

## Chapter one

### 1.1 The subject matter of urban sociology

Urban sociology is a branch of sociology that deals with the impact of city life on social action, social relations, social institutions, and the types of civilization derived from and based on urban mode of life. Urban sociology examines a great deal of issues including:

1. Understanding and explaining the socio-cultural and behavioral peculiarities of urban residents and the urban community. The value, sentiments, desires etc. Of urban communities in contrast to that of the rural characteristics.
2. Ecological organization and socio geographic differentiation of cities, spatial distribution and structure of cities, interrelationships and interactions among the different socio geographic regions (suburbs, slums).
3. Social and cultural changes in the organizational structure and functioning of the different sub areas of the city. Causes and consequences of social change. Reactions to the process of social change including maladjustment, conflict, harmony, etc among the different urban groups.
4. History of urbanization to provide perspectives and comparative materials on earlier urbanization.
5. Explanation of urban demographic characteristics including population size distribution etc.
6. The nature of and solutions to urban social vices such as crime, delinquency, drug abuse, pollution, congestion, housing, unemployment etc.

Urban sociology draws upon information from different sources and disciplines such as education, health, courts, police, etc. economics, public administration, social psychology, history, etc.

Sociologists are interested in urbanization because the urban mode of life is becoming more and more dominant.

#### Illustration

Percentage of world population living in places of 5000 and more population

Year	% of urban population
1800	3%
1900	14%
1950	28%
1980	45%
2000	55%
2025	64%

The above table indicates that the settlement pattern of the human population which was dominantly rural has been in a process of reversal and the rural population is diminishing through time while the urban share is growing. Before the industrial revolution, the proportion of the rural population was very large while after the industrial revolution the urban population has been in a radical increase. It is estimated that by the year 2025 about 64% of the world population would be urbanite. According to Kingsley Davis, the reasons why sociologists are interested in urban phenomenon include:

1. Urban mode of life is recent phenomenon in the history of mankind.
2. Urbanization has brought revolutionary changes in the whole pattern of social life. It tends to affect every aspect of human life, social institutions, production systems, transportation etc.

3. Urban centers tend to be centers of power and influence throughout the whole society. The most important economic activities (trade, communication, administration etc) are concentrated in urban areas. Cities are centers of political power and residence of emperors and presidents(governors)
4. The process of urbanization is still occurring and its direction is uncertain. There are many problems associated with urbanization

### ***1.2. Sociology as an Urban Enterprise***

- Industrialization and Urbanization in 19th century were the great massive transformations that crossed human beings' mode of production, technological innovations and social relationships. This means sociology rooted itself to study the social problems of these great trends and it is all about Urban and thus sociology is an urban enterprise. The massive transition has transformed:
  - Social Organizations E.g. formal/ bureaucratic organizations appeared with poor working conditions in factories
  - Social structures E.g. Property ownership such as land were shifted, family structure has changed and size diminished , child labor exploitation increased
  - Mobility of the society , particularly rural -urban migration
- Classical sociologists such as Comte (social statics & dynamics), Durkheim (Organic & mechanical solidarities), Marx (exploitation, alienation & surplus value) and Weber (rationalizations and bureaucracy) were concerned with the cause and consequences of the transformations and possible solutions for the created social problems.

- The shining work of these pioneers of sociology in turn highlights the concern of sociology as an urban enterprise.

### 1.3. Definition and measurement of concepts

a) **Urban settlement:** defining the concept urban settlement is not an easy task. There is no single definition to which every body agrees. Thus, different approaches have been developed to define the concept "urban settlement"

- Economic
- Demographic
- Political/administrative/legal
- Cultural/social relations
- Multiple factors definition

**Demographic definition:** focuses on statistical considerations. According to this approach, urban settlements are those settlements that have certain number of population. This certain number varies from country to country.

For example in:

Botswana  $\geq 5000$

Ethiopia  $\geq 2000$

USA  $\geq 2500$

Peru  $\geq 100$

Canada  $\geq 1000$

Japan  $\geq 50,000$

Denmark  $\geq 250$

**Administrative definition (legal):**

A place is said to be an urban settlement through declaration (charter granting) by authorities.

**Economic definition:** focuses on occupation. Accordingly, an urban settlement is where the majority of the inhabitants are engaged in other than agriculture like trade, industry. It does not mean that the total absence of agricultural activities. It has to mean that agriculture is not dominant.

**Social relation definition:** defines urban, as a locality, which has become large, and the inhabitants do not know another. There is greater face to face contact but the chance of people to know each other is low.

**Multiple factors definition:** since no single definition gives us sufficient meanings for urban settlement, several factors have to be considered. In this regard, Alvin Boskoff defines an urban locality as "a community or complex of communities characterized by dominance of commercial, industrial and service occupations, and extensive division of labor and corresponding social complexity; an accompanying high density of population and the development of coordination and social control on non-kinship basis.

This definition is probably the most comprehensive one.

In order to avoid confusion, the UN has tried to develop its own definition particularly for the purpose of international comparison. This definition is based on demographic factors.

The UN has identified 3 categories of urban settlements:

1. big city=has at least 0.5 million population
2. city=has at least 100,000 population
3. urban locality=has at least 20,000 population

UN uses this classification when publishing statistical data. But the problem with this classification is that it is not adopted by many countries since different countries make their own local definition, there is a problem of standard meaning for an urban settlement.

We can think of an urban settlement as being composed of three functionally interrelated and distinct parts.

1. cities
2. suburbs
3. exurbs

*Suburbs* are settlements which develop around the city. These are adjacent to the city and are established for different purposes; commercial, industrial, residential, etc. such suburbs together with the city are referred to as metropolitan center.

