PHYSICAL PLANNING - 1

SETTLEMENT

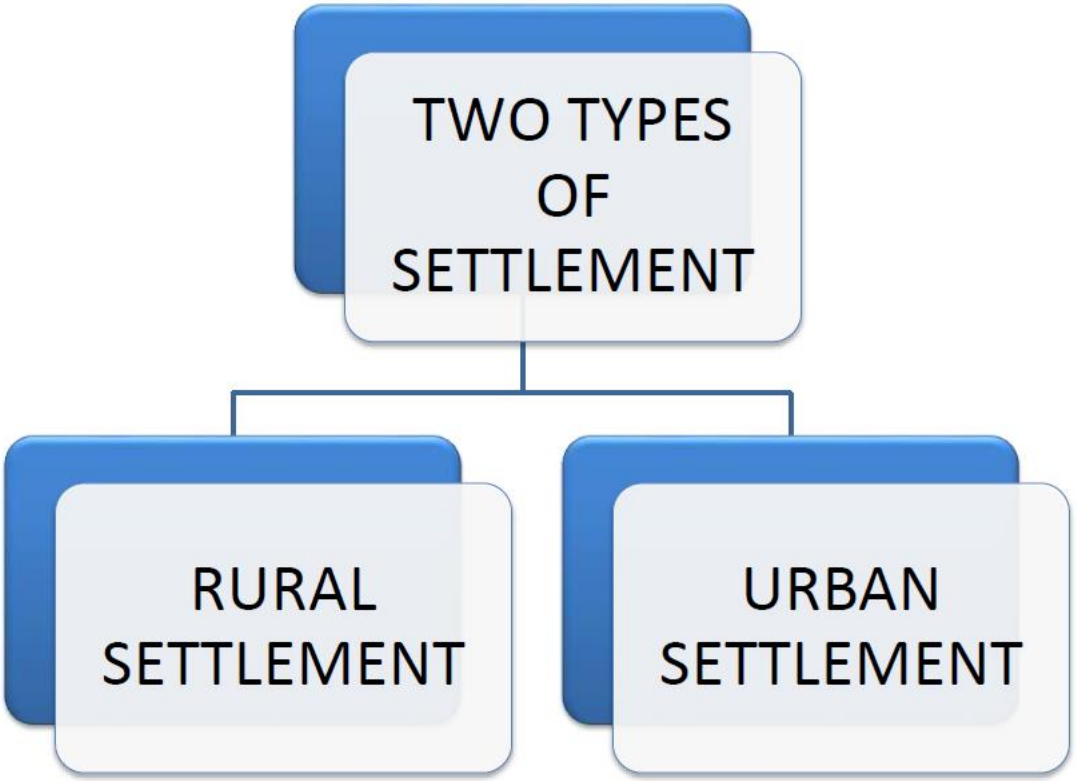
- A **settlement** is a general term used in archaeology, geography, landscape history and other subjects for a permanent or temporary community in which people live, without being specific as to size, population or importance. A settlement can therefore range in size from a small number of dwellings grouped together to the largest of cities with surrounding urbanized areas.

HISTORY

- Earth estimated to be formed about 4 billion years ago
- Homo Sapiens (the one existing species of man) believe to date from about 500,000 B. C.
- Earliest man did not settle anywhere as they wandered around in search of food
- Did not know how to construct buildings so lived in the open
- Occasionally took shelter on top of trees to protect themselves from wild animals

Towards Settled Habitation
(Up to 10,000 B. C. - 5,000 B. C.)

- Some of the earliest settlements began to take shape.
- Settlements then consisted of groups of houses built by the side of agricultural fields, a shrine and a burial ground.
- Some inhabitants continued to live in caves and wander around for hunting animals - more as a pastime rather than as a necessity.


TWO TYPES OF SETTLEMENT
RURAL SETTLEMENT
URBAN SETTLEMENT

RURAL SETTLEMENT

- The majority of its inhabitants are involve in activity like farming, fishing, forestry, mining.

- The pattern of rural settlement can vary from a single farm to a cluster of houses.(dispersed, linear and nucleated.)

- In the past most of the population lived in rural areas.

CHARACTERISTIC OF RURAL SETTLEMENT

- In the form of village, surrounded by farms
  With Small population.
- Occupation such as forestry, farming ,fishing mining, tourism.
- Service provided are in limited range and mostly for every day needs.
- Close knit communities and the atmosphere is quiet.
- dominance of community feeling.

RURAL ADVANTAGES:-

1. More natural environs.
2. Better social/support network .
3. Less stressful environment .
4. Perceived as safer.
5. Class differences are not as distinctive.

RURAL DISADVANTAGES:-

1. Limited transportation available.
2. Social network can lead to strain (in the case of small town gossip.
3. Limited employment opportunities.
4. Slower social, political progress.
5. Less immediately available social services.

URBAN SETTLEMENT

- The majority of people are engage in non –rural activity.
- They work in office, shops and factories, operate machinery, provide health care or other services.
- urban settlement can be small like 1000 people or can be as large as Tokyo-Yokohama in Japan with over 30million people.

CHARACTERISTIC OF URBAN SETTLEMENT

- In the form of towns and cities.
- They are large, both in population and area.
- Has functions such as business, manufacturing, government cultural center.
- Wide range of services offered including specialized service. Like-
- Unlike rural settlement, neighborhood is separate with limited knowledge of others.
- Traffic and pollution problem.

DIFFERENCES IN SERVICES BETWEEN RURAL AND URBAN SETTLEMENTS

Service	Rural Settlements	Urban Settlements
Health	Medical clinic	Hospital
Education	Primary school	University
Shopping	General store, market	Shopping mall
Finance	Moneylender, co-operative	National bank
Transport	Bus service	Airport

URBAN ADVANTAGES:-

1. Services: Proximity to major and varied services.
2. Employment: Majority of higher paying jobs/careers are found there.
3. Current: art, fashions, politics, and higher culture.
4. Multi-cultural (which I personally see as a plus).
5. Transportation: Mass transit, buses, taxis...ect.

URBAN DISADVANTAGES:-

1. More crime.
2. Pollution: more people, more waste, more noise, less trees and nature...etc...
3. Impersonal and sometimes isolating.
4. Clear distinction between social classes (example: the beggar on the street, in front of million dollar downtown condos)

RURAL SETTLEMENTS VS URBAN SETTLEMENTS

- **Population Density**

  The U.S. Census Bureau defines urban settlements as areas with more than 50,000 people and at least 1,000 people per square mile; including contiguous census tracts or blocks with at least 500 people per square mile. In contrast, rural settlements contain less than 2,500 people, at a density between one and 999 people per square mile.

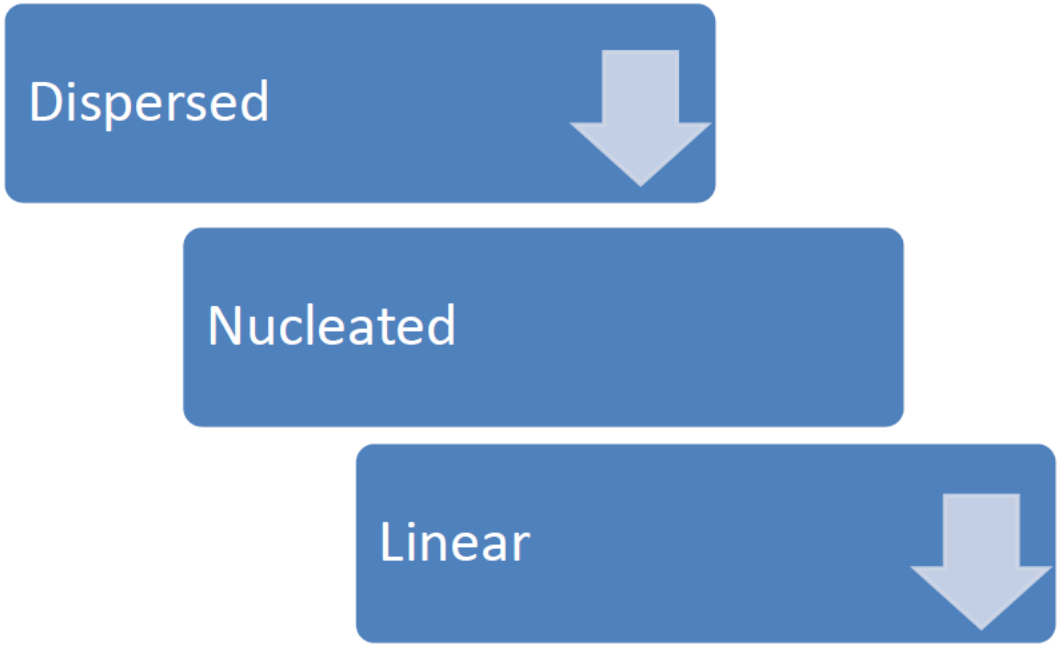
- **Transportation Network**

  Rural transportation networks consist of local and county roads with limited interconnectivity to rail and bus lines. Urban settlements contain highway infrastructure as well as airports and light or heavy commuter rail.

- **Economy**

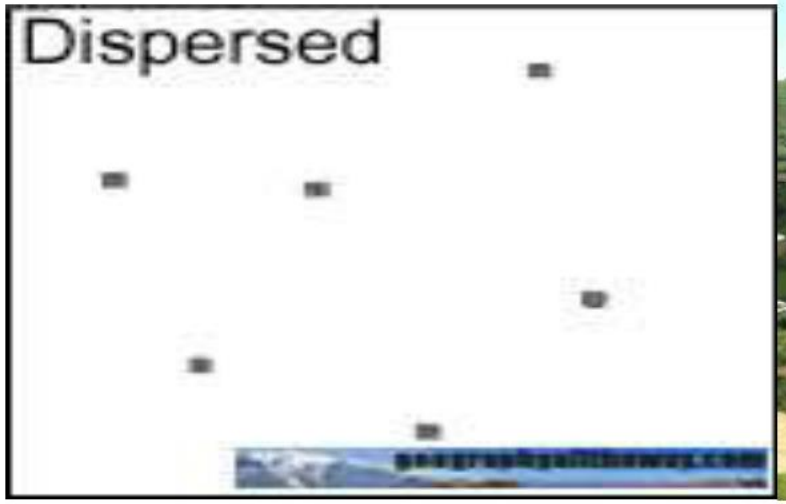
  Urban areas are dependent on a global economy of import and export, whereas rural economies rely on a local and agricultural-based economy with dependencies on services, such as hospitals and educational establishments in nearby urban centres.

SETTLEMENT PATTERN



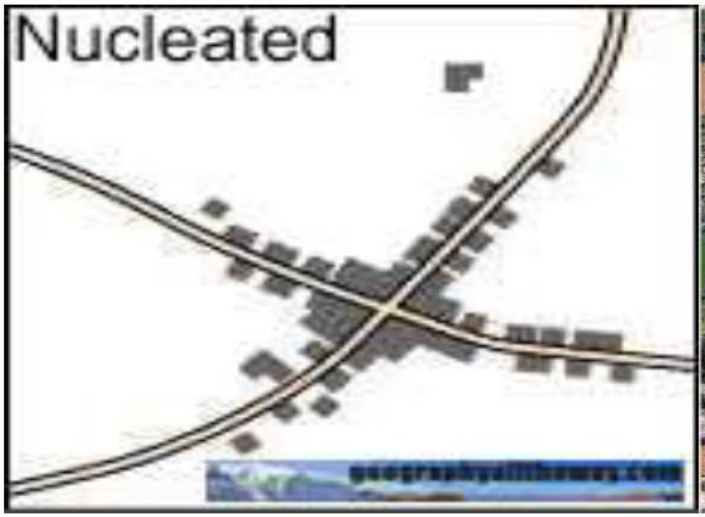
DISPERSED

- They are small groups of buildings
- That are separated from the next group by several kms.



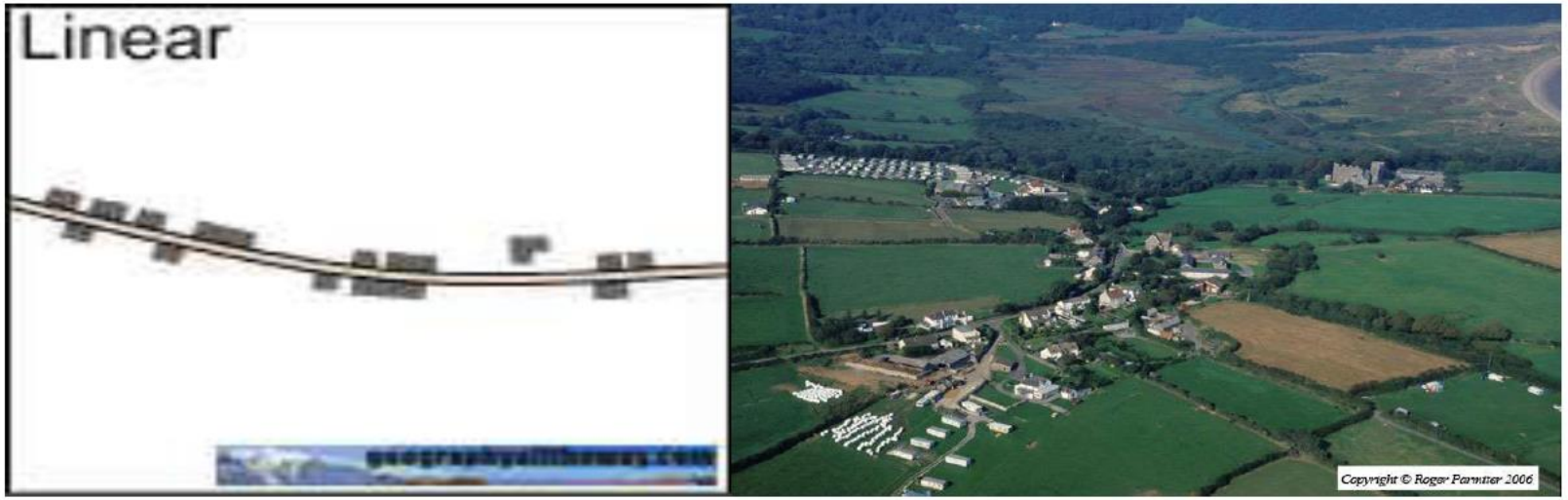
NUCLEATED

- These are place where building are clustered around the central point.
- The central point can be town square, religious centre, road junction or a mine.
- Maximum use of land in nucleated setting.



LINEAR

- Settlement may follow the river or road, canal or railways.
- It is due to easy access to transport ,fresh water or fishing .
- Roads also attract the shops beside the settlement.



RADIAL TOWN

- Dwelling are located to around the centre.
- Street circle around it.

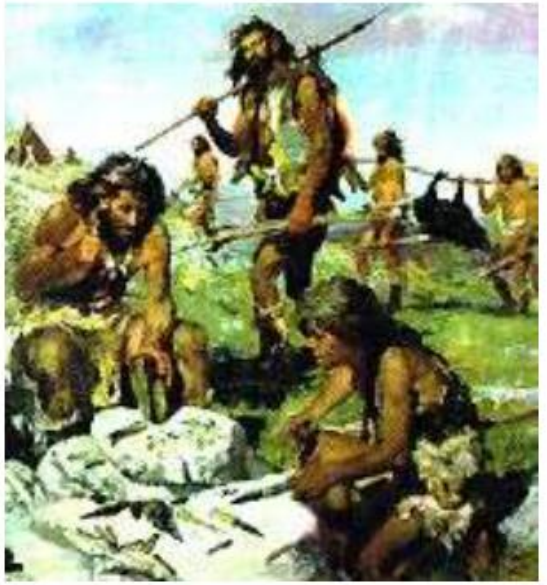
ORIGINS OF CITIES

PHYSICAL PLANNING - 1

ORIGIN OF CITIES:

Hunting and Gathering Society (Paleolithic Period):

- Early humans lived by hunting and gathering.
- They were organized in small nomadic groups.
- No permanent settlements
- Human society was largely dominated by the environment and natural forces.



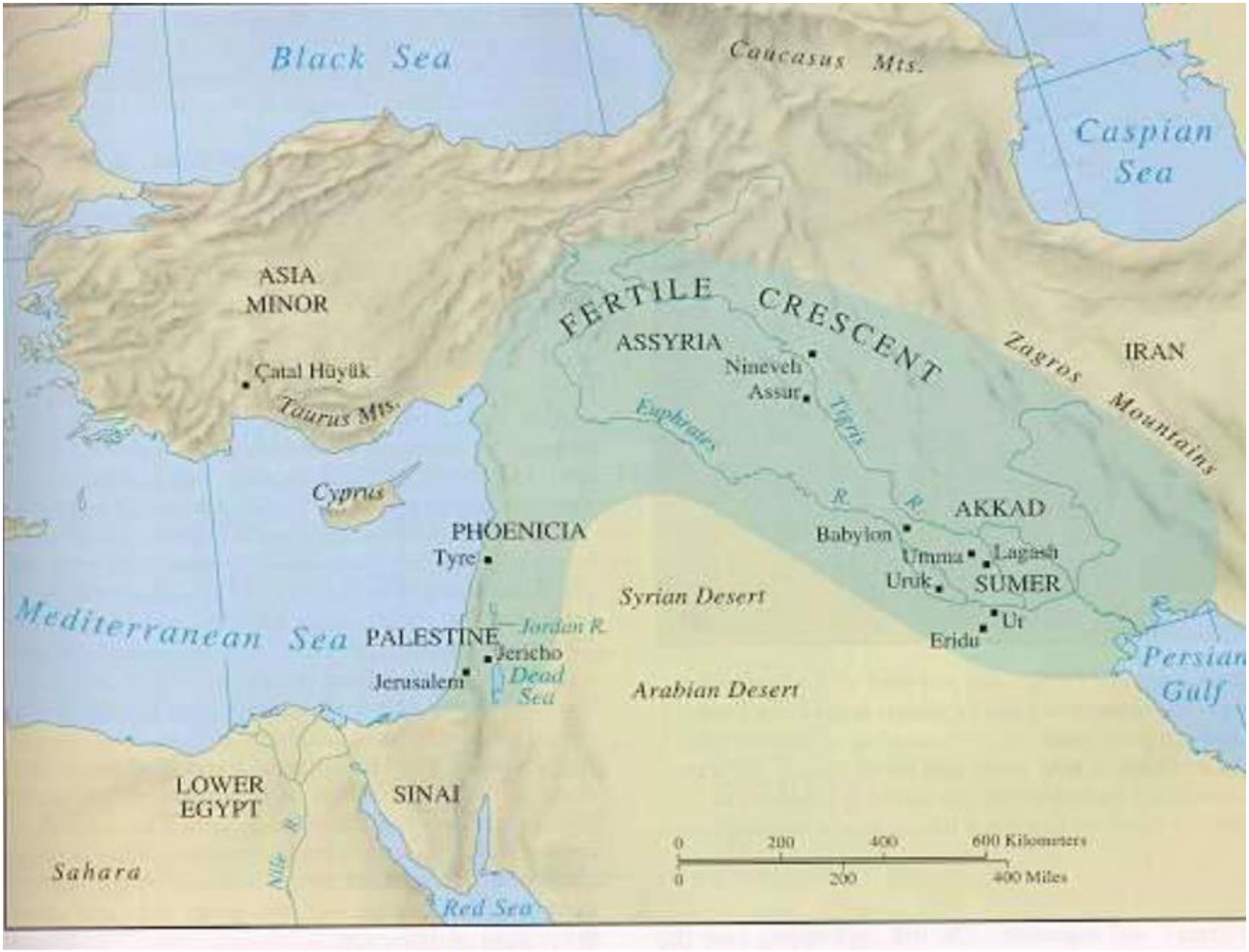
ORIGIN OF CITIES:

End of Last Ice Age: 10,000 BC (Neolithic Period):

- At the end of last ice age, 10,000 BC, the climate slowly changed from cold and dry to warm and wet.
- Under these new conditions, the Fertile Crescent of Mesopotamia (the area between the Tigris and Euphrates Rivers in modern-day Iraq) became incredibly rich in plant and animal life.

Agriculture:

- The end of the ice age saw the decline of certain big game animals in fertile crescent area due to climatic reason.
- Hunters overall yield declined; hunting became less productive.

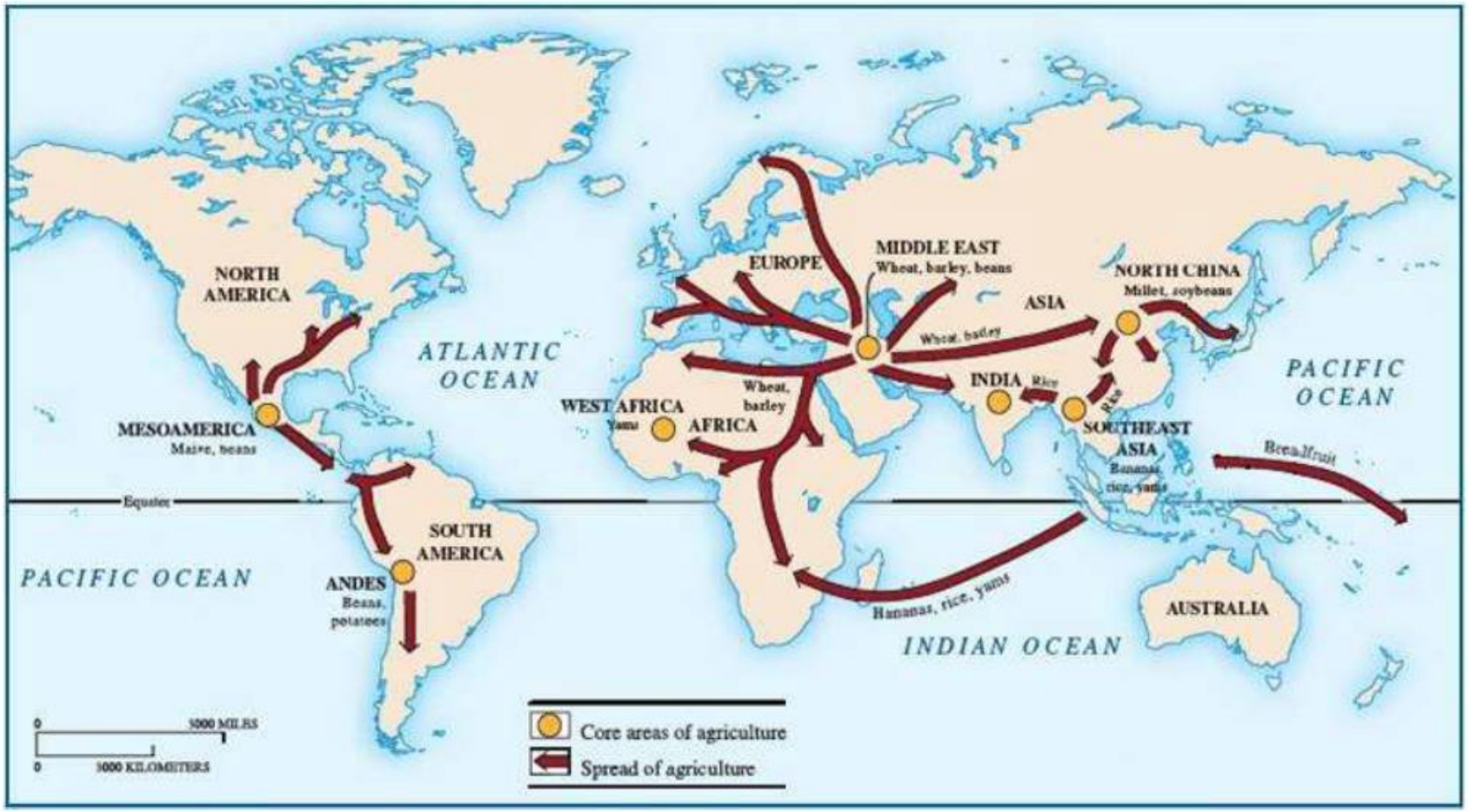


Fertile Crescent

ORIGIN OF CITIES:

Agriculture:

- It prompted people to search for new and more reliable sources of food.
- The initial stage of agriculture was deliberate planting of seeds and the improvement of key grains through the selection of seeds from the best plants.
- Domestication of animals: Animals were used mostly for food, clothing, and their bones for tools
- Farming was initially developed in the Middle East; in the fertile crescent area (present-day Turkey to Iraq and Israel)
- Gradually during the Neolithic centuries, knowledge of agriculture spread to other centers, including parts of India, north Africa, and Europe



Diffusion of agriculture

ORIGIN OF CITIES:

Sedentary Life Style:

- Early agriculture could support far more people per square mile than hunting ever could.

- It also allowed people to settle more permanently in one area as crops required constant care from planting to harvest

Surplus of Food:

- Systematic and organized agriculture resulted in substantial surplus beyond the own needs of the farmers.

Division of Labor:

- Agricultural society insisted the development of pottery and metallurgy.

Hydraulic Theory of Early Settlement (Wittfogel)

- Efficient farming of plains alongside rivers requires intelligent management of water resources for irrigation.
- The development of irrigation works in the areas such as Mesopotamia and Egypt led to the use of-
  - ❑ mass labor,
  - ❑ an organizational hierarchy for coordinating and directing its activities,
  - ❑ and to government control for ensuring proper distribution of the water.

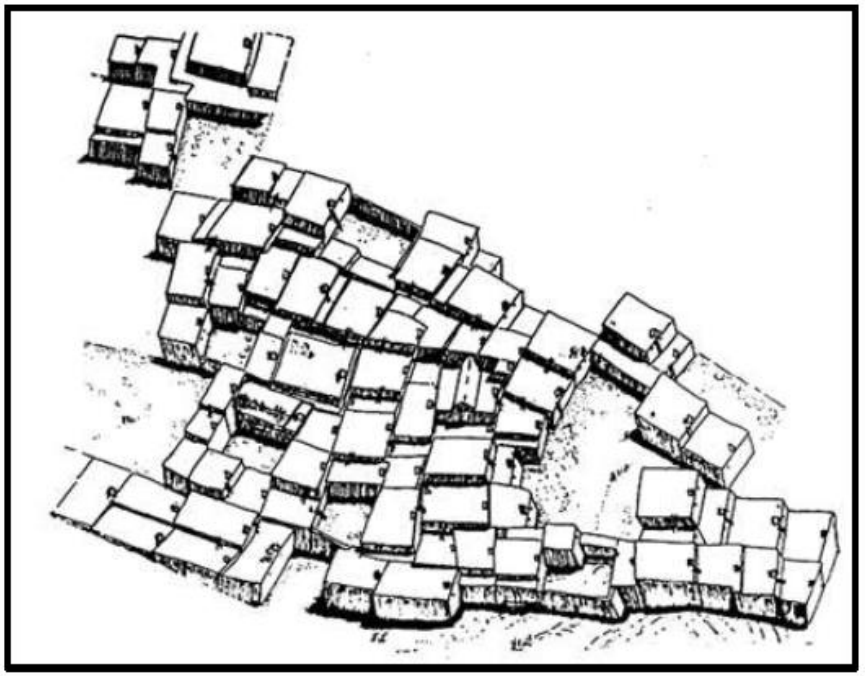
Ziggurat

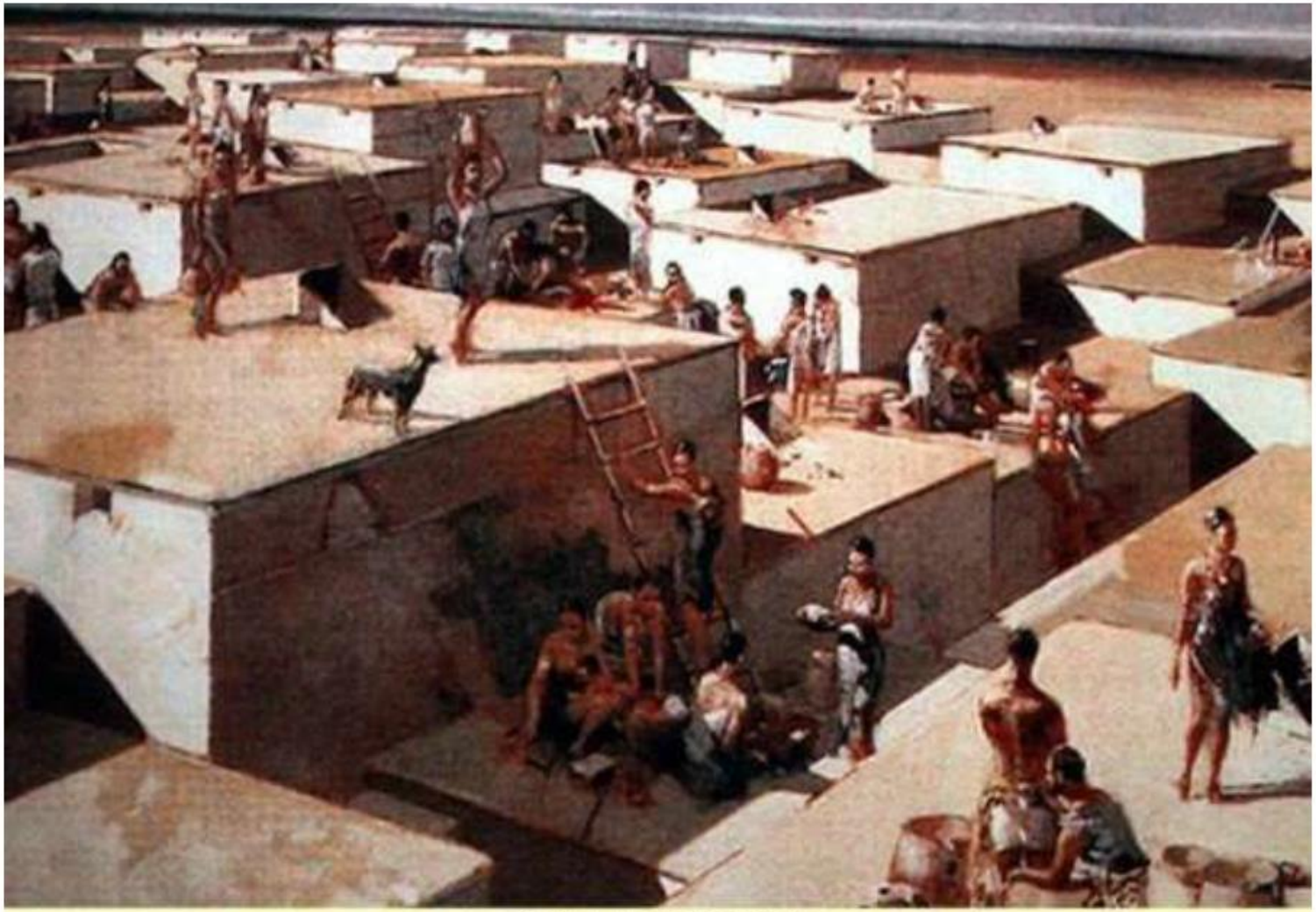
Factors behind the emergence of cities

- Concentrated population and social surplus
- Social hierarchy & formal institutions
- Defense against outsiders (wall)
- Monumental architecture (temples, palaces)
- Management of resources
  - Creation of irrigation systems, granaries, etc.
  - Collection of taxes/tribute
  - Distribution to members of the court
  - Distribution to subjects in times of famine

Neolithic Settlement: Çatal Hüyük

- Inhabited around 7000 BC
- Located in central Turkey
- Population in between 5,000 and 6,000
- This was a large town covering over 32 acres of land
- The houses were clustered so closely that they had no doors but were entered by ladders from the roofs.

