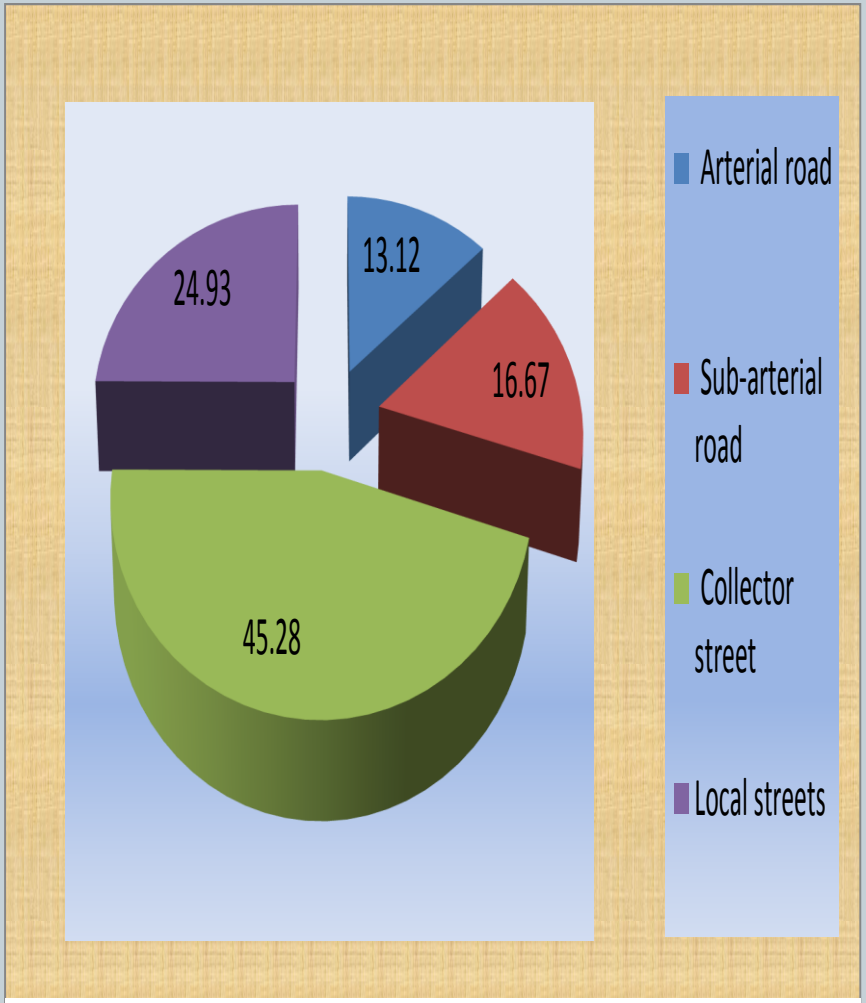
These connect major residential and commercial areas located in residential neighbourhoods, business areas and industrial area. Normally, full access is slowed on these streets from abutting properties because of commercial development on both sides and widespread encroachment.

Local Streets which provide access to abutting property and normally do not carry large volumes of traffic generate majority of trips in urban areas as such most of the trips originate or terminate on these streets.

AVAILABLE ROAD INFRASTRUCTURE BY ROAD TYPE

Distribution of road network in Anantnag city according to functional classification

Sl.No	Type of road	Length (km)	Percentage
1	Arterial road	16.84	13.12
2	Sub-arterial road	21.40	16.67
3	Collector street	58.12	45.28
4	Local streets	32.00	24.93
	Total	128.36	100.00