*Exurbs* are recent phenomena which came after suburbanization. Exurbs refer to those settlements beyond the suburbs. Such communities are found within 50 to 80 kms. away from the city center. exurbs are part of the urban pattern since their inhabitants have the same lifestyle to the residents of the city. They work in the city or in adjacent suburbs. Exurbs are particularly common experience of developed countries. The spread of exurbs is very much connected with private vehicles and advanced road facilities.

#### **1.4. Urbanization**

Urbanization is the process of population concentration in urban areas. It involves the movement of people particularly from rural areas to urban areas. There are two simple measures of urbanization:

1. Level of urbanization growth
2. Rate of urbanization

$$\text{Level of urbanization} = \frac{\text{urban population}}{\text{Rural population}} = \text{ratio}$$

or

$$\text{Level of urbanization} = \frac{\text{urban population}}{\text{rural population}} \times 100 = \%$$

$$\text{Rate of urbanization} = \frac{\text{current year urban population} - \text{previous year population}}{\text{previous year population}}$$

$$\text{RU} = \frac{\text{cyup} - \text{pyup}}{\text{Pyup}} \times 100$$

Sociologists see urbanization as resulting from three interrelated factors

1. Significant increase in the population of a given geographic area.
2. The corresponding increase in social density resulting from the population increase.
3. The increasing heterogeneity of people as more and more diverse people are drawn to the grown urban settlement. From these three factors arise a number of organizational consequences the most important of which is the social division of labor in economic activities.

### **Urbanism**

It refers to the cultural component associated with urbanization. It includes a range of beliefs, values and rules of behavior which are assumed to be associated with urbanization.

NB: While urbanization is the state of population concentration in urban areas, Urbanism is the way of life of people living in urban areas.

Louis Wirth has given four characteristics of urbanism.

- **Transiency:** An urban inhabitant's relation with others last only for a short time; he tends to forget his old acquaintances and develop relations with new people. Since he is not much attached to his neighbors' members of the social groups, he does not mind leaving them.
- **Superficiality:** An urban person has the limited number of persons with whom he interacts and his relations with them are impersonal and formal. People meet each other in highly segmental roles. They are dependent on more people for the satisfaction of their life needs.
- **Anonymity:** Urbanities do not know each other intimately. Personal mutual acquaintance between the inhabitants which ordinarily is found in a neighborhood is lacking.
- **Individualism:** People give more importance to their own vested interests.

**Metropolitan city** is a kind of city where a major city center becomes surrounded by a complex of suburban communities densely populated and economically integrated.

A **Conurbation**- a cluster of cities and towns forming a continuous network- may include even larger numbers of people.

- It also implies the fusion of several pre-existing cities.
- The peak of urban life today is represented by what is called the **megalopolis**, the 'city of cities.'
- The term "megalopolis" as coined by the French geographer Jean Gottmann, is generally applied to an urbanized region that contains several metropolitan areas.
- The term was first applied in relation to the north-eastern seaboard of the united states, a conurbation covering some 450 miles from north of Boston to below Washington, DC.
- In this region, about 40 million people live at a density of more than 700 per square mile.

### **Rural-urban differences:**

We can have at least eight characteristics in which the urban settlement varies from rural settlement

#### 1. Occupation

2. Environment
3. Community size
4. Density of population
5. Heterogeneity and homogeneity
6. Social differentiation and stratification
7. Social mobility
8. System of interaction

1. **Occupation:** there is substantial difference between rural and urban areas with respect to occupation, agricultural occupations dominate in rural areas and non agricultural activities dominate in urban areas. One way of distinguishing urban areas from rural areas is by looking at the occupational pattern. Occupation seems to be the most.

2. **Environment:** in rural areas the influence of man on nature is very limited, and natural environmental features predominate. In urban areas the environment is more of artificial or changed.

3. **Community size:** in rural areas people live in small villages, communities, and the urban communities are large and complex.

4. **Density of population:** in rural areas there is sparse population settlement while in urban areas the settlement pattern is dense.

5. **Heterogeneity and homogeneity of population:** the population of urban areas is highly heterogeneous and that of rural areas homogeneous. In urban areas different people come from different sociocultural and economic experiences (culture, language, ethnicity, religion, custom, etc.) in rural areas villagers have similar life styles dominated by kinship ties.

6. **Social differentiation and stratification:** there is extensive division of labor in urban areas and as a result a variety of specializations and

professions exist. In rural areas the job opportunities are limited and so there is no wider gap between income groups. The level of stratification is low in rural areas.

7. **Social mobility:** social mobility is the movement of people from one social class to another. In urban areas social mobility is open while in rural communities it is not open to every body. In rural communities there is no free movement of individuals in the social strata. But one can upgrade his social status through achievement in education, training or work if he is an urbanite.
8. **System of interaction** in rural areas primary forms of interaction dominate while in urban areas secondary/formal/interaction prevails more. Occupation seems to be the most important characteristic distinguishing urban from rural settlements.

## Chapter two

### 2.1. The urban dimension and world urbanization: Historical review

The births of cities have been traced back from the beginning old stone age. During this age, human beings led nomadic life. People were primarily food gatherers and hunters. The limited supply of wild food permitted only very small number of regions to exist in a given area. With the Neolithic period man discovered, among other things, how to domesticate plants and animals. This was a remarkable change in human mode of life. Once he adopted agriculture he had to live near the farm. It is at this time that settlement began. These villages were initially small due to the low productivity of agriculture.