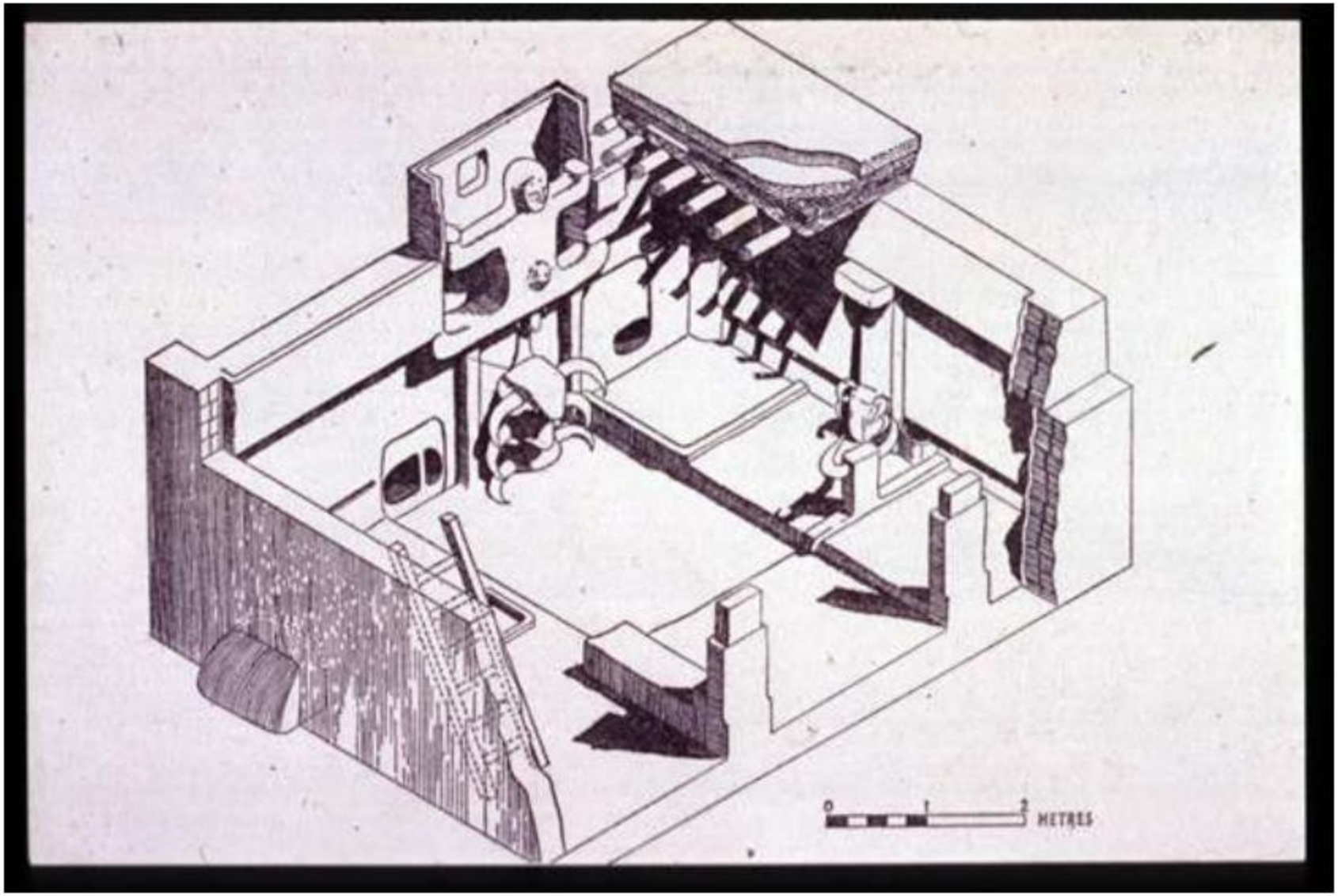




Catal Huyuk Town

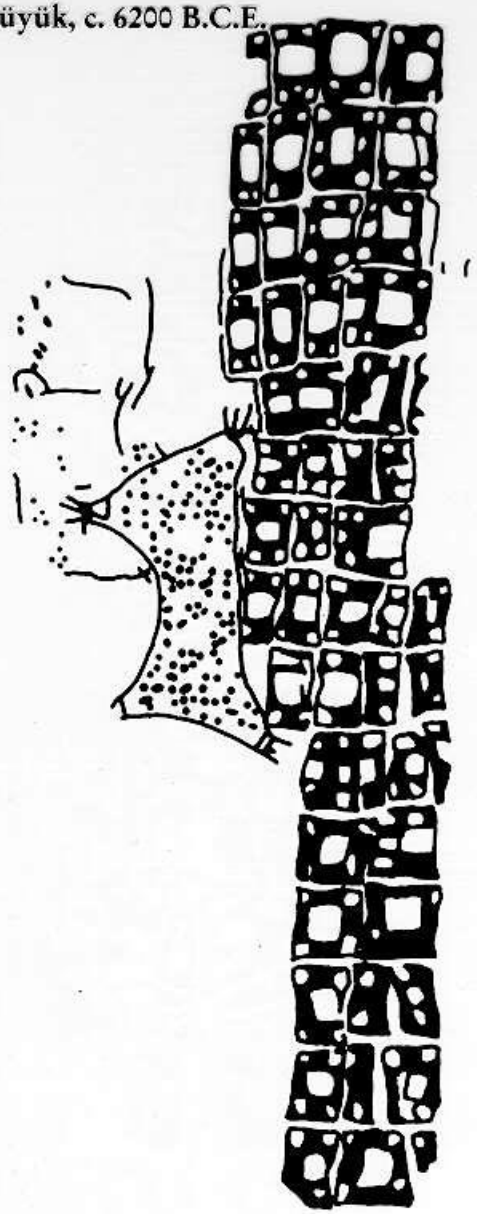
Neolithic Settlement: Çatal Hüyük

- The economy of Catal Huyuk was based on simple irrigation agriculture, sheep and cattle breeding, and the trade of obsidian, textiles, skins, food items and information.
- The many religious shrines found at the site also indicate the existence of a powerful Priesthood.
- The obvious importance of the cult shrines and the elaborate burial practices of the peoples of Catal Huyuk reveal the growing role of religion in the lives of Neolithic peoples



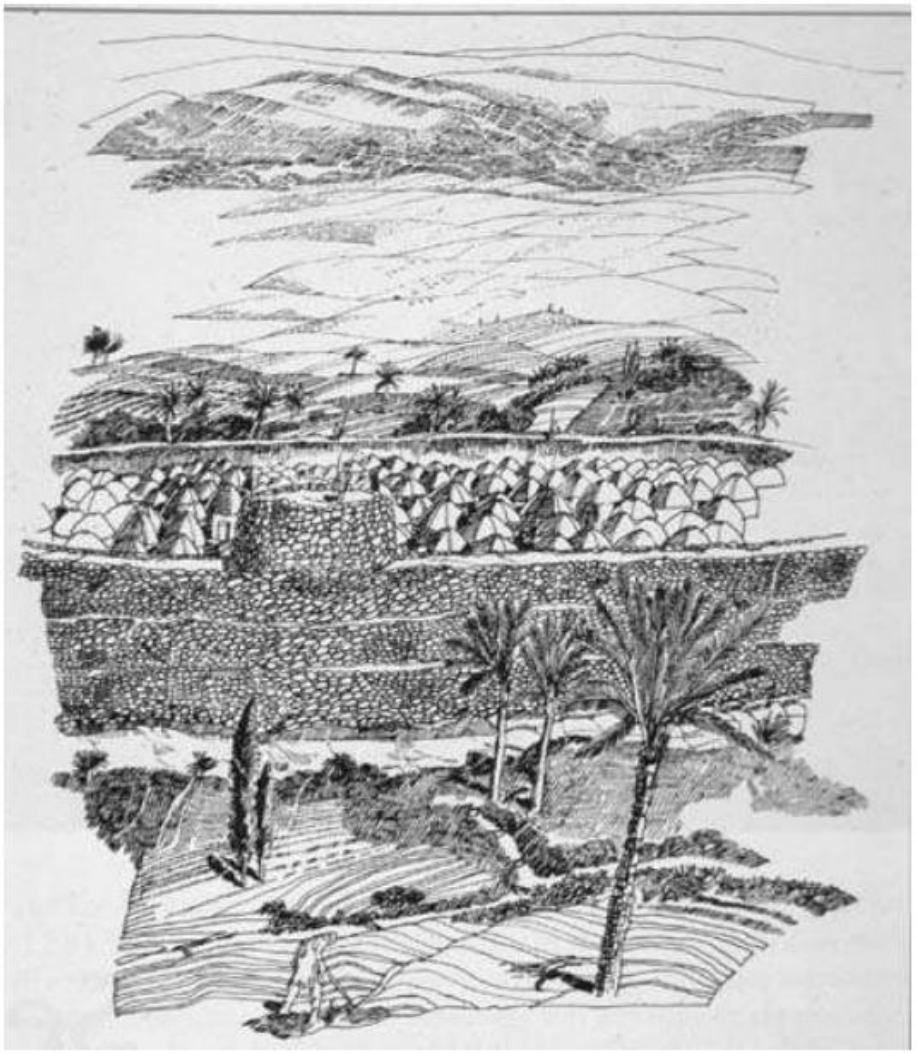
Shrine

S1 Çatal Hüyük, c. 6200 B.C.E.



Neolithic Settlement: Jericho

- Inhabited around 9000 BC
- Jericho is the most ancient town located in the Jordan Valley close to the Jordan River.
- A wall was built around it, enclosing an area of 10 acres.
- The wall itself was 6.5 feet thick and is preserved to a height of almost 20 feet.
- This is the earliest known fortification in the world.
- An extraordinary circular stone tower constructed just inside the wall. An enclosed stairway led to its top.



Wall

Stone Tower

EVOLUTION OF CITIES AND TOWNS

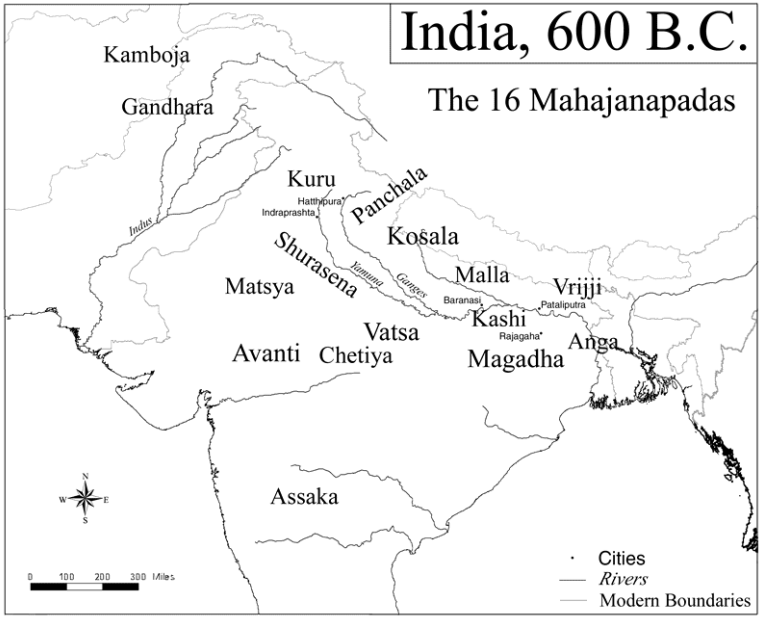
CITIES IN GENERAL

SUMERIAN CITIES-EGYPTIAN CITIES-GREEK CITIES-ROMAN CITIES-
MEDIVAL CITIES-NEO CLASSIC or RENAISSANCE PERIOD-BAROQUE CITY

EVOLUTION OF INDIAN CITY

Evolution of town to city

- JANAPADHA
- MAHAJANAPADAS
- ROYAL CITIES-RAJDHANI(Ayodhya kashi pataliputra)
- CITIES ASSOCIATED WITH THE KINGDOMS(Vijayanagara)
- HISTORIC CITIESOF JAINS(Dilwara)
- ISLAMIC CITIES(Delhi)
- BRITISH PRESIDENCY(Bombay Culcatta Madaras
- CONTONMENT TOWNS(Pune Bangalore)
- HILL TOWNS(Shimla Dehradoon Darjeeling)
- INDUSTRIAL TOWNS(Jamshedpur Bhadravathi Chittaranjan)
- STEEL TOWNS(Durgapur Bhilai Rourkela)



HALLI(small population people engaged mainly in agriculture)

PETE(Trading town)

Pattana(combination of religious with tading)

Srirangapattana(temple with sante)

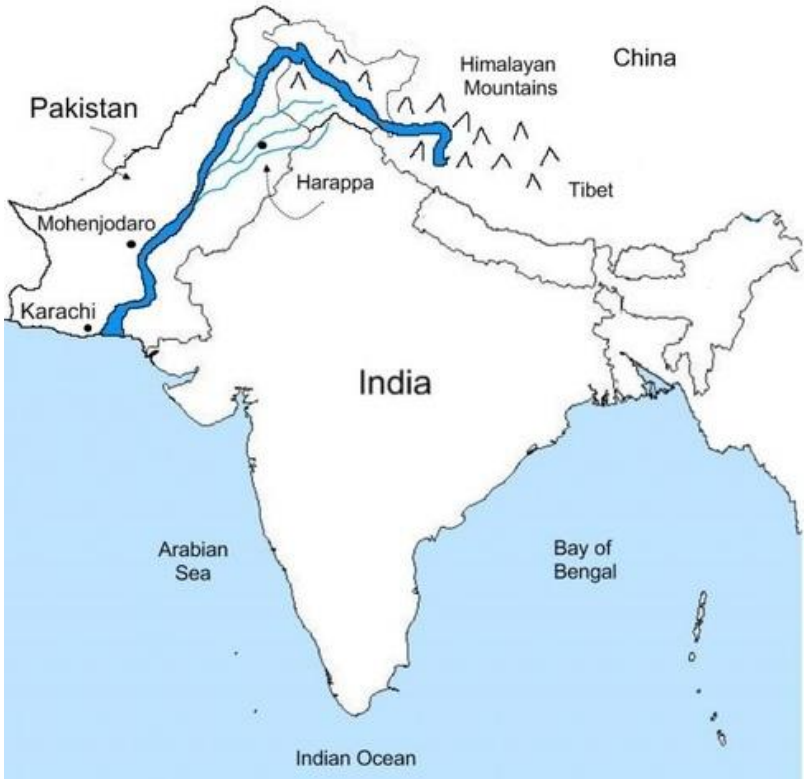
NAGARA/PURA(residential)

SANDRA(People based on the occupation)

- Doddi(people who rare cattle)

Evolution of town

- The origin and growth of towns and cities were governed by the site conditions.
- The towns were generally evolved on the river banks, by the sea shore or by the side of a big lake, a flowing stream was always preferred for trade and sanitary requirements.
- Most of the early civilization have sprung on the banks of some navigable rivers or at any natural port which not only provide security to the town but also acted as a communicating link from one civilization to another.
- The towns/cities on the river bank were usually oblong shape to take the maximum advantage of the river.
- It could be said rivers were the main cause for the origin, growth and even decline of many ancient cities.
- Physical safety and communication links are the two prime factors which lead to the development of towns.
- The earliest civilizations were seen on the banks of rivers like Nile Ganga Sindhu.



Development of towns periodically

- Towns flourished since prehistoric times in India. Even at the time of Indus valley civilization, towns like Harappa and Mohenjo-Daro were in existence. The second phase of urbanization began around 600 BC. It continued with periodic ups and downs until the arrival of Europeans in India in 18th century. Urban historians classify towns of India as:
- Ancient
- Vedic
- Medieval
- Modern

Ancient Period

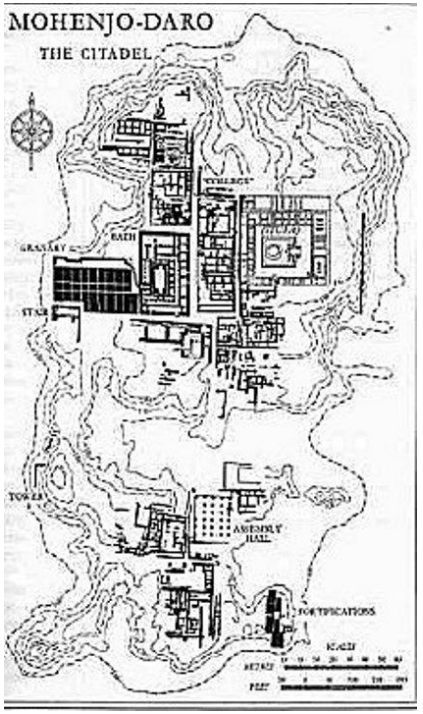
- Ancient period is considered to be between 3000-5000 BC . In this period, so many towns were created with some unique features.
- Development of towns taken place like
  1. Indus valley civilization
  2. Vedic towns
  3. Buddhist towns

  is considered to be the ancient period.

Indus valley civilization (3000BC)

- It was located on the bank of river Indus(presently in Pakistan) and Ravi.
- In 1920, excavation was done by a British Archeologist in Indo-Gangatic region.
- He found that there is an old city/civilization and there was human settlement named Mohenjo-Daro (which means Hill of Deads).
- It was covering an area of about 260 hectares with Harappa(on bed of river Ravi) now in Pakistan; Kalibangan in Rajasthan; Lothal, Sukortada and Dholavira in Gujarat; Rakhigadhi in Haryana, shows that it was developed around 4000-3000 BC.

Salient Features of Indus valley civilization



Street of 9m width divided the city in 12 blocks each of 365m x 244m.

Layout of street was based on 'grid-iron' pattern.

Series of houses were arranged around open-to-sky central court.

They dependent fully on ventilation and roof lighting.

Houses with G+1 storey made of kiln-brick with complete bathing establishment.

City had effective system of drainage.

It had a Great bath of 7m width, 12m length and 2.4m depth made of bricks at bottom and was made waterproof by providing layers of bitumen and it formed to be part of ritualistic bathing forming part of Hindu temple.

Indus valley civilization Evacuations

RAKHIGANDHI,HARYANA

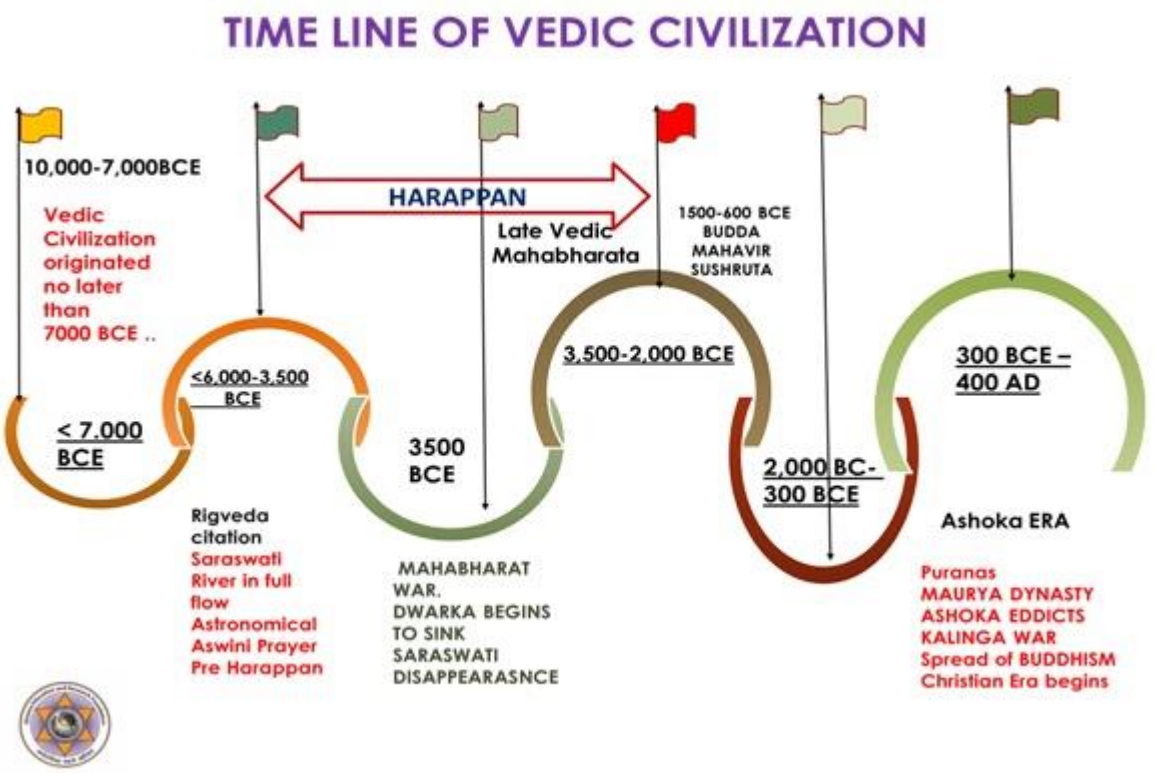
SURKOTADA,GUJARAT

KALIBANGAN , RAJASTHAN

Vedic period (400 BC)

- In this period, Vedas as well as books were wrote on town planning.
- In "Vishwa-karmaprakash" it was stated that "First layout the towns and then plan the houses."
- SHILPASHASTRA- Mansara discussed study on soil, topography, climatology and various layouts like:

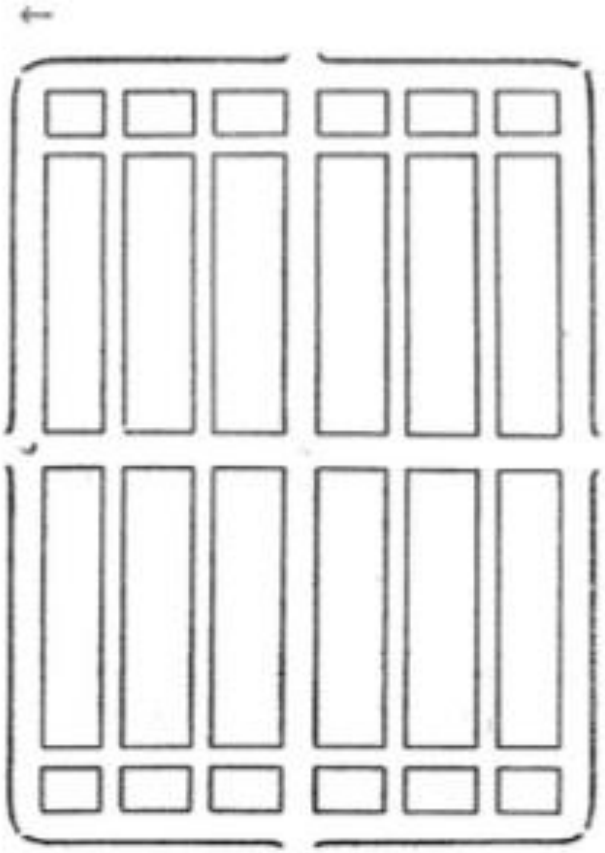
1. Dandaka
2. Swastika
3. Padmaka
4. Nandyavarta
5. Prastara
6. Chaturmukha
7. Karmuka
8. Vartula



Vedic period (400 BC)

Dandaka

- STREETS ARE STRAIGHT AND CROSS EACH OTHER AT RIGHT ANGLES AT THE CENTRE
- VILLAGE HAS 4 GATES ON FOUR SIDES
- VILLAGE IS RECTANGULAR / SQUARE
- WIDTH OF THE STREET VARIES FROM ONE - FIVE DANDA
- 2 TRANSVERSE STREET AT THE EXTREMITIES HAVE SINGLE ROW OF HOUSES
- THE VILLAGE OFFICES LOCATED IN THE EAST.
- THE FEMALE DEITY/ CHAMADEVATA - LOCATED OUTSIDE THE VILLAGE AND THE MALE DEITIES IN THE NORTHERN PORTION

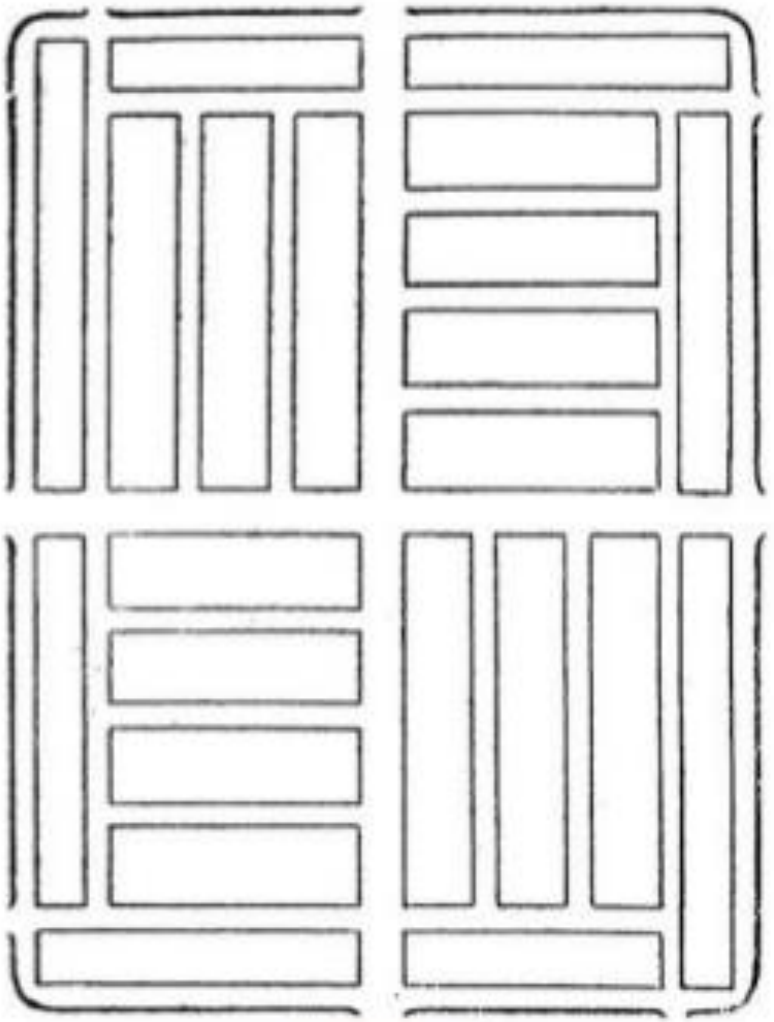


DANDAKA

Vedic period (400 BC)

SWASTIKA

- Swastika type of plan contemplates some diagonal streets dividing the site into certain rectangular plots.
- The site need not be marked out into a square or rectangle and it may be of any shape.
- A rampart wall surrounds the town, with a moat at its foot filled with water.
- Two main streets cross each other at the center, running south to north and west to east.