DIA.3.Distribution of Road Network as per Functional Classification

ROAD NET WORK DISTRIBUTION

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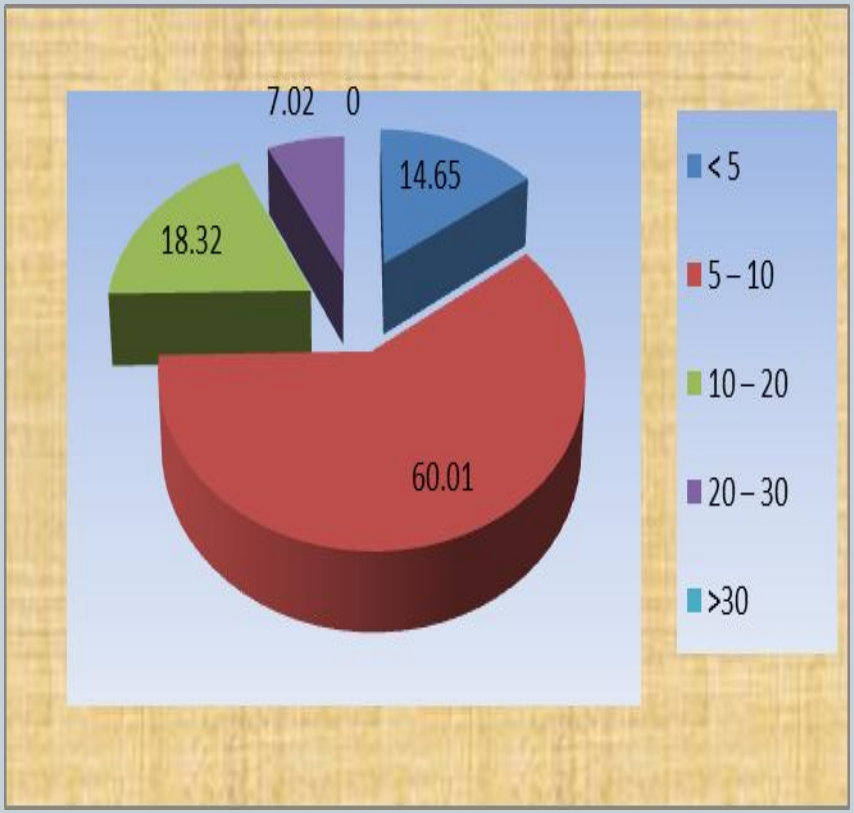
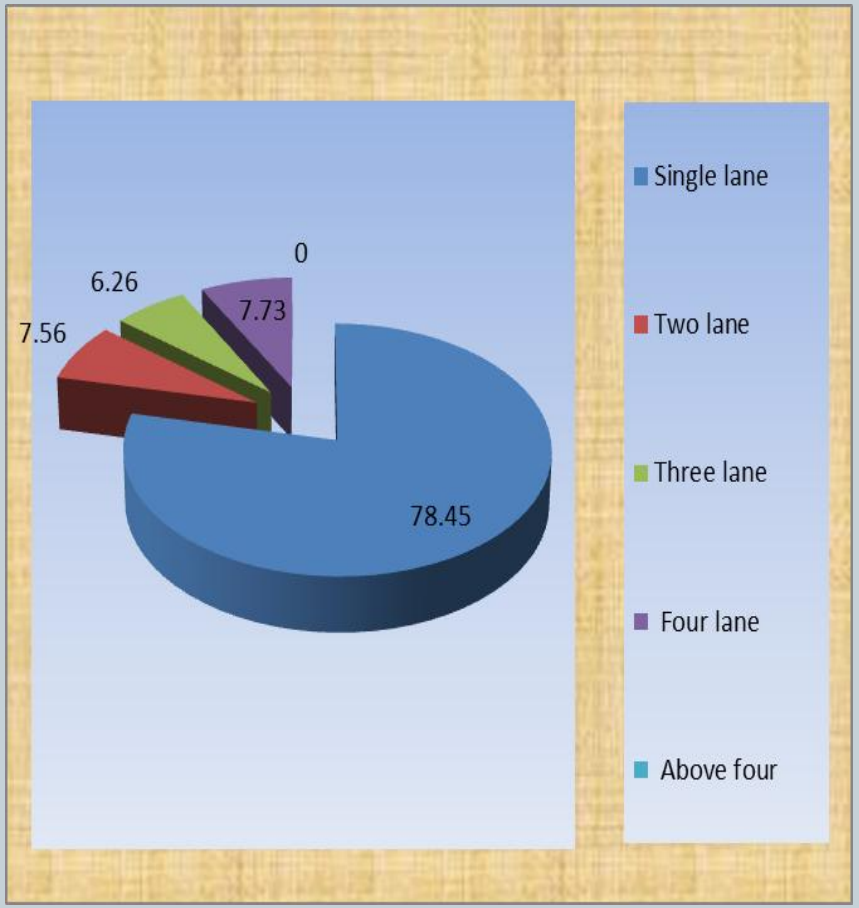