The first cities seem to have appeared during the metal age. There is no agreement on the exact time when early urban settlements emerged. Sociologists

are interested more on the factors which are responsible for the emergence of early urban settlements rather than in determining the exact time of urban emergence. Different explanations have been given for the emergence of early urban settlements. For our purpose, we will consider three approaches

1. Philip M. Hauser
2. Gidion sjoberg
3. Margaret Murray

**1. Philip M. Hauser**

Philip M. Hauser identified four preconditions for the emergence of urban settlements

1. the size of the total population
2. the control of natural environment
3. technological development
4. developments in social organization
  - There must be a certain minimum number of populations to allow urban life.
  - The environment must be amenable in the sense that it meets at least minimal requirements for aggregative living. The earliest cities were located in river valleys and alluvial plains.
  - Technological development: he argues that a technological invention of the Neolithic revolution, particularly the domestication of plants and animals was an important factor for the emergence of permanent settlement. For the emergence of urban settlements, development of agricultural technology had a great importance. With the development of agricultural technology, surplus food productions become possible. The production of agricultural surplus made it possible for some persons to engage in activities other than agriculture.

- Development in social organization: a relatively large aggregate of population required more complex social organization to facilitate exchange among the emerging specialists(agriculturalists and non-agriculturalists).

Integration and coordination activities required the emergence of kinship systems, clergy and empires.

With the agricultural revolution, peasantry life become habitual and the reliability of food supply was ensured. This in turn led to population pressure and the growth of villages in to urban centers. Social division of labor began to develop. These developments required complex social organization to facilitate exchange and relationships among the different specialists.

2. **Gideon Sjoberg**(urban sociologist) identified three preconditions for the emergence of cities, which are similar with the conditions proposed by Philip M.Hauser.

1. favorable ecological base
2. an advanced technology
3. complex social organization

Both scholars mentioned technological development as the criteria for the emergence and growth of towns. Hence in many cases, level of urbanization is considered as a proxy for development. But there are many countries that are highly urbanized and yet not developed. For example Saudi Arabia and Latin American countries that are highly urbanized even more than USA but they are by far less developed than USA.

Further more, since there is no a uniform definition of urban settlement, level of urbanization is not the same across different countries for example,30% level of urbanization in Ethiopia may not be the same with 30% level of urbanization in Egypt.

3. Margaret Murray: argues that the first city occurred during the metal age. The introduction of metallurgy had significant consequences. She points that the users of metal arms had military superiority over the users of crude stone weapons. Neolithic peasants who do not know how to make weapons from metals were victims to invaders armed with metal arms. The conquerors become lords and the victims become serfs. The lords selected islands and hilltops as their settlement places in order to dominate the hinterland and facilitate both attack and defense.

The warrior groups provided protection to the peasants and in return, they took part of the crop produced by the peasants. The portion of crops to be given was fixed by the warrior groups since the peasants were helpless in such matters. It is postulated that the first cities were permanent army camps (garrisons)

## 2.2. Distinct Phases of Urbanization

We can identify four phases of urbanization

1. ancient urban settlements
2. the Greco-roman cities
3. pre industrial cities
4. industrial and modern cities

1. Ancient cities: ancient cities were small by modern standard. They were small walled areas surrounded by agricultural hinterland. Neneve, Babylon, Uruk were significant cities at their time. But they could not support much population as the cities of today. The issue of transport and sanitation these not allow huge population. earlier cities have to be walled for the purpose of defense.

In his article "the origin and growth of urbanization" Kingsley Davis provides the following explanation as to why ancient cities were small.

1. The backward, static and labor intensive nature of agriculture and transportation. Agriculture was so cumbersome that it took many cultivators to support a man in the city. The technology of transport was also a limiting factor. The boat, pack animals and the human bearer were all insufficient.
  2. Political limitations: the difficulty of communication and transport and the existence of multi-furious local tribal cultures made the formation of large national units virtually impossible.
  3. Lack of scientific medicine which make urban living deadly.
  4. The fixity of the peasants on the land which minimizes rural-urban migration.
  5. The absence of large scale manufacturing.
  6. The bureaucratic control of the peasantry which stifled free trade in hinterland.
  7. The traditionalism and religiosity of all classes which hampered technological and economic advance.
- Babylon embraced an area of 3.2 square miles
  - Ur with its canals, harbors and temples occupied some 220 acra (≈ 500 persons)
  - The walls of erech encompass an area of only two square miles(≈ 25,000 persons)

Agglomeration of people in ancient urban centers made it possible the development of urban culture focusing on manufacturing and services and resulted in a more elaborated social division of labor. Permanent markets were

created, kinship and dynamic political systems appeared. Originally, warrior groups were selected to serve during times of external conflict. Later, the warriors were retained even during times of peace.

### **1. the Greco-Roman cities**

The second phase in the history of urban centers was observed in Europe. This took place approximately between 600BC and 400AD. Roughly it covered about 1000 years. For instance Athens had a population of about 120 to 180 thousand inhabitants during the 5<sup>th</sup> century BC.

The economy of greeco-roman cities was agricultural. Yet, major stimulating factors for the development of urban center were:

1. improvements in iron tools and weapons
2. improvements in sail boats, better and bigger ships were produced
3. Production of cheap coins to facilitate exchange of goods and services. heavy and perishable exchange materials were replaced by coins.
4. The development of alphabetic writing: pictorial writing systems were replaced by alphabetic writing and this had facilitated communication.
5. Emergence of more democratic institutions.

All of the above factors helped to increase production, stimulate trade, expand effective political unit and political control. In spite of the fact that greeco-roman cities had several; thousands of population, they were conquered by the less urbanized outsiders (barbarians or Germans). The collapse of greeco-roman cities brought about the period commonly known as "the dark age" which extended from 5<sup>th</sup> to 10<sup>th</sup> century. The disintegration of Roman Empire led to the birth of feudalism in Western Europe and the Byzantine empire in the eastern half of Europe. During the Dark Age local communities become isolated, national states died, and trade and commerce collapsed.