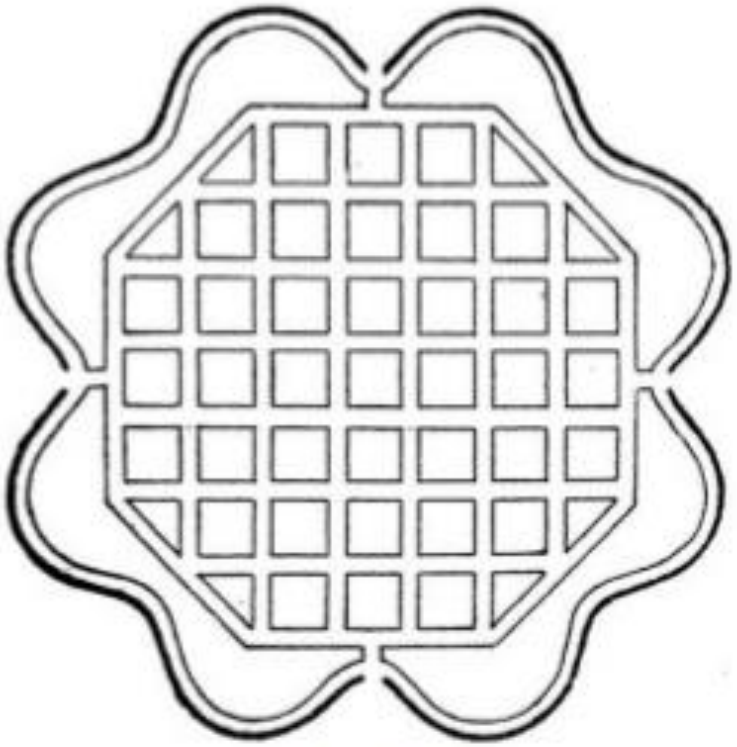


SWASTIKA

Vedic period (400 BC)

PADMAKA

- This type of plan was practiced for building of the towns with fortress all round.
- The pattern of the plan resembles the petals of lotus radiating outwards from the center.
- The city used to be practically an island surrounded by water, having no scope for expansion

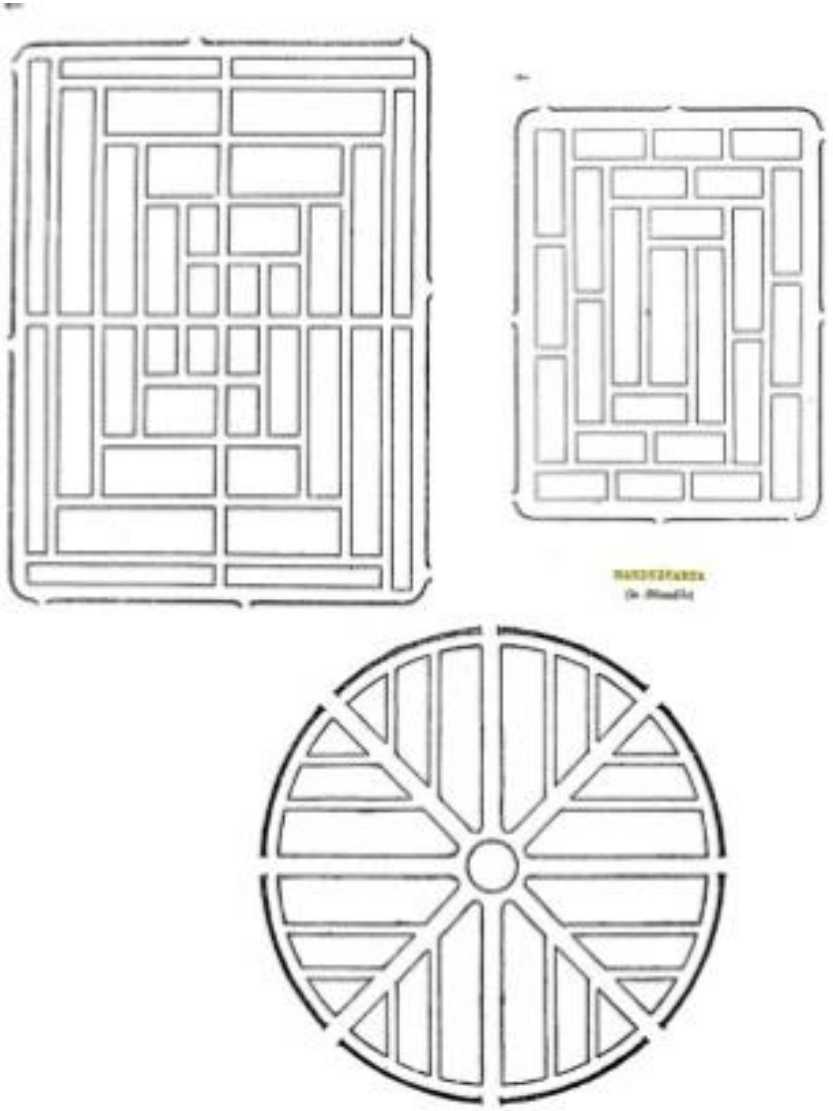


PADMAKA

Vedic period (400 BC)

NANDYAVARTA

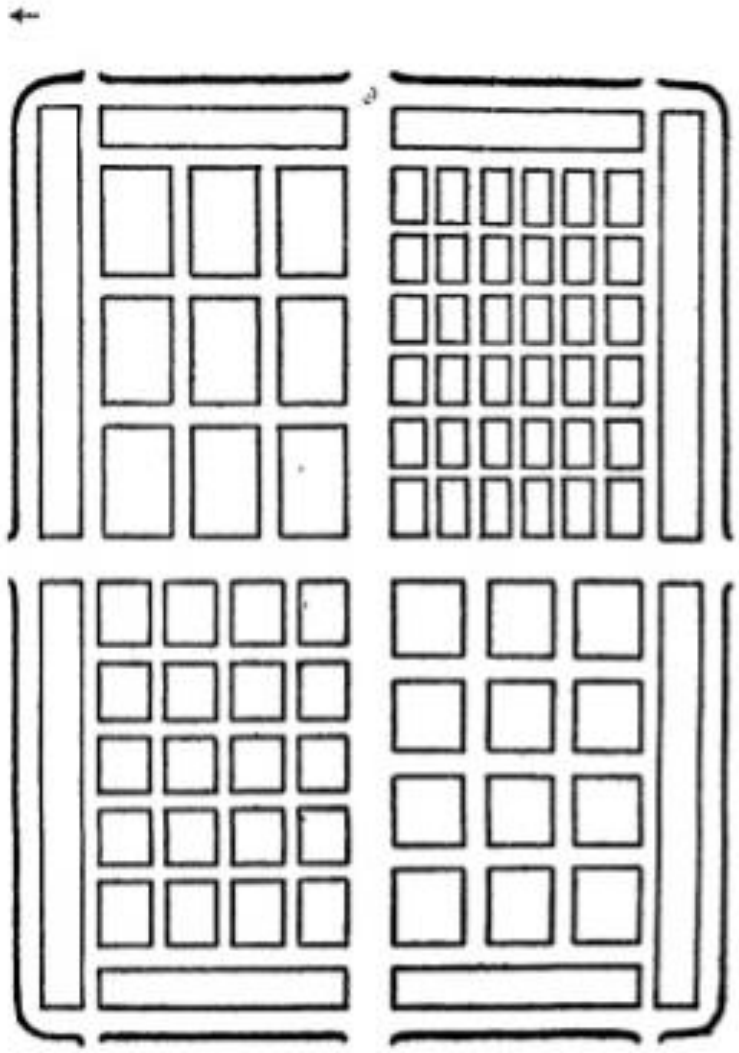
- This plan is commonly used for the construction of towns and not for villages.
- It is generally adopted for the sites either circular or square in shape, 3000 – 4000 HOUSES
- The streets run parallel to the central adjoining streets with the temple of the presiding deity in the center of the town.
- "Nandyavarta" is the name of a flower, the form of which is followed in this layout.



Vedic period (400 BC)

PRASTARA

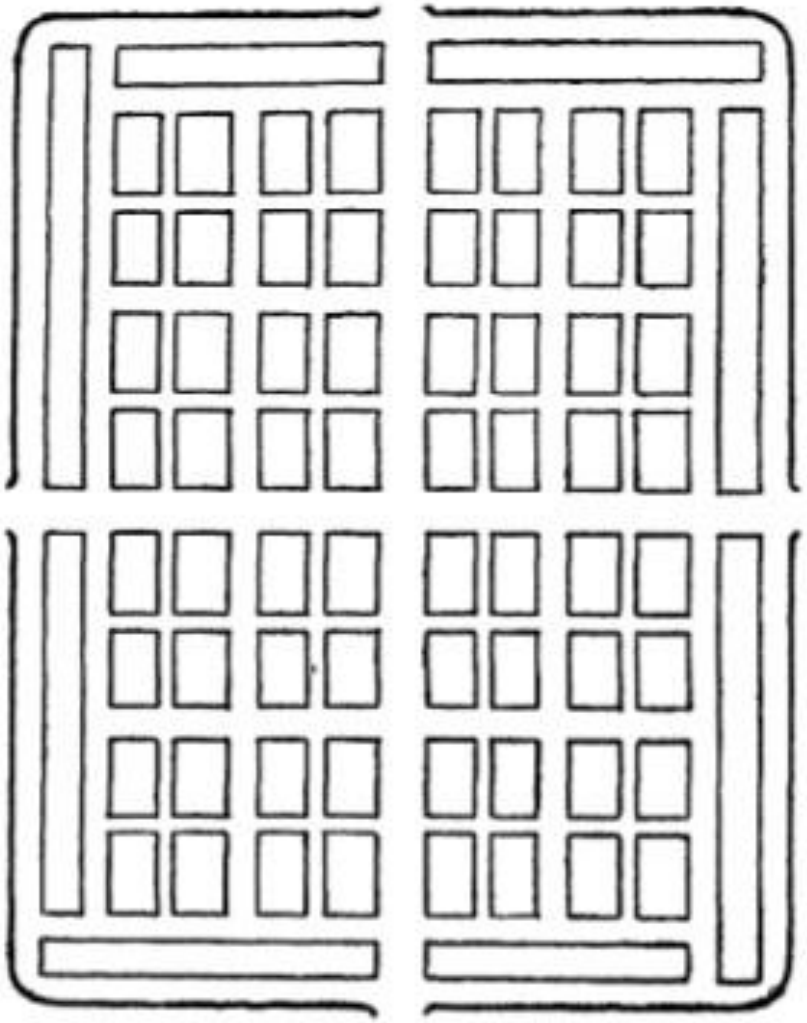
- The characteristic feature of this plan is that the site may be either square or rectangular but not triangular or circular.
- The sites are set apart for the poor, the middle class, the rich and the very rich, the sizes of the sites increasing according to the capacity of each to purchase or build upon.
- The main roads are much wider compared to those of other patterns.
- The town may or may not be surrounded by a fort.



Vedic period (400 BC)

CHATURMUKHA

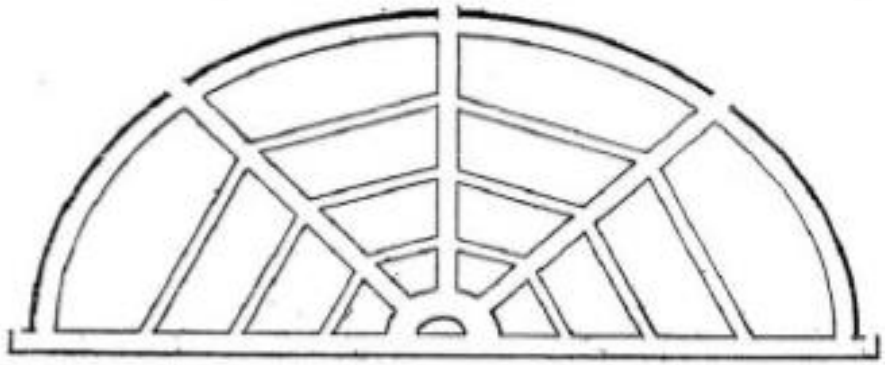
- Chaturmukha type of plan is applicable to all towns starting from the largest town to the smallest village.
- The site may be either square or rectangular having four faces.
- The town is laid out east to west lengthwise, with four main streets.
- The temple of the presiding deity will be always at the center



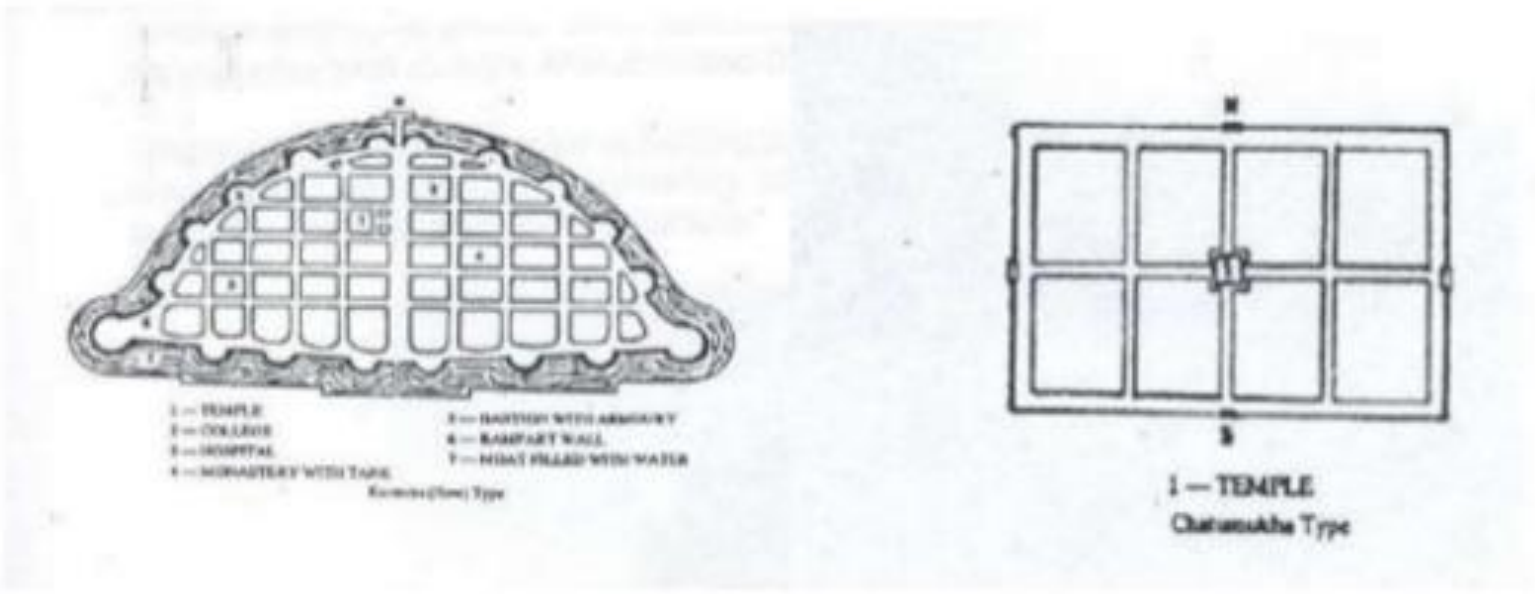
Vedic period (400 BC)

KARMUKA

- This plan is suitable for the place where the site of the town is in the form of a bow or semi-circular or parabolic and mostly applied for towns located on the seashore or riverbanks.
- The main streets of the town run from north to south or east to west and the cross streets run at right-angles to them, dividing the whole area into blocks.
- The presiding deity, commonly a female deity, is installed in the temple build in any convenient place.



Vedic period (400 BC)



- The main roads were aligned east-west to get the roads purified by air.
- Short roads were aligned in north-south direction.
- Roads running around the village were preserved for priests.
- Moats were all around the town to secure the town for outside forces.
- Rajmarg were the widest road through which four elephants can pass at a time. Such roads are found in Mysore.

Buddhist period (up to 320 AD)

- During the period of Emperor Chandragupta Maurya, Kautilya and Chanakya was the chief minister who wrote the famous "Arthashastra", a treatise of Town Planning. Features stated in it were:
  1. Regulation of zoning depending on communities.
  2. Highway (Rajamarga) to be parallel to the main cardinal direction.
  3. Road were aligned in grid-iron form.
  4. Rajmarga to be not less than 30 ft. or nearly 3 lanes of traffic.
- The excavation carried out at Patliputra, capital of Magadha (now in Bihar), shows evidence of advance knowledge of planning.
- Taksha-sila and Nalanda, the renowned place for learning were formed in this period.
- Nalanda consist of three main essentials – stupas, temples & hotels for monks. It had 300 halls for accommodating 10,000 pupils and libraries were nine-storeyed high.

Medieval period (350-1500 AD)

- Trade and commerce were developed in that period. One of the towns that became famous due to trade & commerce is Dhaka (Bangladesh), which is famous for Malmal and hence become a port.
- Other towns developed and become famous were:
    1. Krishnanagar for clay models.
    2. Agra for marble and perfumery.
    3. Murshidabad for silk.
    4. Jaipur for palatial buildings.

Mughal period (1500-1700 AD)

- Cities like Agra, Delhi were re-developed.
- Other important thing started in this period was laying of gardens and parks. It was a new trend in planning, many ornamental gardens, of Mughal period.
- Lal-kila , Kutub Minar was developed in this period by them.
- "Moghal garden" in front of Rashtrapati Bhavan was also developed by them.
- "Fatehpur Sikhri" was developed by them during this period.

British or Colonial period (before 1947)

- When the Britishers first settled in India, they found most of the towns are unhygienic. So they built independent colonies on the outskirts of existing towns. These extensions were called "Cantonments" and "Barracks" for military occupied areas and "Civil lines" for the residents of civilians. Hence they created these cantonments:
  - Delhi cantonment known as British colonies.
  - Agra cantonment.
  - Bangalore cantonment.
  - Ahmadabad cantonment.
- After this, they found that the climate of India is so hot. So they developed the hill- stations in the nearby area of cantonments. They were:
  - Shimla nearer to Delhi.
  - Matheran nearer to Mumbai.
  - Kodai canal nearer to Chennai.
  - Darjeeling nearer to Kolkata.

British or Colonial period (before 1947)

- In the first decade of 20th century, they took up the work of building New Delhi. Plan was prepared based on modern town planning principle by eminent town planner "Edwin Lutyens".
- He also designed Rashtrapati Bhavan.
- The industrial buildings were separated from the residential sector.
- Lutyen also contributed for making "Canaught place" which is the common area having circular plan.

Post Independence period(after 1947)

- After independence, Jawaharlal Nehru was appointed as the first prime minister of India. He invited Le Corbusier to visit India and develop cities. Hence, Chandigarh was planned by him.
- "Rourkela" & "Jamshedpur" were also planned by him.
- Towns planned and developed during this period were:
    1. Steel towns-
        - Durgapur- West Bengal
        - Bhilai- Madhya Pradesh
        - Rourkela- Orissa
    2. Industrial towns-
        - Jamshedpur- Bihar
        - Bhadravati- Karnataka
        - Chittaranjan- West Bengal
    3. Capitals-
        - Gandhinagar- Gujarat
        - Chandigarh- Punjab

Highlights

- The town planning done in ancient time was central based.
- The important structures were planned at the corner of the town so the outside people can access it easily.
- The water supply was based on central distribution on highest elevation hence less consumption of electricity is done.
- The roads were having N-S alignment and hence less glare effect is observed.
- The new cities are planned in such a manner that all the industrial units are on the outskirts/periphery.
- Schools are provided at the walkable distance.
- And roads are planned based on grid-iron pattern.
- Development of town is done in a way that natural beauty is maintained.
- Moats were made on outer periphery to provide security.
- Social, cultural and religious values were taken care while planning.
- Industries were provided on the outskirts.
- More green belt and open space were kept.
- Needs as well as aesthetics, both were taken care of.
- Circulation inside the town and outside was provided from all side.

PHYSICAL PLANNING - 1

SETTLEMENT

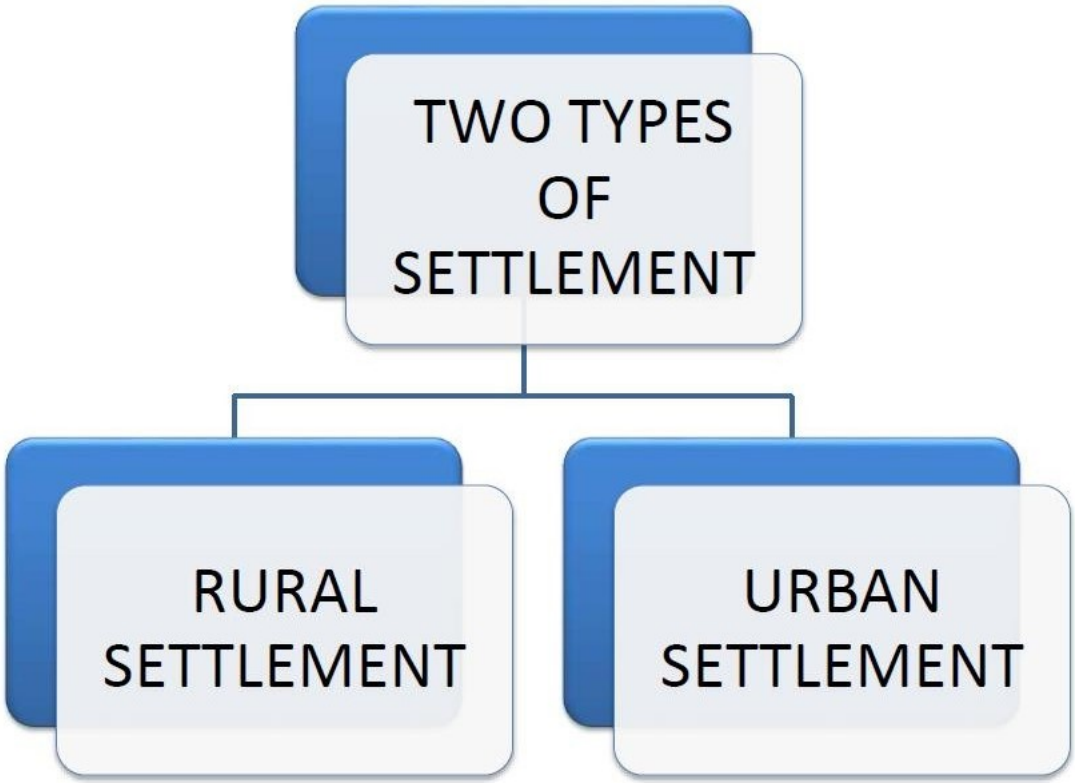
- A **settlement** is a general term used in archaeology, geography, landscape history and other subjects for a permanent or temporary community in which people live, without being specific as to size, population or importance. A settlement can therefore range in size from a small number of dwellings grouped together to the largest of cities with surrounding urbanized areas.

HISTORY

- Earth estimated to be formed about 4 billion years ago
- Homo Sapiens (the one existing species of man) believe to date from about 500,000 B. C.
- Earliest man did not settle anywhere as they wandered around in search of food
- Did not know how to construct buildings so lived in the open
- Occasionally took shelter on top of trees to protect themselves from wild animals

Towards Settled Habitation
(Up to 10,000 B. C. - 5,000 B. C.)

- Some of the earliest settlements began to take shape.
- Settlements then consisted of groups of houses built by the side of agricultural fields, a shrine and a burial ground.
- Some inhabitants continued to live in caves and wander around for hunting animals - more as a pastime rather than as a necessity.


TWO TYPES OF SETTLEMENT
RURAL SETTLEMENT
URBAN SETTLEMENT

RURAL SETTLEMENT

- The majority of its inhabitants are involve in activity like farming, fishing, forestry, mining.

- The pattern of rural settlement can vary from a single farm to a cluster of houses.(dispersed, linear and nucleated.)

- In the past most of the population lived in rural areas.

CHARACTERISTIC OF RURAL SETTLEMENT

- In the form of village, surrounded by farms
  With Small population.
- Occupation such as forestry, farming ,fishing mining, tourism.
- Service provided are in limited range and mostly for every day needs.
- Close knit communities and the atmosphere is quiet.
- dominance of community feeling.

RURAL ADVANTAGES:-

1. More natural environs.
2. Better social/support network .
3. Less stressful environment .
4. Perceived as safer.
5. Class differences are not as distinctive.

RURAL DISADVANTAGES:-

1. Limited transportation available.
2. Social network can lead to strain (in the case of small town gossip.
3. Limited employment opportunities.
4. Slower social, political progress.
5. Less immediately available social services.

URBAN SETTLEMENT

- The majority of people are engage in non –rural activity.
- They work in office, shops and factories, operate machinery, provide health care or other services.
- urban settlement can be small like 1000 people or can be as large as Tokyo-Yokohama in Japan with over 30million people.

CHARACTERISTIC OF URBAN SETTLEMENT

- In the form of towns and cities.
- They are large, both in population and area.
- Has functions such as business, manufacturing, government cultural center.
- Wide range of services offered including specialized service. Like-
- Unlike rural settlement, neighborhood is separate with limited knowledge of others.
- Traffic and pollution problem.

DIFFERENCES IN SERVICES BETWEEN RURAL AND URBAN SETTLEMENTS

Service	Rural Settlements	Urban Settlements
Health	Medical clinic	Hospital
Education	Primary school	University
Shopping	General store, market	Shopping mall
Finance	Moneylender, co-operative	National bank
Transport	Bus service	Airport

URBAN ADVANTAGES:-

1. Services: Proximity to major and varied services.
2. Employment: Majority of higher paying jobs/careers are found there.
3. Current: art, fashions, politics, and higher culture.
4. Multi-cultural (which I personally see as a plus).
5. Transportation: Mass transit, buses, taxis...ect.

URBAN DISADVANTAGES:-

1. More crime.
2. Pollution: more people, more waste, more noise, less trees and nature...etc...
3. Impersonal and sometimes isolating.
4. Clear distinction between social classes (example: the beggar on the street, in front of million dollar downtown condos)

RURAL SETTLEMENTS VS URBAN SETTLEMENTS

- **Population Density**

  The U.S. Census Bureau defines urban settlements as areas with more than 50,000 people and at least 1,000 people per square mile; including contiguous census tracts or blocks with at least 500 people per square mile. In contrast, rural settlements contain less than 2,500 people, at a density between one and 999 people per square mile.

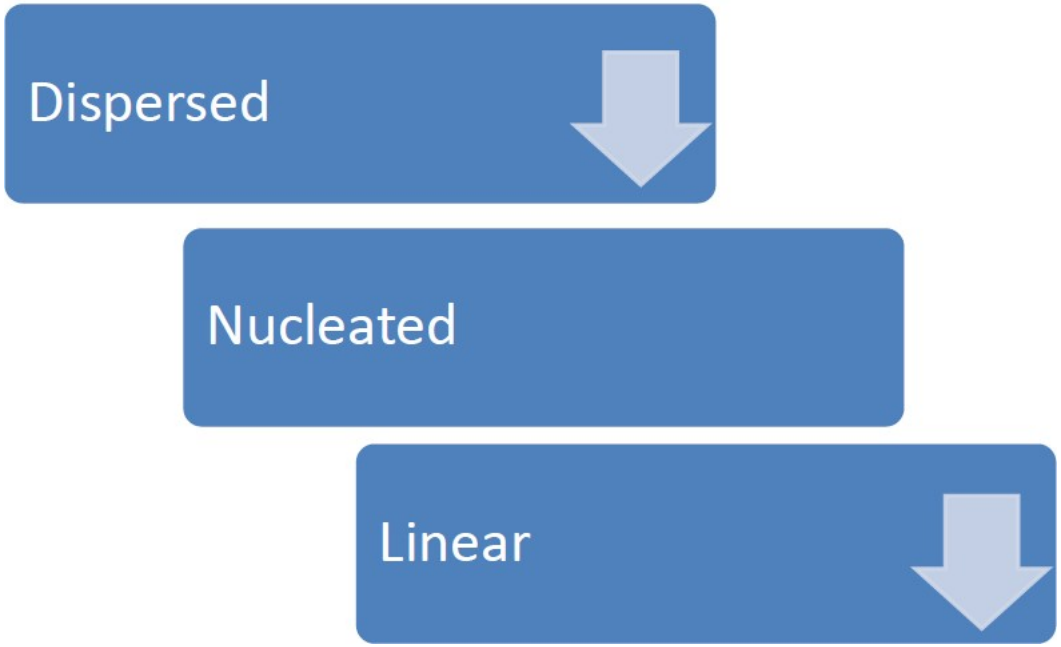
- **Transportation Network**

  Rural transportation networks consist of local and county roads with limited interconnectivity to rail and bus lines. Urban settlements contain highway infrastructure as well as airports and light or heavy commuter rail.

- **Economy**

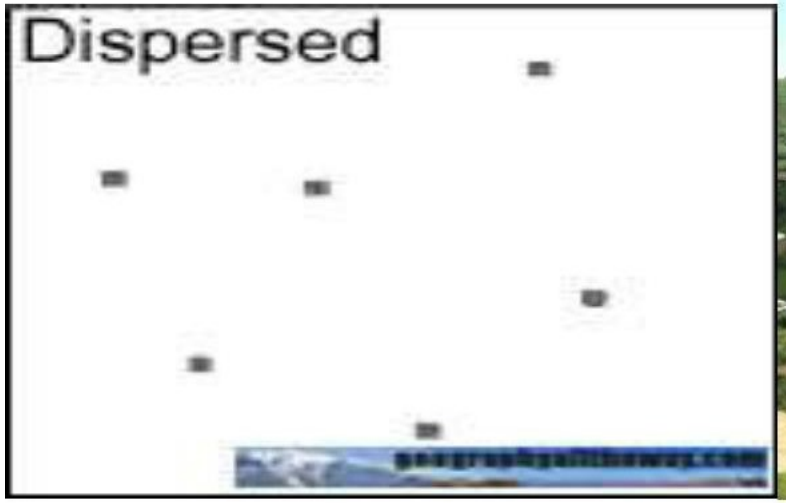
  Urban areas are dependent on a global economy of import and export, whereas rural economies rely on a local and agricultural-based economy with dependencies on services, such as hospitals and educational establishments in nearby urban centres.

SETTLEMENT PATTERN



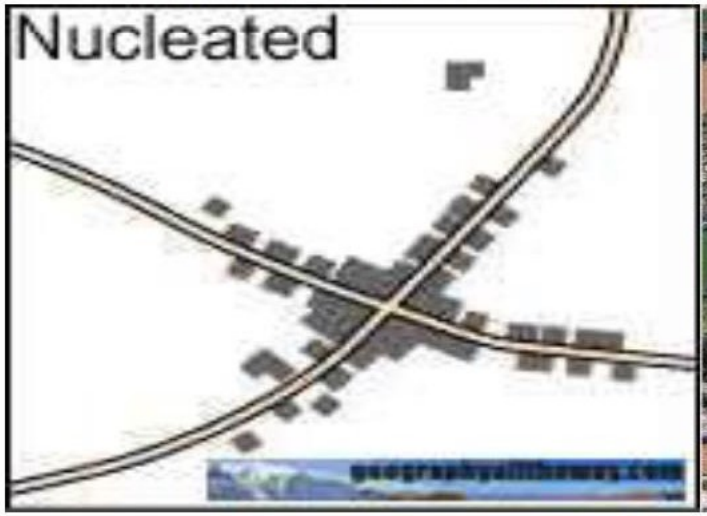
DISPERSED

- They are small groups of buildings
- That are separated from the next group by several kms.



NUCLEATED

- These are place where building are clustered around the central point.
- The central point can be town square, religious centre, road junction or a mine.
- Maximum use of land in nucleated setting.



LINEAR

- Settlement may follow the river or road, canal or railways.
- It is due to easy access to transport ,fresh water or fishing .
- Roads also attract the shops beside the settlement.

RADIAL TOWN

- Dwelling are located to around the centre.
- Street circle around it.

Town Planning

Planing Theories

PHYSICAL PLANNING - 1

What is Planning Theory ?

Planning theory is the body of scientific concepts, definitions, behavioral relationships, and assumptions that define the body of knowledge of urban planning.