AVAILABILITY OF CARRIAGEWAY –ANANTNAG

Distribution of road network in Anantnag city according to availability of carriageway

S.NO	Carriageway width Road	length (km)	Percentage
1	Single lane	100.70	78.45
2	Two lane	9.71	7.56
3	Three lane	8.04	6.26
4.	Four lane	9.91	7.73
5	Above four	- -	
6	Total	128.36	100.00



ABSENCE OF PEDSETRAIN PATHS

The availability of roadside appurtenances is necessary for the smooth flow of traffic including pedestrian traffic.

It is observed from the road inventory surveys that only 9.13 percent (11.72 km road length) of the road network in Anantnag city has footpath on both sides of the road K.P.Road, Khanabal Chowk to Mattan Chowk, Mehendi Kadal Bridge to Janglat Mandi and District Hospital to Cheeni Chowk and 1.01 % of the roads (1.3 km length of road) network on one side of the road with surface drainage facility.

Traffic flow Incoming and Out- Going to Greater Anantnag (Peak Hour Traffic)

S.NO	Road	Incoming traffic	OUT-GOING TRAFFIC
1.	Anantnag-Achabal	*3912*	1569
2.	Ang. -Kulgam via wanpow	2081	3908
3.	Ang.-jammu	4656	4289
4.	Ang.- Srinagar	5200	6366
5.	Ang. -verrinag via Ashijipora	938	2710
6.	Bijhbhera -Arwani	436	651
7.	Bijhbhera -Saller	345	413
8.	Anantnag-Phalgam	2793	1891

Modal Split of Traffic in Greater Anantnag (Peak Hour traffic)

Traffic movement	Two wheeler	Auto/car	Mini-buses	Buses	TOTAL
Internal to Internal	10.11%	18.67%	59.21%	12.02%	100
External to External	2.12%	29.12%	25.17%	43.59%	100

Passenger Traffic -Scenario

Modal split of inter-city goods traffic

S.NO.	Type of vehicle	Percent to total
1.	Truck	57.5
2.	Mini-truck	19.4
3.	Goods auto	22.18
4.	Tongas	1.92
	Total	100.00

- Intermediate Public Transport (IPT) system comprises of auto-rickshaw, jeeps, vans and taxis, tongas
- A total of 175 mini-buses are operating from four terminus centers for inter and intra city traffic.
- About 1050 trips are made daily catering about 36750 passengers of immediate hinterland.
- On an average about 15500 to 17000 passenger use buses as primary means of transport about 65 buses operate making 280 trips daily .
- About 242 taxis operate in the city making about 1450 trips and cater approximately to14000 people daily. Despite their significant share in passenger traffic most of these taxis are operating without any organized space as such are seen mostly parked on street creating traffic conflict and other problems.
- Modal split of inter-city passenger traffic reveals that about 39% of passengers were travelling in buses 35% in mini-buses 22 % in cars, /sumos, and 4% in two wheelers and autos.
- 74% passenger traffic use buses and mini buses

Transportation Issues and Immediate Measures Needed

- Poor riding quality of roads
- Inappropriate location of terminus centers
- Lack of parking for para-transit modes of transport.
- Lack of parking facilities for personelised mode.
- Poor road geometric .
- Excessive through traffic both passenger and goods
- Mixing of slow and vehicular transport
- Encroachment of carriage way by vendors.
- Missing hierarchical road network

- Immediate need to overhaul the traffic and transportation infrastructure.
- Focus on development of mass public transportation system.
- Bypassing of through traffic
- Provision of BRT for greater connectivity with surrounding towns and settlements
- Provision of cycle tracks on bund roads along taming rivers of Anantnag.
- Provision of foot paths and designated bus bays.
- Segregation of slow moving (tongas) and vehicular transport modes