## 2. pre industrial cities

With the end of the dark ages, cities began to develop once again. Preindustrial cities refer to medieval European cities; they were simply cities of feudal Europe. Many of these cities are now quite large and become metropolitan centers. For instance

Florence had 90,000 populations in 1339

Venice had 119,000 populations in 1322

London had 30,000 populations in 1377

Frankfurt had 20,000 populations in 1440

Gideon Sjoberg, in his article "the preindustrial city" analyzed medieval cities in terms of their

1. ecological organization
2. economic organization
3. social organization

1. **Ecological organization:** preindustrial cities were centers of marketing, Manufacturing activities. In addition they perform religious, political and educational functions. The proportion of urbanites relative to peasants was small most not more than 10%. This is due to the non industrial nature of the total social order. The amount of surplus food has been limited by the unmechanized agriculture, transportation facilities utilizing primarily human or animal power and inefficient methods of food preservation and storage. The internal arrangements of cities was that they were divided into quarters or wards encircled by walls reflecting sharp social divisions.

Distinct ethnic and occupational groups like gold smiths, live in special sections. This social segregation and the limited transportation facility have encouraged

the development of well defined neighborhoods which are almost primary groups. Out casted groups live on the periphery.

Most streets of the cities were narrow there was no need to have wised streets. Carts were used as a means of transport. Buildings were short and crowded together, high rising buildings were not known. There was no such urban planning practice.

There is no functional specialization of land use. Dwellings serve as workshops. Mosques and cathedrals were schools, market places and focal points of community life.

## **2. economic organization**

Sjoberg identifies some of the major economic structures of the preindustrial cities:

- a. dependence on animate source of energy for the production of goods and services(hammers, pulleys, wheel)
- b. Little specialization of work: the handicrafts man participates in nearby every phase of the manufacture of an article, often carrying out the work in his own home or in a nearby small shop. He works with in the limits of certain guild or community regulations maintaining direct control over conditions of work and methods of production.

There are no specialized managerial groups and control others.

- c. Non standardization of products: there is no standard method of production, standardized measure of quality and quantity of goods and standard price.
- d. Work is performed at home or in the near by shop. Work place and residential places are not separated.

e. Occupational groups such as smiths are organized in guilds. Guilds have been established for all types of economic activities like merchants, handicraft workers, servants, entertainers, etc.

3. **Social organization:** the literate elite class is composed of individuals holding positions in the governmental, religious and/or educational institutions. They belong to the "correct" families and enjoy power, property and certain highly valued personal attributes. Their position is legitimized by sacred writings. The masses are composed of such groups as handicraft workers.

Social mobility is minimal and outcaste groups such as slaves and beggars are not an integral part of the dominant social system. They rank lower than the urban lower classes performing tasks considered degrading.

The formal government was closely related with educational and religious institutions. The principal functions of the government were a) extracting tribute to support the activities of the elite group b) maintaining law and order. Formal education was restricted to the male elite, its purpose being to train individuals for positions in the governmental, educational or religious hierarchies.

The kinship and familial organization displays some rigid patterns of sex and age differentiation marriage is a prerequisite to adult status and arranged between families rather than somatically by individuals. A formalized system of age grading is an effective mechanism of social control among siblings the eldest son is privileged. Children and youth are subordination to parents and other adducts. This combined with early marriage inhibits the development of a youth culture. Older persons hold considerable power and prestige, which contributed to the slow pace of change.

#### 4. Modern cities

##### Industrial city and Metropolitan Area

With the coming of industrialization new means of transportation were introduced. The horse is replaced by the vehicle the walls around cities were no more important. New arms and defense instrument were fabricated. The industrial revolution was the outcome of new technology facilitated by extensive use of inanimate power (coal, steam, etc).

The advancing production technology and the development of the factors system created rising demands for waged labors. This led to massive immigration of people to the growing urban centers. Improvement in agricultural technology also forced people to migrate from the rissole areas to urban center looking for employment.

The process of urbanization took further leap during the 20th century particularly following the Second World War. The period experienced increasing size of urban centers (metropolitan Zion) and emergence of new urban centers.

**Metropolises** are a situation where a major city center becomes surrounded by a complex of suburban communities densely populated and economically integrated.

**Conurbation:** implies the fusion of several pre-existing cities

**Megalopolis:** Urbanized region that contains several metropolitan areas.

#### 2.3. Functional classification cities

Cities are settlements where a number of activities are done. In this sense all cities are multifunctional whatever they are small. It is possible to categorize urban centers based on the major activities they carry out.

Economic centers

Political centers

Cultural centers

Residential centers

Recreation centers

Symbolic center

Diversified centers

### 1. Economic Centers

- a) Centers of primary production mining, oiling, fishing towns like zaway., Arba Minch
- b) Manufacturing centers kality, Wonji, Akaki,
- c) Trade centers national or interactional trade centers like
- d) Transport centers ports and train centers
- e) Service centers financial service like banking insurance

### 2. Political centers: political iterative centers a

t international nations and regional levels e.g. Washington DC, London, Paris, Geneva, Addis Ababa, Bahirdar, Awassa etc.

Most of Ethiopian centers are of political nature. Their major function performed is administration at woreda, zone, region and federal levels. Under political centers we have military centers including fortress bases and training centers. Eg. Debrezeit, Jigjiga

**3. Cultural centers:** are towns where the majority of their activities are basically cultural. Religious cultural centers include cities like Jerusalem, Meka, Lalibela and Axum. Secular cultural centers are centers of teaching and educational centers. like Alemaya. Muzium centers where visitors are attracted, and cities where films and videos are produced are also cultural centers. Eg. Holly wood

**4. Recreational enters:** towns where recreation facilities attract people. It is difficult to identify such a center in Ethiopia. It is difficult to identify such a

center in Ethiopia. In more developed countries there are many of them because people spend part of their time in recreation centers. Transportation facility and income level of the population determine the existence of such centers.