PLANNERS AND THERE THEORIES:

1. Sir Ebenezer Howard
2. Patrick Geddes
3. Soria Y Mata
4. Dioxides
5. Le Corbusier
6. Clarence Steine
7. Clarence Arthur Perry
8. Ludwig Hilberseimer

PLANNERS AND THERE THEORIES:

1. Sir Ebenezer Howard

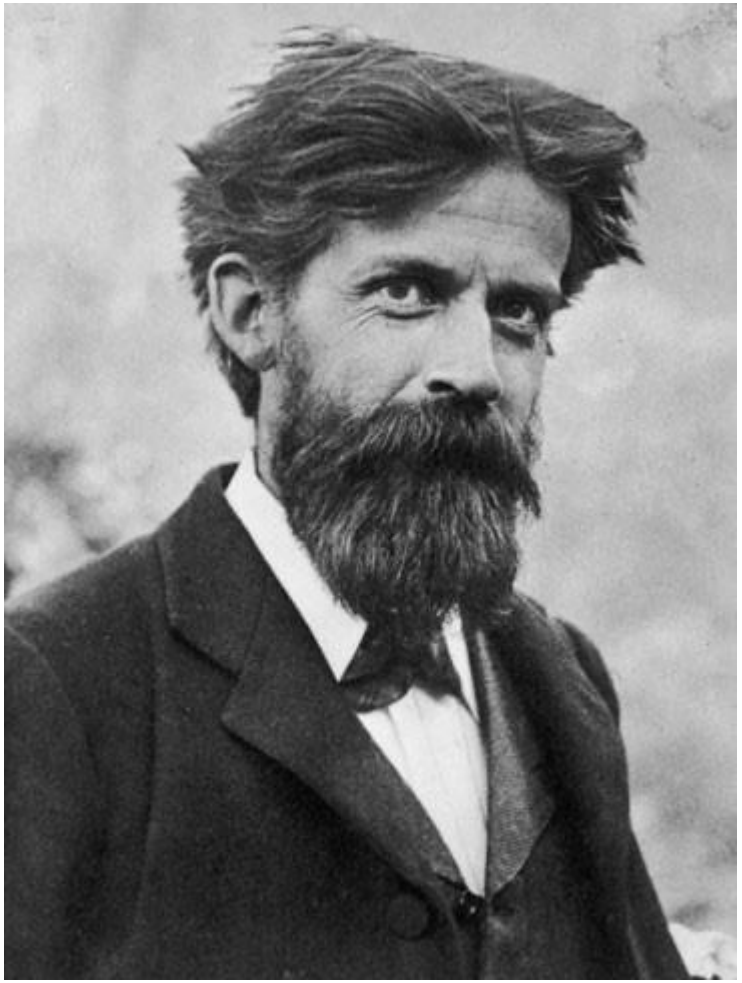
Sir Ebenezer Howard (29 January 1850 – 1 May 1928) was an English urban planner and founder of **the garden city movement**, known for his publication *To-Morrow: A Peaceful Path to Real Reform* (1898), the description of a utopian city in which people live harmoniously together with nature.

GARDEN CITY

PLANNERS AND THERE THEORIES:

2. Patrick Geddes

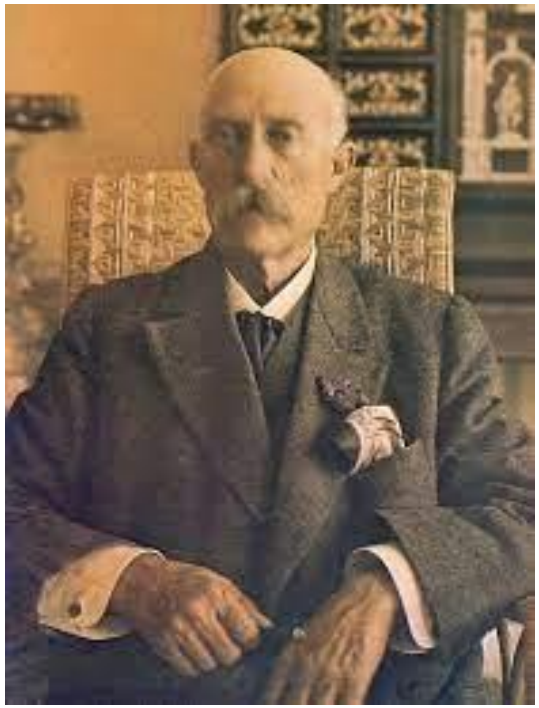
Sir Patrick Geddes (2 October 1854 – 17 April 1932) was a Scottish biologist, sociologist, geographer, philanthropist and pioneering town planner. He is known for his innovative thinking in the fields of urban planning and sociology.



GEDDISIAN TRIAD

PLANNERS AND THERE THEORIES:

3. Soria Y Mata



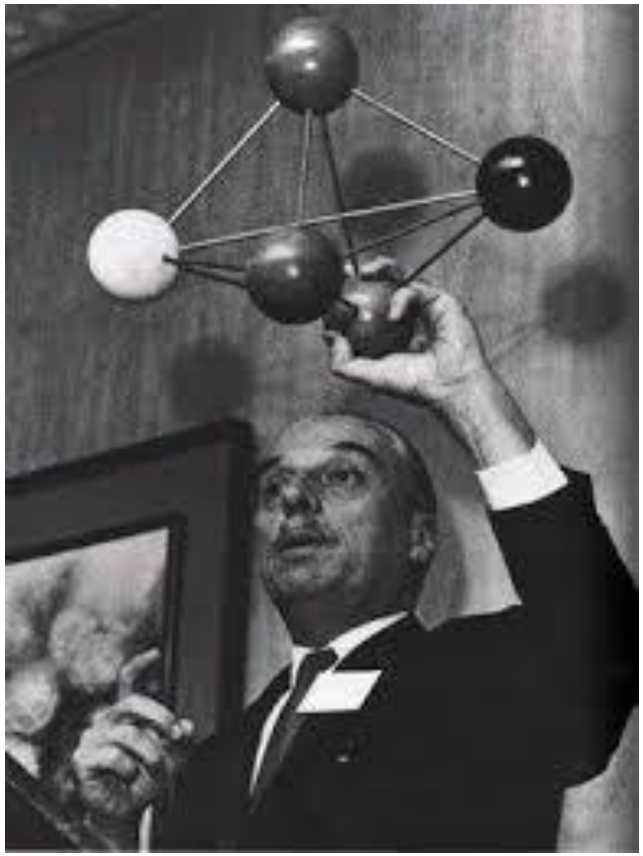
Arturo Soria y Mata (1844-1920) was an internationally important Spanish urban planner whose work remains highly inspirational today. He is most well known for his concept of the **Linear City** (exemplified in Madrid's Ciudad Lineal).

LINEAR CITY

PLANNERS AND THERE THEORIES:

4. Dioxides

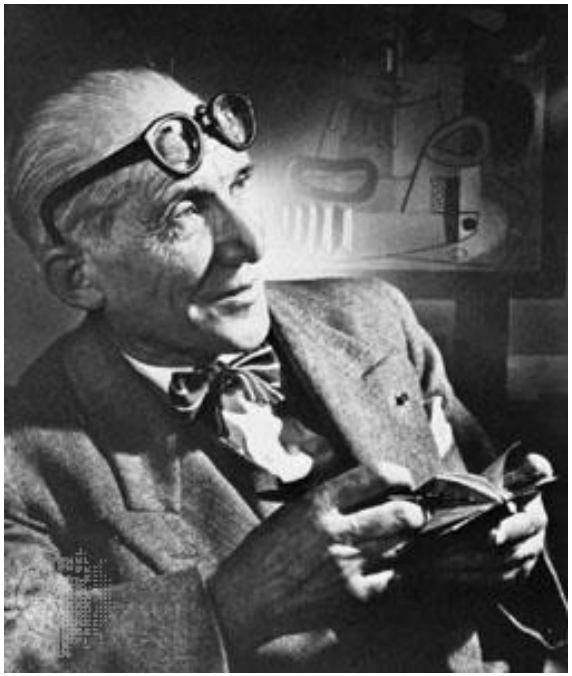
Constantinos A. Doxiadis (also **Konstantinos**; 14 May 1913 – 28 June 1975), often cited as **C. A. Doxiadis**, was a Greek architect and town planner. He was known as the lead architect of Islamabad, the new capital of Pakistan in the 1960s, and later as the father of **Ekistics,** which concerns the science of human settlements.



EKISTICS

PLANNERS AND THERE THEORIES:

5. Le Corbusier



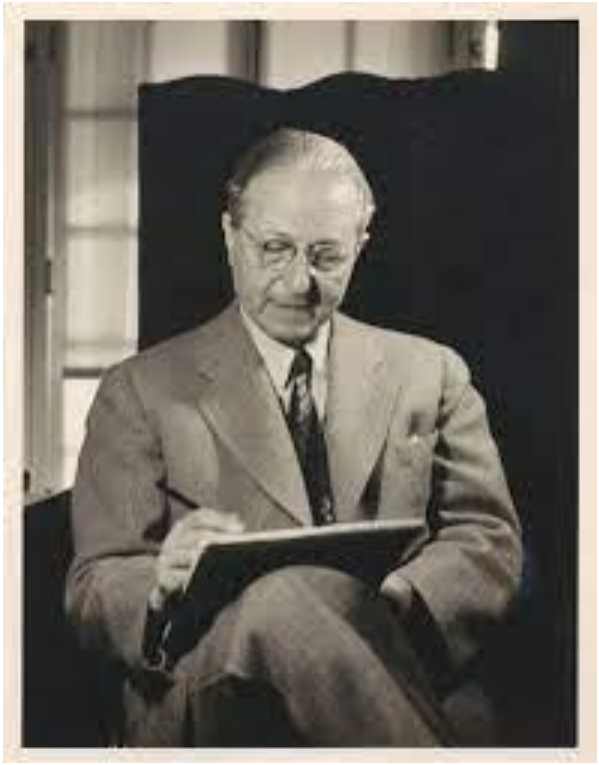
Charles-Édouard Jeanneret (6 October 1887 – 27 August 1965), known as **Le Corbusier** was a Swiss-French architect, designer, painter, urban planner, writer, and one of the pioneers of what is now regarded as **modern architecture.**

MODERN CITY PLANNING

PLANNERS AND THERE THEORIES:

6. Clarence Steine

Clarence Samuel Stein (June 19, 1882 – February 7, 1975) was an American urban planner, architect, and writer, a major proponent of the **garden city movement** in the United States.



RADBURN PLANNING

PLANNERS AND THERE THEORIES:

7. Clarence Arthur Perry

Clarence Arthur Perry (1872 – September 6, 1944 was an American urban planner, sociologist, author, and educator. Perry devised the **Neighbourhood Unit Plan**, a residential community scheme disseminated through the Regional Plan of New York and Its Environs in 1929 that influenced planning in US cities**.**

NEIGHBOURHOOD PLANNING

PLANNERS AND THERE THEORIES:

8. Hilberseimer

Ludwig Karl Hilberseimer (September 14, 1885 – May 6, 1967) was a German architect and urban planner best known for his ties to the Bauhaus and to Mies van der Rohe, as well as for his work in urban planning at Armour Institute of Technology (now Illinois Institute of Technology), in Chicago, Illinois.

VERTICAL CITY

LAND USE PLANNING AND CLASSIFICATION

PHYSICAL PLANNING - 1

LAND USE

Land use refers to the manner of utilization of land, including its allocation, development and management.

Land Use - Introduction

It is the human use of land.

Municipal governments divide the land into various land uses In order for an urban area to function effectively and to meet all the needs of citizen .

It involves the management and modification of natural environment or wilderness into built environment such as fields, pastures, and settlements.

Land Use - OBJECTIVES

- To promote efficient utilization, acquisition & disposition of land and ensure the highest and best use of land.
- To direct, harmonize and influence discussions and activities of the private and public sectors relative to the use and management of lands
- To reconcile land use conflicts and proposals between and among individuals, private and government entities relative to the present and future need for the land.

Land Use - OBJECTIVES

To promote desirable patterns of land uses to prevent wasteful development and minimize the cost of public infrastructure and utilities and other social services to preserve areas of ecological, aesthetic, historical and cultural significance

URBAN LAND USE - CLASSIFICATION

- Residential
- Commercial
- Institutional
- Industrial
- Transportation
- Utilities/Facilities
- Open spaces/greens

Land Use - Residential

This is where people live. The type of housing in an area is based on residential density, defined by Number of housing units in a unit of land; Ex:

- **Low Density :** Single-family homes, semi-detached homes, and duplexes
- **Medium Density :** Town houses, low-rise apartments,
- **High Density :** High-rise apartments,

Land Use - Commercial

Land that is set aside for commercial activities. This includes any land use that is used for buying, selling, or trading goods and services. Category includes all types of wholesale, retail and service activities serving areas larger than neighborhoods.

Land Use - Commercial

Category includes all types of wholesale, retail and service activities serving areas larger than neighborhoods. These are :

- **Major Central Business Districts in urbanized areas** - shopping, service area with largest dept. and variety stores, specialty, shops, business and professional services, hotels, theaters, etc.
- **Minor Central Business District in less urbanized areas** - market as main feature (types: wholesale market, wet and dry market); mixed use development.
- **Highway Service Centers or Commercial Strips** such as highway gas stations, motel and restaurants-extension of CBD
- **Neighborhood Center** – local sources of staple and convenience goods and services; built around supermarket with convenience stores.

Land Use - Institutional

Land that covers the major public and semipublic uses like educational, cultural, religious, health, protective and government services. It is occupied by schools, hospitals, government offices, and places of worship.

Land Use - Industrial

Land that is used for industry viz ; Factories, warehouses, power plants, or places of resource extraction (like mines).

It includes manufacturing, refining, fabricating, assembly, storage, parking and other incidental uses including food processing, cottage industry, sawmills, rice mills, steel mills, chemical processing plants, etc. Also included are the proposed industrial estates/subdivision

Land Use - Transportation

- Land that is used for moving people and goods from one place to another.
- Includes: sidewalks, roads, highways, subways, streetcars, railroad tracks, freight yards, airports, marinas and any other land that is used for transportation.

Land Use - Open Space

- Land that is now vacant, or left in a natural state (like a woodlot), or land that is for recreational use (parks, playgrounds, community centres)
- Parks/Playgrounds and other Recreational Areas the space requirement may be computed with the use of space standards based on population or area of the municipality or city
- so called "non-functional open spaces" and includes lands reserved for greenbelts and buffer zones; and other vacant lands reserved for specific or functional purposes.

Land Use - Open Space

LAND USE PLANNING

- Refers to the rational and judicious approach of allocating available land resources to different land using activities and for different functions consistent with the overall development vision/goal of a particular city
- refers to a document embodying a set of policies accompanied by maps and similar illustrations which represent the community desired pattern of population distribution and a proposal for the future allocation of land to the various land-using activities.

Land-Use Planning Principles

- Evaluate and record unique features.
- Preserve unique cultural or historical features.
- Conserve open space and environmental features.
- Calculate additional charges for altering land.
- Plan for mixed uses in close proximity.
- Plan variety of transportation options.
- Set limits and managed growth patterns.
- Encourage development in areas of existing infrastructure.

LAND USE MAPS/MAPPING

- Land use map is the graphical representation of Land use for a place or particular in an area.
- It is a convenient visual form of spatial data, their distribution and relationships
- This is a reduced and simplified model of reality containing geographic information.
- It is a graphic depiction of all or part of a geographic realm where the real-world features have been replaced with symbols in their correct spatial location at a reduced scale

ELEMENTS OF MAP

- **Map Title** – defines the information and purpose of a map.
- **Legend** – key to the codes and symbols used in a map.
- **Date and Author** – name of map maker and date of survey or period covered by it.
- **North Arrow** – usually, maps are oriented towards the geographic (true) north.
- **Geographic Coordinates** – geographic grid known as latitudes and longitudes.
- **Latitude (parallels)** – distance measured north and south of the equator.
- **Longitude (meridians)** – distance measured east and west with the imaginary prime meridian (Greenwich Laboratory in London) as reference line.
- **Scale** – ratio distance on the map itself and the corresponding distance on the ground.
- **Graphic Scale** – line or bar marked off in graduated distances representing actual distances on the ground.
- **Numerical/Functional**- compares map distance with ground distance by proportional numbers and expressed as a representative fraction or ratio. Example: 1:1,000 means 1 meter on the map is equivalent to 1,000 meters or 1 kilometer on the ground.

CONCEPTS OF LAND USE

REVERSIBLE USES

IRREVERSIBLE USES

MULTIPLE LAND USE

COMPATIBLE / INCOMPATIBLE LAND USE

BEST USE OF LAND

COMPEHENSIVE LAND USE PLAN

physical, social, economic and environmental planning

CONCEPTS OF LAND USE

REVERSIBLE USES

when the inherent features and characteristics of the land have not been considerably altered or modified such that the soil horizon, landform, and structure remain intact so that the land can be reverted to its former use or original condition.

CONCEPTS OF LAND USE

IRREVERSIBLE USES

when land is subject to applications which brought about changes, alteration or modifications so much so that it prevents the original use or it is physically impossible to restore the land to its previous state or condition.

CONCEPTS OF LAND USE

MULTIPLE LAND USES

Combining different land uses, whether reversible or irreversible, in an orderly and desirable pattern because:

- Land is finite and supply is finite
- Demand is ever increasing
- Competition is there
- Land may have more than one use and uses can be combined in different ways.

CONCEPTS OF LAND USE

COMPATIBLE AND INCOMPATIBLE LAND USES

Some land uses are innately incompatible while others are completely compatible.

Compatible uses can coexist harmoniously and effectively in an orderly management.

CONCEPTS OF LAND USE

BEST USE OF THE LAND

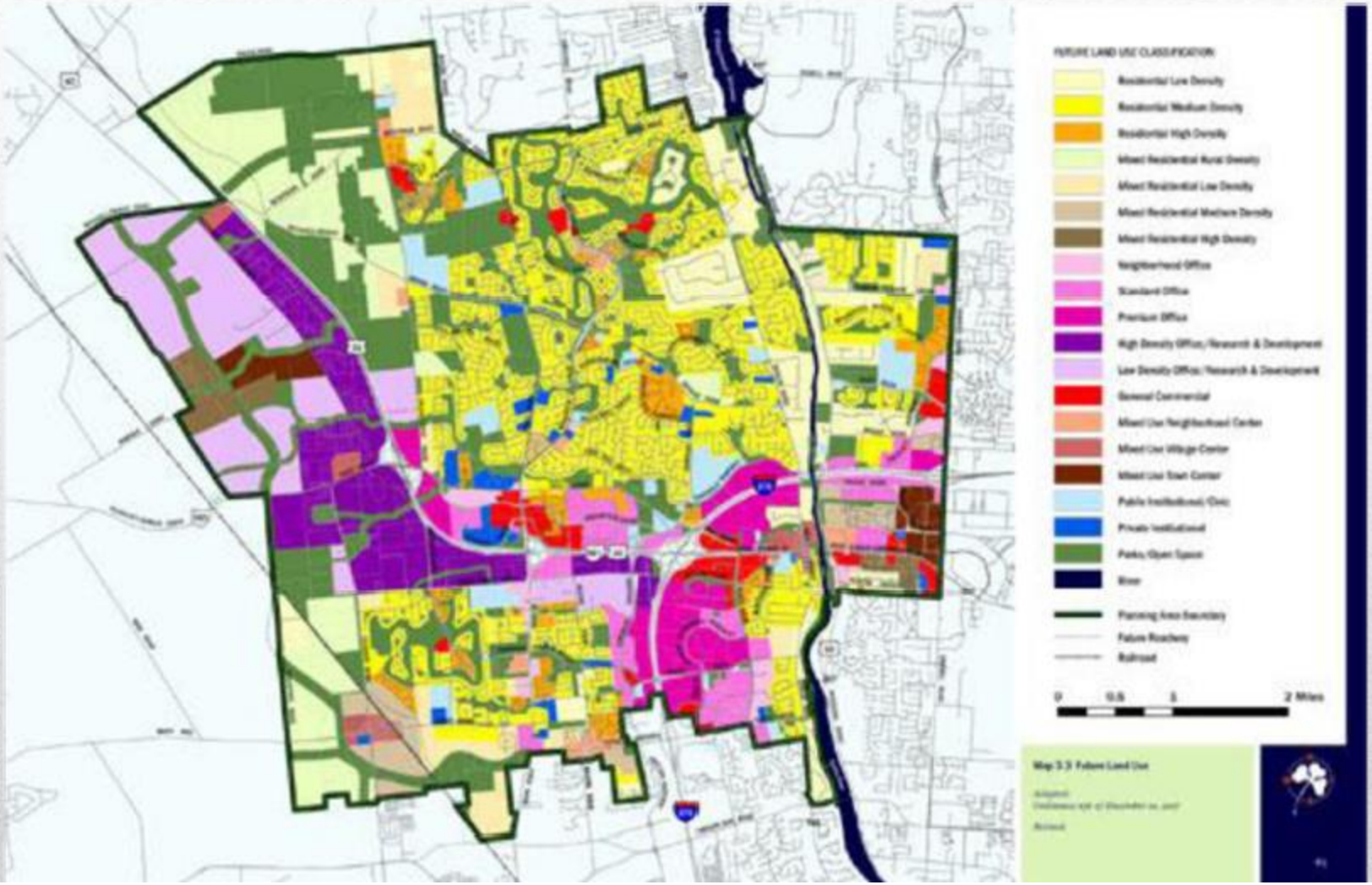
- The use of land which generates the maximum profit without negative consequences especially on the environment
- Land should be used in such a manner consistent with its natural qualities to maximize its productivity and also adhere to the principles of sustainable development.
- utilizing land in a manner that is beneficial to both man and environment.

CONCEPTS OF LAND USE

COMPREHENSIVE LAND USE PLANNING

A document embodying specific proposals for guiding, regulating growth and development of a city or municipality.

LAND USE MAP


FUTURE LAND USE CLASSIFICATION
Residential Low Density
Residential Medium Density
Residential High Density
Mixed Residential Rural Density
Mixed Residential Low Density
Mixed Residential Medium Density
Mixed Residential High Density
Neighborhood Office
Standard Office
Premium Office
High Density Office/ Research & Development
Low Density Office/ Research & Development
General Commercial
Mixed Use Neighborhood Center
Mixed Use Village Center
Mixed Use Town Center
Public Institutional/ Civic
Private Institutional
Parks/ Open Space
River
Planning Area Boundary
Future Roadway
Railroad
0
0.5
1
2 Miles

URBAN LAND USE MAP COLOR CODES

RESIDENTIAL

COMMERCIAL

INDUSTRIAL

INSTITUTIONAL

PARKS / PLAYGROUNDS

INFRASTRUCTURE/ UTILITIES

BUILT UP AREAS

AGRICULTURE

AGRO INDUSTRIAL

FOREST

MINING / QUARRY

GRASSLAND/ PASTURE

SWAMPLANDS/ MARSHES

CEMETERIES/ LANDFILL/ IDLE LOTS, OTHERS

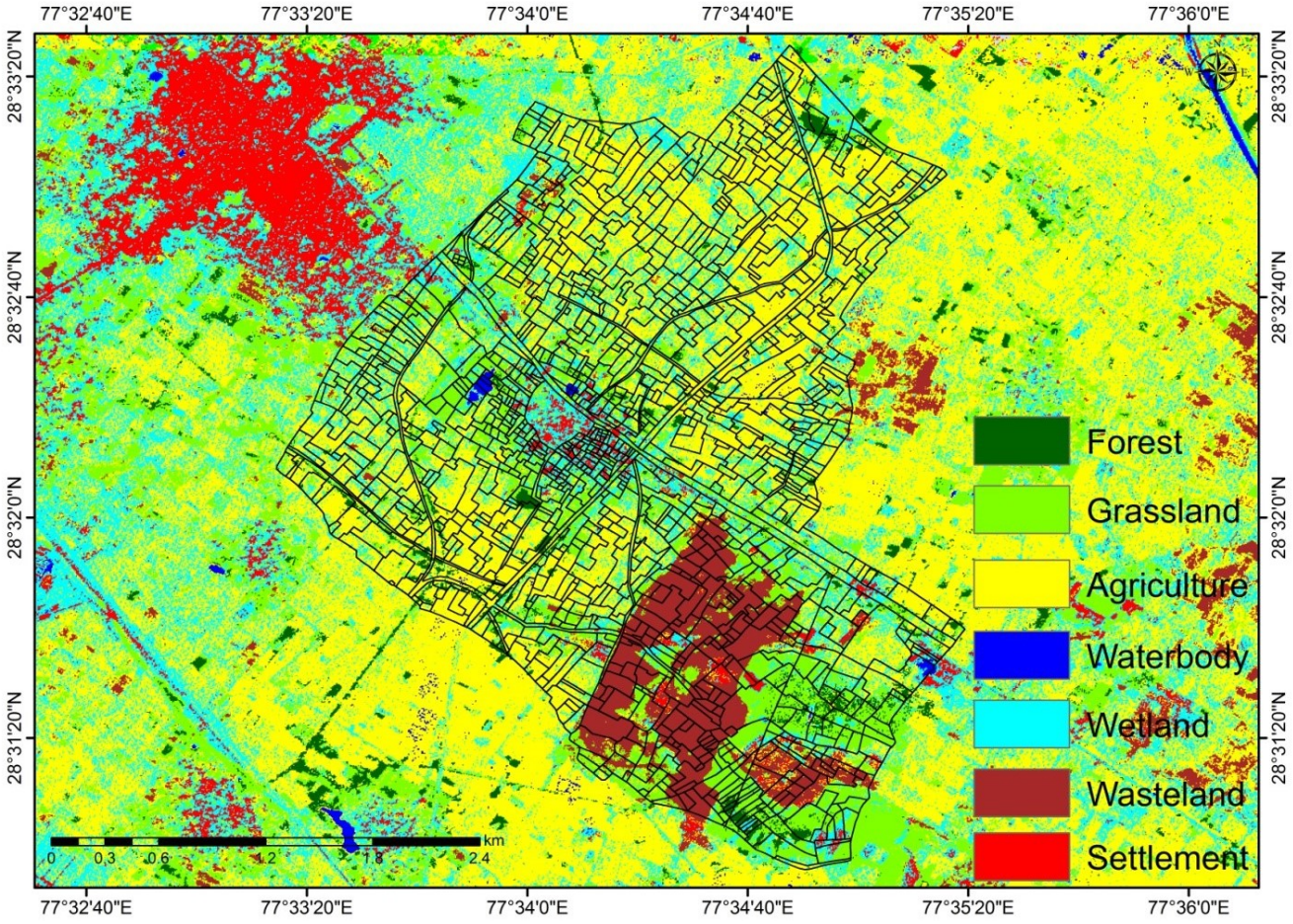
PHYSICAL PLANNING

Landuse and Zoning

Ar. Priyanka K
Ar. Ashwini Swamy

Land use planning is the process of regulating the use of land by a central authority.

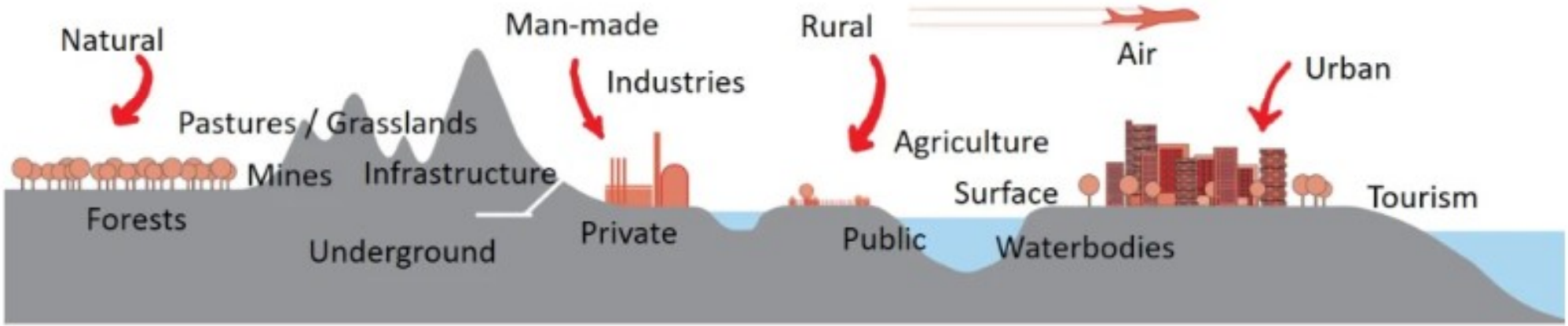
Usually, this is done to promote more desirable social and environmental outcomes as well as a more efficient use of resources.



- land use planning: a definition

- Planning is an ecosystem based tool that can link the environment, the community and the economy in ways that help ensure the sustainability of resources.
- "Planning is expected to integrate environmental, social and economic values, resolve conflicts, build common land use objectives, ensure openness and inclusiveness as well as adapt to global, national and local needs and preferences"

How is Land being Used?



- land use controls: a definition

- Land use controls are public or private rules that influence or restrict the use of land to protect or promote the health, safety, or welfare of the community.
- *Public rules:* laws, ordinances and regulations imposed by federal, state or local government.
- *Private rules*: deed restrictions and covenants
- *Influence or restrict the use of land*: by setting forth what we can and cannot do with land - certain rules like tax benefits and subsidies influence use of land

2. Why is there a need for land use planning

- the nature of land
- the nature of land ownership
- the nature of use impacts

The nature of land

- Land is all of those resources that are naturally endowed – on top of the ground, beneath it and the air (vertical space above the ground).
- The single resource on which all life depends
- Where portions of land can be privately owned it is referred to as *real estate* or real property that is identifiable by means of boundary markers which are legally enforced/protected.

The nature of land (2)

- Land is also an *asset* that can be transferred under guarantees enforced by the legal system of the state (most western societies have strict laws that protect the value, ownership and transferring of land).

  - As such, land is the wealth of a nation.

The nature of land ownership:

- Bundle of sticks (rights and constraints)

LANDUSE ZONING

- It is a method of urban planning in which the government divides land into areas called zones.
- Zoning may combine several compatible activities.
- Examples of zoning classifications include residential, commercial, agricultural, industrial, or hotel/hospitality, among other more specific uses.
- The differing regulations may govern the density, size, and shape of allowed buildings whatever their use.

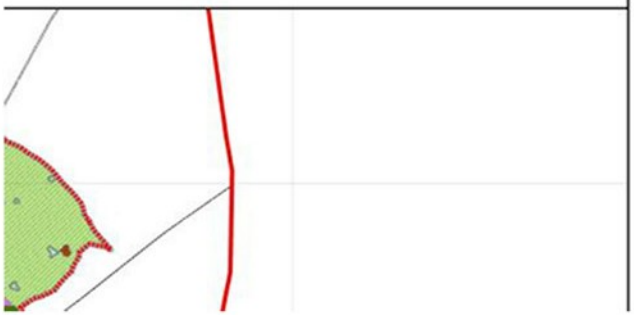
- Zoning may specify a variety of outright and conditional uses of land.

Landuse Zoning allows local governments to regulate which areas under their jurisdiction may have real estate or land used for particular purposes.

LEGEND

REFERENCE

- HMDA BOUNDARY
- ERSTWHILE HUDA BOUNDARY
- ERSTWHILE HADA BOUNDARY
- ORR GC BOUNDARY
- DISTRICT BOUNDARY
- MANDAL BOUNDARY
- VILLAGE BOUNDARY
- RAILWAY LINE
- NATIONAL HIGHWAYS
- STATE HIGHWAYS
- OUTER RING ROAD
- MAJOR ROADS
- RURAL ROADS



PROPOSED LANDUSE ZONING

I.RESIDENTIAL USE ZONE

- RESIDENTAIL USE ZONE-1 (R1)
- RESIDENTAIL USE ZONE-2 (R2)
- RESIDENTAIL USE ZONE-3 (R3)
- RESIDENTAIL USE ZONE-4 (R4)
- SETTLEMENTS

II.PERI-URBAN USE ZONE

- PERI-URBAN USE ZONE

III.COMMERCIAL USE ZONE

- COMMERCIAL USE ZONE

IV.MANUFACTURING USE ZONE

- MANUFACTURING USE ZONE
- WORK CENTERS

V.PUBLIC AND SEMI-PUBLIC USE ZONE

- PUBLIC, SEMI-PUBLIC FACILITIES AND UTILITIES USE ZONE
- PUBLIC UTILITIES
- AMENITIES

VI.MULTIPLE USE ZONE

- MULTIPLE USE ZONE
- SPECIAL DEVELOPMENT ZONE (MULTIPURPOSE USE ZONE)
- CENTRAL SQUARE
- GENERAL DEVELOPMENT PROMOTION ZONE (GDPZ)

VII.RECREATION AND OPEN SPACE USE ZONE

- RECREATIONAL USE ZONE
- OPEN SPACE BUFFER (AROUND FORESHORE OF WATERBODIES)
- HIMAYATH SAGAR AFFORESTATION ZONE

VIII.WATER BODIES

- WATER BODIES (RIVERS, NALAS, RESERVOIRS AND KUNTAS)

IX.FOREST

- FOREST ZONE

X.SPECIAL RESERVATIONS

- HERITAGE BUILDINGS AND PRECINCTS (S1)
- DEFENSE / MILITARY LANDS (S2)
- BIO CONSERVATION ZONE (S3)
- OTHERS (S5)

XI.CONSERVATION (AGRICULTURE)

- CONSERVATION USE ZONE

XII.TRAFFIC AND TRANSPORTATION

- ROADS
- RAILWAYS / RAILWAY STATIONS
- BUS DEPOTS, PASSENGER / FREIGHT TERMINALS
- AIRPORTS

LAND USE ZONING CLASSIFICATIONS

Residential Use Zone

The Residential zones are classified as R-1, R-2, R-3 and R-4 zones. Residential zone means an area of residential neighborhoods where businesses may or may not be conducted.

The purpose of this zone is to preserve the residential character of the neighborhood without more intensive multifamily uses or businesses.

Residential Zone has 4 kinds of Categories. They're:

R1 – Residential Use Zone
R2 – Residential Use Zone
R3 – Residential Use Zone
R4 – Residential Use Zone

Commercial Use Zone

All the commercial activities can be done in this zone.

Public and Semi-Public Use Zone

The purpose of the public and semi-public zone is to recognize that public and semi-public facilities and institutions provide necessary services to the community and have their own unique set of circumstances.

This zone is classified into 3 types:
Public, Semi-Public facilities and utilities use zone
Public Utilities
Amenities

Multiple Use Zone

It is near the Outer Ring Road. All the constructions which are allowed in the Residential zones are Allowed here.

It is classified as four categories:

Multiple Use Zone

Special Development Zone

Central Square

General Development Promotion Zone (GDPZ)

Recreation and Open Space Zone

This land is used for only for entertainment purpose. This could be anything from parks, open spaces, athletic fields, playgrounds and swimming pools.

It is classified as three categories:

Recreational Use Zone

Open Space Buffer

Water Bodies

The majority of the Water Body Zone generally consists of all water bodies, i.e. Rivers, Streams, Lakes, Tanks and Kuntas. Water bodies, Himayat Sagar and all other rivers and lakes come under this zone.

Forest Zone

Forest zones can only be used for growing plants and
greenery. Other activities are prohibited.

Special Reservations Zone

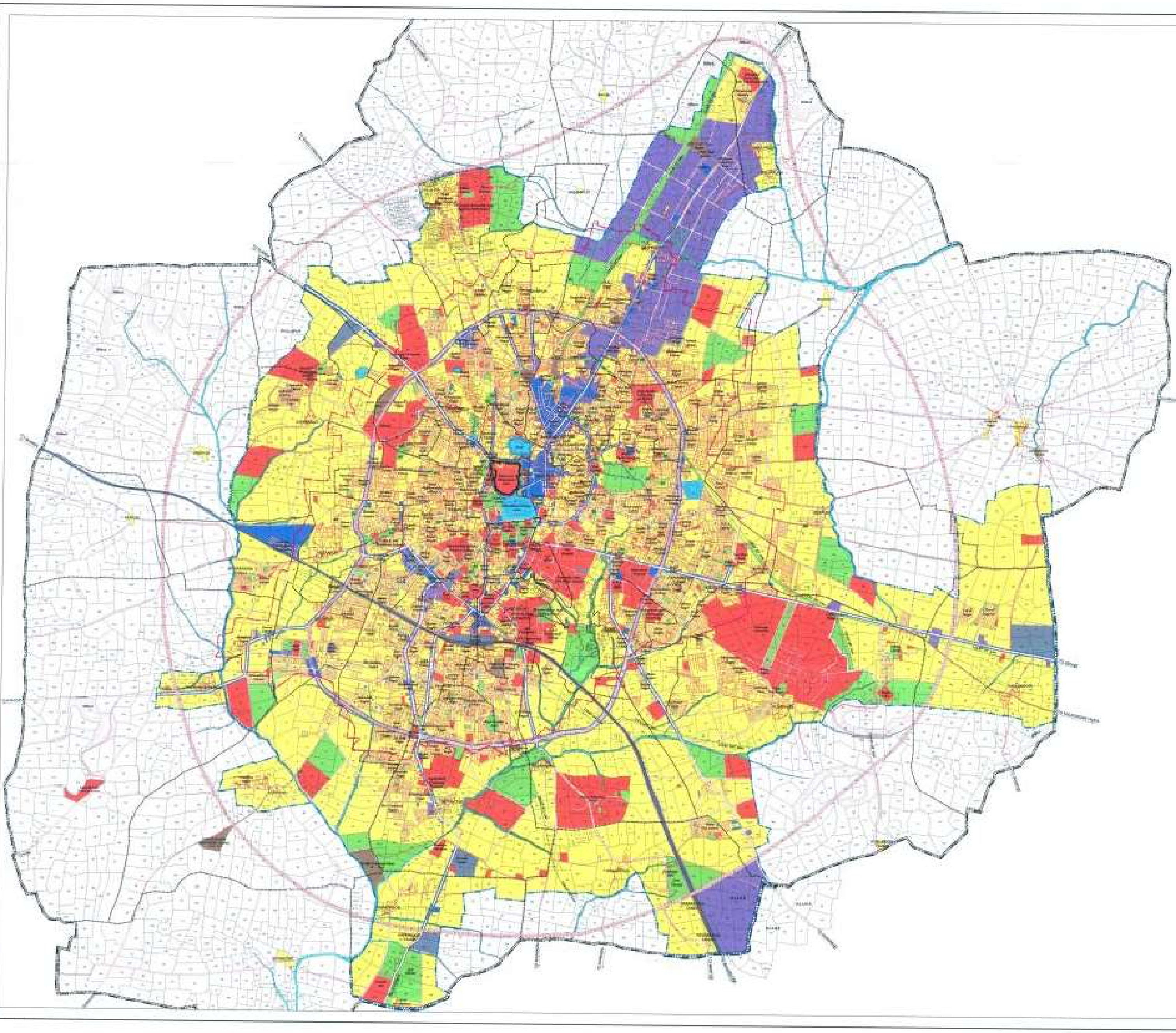
This zone consists of Historic Buildings and Precincts, Defense Lands, etc.
It is classified as four categories:
Heritage Buildings and Precincts (S1)
Defense / Military Lands (S2)
Bio Conservation Zone (S3)
Others (S4)

Conservation (Agriculture)

The Peri-Urban Use Zone is designated as Conservation (Agriculture) Use Zone. Agricultural land is used to grow and harvest crops and
livestock. This could be anything from ranches to farms to pastures.

Traffic and Transportation

Traffic and transportation zone is nothing but provision of transport to help people get from one destination to the other.
It is classified as four categories:
Roads
Railways / Railway Stations
Bus Depots, Passenger / Freight Terminals
Airports



MASTER PLAN (REVISION - II)
2021
(FINAL)
GULBARGA LOCAL PLANNING AREA

INDEX

- LOCAL PLANNING AREA BOUNDARY
- CORPORATION BOUNDARY
- CONURBATION BOUNDARY
- VILLAGE BOUNDARY
- SURVEY No. BOUNDARY
- EXISTING ROADS
- PROPOSED ROAD
- RAILWAY LINE
- CANAL / RIVER / NALA
- TANK
- HILLOCKS
- HT-LINE

PROPOSED LANDUSE - 2021

PROPOSED	LANDUSES	AREA (IN HECT.)	%
	RESIDENTIAL	[illegible]	[illegible]
	COMMERCIAL	387.70	3.17
	INDUSTRIAL	973.68	[illegible]
	PUBLIC & SEMI PUBLIC	1282.61	10.49
	PARKS, PLAY GROUNDS & BURIAL GROUNDS (B.G)	1078.30	8.82
	PUBLIC UTILITIES	42.08	0.35
	TRANSPORTATION & COMMUNICATION	1846.76	[illegible]
	TOTAL	12231.48	100.00
WATER SHEET		144.73	
	GRAND TOTAL	12376.21	

GOVERNMENT OF KARNATAKA
URBAN DEVELOPMENT AUTHORITY
GULBARGA

PROPOSED LANDUSE
2021

Drg. No.: 08

What is zoning?

- Zoning has a relatively short history as a tool for land-use planning. It determines the location, size, and use of buildings and decides the density of city blocks
- Zoning laws typically specify the area in which residential, industrial, recreational or commercial activities may take place.

Why is zoning necessary?

The purpose of zoning is to allow local and national authorities to regulate and control land and property markets to ensure complementary uses. Zoning can also provide the opportunity to stimulate or slow down development in specific areas.

The planning and zoning process functions differently around the world and is controlled by different levels of authority. Most commonly, a local authority such as a municipality

Uses of land

The use of land in town planning can broadly be classified in to following two categories

1.Profit making use

2.Non-profit making use

1. Profit making use

The land which is developed with profit making motives for e.g. sites developed for offices, residences, industries etc.

2. Non profit making use

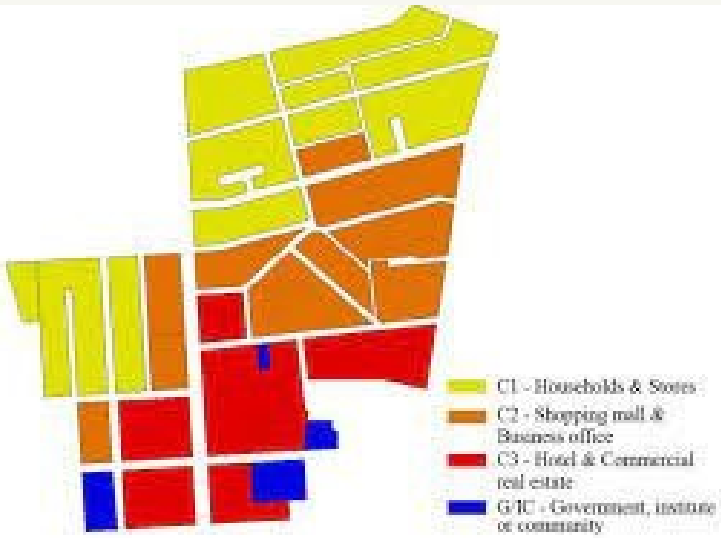
The land which is developed without any motive of making profit It includes roads,parks , playgrounds, educational buildings, government offices. The main non profit making use in urban area will naturally be the roads.

What Does Zoning Regulate?

Use: Activities permitted within zone

Bulk: envelope in which building must fit- specified through setbacks, building coverage, building heights, floor area ratio (ratio of building to lot square footage)

Performance/impact: performance standards, or impacts a building is allowed to produce; biggest example is parking space.



OBJECTIVES

The objects or purpose of zoning are as follows.

1. The town planner gets ample opportunities for designing the future growth & development of town.
2. Zoning serves as a main tool to the town planner to achieve his goal
3. Zoning affords proper coordination of various public amenities, such as transport facilities, water supply, drainage, electric power etc
4. Zoning proves to be an effective instrument in case of any review or modification in order to make town planning scheme more effective & successful

ADVANTAGES OF ZONING

- Danger from fire
- Future development
- Modification, revision of plan
- General amenities
- Health of community
- Population distribution (horizontal & vertical growth)
- Public utility services

TRENDS OF URBANIZATION IN INDIA

Ar. Ashwini S
Ar. Priyanka K

Urban nodes, Fringe area, Central business districts

Trends of Urbanization in India

1. All places with a municipality, corporation, cantonment board or notified town area committee, etc. These towns are known as ***Statutory Towns.***

2. All other places which satisfied the following criteria:

- A minimum population of 5,000;
- At least 75 per cent of the male working population engaged in non-agricultural pursuits; and
- A density of population of at least 400 per sq. km.
- These towns, which in fact are villages, are known as ***Census Towns.***

Terms

Urban Agglomerations (UAs)

- An Urban Agglomeration forms a **continuous urban spread** and normally **consists of a town and its adjoining urban outgrowths (OGs), or two or more physically contiguous towns together with or without outgrowths of such towns .**
- An UA must consist of at least a statutory town and its total population (i.e. all the constituents put together) shouldn't be less than 20,000 as per 2001 Census.

Out Growths

- **Areas around** a core city or town, such well recognized places as, Railway colony, university campus, port area, etc., lying outside the limit of town, is termed as Out Growths.

For your understanding

- **1. Urban Outgrowth (UOG)**
  A part of a village or town that has grown outside the main city, but is still connected to it — like an extension.
- Example:
  A small area next to a city that has developed with housing complexes, railway colonies, or university campuses.
- Key Points:
  - Physically attached to the city
  - Functionally dependent on the main city
  - Often outside official city limits

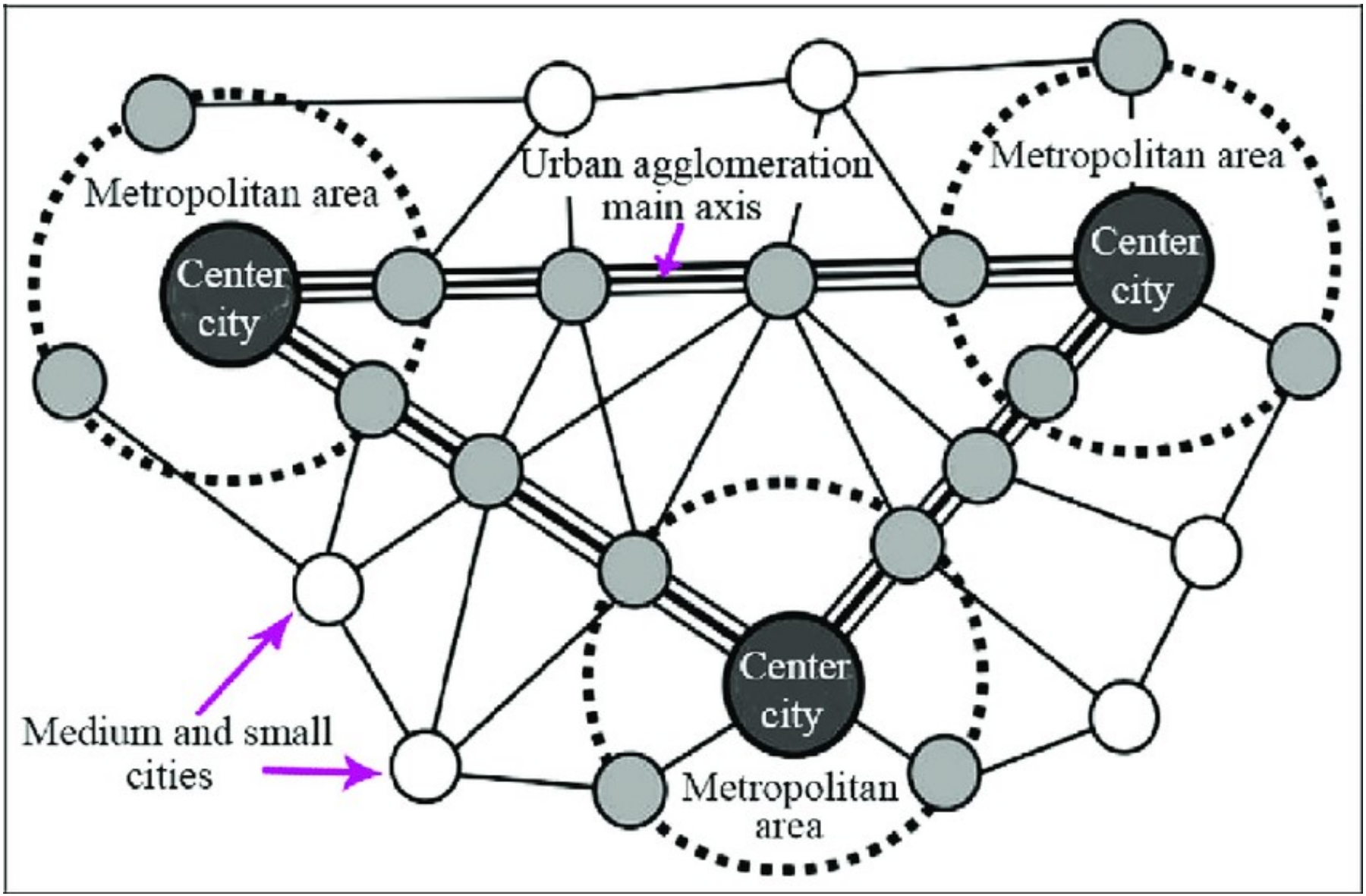
2. Urban Agglomeration (UA)
A continuous spread of urban areas — it includes the main city and its nearby urban outgrowths or smaller towns.
Example:
Delhi and the surrounding cities like Noida, Ghaziabad, Gurugram, and Faridabad together form an urban agglomeration.
Key Points:
- At least one main town + its outgrowths or nearby towns
- It functions like one big urban unit

- **3. Metropolitan City**
  A very large city with a population of 10 lakh (1 million) or more, having major economic, political, and cultural importance.
- Example:
  Mumbai, Bengaluru, Kolkata, Chennai, Hyderabad.
- Key Points:
  - Big population (10+ lakh)
  - Major influence on surrounding regions
  - Usually has better infrastructure and facilities

Term	What it Means	Example
Urban Outgrowth	New urban areas just outside a city	Railway colony outside a city
Urban Agglomeration	Main city + nearby towns or outgrowths	Delhi + Noida + Ghaziabad
Metropolitan City	A very big and important city (10+ lakh people)	Mumbai, Bengaluru

THE MAJOR DIFFERENCES BETWEEN METROPOLITAN CITIES AND URBAN AGGLOMERATION IN INDIA ARE:

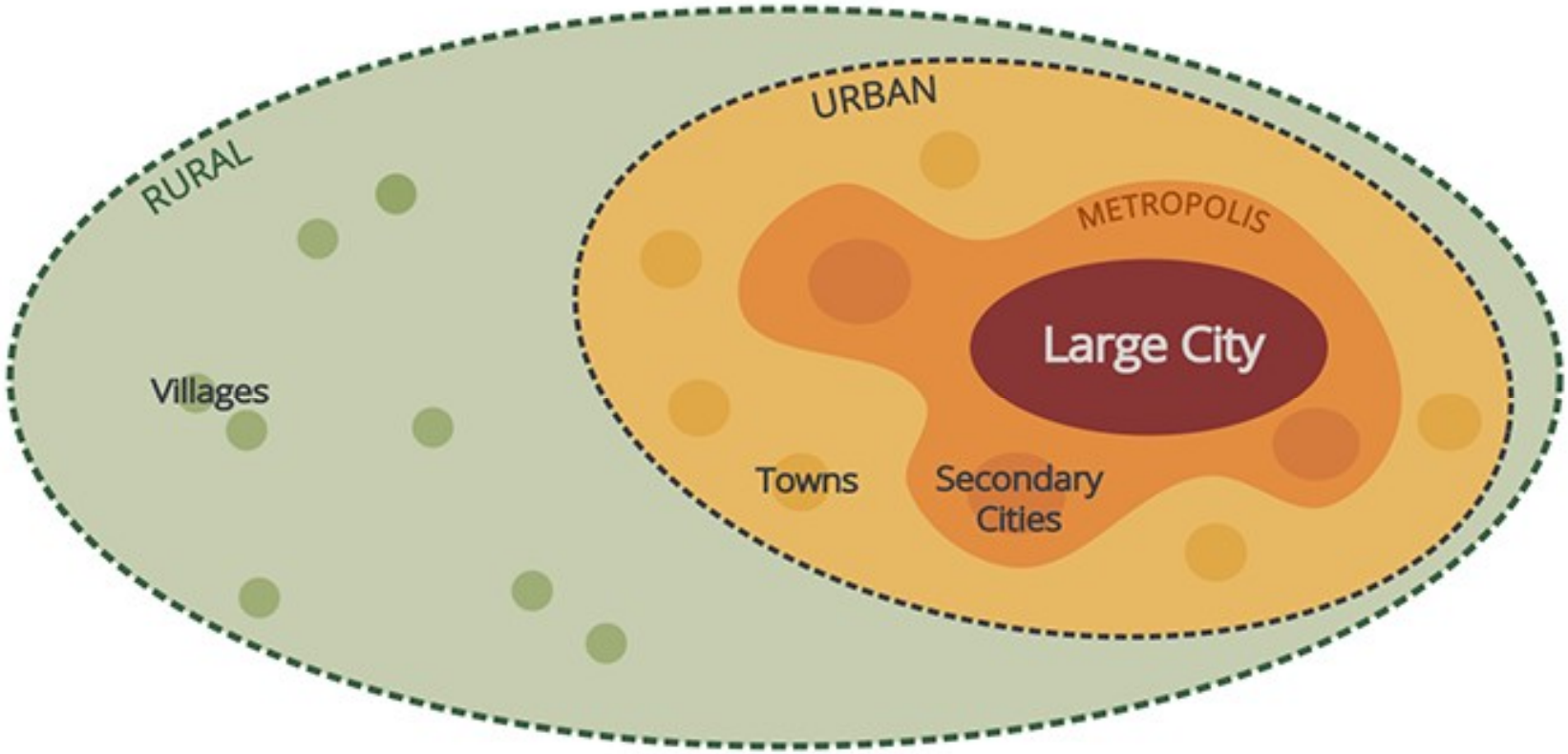
METROPOLITAN CITIES	URBAN AGGLOMERATION
• The Census Commission of India defines Metropolitan cities as those Indian cities having a population of more than 4 million. • The 74th Amendment to the Indian Constitution defines a metropolitan area as An area having a population of 10 Lakh or 1 Million or more, comprised in one or more districts and consisting of two or more Municipalities or Panchayats or other contiguous areas, specified by the Governor by public notification to be a Metropolitan area.	• As per the Census of India 2011, an urban agglomeration is a continuous urban spread constituting a town and its adjoining outgrowths (OGs), or two or more physically contiguous towns together with or without outgrowths of such towns. • An Urban Agglomeration must consist of at least a statutory town and its total population (i.e. all the constituents put together) should not be less than 20,000 as per the 2001 Census. In varying local conditions, there were similar other combinations which have been treated as urban agglomerations satisfying the basic condition of contiguity.


Metropolitan area
Urban agglomeration
main axis
Metropolitan area
Center
city
Center
city
Center
city
Medium and small
cities
Metropolitan
area

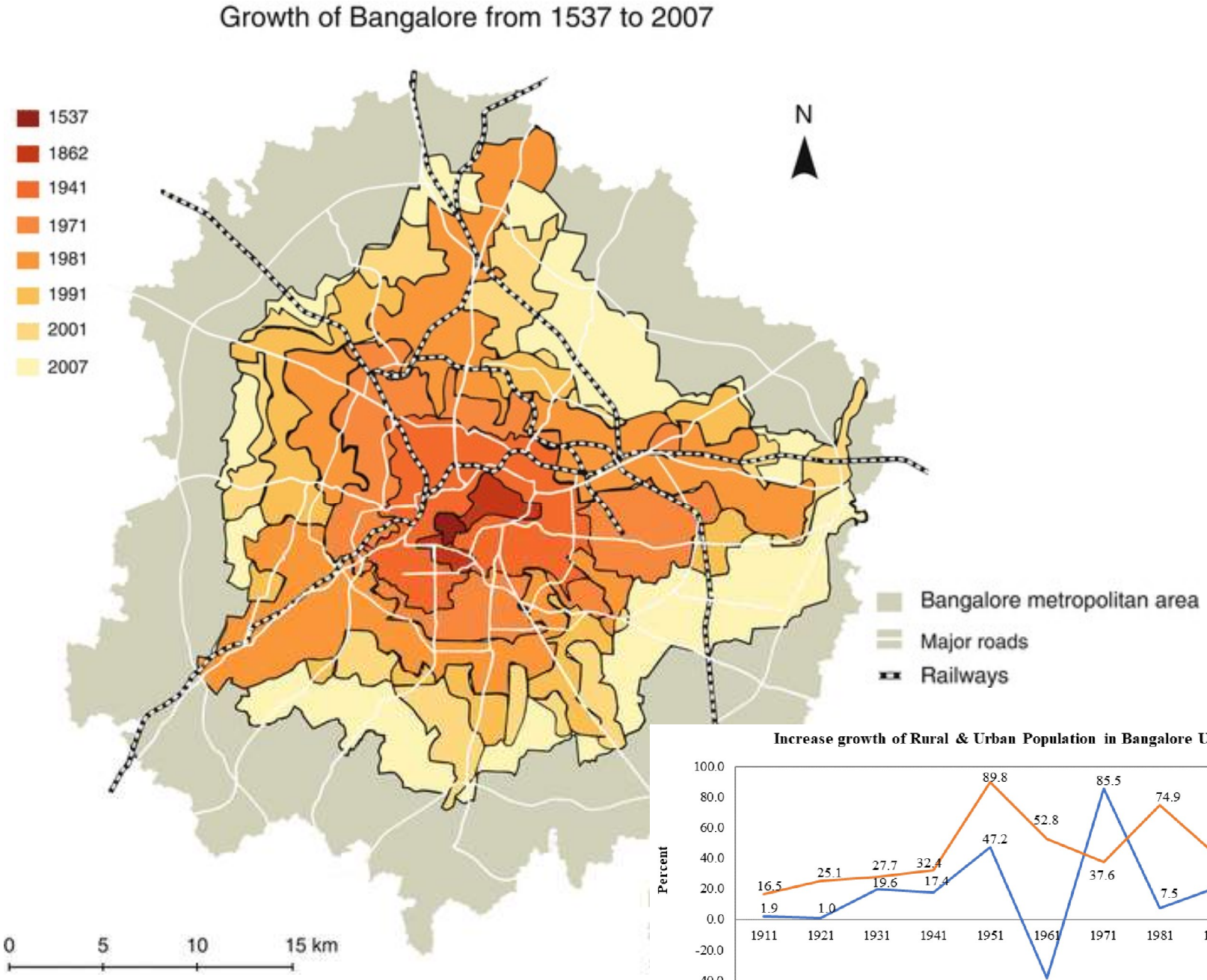
THE MAJOR DIFFERENCES BETWEEN METROPOLITAN CITIES AND URBAN AGGLOMERATION IN INDIA ARE:

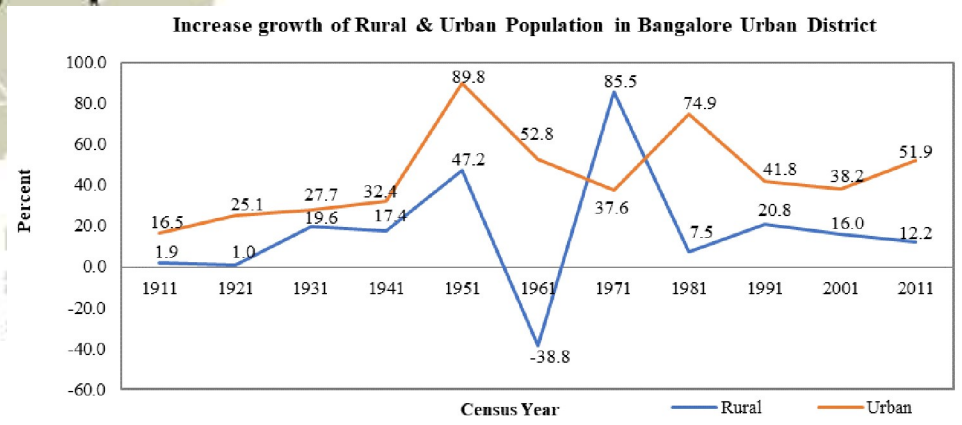
METROPOLITAN CITIES	URBAN AGGLOMERATION
• As per the Census of India 2011 definition of more than 4 million population, some of the major Metropolitan Cities in India are: ✓ Mumbai (more than 18 Million) ✓ Delhi (more than 16 Million) ✓ Kolkata (more than 14 Million) ✓ Chennai (more than 8.6 million) ✓ Bangalore (around 8.5 million) ✓ Hyderabad (around 7.6 million) ✓ Ahmedabad (around 6.3 million) ✓ Pune (around 5.05 million) ✓ Surat (around 4.5 million)	• As per the Census of India 2011, the number of Urban Agglomerations in India is 475. As per the Census of India 2001, the number of Urban Agglomerations was 384. • Urban Agglomerations (UA) are further classified into 3 different groups. • Class I UA (Urban Agglomeration) – 1. Having a population of at least 1,00,000 persons. 2. Million Plus UA (Urban Agglomeration) – Having a population of 1 million or above. 42.6% of the urban population live in these Million Plus Urban Agglomerations. 3. Mega Cities – Among the Million Plus UAs/Cities, there are three very large UAs with more than 10 million persons, known as Mega-Cities.