**5. Residential centers:** dormitory suburbs, retirement centers where residents work somewhere else.

**6. Symbolic centers:** towns that are unique symbols of a country. Rome is a symbolic city of Italy and Bethlehem in Israel is symbolic for Christians of the world.

**7. Diversified centers:** at times it becomes difficult to classify urban centers into a specific category due to the absence of one dominant activity. Then we group such urban centers as diversified centers.

## **Chapter three**

### **3.1. Physical and ecological patterns of the city**

#### **3.1.1. Central place theory**

Central place theory is a spatial theory in urban geography that attempts to explain the reasons behind the distribution patterns, size, and number of cities and towns around the world. It also attempts to provide a framework by which those areas can be studied both for historic reasons and for the locational patterns of areas today.

The theory was first developed by the German geographer Walter Christaller in 1933 after he began to recognize the economic relationships between cities and their hinterlands (areas farther away). He mainly tested the theory in Southern Germany and came to the conclusion that people gather together in cities to share goods and ideas and that they exist for purely economic reasons.

Before testing his theory however, Christaller had to first define the central place. In keeping with his economic focus, he came to the conclusion that the central place exists primarily to provide goods and services to its surrounding population. The city is in essence, a distribution center.

### **Christaller's Assumptions**

To focus on the economic aspects of his theory, Christaller had to create a set of assumptions. He decided for example that the countryside in the areas he was studying would be flat, so no barriers would exist to impede people's movement across it. In addition, two assumptions were made about human behavior: 1) Christaller stated that humans will always purchase goods from the closest place that offers the good, and 2) whenever demand for a certain good is high, it will be offered in close proximity to the population. When demand drops, so too does the availability of the good.

In addition, the threshold is an important concept in Christaller's study. This is the minimum number of people needed for a central place business or activity to remain active and prosperous.

This then brings in the idea of low-order and high-order goods. Low-order goods are things that are replenished frequently such as food and other routine household items. Because these items are purchased regularly, small businesses in small towns can survive because people will buy frequently at the closer locations instead of going into the city.

High-order goods though are specialized items such as automobiles, furniture, fine jewelry, and household appliances that are bought less often. Because they require a large threshold and people do not purchase them regularly, many businesses selling these items cannot survive in areas where the population is

small. Therefore, they often locate in large cities that can serve a large population in the surrounding hinterland.

### **Central Place Size and Spacing**

Within the central place system, there are five sizes of communities. A hamlet is the smallest and is a rural community which is too small to be considered a village. Cape Dorset (population 1200), located in Canada's Nunavut Territory is an example of a hamlet. The rank order of central places is:

- Hamlet
- Village
- Town
- City
- Regional Capital

Examples of regional capitals would include Paris, France or Los Angeles, California. These cities provide the highest order goods possible and have a huge hinterland.

### **Central Place Theory Geometry and Ordering**

If visually imagined, the central place is located at the vertexes (points) of equilateral triangles. They then serve the evenly distributed consumers who are closest to the central place. As the vertexes connect, they form a series of hexagons- the traditional shape in many central place models.

This shape is ideal because it allows the triangles formed by the central place vertexes to connect and it represents the assumption that consumers will visit the closest place offering the good.

In addition, the central place theory has three orders or principles. The first is the marketing principle and it is shown as  $K=3$  ( $K$  is a constant). In this system,

market areas at a certain level of the central place hierarchy are three times bigger than the next lowest one. The different levels then follow a progression of threes, meaning that as one moves through the order of places, the number of the next level goes up three times. For example, when there are two cities, there would be six towns, 18 villages, and 54 hamlets.

There is also the transportation principle ( $K=4$ ) where areas in the central place hierarchy are four times bigger than the area in the next lowest order. Finally, the administrative principle ( $K=7$ ) is the last system and here, the variation between the lowest orders and highest orders increase by a factor of seven. Here, the highest order trade area completely covers that of the lowest order, meaning that market serves a larger area.

### **Losch's Central Place Theory**

In 1954, German economist August Losch modified Christaller's central place theory because he believed it was too rigid. He thought that Christaller's model led to patterns where the distribution of goods and the accumulation of profits were based entirely on location. He instead focused on maximizing consumer welfare and creating an ideal consumer landscape where the need to travel for any good was minimized and profits were held level, not maximized to accrue extra.

### **Central Place Theory Today**

Though Losch's central place theory looks at the ideal environment for the consumer, both his and Christaller's ideas are essential to studying the location of retail in urban areas today. Often, small hamlets in rural areas do act as the central place for various small settlements because they are where people travel to buy their everyday goods. However, when they need to buy higher value goods

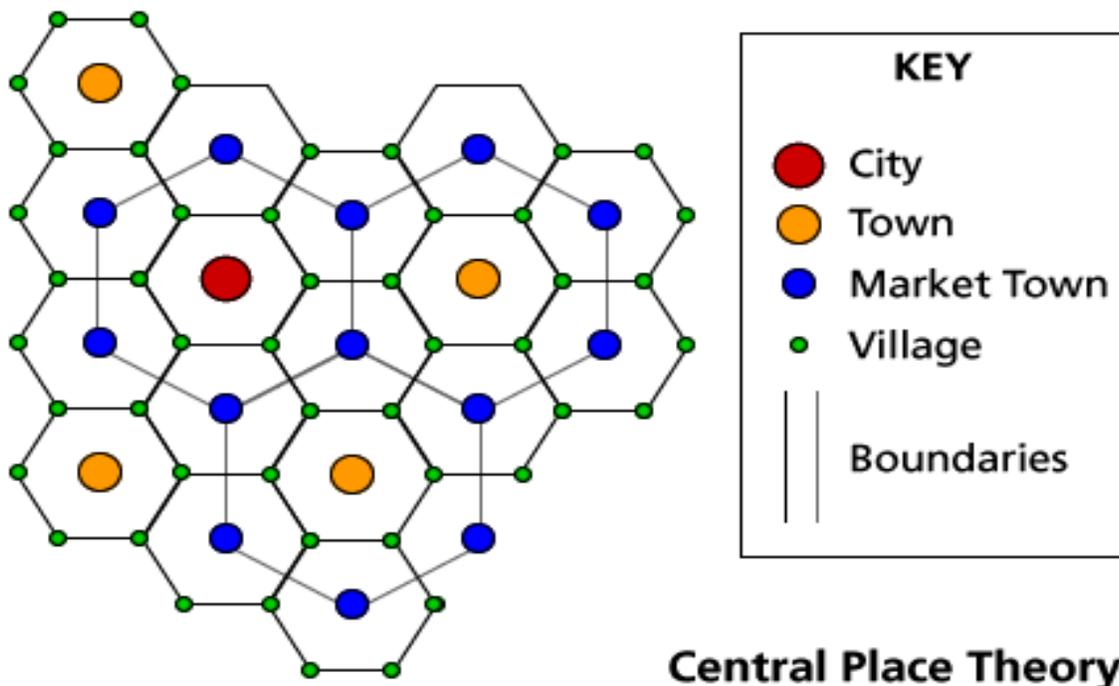
such as cars and computers, they have to travel into the larger town or city -- which serves not only their small settlement but those around them as well. This model is shown all over the world, from rural areas of England to the United States' Midwest or Alaska with the many small communities that are served by larger towns, cities, and regional capitals. The central place theory tries to answer the question "what determines the number, size and distribution of towns?" Imagine a flat homogeneous plain with an even population distribution. The people on this plain require goods and services such as groceries, cloths, furniture, access to doctor etc. these goods and services have two important characteristics; range and threshold. The range of a good is the distance over which people are prepared to travel to purchase the good.

The threshold of a good is the minimum population necessary to support the continued supply of the good. The goods and services with large threshold and extensive ranges are termed higher order goods and services. Lower order goods and services have small thresholds and restricted ranges we would expect to find higher order goods and services to be located in the larger towns where there are large threshold population. A large number of widely distributed small places would provide lower order goods and services. There would be a smaller number of larger centers providing both lower order and higher order goods and services.

Every town acts as a center for the surrounding hinterland. Central places came in to being in order to carry out functions for the surrounding hinterland, mainly as the mediator of local commerce. Whatever is produced in the hinterland comes to the town and then exported to the outside world, and the vice versa. Hence every town has a sphere of influence.

Walter Christaller, a German geographer published a book entitled "central place theory" (1933). He said that towns with the lowest level of specialization would be equally spaced and surrounded by hexagonally shaped hinterlands.

For every six of these towns, there would be a larger more specialized city, which in turn would be situated an equal distance from other cities with the same level of specialization as itself. Such a city would also have a larger hexagonal service area for its own specialized services. Even more specialized settlements would also have their own hinterlands and be located at an equal distance from each other.



## NATIONAL URBAN SYSTEMS

We have three types of urban systems

1. The primate pattern: where the biggest city holds 30% or more of the total urban population. The primate city is four or five times larger than the next largest city. It dominates all economic, political and socio-cultural activities of the country. This pattern of urbanization is the feature of underdeveloped countries and countries with colonial past
2. Rank size rule pattern: This shows a vertical relationship between the number and  $p$  [population size of cities. If urban settlements are ranked in a descending order of population size from one to  $n^{\text{th}}$ , then the population of the  $n^{\text{th}}$  settlement will be  $1/n \times$  the **size of the largest city**. This kind of urban pattern is characteristic feature of economically developed and self sufficient countries.
3. Intermediate size distribution: is a situation where either large or small towns are missing. E.g. in Australia small cities are missing and in Canada very large cities are lacking.

### 3.1.2. The concentric zone theory:

**Concentric zone theory** A diagram of the ecological structure which, in the words of its author, 'represents an ideal construction of the tendencies of any ... city to expand radially from its central business district' (R. Park and E. Burgess, *The City*, 1925).

The theory posits concentric zones round the central area, defined by their residential composition, moving from the very poor and socially deviant, in the inner zone of transition, to a peripheral suburban commuter ring. This model is

based up on the notion that the development of a city takes place outwards from the central area to from a series of concentric zones.

The first and smallest zone is the central business district (CBD). This is the focus of commercial, social and cultural life of the city, and corresponds with the area of highest land values. Only those activities whose profits are high enough to pay high rents can be located in this area. The heart of the Zone is the down town retail district with its large department stores and smart shops, but, the area also contains the main offices of financial institutions, the headquarters of various political organizations, the main theaters and cinemas, and the more expensive hotels. The CBD is the most generally accessible area in the city and has the greatest number of people moving in to and out of it each day. The main transport terminals are located there.

Zone II is characterized by residential deterioration its population is heterogeneous ranging from the mentally disoriented and the criminal to the cosmopolitan, the ethnic villagers and the relics of its first inhabitants now bewildered by the changes in their environment the zone is characterized by a highly mobile population. As the members of the population prosper or raise families, they tend to move out in to zone three, leaving behind the elderly, isolated, the defeated, the leaderless and helpless.

Zone III is the zone of "independent working men's homes" its population consists of the families of factory and shop workers who have managed to prosper sufficiently to escape the zone in transition, but who still require to have cheap and easy access to their work places. The zone is focused on factories and its population forms the respectable working class.