Urban Agglomerations Include A Large City And Its Adjoining Outgrowths

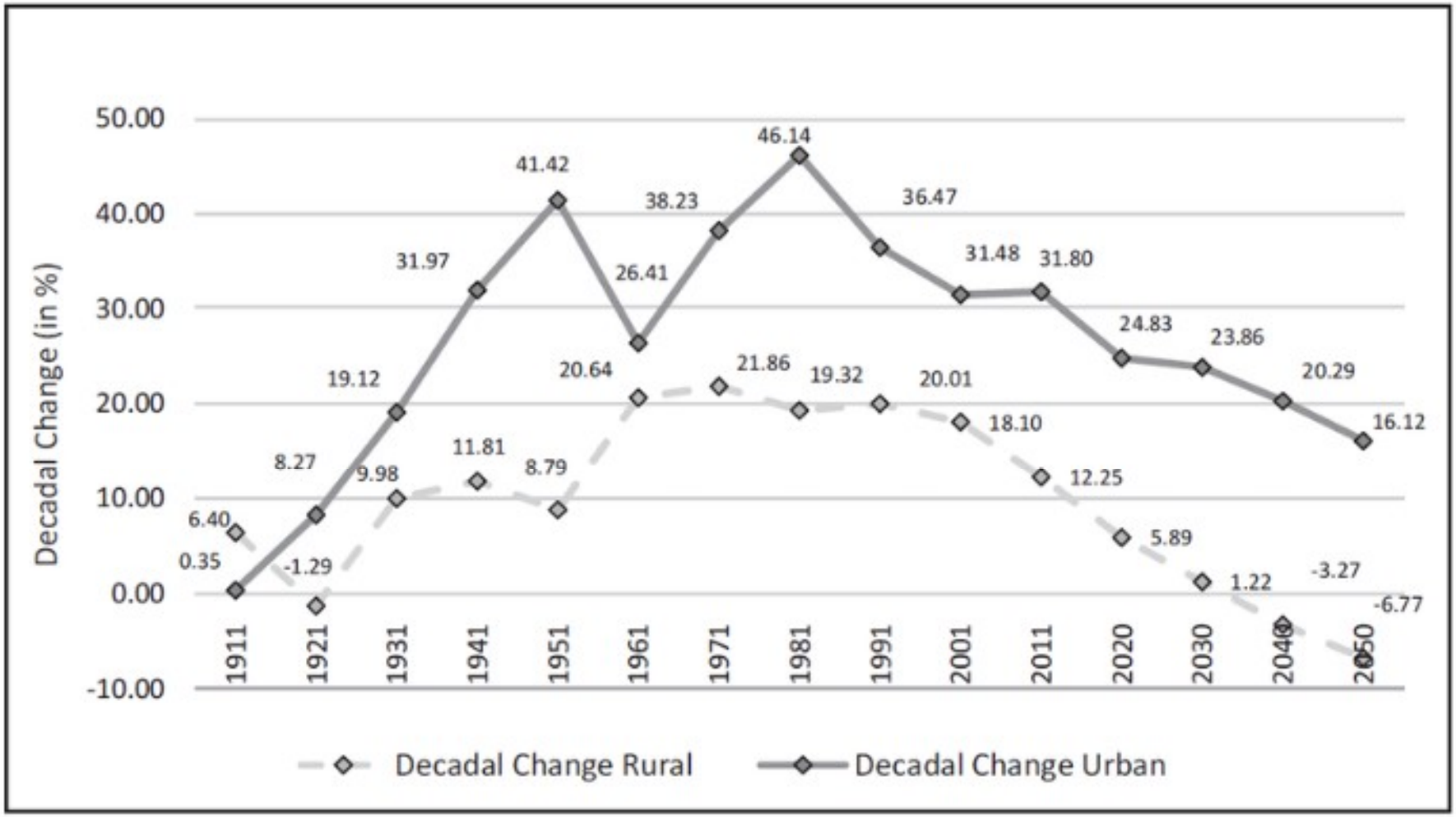


Source: World Development Report 2009, World Bank


Growth of Bangalore from 1537 to 2007
1537
1862
1941
1971
1981
1991
2001
2007
N
Bangalore metropolitan area
Major roads
Railways
0
5
10
15 km


Increase growth of Rural & Urban Population in Bangalore Urban District
Percent
100.0
80.0
60.0
40.0
20.0
0.0
-20.0
-40.0
-60.0
1911
1921
1931
1941
1951
1961
1971
1981
1991
2001
2011
16.5
25.1
27.7
32.4
89.8
52.8
37.6
74.9
41.8
38.2
51.9
1.9
1.0
19.6
17.4
47.2
-38.8
85.5
7.5
20.8
16.0
12.2
Census Year
Rural
Urban

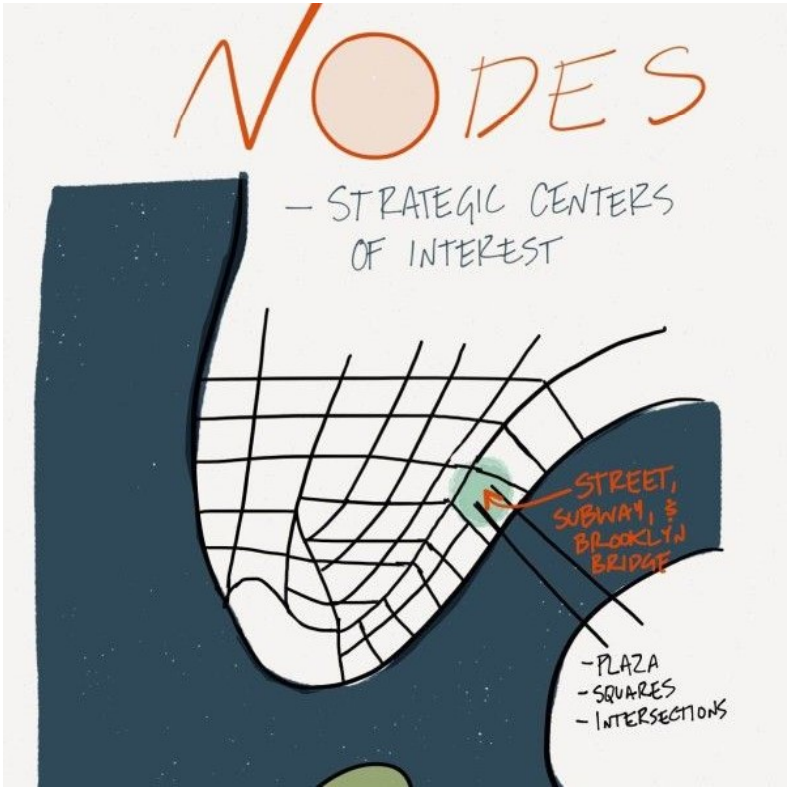
Percentage Decadal Change in Urban Population in India

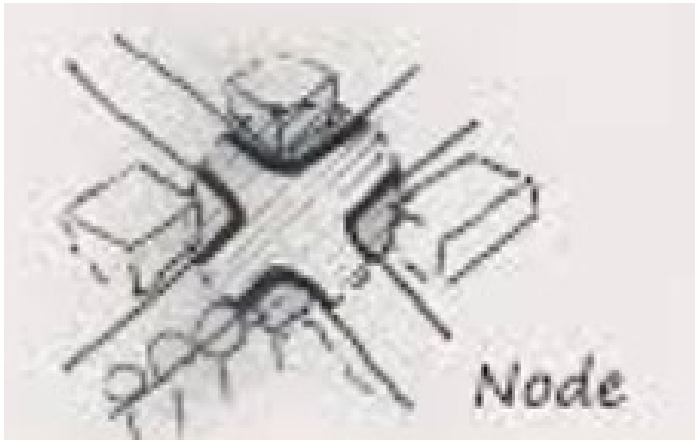


COMPONENTS OF HUMAN SETTLEMENT

- NODES
- FRINGE
- CBD (Central Business District)

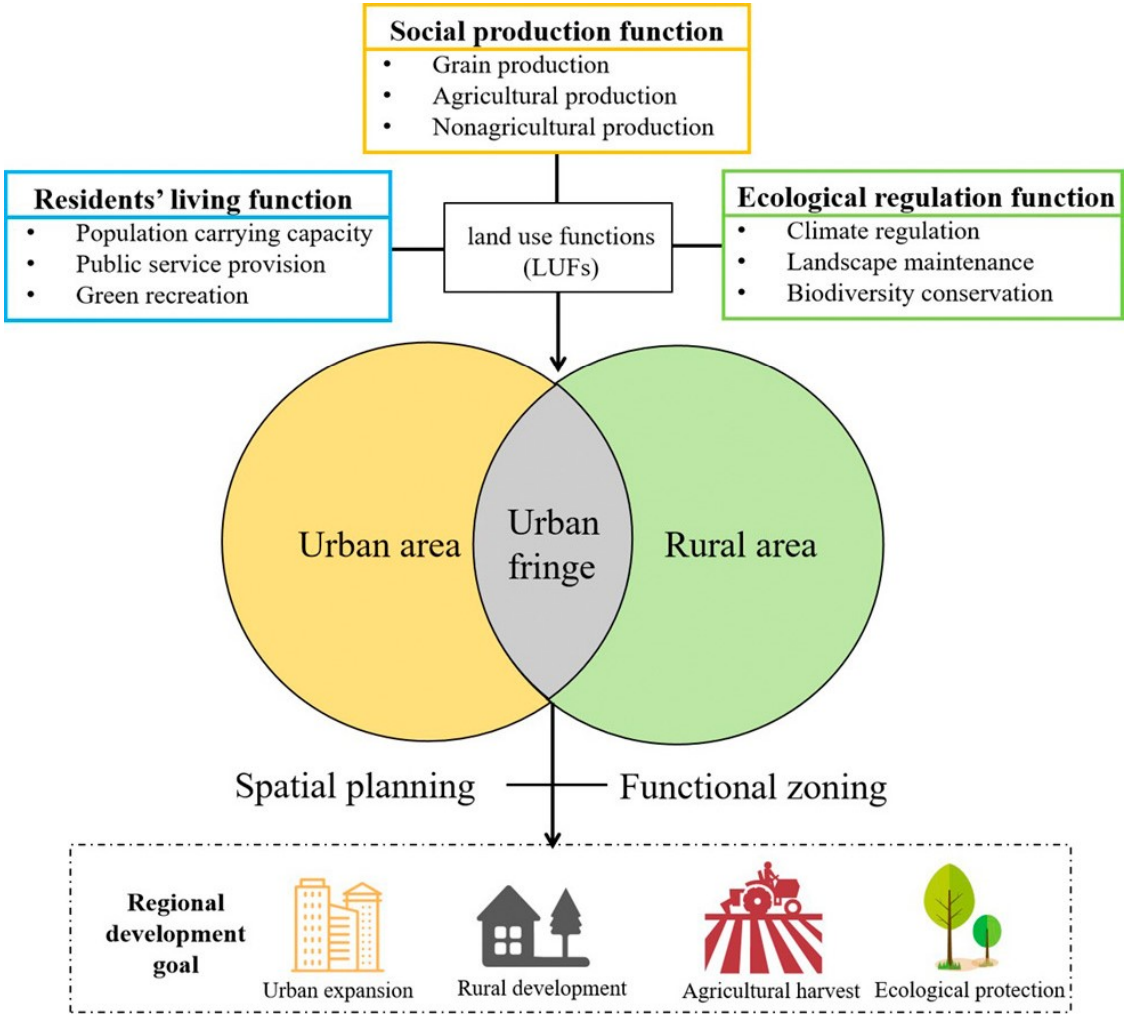
•Nodes are those places where people and transportation routes congregate.
•The goal of the city was to have “compact, transit-oriented, pedestrian-friendly areas where high concentrations of residential, employment, retail and other uses are located”.
• Nodes are generally located at points where two or more transit routes or travel modes intersect.
• Major Nodes are places where there is a perceived area of continuous activity surrounded by a building density that supports it.
•Minor Nodes are areas where activity and density are anticipated
•to increase over time, but generally reflects a similar urban form to that present in a major node.





URBAN NODES

The rural–urban fringe, also known as the outskirts, rurban, peri-urban or the urban hinterland, can be described as the "landscape interface between town and country", or also as the transition zone where urban and rural uses mix and often clash together.

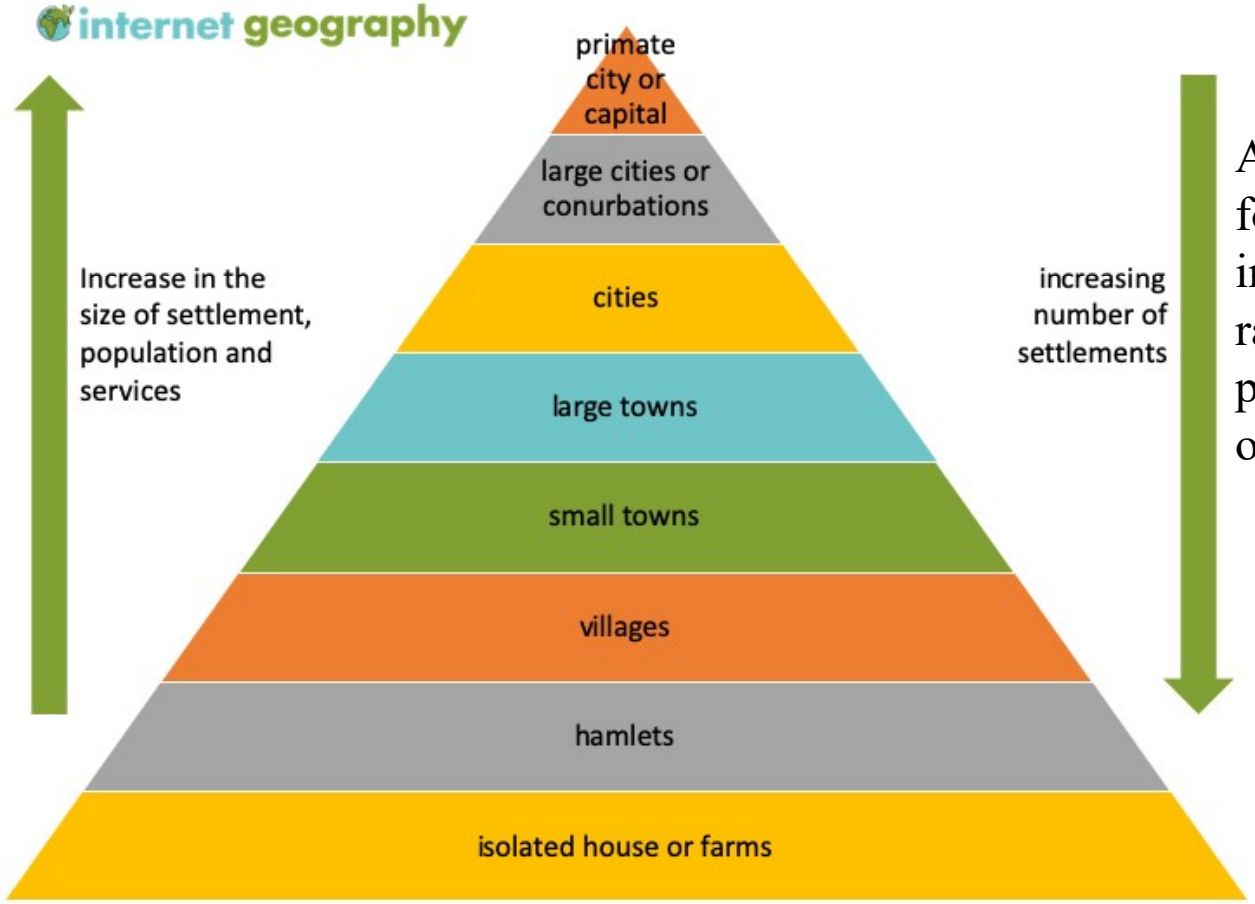


The area beyond the metropolitan built-up area but contiguous to it having other municipal towns, census towns or fully urbanized villages constitutes the urban fringe as the part of rural–urban fringe.

URBAN FRINGE

VARIOUS COMPONENTS OF HUMAN SETTLEMENT

A settlement is a place where people live. A settlement could be anything from an isolated farmhouse to a mega city (settlement with over 10 million people).
They encompass the human population that resides in a settlement, the physical elements (e.g., shelter and infrastructure), services (e.g., water, sanitation, waste removal, energy and transport), and the exposure of humans to potentially deleterious environmental conditions.



A settlement hierarchy is found by putting settlements in a region or country into a rank order either by population or type and range of services.

CENTRAL BUSINESS DISTRICT [CBD]

A LARGE AREA IN A CITY DEVELOPS AS THE SHOPPING / SERVICE ZONE, WHICH IS CALLED AS – THE CENTRAL BUSINESS DISTRICT.

- In most of the case the CBD is in the centre. But not exactly the geographical center. The old core of the town adjoining the fort area contains the CBD.
- Houses originally built for residential purpose which are Changed into commercial purpose with slight structural modifications or only a change in the appearance of frontages.
- As a city grows in size and importance, the CBD tends to assume more and more the function of a shopping and style centre as well as specialized personal & professional service district.
- The development of services depends on
  - Size of city , and its population
  - Its accessibility to surrounding villages and other towns.

CBD mainly consists of:

High rent areas - Banks, commercial areas, society's investment companies, Hospital, services stations for nonpolluting categories, Restaurants, Hotel, private offices communication facilities. Publics houses entertainment building.

Medium rent areas. - Wholesale market for primary goods, fish market, wool exchange , vegetable market area.

Transitional Zone - The CBD is surrendered by a transitional zone, having mainly go downs, lorry offices, printing press, workshops, and low class residential houses.

MAIN FEATURES

1. Frontage of the street is characterized by non – residential uses.
2. More vehicular and pedestrians concentrations.
3. Streets are more or less narrow.
4. Mainly lacks in parking facilities.
5. Traffic congestion on streets, More one-way traffic routes reduce traffic congestion.
6. Land values and rental values are high.
7. The CBD is dynamic in all aspects.
8. Vertical development is the common aspect found in CBD'S.

LIMITS OF CBD

- Less land availability surrounding the CBD.
- Very difficulty to bring new development without changing much because of occupied spaces.
- May be existence of natural barrier.
- Pollution more in the CBD'S.
- Less facility because of mixed land use.
- Delhi - karlobagh, Cannaught place Bangalore- Shivajnagar, Majestic.

BURGESS'S 'CONCENTRIC ZONE MODEL' (1925)
HOYT'S 'SECTOR MODEL' (1939)
HARRIS AND ULLMAN'S 'MULTIPLE NUCLEI MODEL' (1945)

Ar. Priyanka Khadi
Ar. Ashwini Swamy

URBAN LAND USE MODELS

MODELS OF URBAN LAND USE

- There are models that predict where different types of activity will be found around the city. There are two main types of model:

Monocentric

- There is a single central point of the city

Polycentric

- There are multiple 'centres' of the city

MONOCENTRIC MODELS

- All the monocentric models assume that there is a single Central Business District in the city. The most famous of these models are:

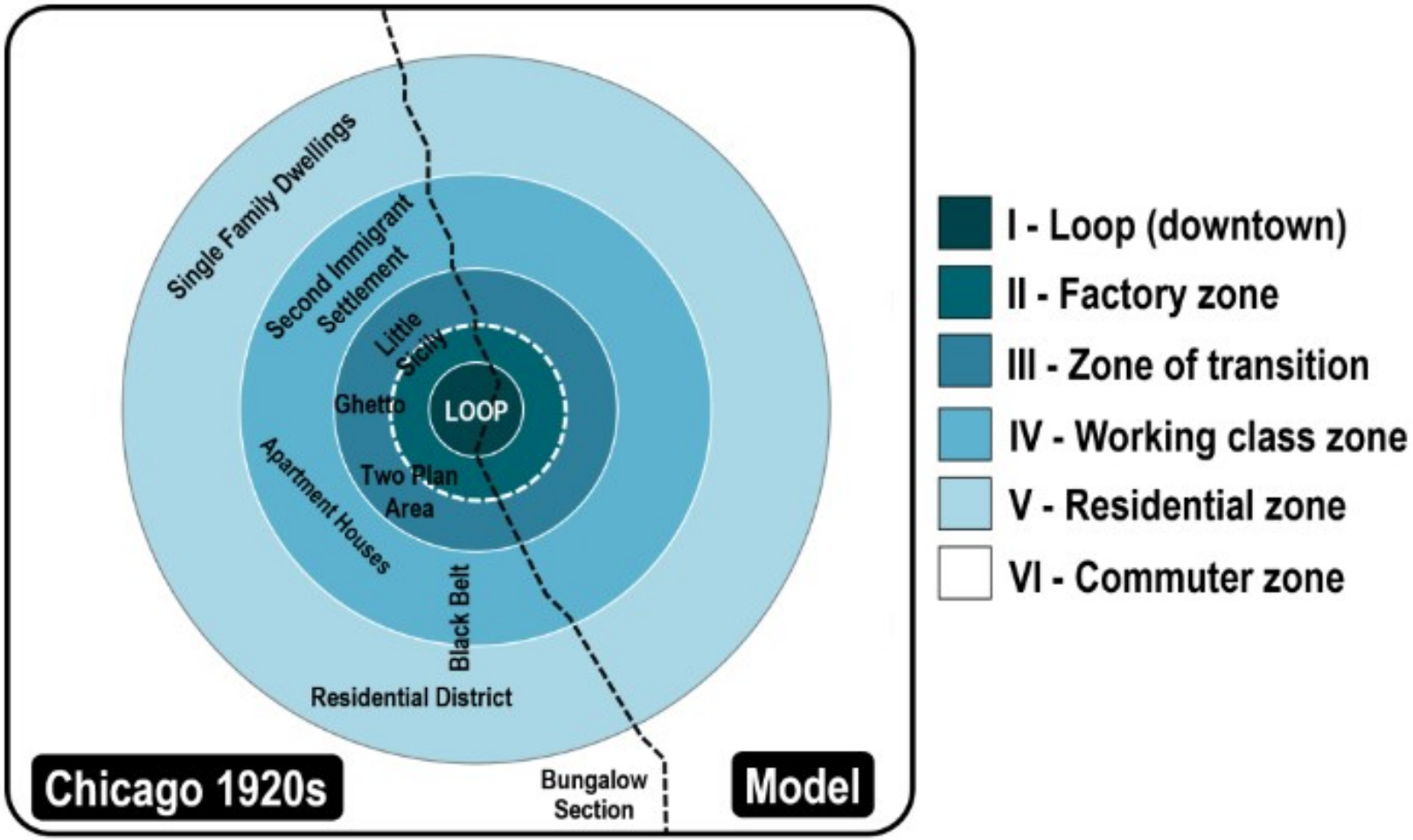
1. Burgess's 'Concentric Zone Model' (1925)
2. Hoyt's 'Sector Model' (1939)
3. Harris and Ullman's 'Multiple Nuclei Model' (1945)

Burgess's Concentric Zone Model

- The Burgess Model was developed by Ernest Burgess in 1925.
- He identified a series of concentric rings coming out from the centre of the city which correspond to different types of land use.

Burgess's Concentric Zone Model

In the centre was the Central Business District; followed by an inner city area known as the transition zone, with light manufacturing; then a series of residential zones gradually becoming wealthier towards the edge of the city.



The Burgess Urban Land Use Model

Burgess's Concentric Zone Model

- In 1925, Burgess proposed a descriptive urban land use model that divided cities into **concentric circles** expanding from downtown to the suburbs
- The model assumes a relationship between the socio-economic status (mainly income) of households and the distance from the **Central Business District (CBD).**
- The further from the CBD, the better the quality of housing, but the longer the commuting time.
- Thus, accessing better housing is done at the expense of longer commuting times (and costs).
- According to this monocentric model, a large city is divided into **six concentric zones**:

a) Zone I
b) Zone II
c) Zone III
d) Zone IV
e) Zone V
f) Zone VI

Zone I: Central Business District (called the "loop" in Chicago), where most of the tertiary employment is located and where the urban transport infrastructure converges, making this zone the most accessible.

Zone II: Immediately adjacent to the CBD, a zone where many industrial activities locate to take advantage of nearby labor and markets. Further, most transport terminals, namely port sites, and rail yards, are located adjacent to the central area.

Zone III: This zone is gradually being reconverted to other uses by expanding manufacturing / industrial activities. It contains the poorest segment of the urban population, notably first-generation immigrants living in low-cost housing.

Zone IV: Residential zone dominated by the working class and those who could move away from the previous zone (often second-generation immigrants). This zone has the advantage of being located near the major zones of employment (I and II) and thus represents a low-cost location for the working class.

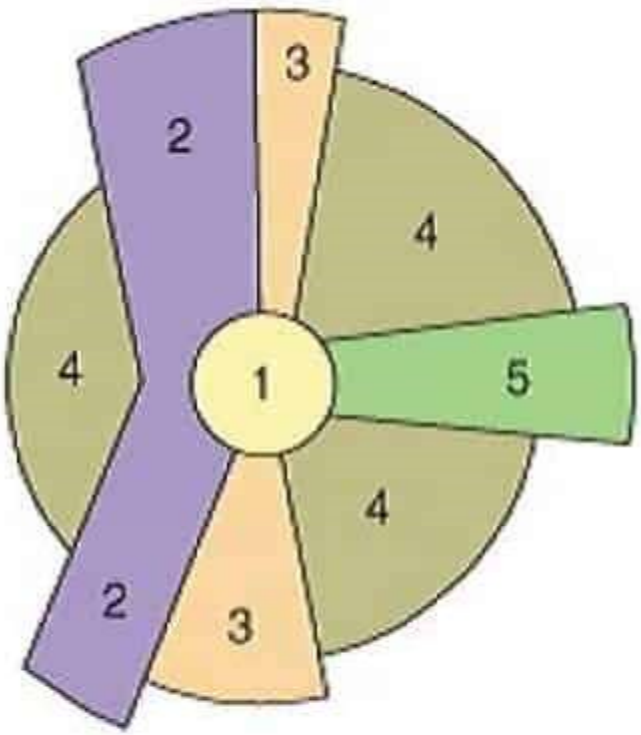
Zone V: Represents higher quality housing linked with longer commuting costs.

Zone VI: Mainly high-class and expensive housing in rural, suburbanized settings, with the highest commuting costs. Before the mass diffusion of the automobile (in the 1930s), most of these settlements were located next to rail stations.

Sector Model (Hoyt Model)

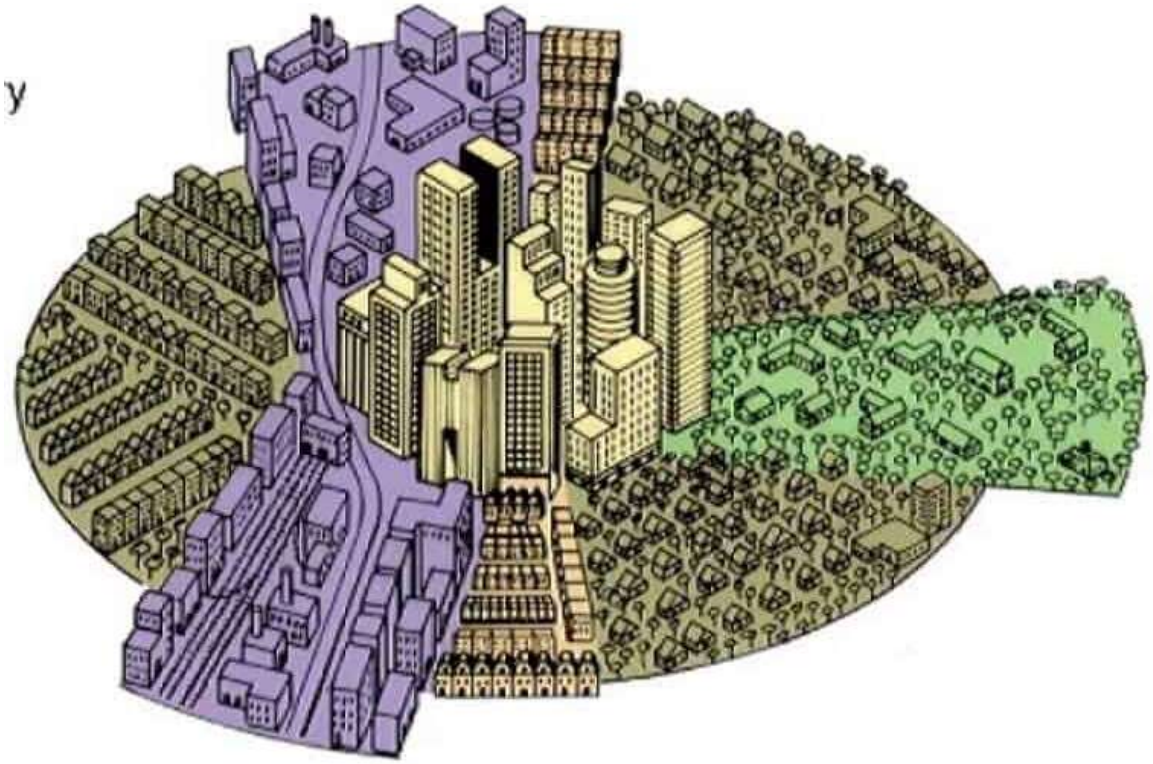
Urban LandUse Model

- Homer Hoyt gave sector model which is also known as Hoyt Model, in 1939 which explains how cities grew and activities arranged th
- Hoyt argued that cities do not develop in the form of simple rings, instead they have “sectors.” emselves in the form of concentric zone



1. Central business district
2. Transportation and industry
3. Low-class residential
4. Middle-class residential
5. High-class residential

y



Sector Model (Hoyt Model)

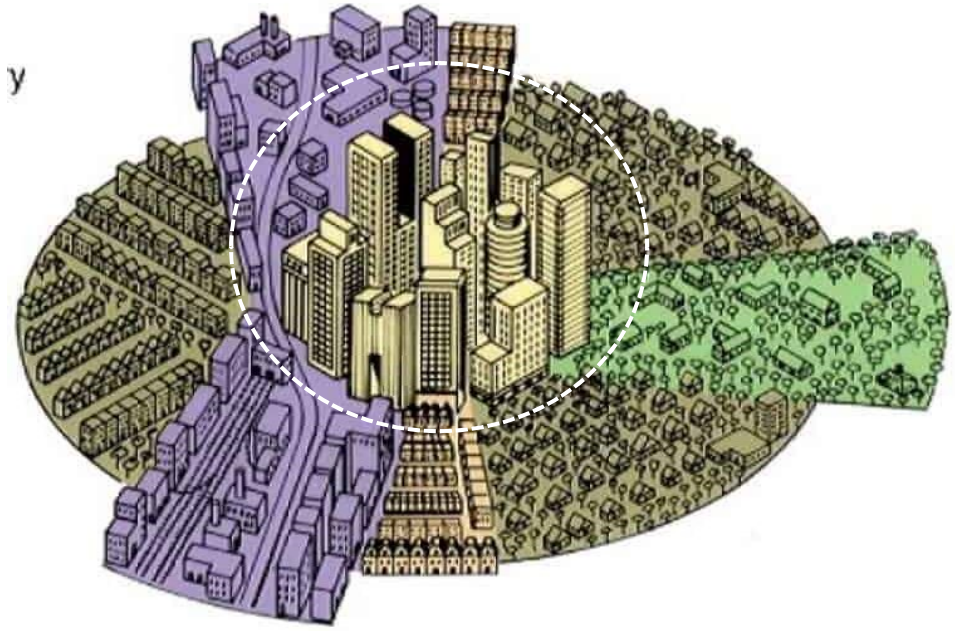
PLANNING

- Few activities grow in the form of sectors which radiates out along the main ***travel links.***
- Activities in a sector are considered to be the same throughout the sector because of the ***purpose/function*** it serves.
- Land use within each sector would remain the same because ***like attracts like***.
- The high-class sector would stay high-class because it would be the most sought after area to live, so only the rich could afford to live there.
- The ***industrial sector*** would remain industrial as the area would have a typical advantage of a ***railway line or river***.
- These sectors can be housing, industrial activities, etc.
- These sectors grow along railway lines, highways or rivers.

Components of Hoyt Model

1. CBD – Central Business District

- *Geographical center*.
- *Sectors and the partial rings*
- *High rise buildings*.
- *Complex and dynamic organism.*
- *Represents many layers*
- *Imageability*
- *The style of living and also the structure of the city.*
- *Congested and an unhealthy environment*.



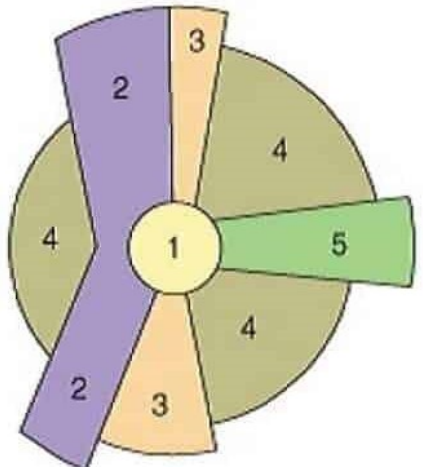
Components of Hoyt Model

2. Industry

- Presence of a transport linkage (both road and railways)
- Continuous corridor or "sector"
- Manufacturing units have a huge influence on how a city grow and
- Land price is another factor which greatly affects the location of industries since it requires a large parcel of land.

3. Residential Zone for Lower Class

•Living conditions are bad because of proximity to industries.
•Narrow roads, high population density, small houses with poor ventilation. reduces the travel cost and thus attracts industrial workers.
•Environmental and living conditions are often inadequate

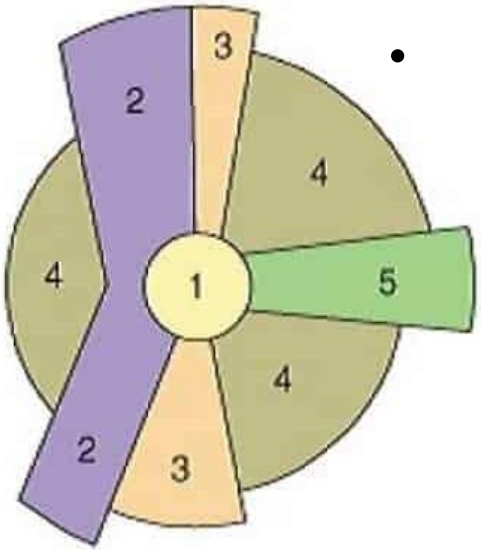


1. Central business district
2. Transportation and industry
3. Low-class residential
4. Middle-class residential
5. High-class residential

Components of Hoyt Model

4. **Middle-Class Residential**

- Can afford more substantial travel costs
- Want better living conditions.
- The activities of people residing in this area consist of different activities and not just the industrial work



1. Central business district
2. Transportation and industry
3. Low-class residential
4. Middle-class residential
5. High-class residential

5. High Class residential

- This is the outermost and farthest area from downtown.
- Wealthy and affluent people live in this area.
- This area is clean, has less traffic, quiet and has large houses.
- Corridor or spine extending from CBD to the edge has the best housing

The significance of Hoyt Model

- Ecological factors + economic rent concept to explain the land use pattern.
- Stress on the role of transport routes in affecting the spatial arrangement of the city.
- Both the distance and direction of growth from the city center are considered.
- Brings location of industrial and environmental amenity values as determinants in a residential place.
- Example: Sectors of high-class residential areas tend to grow towards higher grounds, sites with a better view, more open space, the homes of influential leaders within the community and existing outlying, smaller settlements.

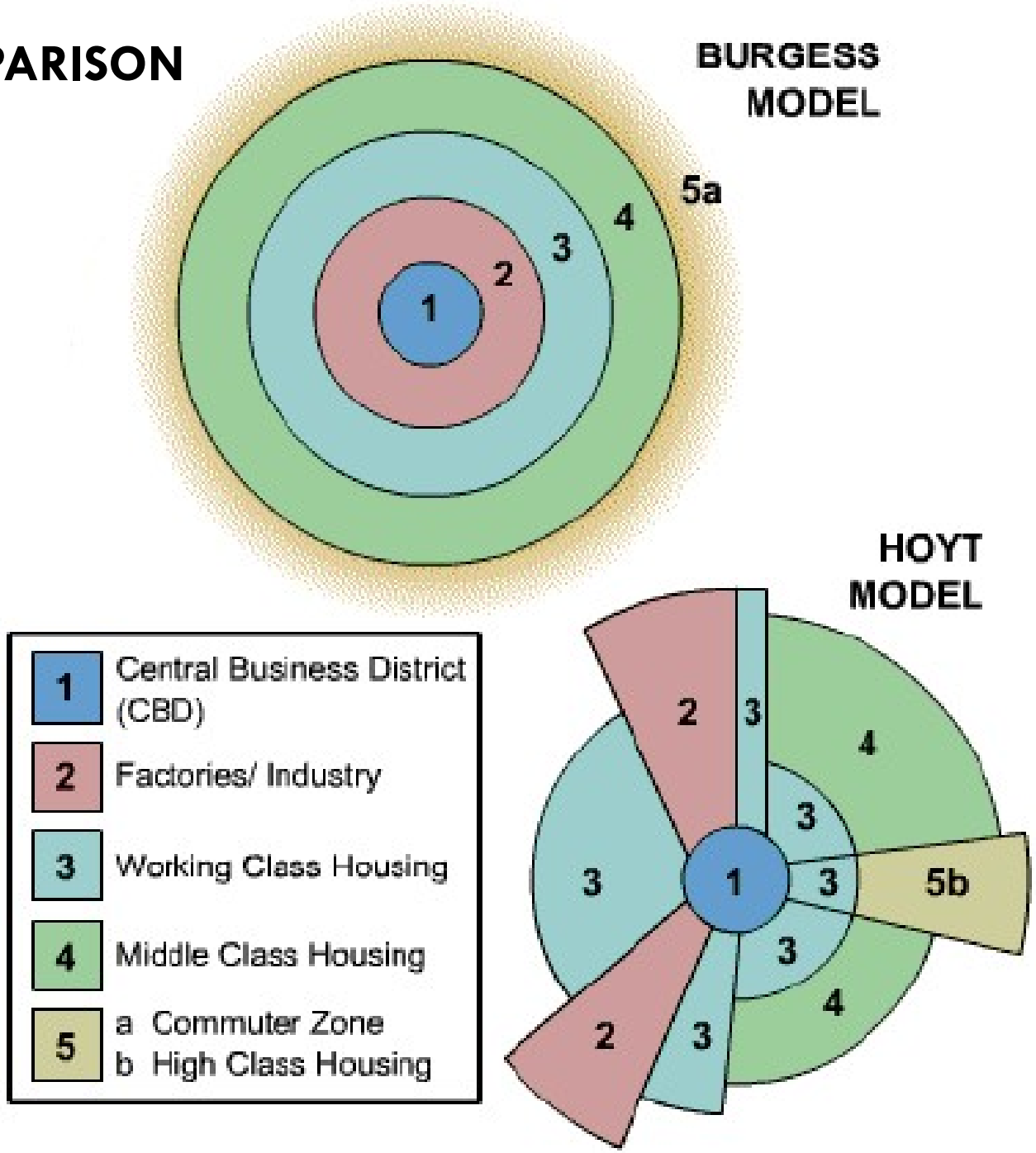
Limitations of Sector Model

- Only Railway lines are considered for the growth of sectors and do not make allowances for private cars.
- It is a monocentric representation of cities; multiple business centers are not accounted for in this model.
- Physical features – physical features may restrict or direct growth along specific wedges.
- No reference to out of town development.

Features of sector model

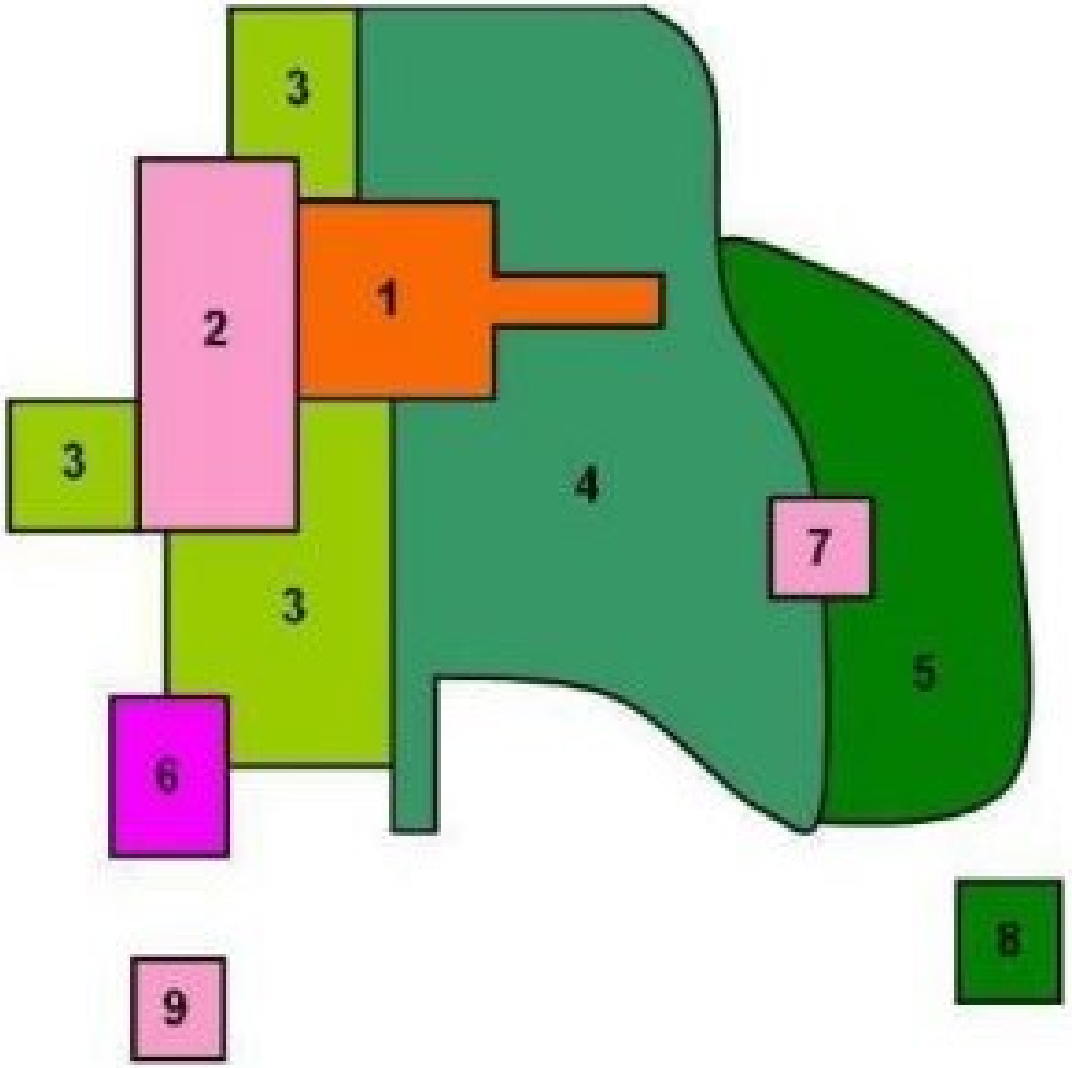
- Presence of low-income groups near industries supports the Hoyt Model.
- The Hoyt model realized that transportation (in particular) and access to resources caused a disruption of the Burgess model.
- Transport linkages profoundly influence activities and their locations. Low transportation cost and proximity to roads/railway reduce the cost of production.
- This model applies well to Chicago.
- Account for major transportation routes and its effect on activities.

COMPARISON


BURGESS MODEL
5a
4
3
2
1
HOYT MODEL
1 Central Business District (CBD)
2 Factories/ Industry
3 Working Class Housing
4 Middle Class Housing
5 a Commuter Zone
b High Class Housing
2
3
4
3
3
1
3
5b
3
4
2
3

MULTIPLE NUCLEI THEORY BY C. D. Harris and E. L. Ullman

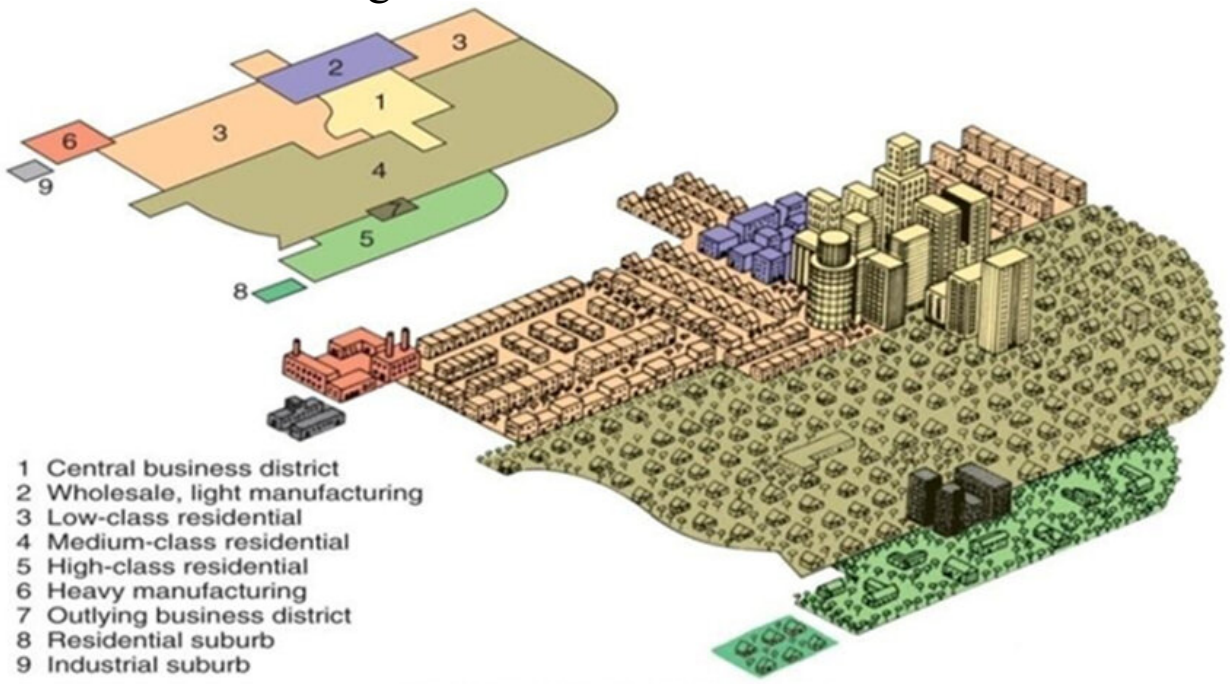
Multiple-Nuclei Model is a US urban geography model that describes cities with more than one CBD or a single CBD and many secondary outlying business districts.



1. CBD
2. Wholesale, light manufacturing
3. Low class residential
4. Medium class residential
5. High class residential
6. Heavy manufacturing
7. Outlying business district
8. Residential suburb
9. Industrial suburb

FEATURES OF MULTIPLE NUCLEI MODEL

•Multiple nuclei model of 1945 by C.D. Harris and Edward L. Ullman is based on the argument that the cities have multiple growth points or “nuclei” around which growth take place.
•Harris and Ullman argued that a city might start with a single central business district (CBD), but over the time the activities scatter and gets modified.
•The scattered activities attract people from surrounding areas and act as smaller nuclei in itself.
•These small nuclei gain importance and grow in size and start influencing the growth of activities around them.
• The basic assumption of this theory is that "cities are not homocentric" but they rather have many mini centers which play a significant role in the development of a city.
•These mini centers originally developed independently with the specialized advantages that they offered or similar activities clustering in these areas.

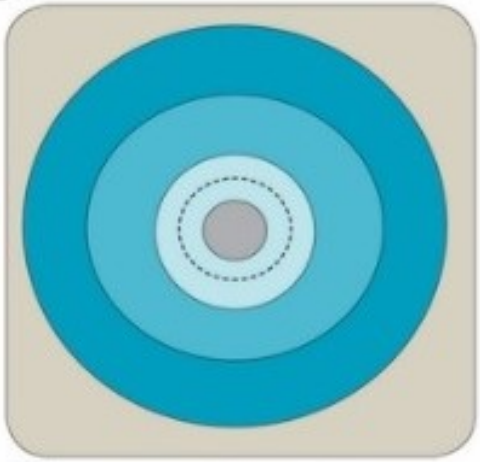


LIMITATIONS OF MULTIPLE NUCLEI MODEL

- Negligence of the height of buildings.
- Non-existence of abrupt divisions between zones.
- Each zone displays a significant degree of internal heterogeneity and not homogeneity.
- No consideration of the influence of physical relief and government policy.
- The concepts may not apply to Asian cities with different cultural, economic and political backgrounds.

MODELS OF URBAN STRUCTURE

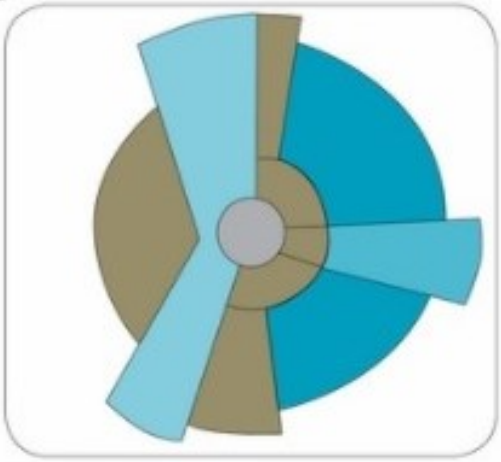
Concentric zone model



- Central business district
- Factory zone
- Zone of transition
- Zone of working men's homes
- Residential zone
- Commuters' zone

Land use is arranged in a series of concentric rings or zones around the city centre. The idea is that the city has grown outward in all directions from the centre, adding new buildings around the edges. The process is rather like the growth rings of trees. It means that the urban fabric should get older towards the centre. The width of the zones varies according to the density of building.

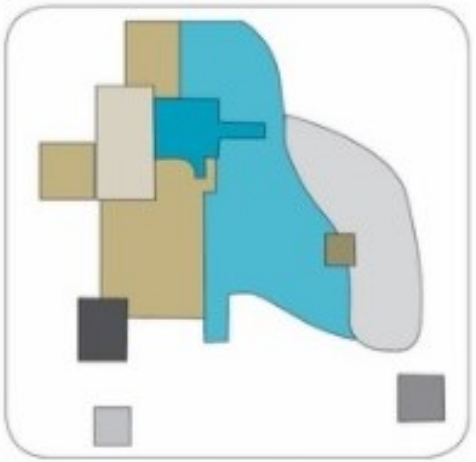
Sector model



- Central business district
- Wholesale light manufacturing
- Low-class residential
- Medium-class residential
- High-class residential

Land use is arranged in wedges or sectors which radiate from the city centre. Growth follows a linear pattern along major transport routes or physical features such as river valleys. We assume that once a particular type of land use establishes itself in an area, it attracts similar activities (like industry) and repels dissimilar ones (like high-status housing).

Multiple nuclei model

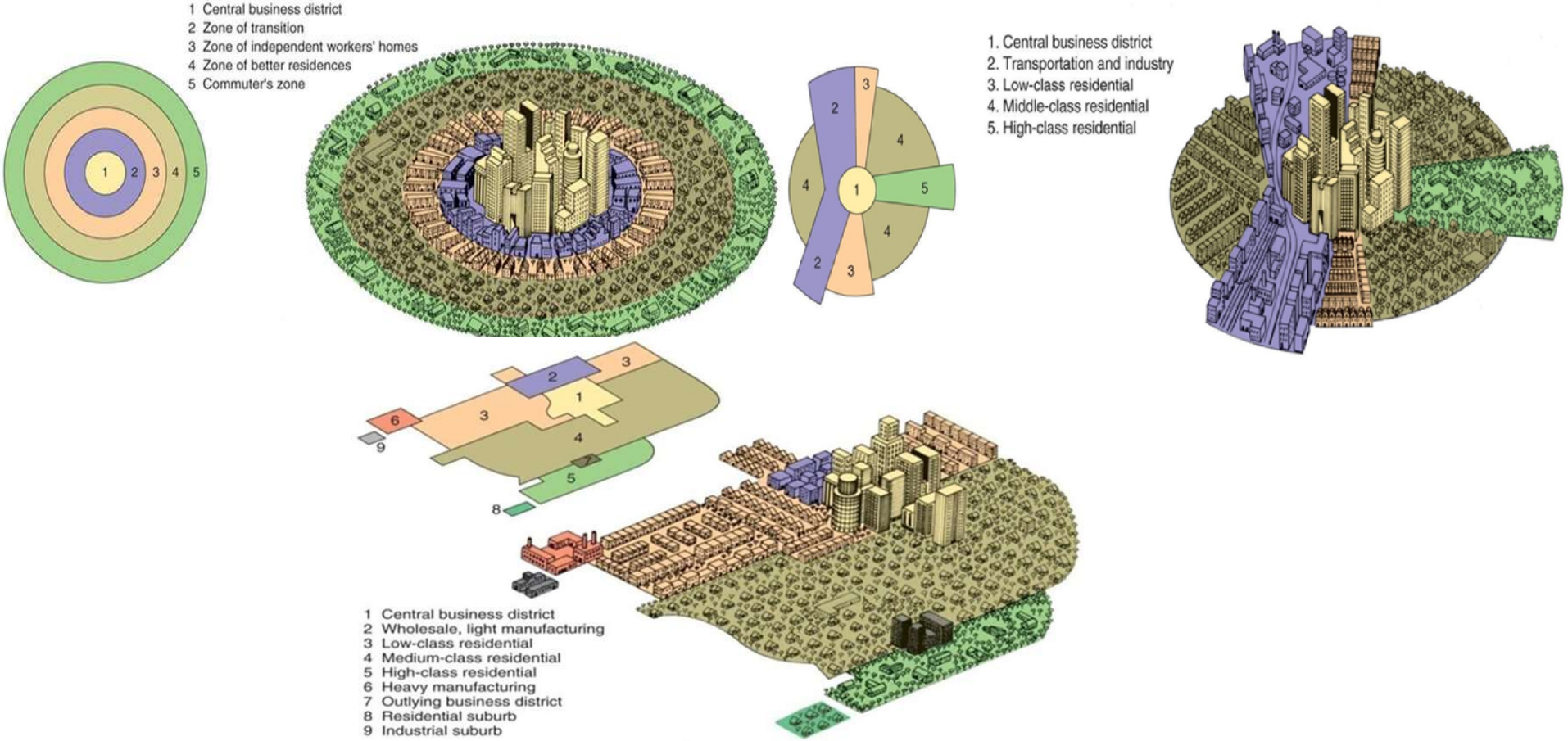


- Central business district
- Wholesale and light manufacturing
- Low-class residential
- Medium-class residential
- High-class residential
- Heavy manufacturing
- Outlying business district
- Industrial suburb

Distinctive land uses form small areas or nuclei such as the central business district, housing estates, industrial estates, and office and retail parks. Often similar activities/types of land use benefit from being clustered together.

CRITICISM OF THESE THREE MODELS

- The three models are only models, so they are not totally realistic or definitive, and do not take into account social policies like apartheid.
- Lower-income earners tend to live closer to the CBD than wealthier people.
- Wealthy people often live some distance from the CBD in areas with good views and large grounds.
- Industrial areas and high-income areas are not compatible.
- New trends (for instance, loft living in the CBD) are taken into account.



PHYSICAL PLANNING -I

URBANIZATION AND INDUSTRIALIZATION

Ar. Priyanka K
Ar. Ashwini Swamy


CONTENTS:-
•URBANISATION,
✓causes and effects.
•INDUSTRIALIZATION
✓causes and effects.
•COMPARISON between
Urbanisation &
Industrialization

➢**URBANIZATION** (or **urbanisation**) refers to the population shift from rural to urban areas, the corresponding decrease in the proportion of people living in rural areas, and the ways in which societies adapt to this change.

➢ It is predominantly the process by which towns and cities are formed and become larger as more people begin living and working in central areas.

MAIN CAUSES OF URBANIZATION

Industrialization:- Due to the industrial revolution many people migrated from rural areas to urban areas for better employment opportunities. Industrialization makes it easier for people to get employment opportunities and work in modern sectors which also supports economic development.

Commercialization:- Urban areas provide better business opportunities as compared to rural areas. The distribution of goods and services in the modern era has inspired modern marketing institutions.

Rural-urban Change :- Rural areas adopt the urban culture and eventually become urban areas, and this is called rural-urban transformation.

Change In The Way Of Living:- Better employment opportunities will change the lifestyle of people living in urban areas .

Employment Opportunities:- People want better livelihoods, which is why they often move to urban areas. There are countless employment opportunities in urban areas in sectors such as education, transport, health, industry, sports, and business enterprises.

Social Benefits:- Urban areas provide many social benefits like better education, better sanitation, better standard of living, and health care which lead to better social life in general.

EFFECTS OF URBANIZATION

Overcrowding results in the development of slums

Waste disposal problem

Poor air and water quality with insufficient water availability

High energy consumption

Urbanization causes housing problems

Sanitation problem

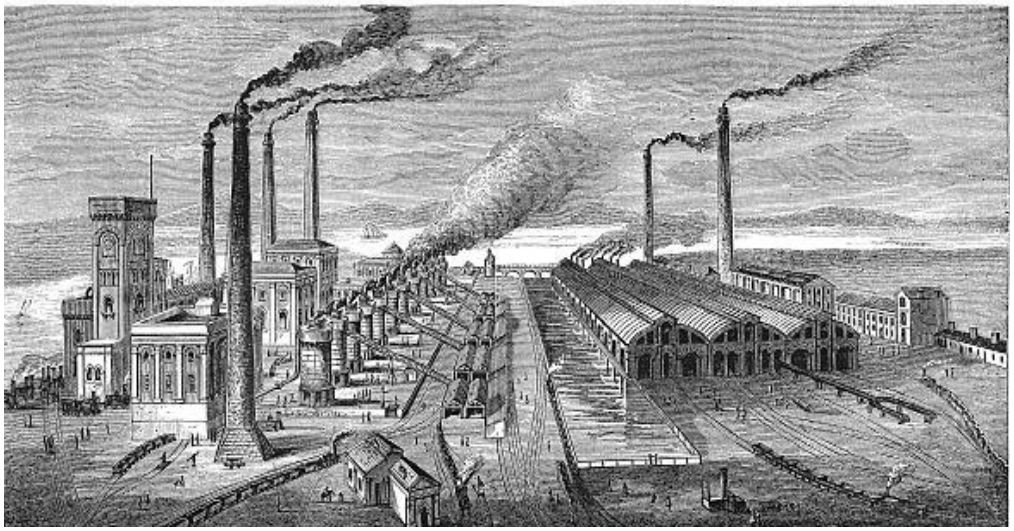
Unemployment, which sometimes leads to urban crime

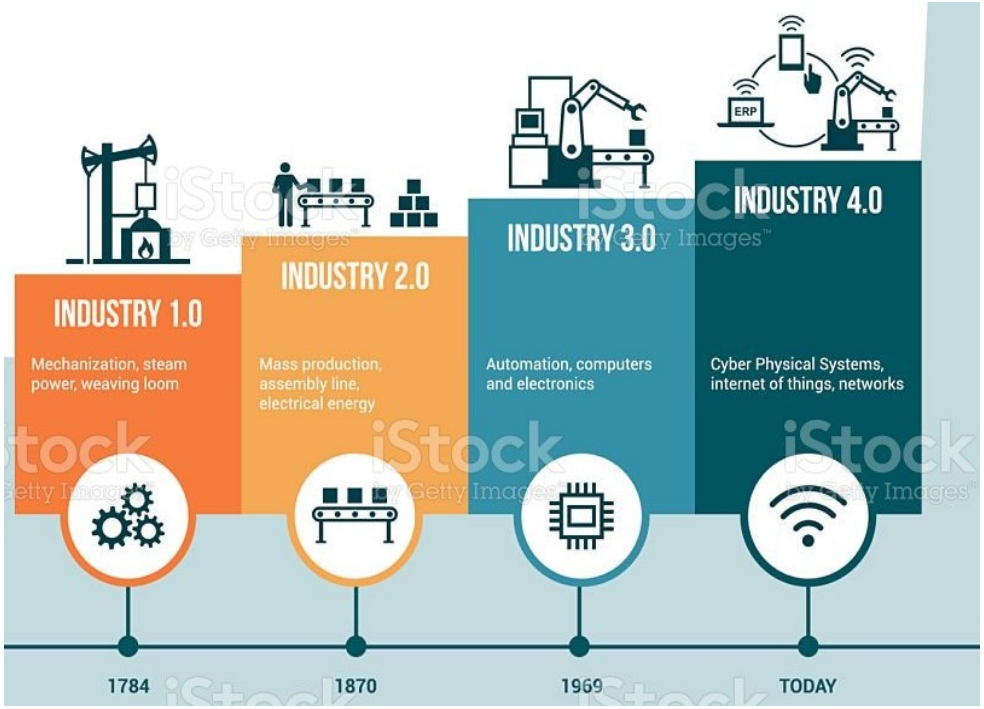
Traffic congestion

Industrialization is the process of transforming any society into an industrial society (by developing industries), whereas, in urbanization, the rural population migrates towards the urban areas.