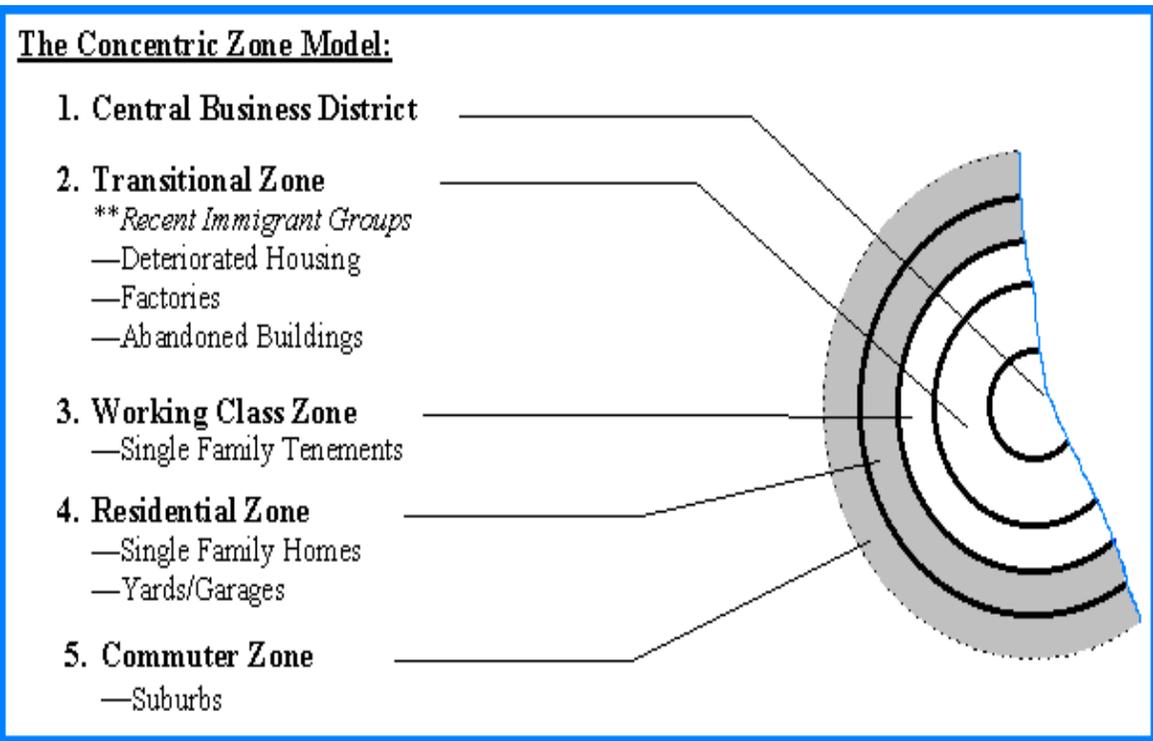
Zone IV: is an area of "better residences" a zone of middle class populations living in substantial private houses or in good apartment blocks at strategic

points subsidiary shaping centers, "satellite loops" are developed replicating the expensive services of the down town area.

Zone V, the "commuters' belt" is characterized by single family dwellings it is a dormitory area. Thus the mother and the wife become the center of family life.

Burgess himself argued that this structure is the result of competition between users for lands—a process analogous to the ecological competition between biological species for territory. In human societies, these 'biotic' processes are overlaid by cultural processes, which limit the conflict and social disorganization resulting from unfettered territorial competition. Control is exercised through the division of the population into distinctive groups, defined by common ethnic identity, occupational status, or economic position. Within each zone, groups occupy particular natural areas, so forming an 'urban mosaic' of local communities. Social and economic mobility cause changes in the pattern of territorial occupation, via the ecological processes of invasion, domination, and succession.

This model is an ideal type. However, geographers and economists subsequently proposed more complex diagrams of urban structure and typologies of the natural areas, aided by the advent of large data-sets and computer technology. This social area analysis largely ignores the wider issues of social process and structure which concerned Burgess and his colleagues in their distinctive contribution to the development of urban sociology.



**3.1.3. The sector model**

The **sector model** also known as the **Hoyt model** was proposed in 1939 by economist Homer Hoyt. It is a model of urban land use and modified the concentric zone model of city development. The benefits of the application of this model include the fact it allows for an outward progression of growth however, like all models of urban form its validity is limited. Homer Hoyt said that growth around the CBD will not take place the way Burgess explained. Instead of growing in ring manner, distinctive sectors of land use grow out from the center, often focusing on major route ways.

### **Explanation of the Model**

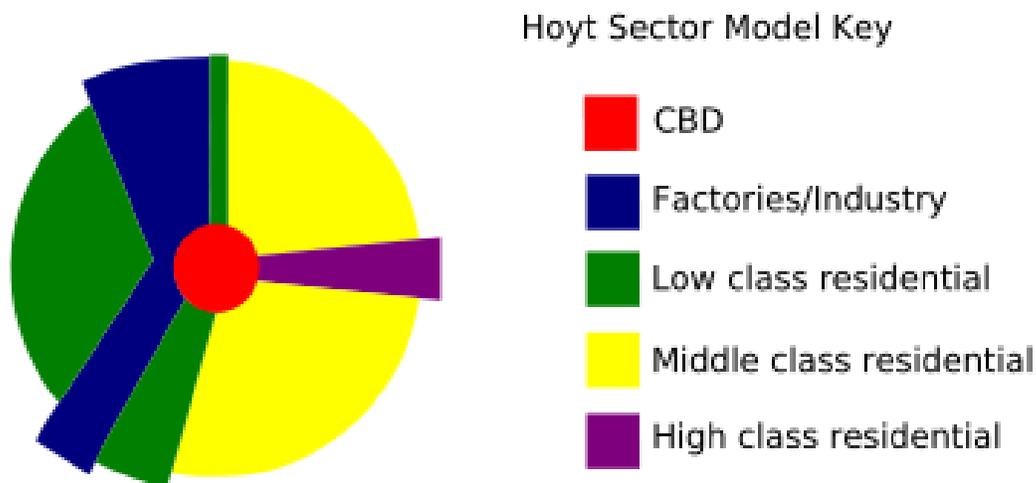
While accepting the existence of a central business district, Hoyt suggested that zones expand outward from the city center along railroads, highways, and other transportation arteries. Using Chicago as a model, an upper class residential sector evolved outward along the desirable Lake Michigan shoreline north of the central business district, while industry extended southward in sectors that followed railroad lines.