•Industrialization is the process of conversion of any given agrarian society into an industrial society.

• Industrialization involves social and economic changes and extensive reorganization of the economy for manufacturing.





CHARACTERISTICS OF INDSUTRIALIZATION:-

•In industrialization, the cities establish multiple factories creating job opportunities that attract the rural population.

•The factories demand high labour and capital for the establishment and proper functioning.

•Industrialization offers excellent economic opportunities for small and large-scale industries.

• Industrialization provides better technological facilities for the progressive economy of the country.

•Increased standard of living.

•Increased rate of economic growth.

•Continuous technological innovation.

•Higher population growth.

EFFECTS OF INDSUTRIALIZATION

Urban residents face poor living conditions where urbanization raises various problems, for example, related to access to housing and crime.

Environmental pollution is increasing through pollution, accumulated urban waste, and greenhouse gas emissions.

Natural resources are dwindling because they are being exploited to meet the increasing demand for raw materials for the manufacturing sector.

Manufacturing expansion makes it difficult for businesses to recruit new workers, especially if they are not supported by an adequate education and training system.

Capital owners are getting richer, but workers struggle to earn more money, creating a wider wealth gap.

Mechanization in the agricultural sector leads to higher structural unemployment in this sector as some farm workers cannot upgrade their skills as the market demands.

Larger imports of raw materials and capital goods, especially if domestic natural resources are inadequate and industrialization is not directed towards building an integrated supply chain in the domestic market.

The domestic economy is more vulnerable to external and exchange rate shocks because it is increasingly connected to overseas economies through international trade and investment.

INDUSTRIALIZATION	URBANISATION
1. Industrialization is a process of social and economic change whereby a human society is transformed from a State pre-industrial to an industrial one.	1. Urbanisation is a two-way process that involves movement from villages to cities and change from agricultural occupation to business, trade, service, and profession and change in the migrants' attitudes, beliefs, values, and behavioral patterns
2. Industrialization is mainly associated with the growth of factories and industries.	2. Urbanisation is mainly associated with migration from rural and tribal areas to industrial locations.
3. Industrialization has resulted in social change in Indian society.	3. The effects of urbanisation can be seen in both rural and urban areas. Urban areas are growing in size and complexity as a result of migration.
4. Industrialization was the result of the use of heavy machinery (mechanization).	4. Modern urbanisation was a result of industrialization. People migrated to urban areas in search of employment.
5. Industrialization indirectly contributed to the breakdown of joint families and the shrinking size of families.	5. Urbanisation has led to the notion of being 'lonely in a crowd.
6. The most important aspect of the industrialization process is the division of labour.	6. Urbanisation has an impact on both rural and urban communities. Urban areas are growing size and complexity as a result of migration.

DENSITY OF POPULATION

Definition: The number of people living per unit area, usually per square kilometer or mile.



POPULATION DISTRIBUTION

Definition: The way people are spread out across a given area or region.

Types:

•Even Distribution (rare) – people spread equally.

•Uneven Distribution (common) – more people in cities, fewer in remote/rural areas.

Factors affecting it: Climate, terrain, jobs, water availability, etc.

SURVEY

Methods, techniques and types

SURVEY

Definition of Survey:- Surveys are a method of gathering information from a group of individuals by asking them questions.
Surveys can be conducted through various mediums such as paper and pencil, online forms, telephone, or face-to-face interviews.

SURVEYING TECHNIQUES

1. **SELF SURVEYS** - mailing questionnaires to the persons to be surveyed
2. **INTERVIEWS** - by asking questions to the people to be surveyed
3. **DIRECT INSPECTION** - when the surveyor himself inspects the situations concerned
4. **OBSERVERS PARTICIPATION** - when the observer himself participate in acquiring the data required

TYPES OF SURVEYS

REGIONAL SURVEYS

- Done over a region dealing with
- PHYSICAL FACTORS like topography, physically difficult land, geology, landscape etc.
- PHYSICAL ECONOMIC FACTORS like agricultural value of the land, mineral resources and water gathering lands. areas with public services, transportation linkages etc.
- SOCIAL ECONOMIC FACTORS like areas of influence of towns and villages, employment, population changes etc

TOWN SURVEYS

- Done at much small scale and apart from the above data collected from the regional surveys it also includes :

1. LANDUSE SURVEYS
2. DENSITY SURVEYS
3. SURVEYS FOR THE AGE AND CONDITION OF THE BUILDINGS
4. TRAFFIC SURVEYS
5. DIAGNOSTIC SURVEYS
6. OTHER SOCIAL SURVEYS

LAND USE SURVEY

A land use survey is carried out to collect data on the type and distribution of land use in an area. It is usually carried out along a specified line, e.g. a street.

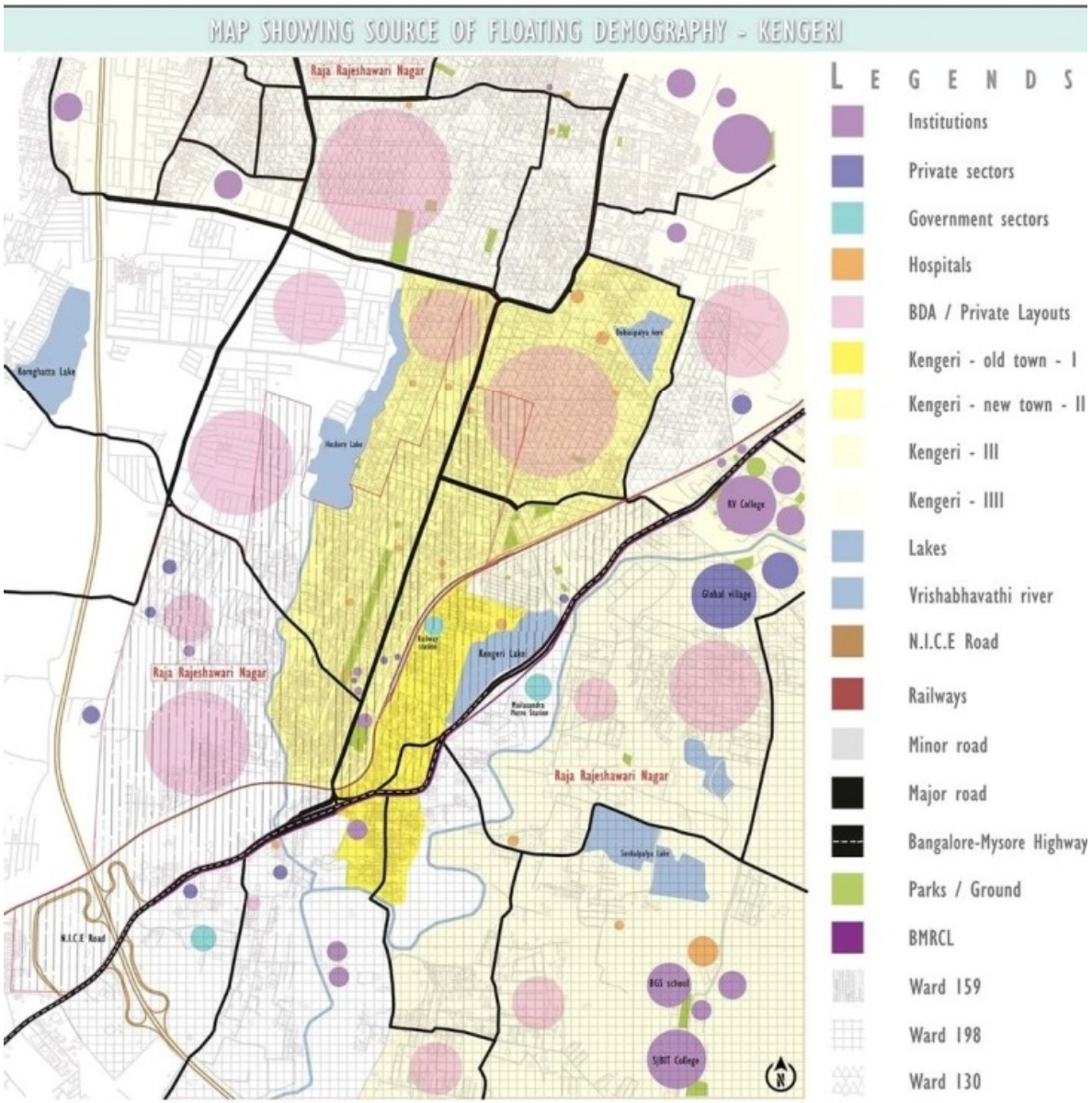
METHODS OF LAND USE SURVEY

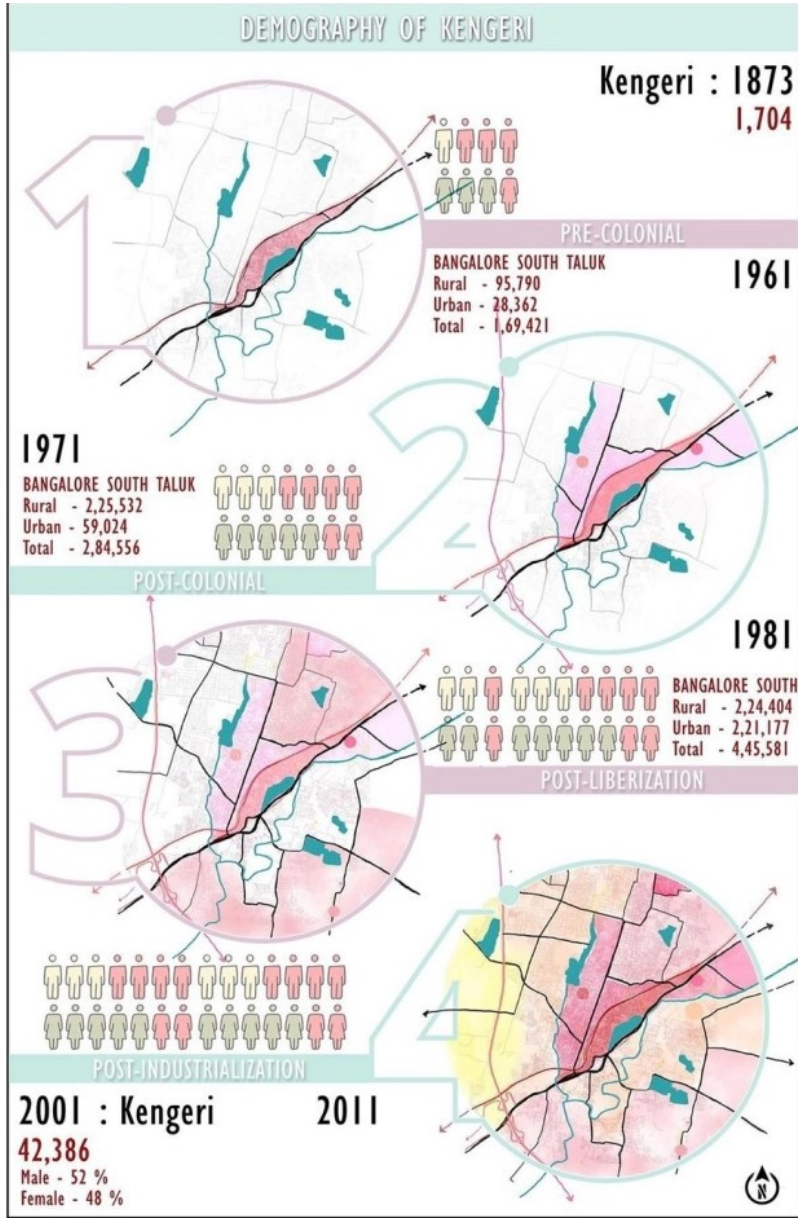
1. Foot survey - Area inspection is done on foot (walking). This is recommended for high-density areas to produce precise survey checks, specifically for the urban areas.

2. Windshield survey - is done while riding a vehicle. It involves a rapid survey of land uses particularly in low density areas. It is used for a general land use survey of the entire municipality/city.

DENSITY SURVEY

Density mapping or survey is a way to show where points or lines may be concentrated in a given area. Often, such maps utilize interpolation methods to estimate, across a given surface, where concentration of a given feature might be (e.g., population).





TRAFFIC SURVEY

•Traffic surveys aim to capture data that accurately reflects the real-world traffic situation in the area.
•It may be counting the number of vehicles using a road or collecting journey time information for example, but there are many other types of data that traffic surveys collect.

What is the purpose of Traffic Survey?

•Purpose of traffic surveys include helping to resolve national, regional and local traffic issues.
• In particular, the data gathered plays a major role in informing the decision making process in transport planning.

A traffic survey type can include many kinds of traffic data collection:

- Traffic counts survey (traffic volume counts survey)
- Turning movement counts at intersections
- Travel time survey
- Trip generation data collection
- Origin – destination data collection
- Household survey
- Transit oriented survey (Fare structure survey, Bus route Survey, Occupancy Survey, Transfer Survey)
- Other social surveys

DIAGNOSTIC SURVEY

A **diagnostic survey** in city planning is a comprehensive assessment of the current urban scenario, conducted by municipal corporations or planning authorities to inform strategic and development plans. It forms the foundation for city development strategies, master plans, or rejuvenation schemes.

Objectives of the Diagnostic Survey

- Assess the current status of urban infrastructure and services.
- Identify critical gaps in service delivery and infrastructure.
- Engage stakeholders for inclusive planning.
- Support evidence-based planning through data collection.

Primary Surveys

Primary data is collected via field surveys, including:
- Household Surveys using digital tools
- Land Use Mapping with GPS or drones
- Traffic and Transport Surveys (volume counts, OD surveys)
- Infrastructure and Utility Mapping
- Stakeholder Consultations (FGDs, public meetings)
- Environmental Monitoring (air, noise, tree census)

Secondary Data Collection

Data is gathered from existing records of:
- Census and NSSO
- Revenue and Land Records Department
- Municipal and Utility Agencies
- Pollution Control Boards
- Previous Urban Plans and Maps

Data Integration and Analysis

- Use GIS for mapping and layering thematic data
- Identify infrastructure gaps and service deficits
- SWOT Analysis of city sectors.

Prepare spatial growth patterns and density maps.

Outputs / Deliverables

- Existing Land Use Map (ELU)
- Infrastructure Condition Reports
- Socio-economic Profiles
- Traffic and Mobility Reports
- Environmental and Risk Maps
- Stakeholder Consultation Summary
- Final Diagnostic Report with recommendations

Typical Timeline

- Pre-survey preparation: 2 weeks
- Field data collection: 3–4 weeks
- Data analysis and reporting: 2–3 weeks

PHYSICAL PLANNING -I

REGIONAL PLANNING

- Definition of region
- Types of Region
- Regional planning- salient features, principles and types of regional planning
- Basic principles of regional planning

1. Urban redevelopment
2. Urban renewal
3. Rehabilitation and conservation

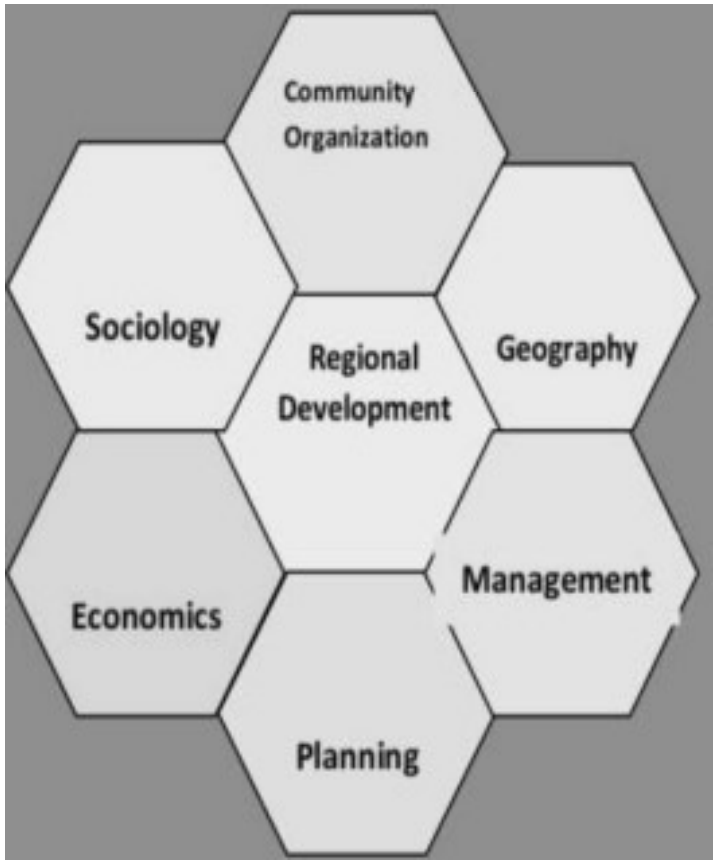
Ar. Ashwini Swamy
Ar. Priyanka K

A REGION is an area of land that has common features. A region can be defined by natural or artificial features. Language, government, or religion can define a region, as can forests, wildlife, or climate. Regions, large or small, are the basic units of geography.

A 'REGION' in planning terms can be administrative or at least partially functional and is likely to include a network of settlements and character area.

SALIENT FEATURES

- A region scheme usually **covers more than one local government area**. The content of the scheme may vary for each region, but they generally set out **broad land use zones or policy areas** and **identify land required for regional purposes.**
- Regions require various land uses; protection of Farm land, cities, industrial space, transportation hubs and infrastructure, military bases and wilderness.



TYPES OF REGION

The three main types of regions are formal, functional, and vernacular regions.

•A **formal region**, also known as a uniform or homogeneous region, is an area in which everyone shares in common one or more distinctive characteristics.
•This common characteristic could be a cultural value such as language, an economic activity such as production of a certain crop, or an environmental property such as climate and weather patterns.

•A **functional region**, also known as a nodal region, is a region organized around a node or focal point.
•The region is tied to the central point by transportation, communication systems or by economic or functional associations.

A **vernacular region**, also known as perceptual region, is a place that people exists as part of their cultural identity. Perceptual regions vary from person to person. They emerge from a person's informal sense of place.

REGIONAL PLANNING deals with the efficient placement of land use activities, infrastructure and settlement growth across a larger area of land than an individual city or town.

SALIENT FEATURES OF REGIONAL PLANNING

•Regional planning deals with the planning of areas which constitutes both urban and rural areas.

•Regional planning is an important part of city planning. It focuses on how the various aspects of a city can work together to make it function in the best way possible.

•Regional plans are generally created by metropolitan planning organizations (MPOs) though some states have started to create statewide entities to coordinate government agencies and local governments.

• It can cover from a single city or urban area to multiple cities under a region. This "region" might have undeveloped and inhabited areas too since the area covered under it is huge. Thus towns, villages, uninhabited areas, forests, wastelands, rivers and other natural features also form a part of regional planning.

•Regional planning in urban planning refers to the way in which a city's growth is planned at the regional level.

•Regional plan is formed to govern and to regulate the growth of a region.

PRINCIPLES OF REGIONAL PLANNING

1. **Principle of Vertical Unity:** The principle of vertical unity means that all phenomena (both physical and cultural) that operate in a regional space are fully integrated and interrelated with each other.
2. **The Principle of Horizontal Spatial Unity:** This principle implies that each region constitutes a sub-system of the whole regional system. Therefore, all the regions works together in case of planning. Thus, planning for any region cannot be done in isolation from the planning of the adjacent region.
3. **The Principle of Space-time Continuum:** This principle implies that spatial reality is as true as temporal entity. Therefore, for the planning of a region, time frame is also taken into consideration.
4. **The Principle of Comprehensive Development:** Comprehensive development means that the regional planning seeks to achieve the comprehensive development of the entire regional space. That means all the sectors of economy along with all the segments of society to be developed in a regional planning.
5. **The Principle of Community Development:** The principle of community development is the principle of equal opportunities to all for self development.
6. **The Principle of Equilibrium between Social Desirability and Economic Viability :**This principle implies that while planning for comprehensive development of all regions, the regional planner has to maintain a balance between what is socially and economically desirable and viable during one point of time for a particular region.
7. **The Principle of Ecological Equilibrium:** The regional planning should make the ecology and environment sustainable. In other words, all developments in a region should be carried out without disturbing the ecological balance of any region , i.e. in a sustainable way and in a friendly manner.

TYPES OF REGIONAL PLANNING

Regional planning can be classified into several types, including:

Economic Development: Economic development planning focuses on promoting economic growth and development in a particular region or area. It involves the identification of economic opportunities, the development of strategies to promote economic growth, and the coordination of various economic development activities and programs.

Land Use Planning: Land use planning focuses on the management and use of land resources in a particular region or area. It involves the identification of land use patterns, the development of policies and regulations to guide land use, and the coordination of various land use activities and programs.

Environmental Planning: Environmental planning focuses on the protection and management of natural resources in a particular region or area. It involves the identification of environmental issues, the development of strategies to address these issues, and the coordination of various environmental activities and programs.

DIFFERENCE BETWEEN CITY PLANNING AND REGIONAL PLANNING

CITY PLANNING

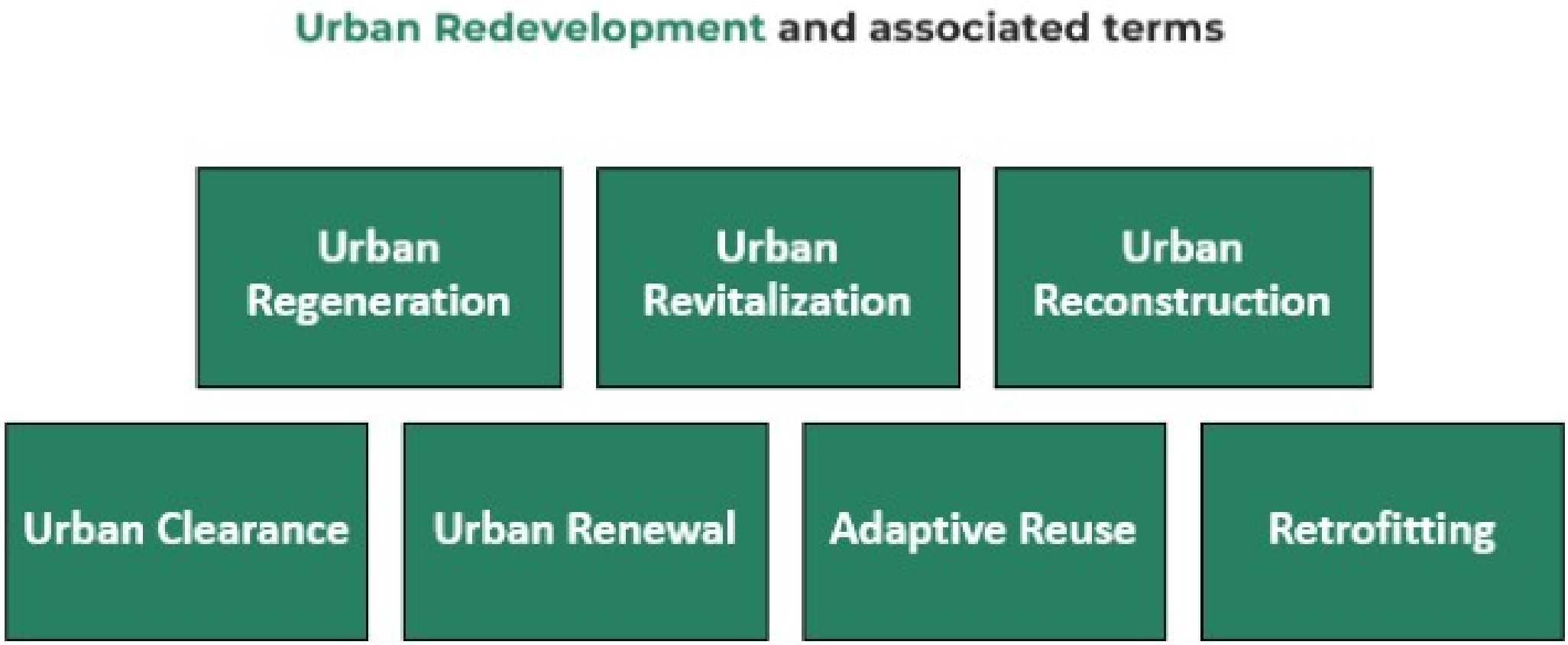
- Focuses on the land use plans, spatial growth and policies which are at local level (affecting that particular city or town).
- City planning looks as a limited area when compared to a regional plan.

REGIONAL PLANNING

- The emphasis on the policies is more.
- Those policies become the guidelines for the urban areas and their existing plans are modified accordingly.
- Regional planning is an urban planning strategy that focuses on the social, economic, and environmental development of a specific area.

URBAN REDEVELOPMENT

Urban redevelopment means demolition and reconstruction or substantial renovation of existing buildings or infrastructure within urban infill areas or existing urban service areas.



URBAN RENEWAL

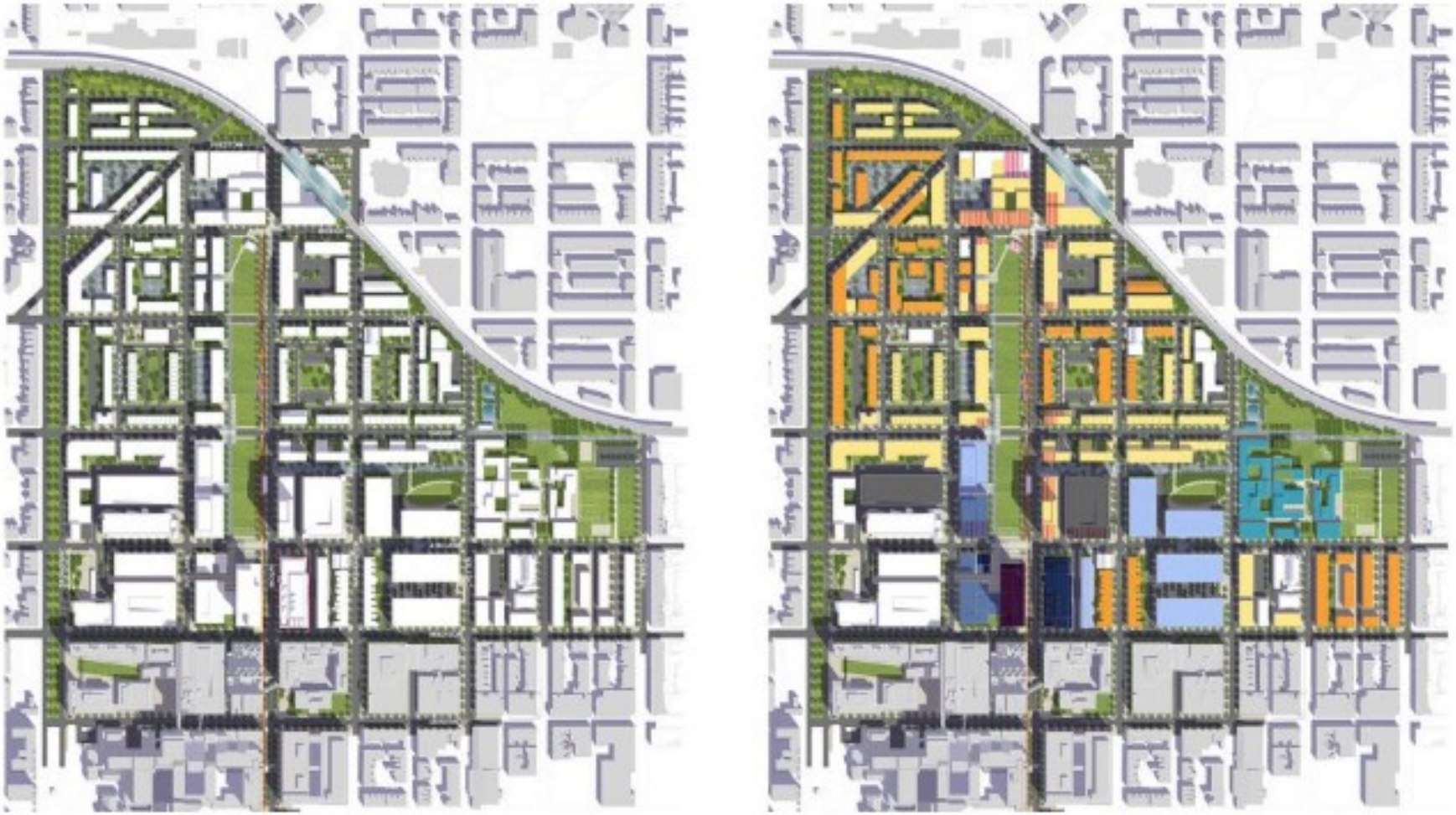
It is a program of land redevelopment in areas of moderate to high density urban land use.

It involves recreating the urban fabric based on morphological and functional improvements after demolishing the existing buildings.

URBAN REHABILITATION

•Aims mainly at regenerating and conserving the built heritage or the urban environment, including the ecosystems.

•The reuse of land helps in the revitalization of communities and improves economic activity by increasing community spirit, creating new jobs, and boosting local tax revenues.



The East Baltimore Revitalization Initiative

URBAN CONSERVATION

Urban conservation is concerned with those parts of the built environment that are of architectural or historic significance. This includes buildings (individually or in groups), localities (streets, blocks, environments or precincts), special gardens or landscapes, and other important structures which are of some significance.