In developing this model Hoyt observed that it was common for low-income households to be near railroad lines, and commercial establishments to be along business thoroughfares. Recognizing that the various transportation routes into an urban area, including railroads, sea ports, and tram lines, represented greater access, Hoyt theorized that cities tended to grow in wedge-shaped patterns -- or sectors -- emanating from the central business district and centered on major transportation routes. Higher levels of access meant higher land values, thus, many commercial functions would remain in the CBD but manufacturing functions would develop in a wedge surrounding transportation routes. Residential functions would grow in wedge-shaped patterns with a sector of low-income housing bordering manufacturing/industrial sectors (traffic, noise, and pollution makes these areas the least desirable) while sectors of middle- and high-income households were located furthest away from these functions. Hoyt's model attempts to broadly state a principle of urban organization.

### Limitations of the Model

The theory is based on early twentieth century transport and does not make allowances for private cars that enable commuting from cheaper land outside city boundaries.<sup>[3]</sup> This occurred in Calgary in the 1930s when many near-slums were established outside the city but close to the termini of the street car lines. These are now incorporated into the city boundary but are pockets of low cost housing in medium cost areas.<sup>[2]</sup>

- Physical features - physical features may restrict or direct growth along certain wedges
- The growth of a sector can be limited by leapfrog land use

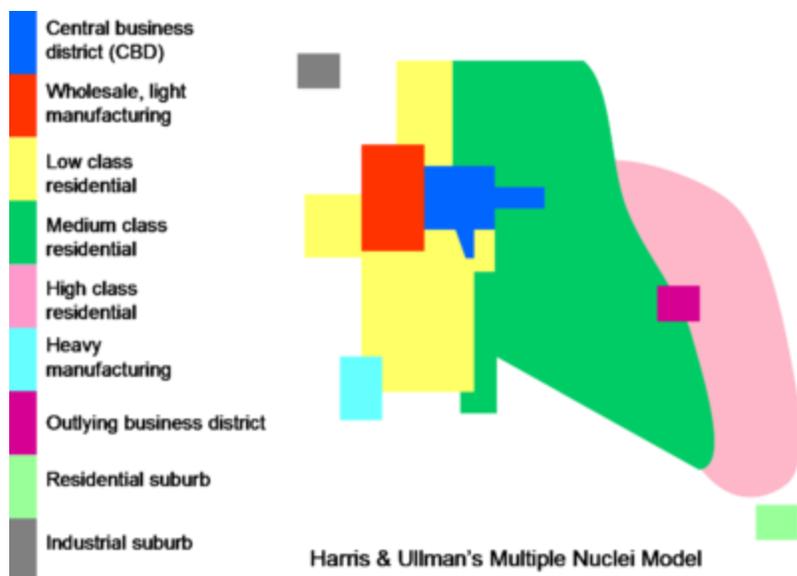


### 3.1.4. Multiple nuclei model

The **multiple nuclei model** is an ecological model put forth by Chauncy Harris and Edward Ullman in the 1945 article "The Nature of Cities." The model describes the layout of a city. It notes that while a city may have started with a central business district, similar industries with common land-use and financial requirements are established near each other. These groupings influence their immediate neighborhood. Hotels and restaurants spring up around airports, for example. The number and kinds of nuclei mark a city's growth.

C.D.Harris and E. Ullman suggested that urban growth takes place not only from the CBD area. But there are many growth centers in many parts of the city. Cities have an especially cellular structure in which distinctive types of land use develop around certain growing points or "nuclei" within the urban area.

The theory was formed based on the idea that people have greater movement due to increased car ownership. This increase of movement allows for the specialization of regional centers (eg. heavy industry, business park). There is no clear CBD (Central Business District) in this type of model.



Multiple nuclei model

## Chapter four

### Urbanization in developing countries

Many writers note that towns were known in Africa long before the onset of the modern period. Urban centers like Meroe, Adulis, Axum were established long before Christ. A number of ancient towns such as Mombasa, Moquadisho, Benin had emerged during the 7<sup>th</sup> to 10<sup>th</sup> centuries. Many of the famous urban centers of the past have declined or underwent marked transformations.

The major African urban centers at the present time are largely the product of colonialism. Major cities founded during the colonial period include: Accra(Ghana), abidjan(ivorycost), Brazavill(congo),Kinshasa(dem.rep.congo), Yaunde(Cameron), Kampala(Uganda), Nairobi(Kenya), Johansburg(A.Africa) e.t.c.

Following the Second World War a rapid rate of urbanization has been experienced in developing countries. Many of the developing countries often have

one major city referred to as *primate city*. It is several times larger than the next largest city. Colonialists used cities as collection centers where surplus production is drained from the hinterland and shipped to their countries so the growth of cities was important to facilitate the transfer of resources to Europe. In the process big cities were created. Such urbanization is called *dependent urbanization*. Unlike urbanization of developed countries, the urbanization of developing countries is not a function of industrialization. Third world cities have critical location because of their colonial origin. Most cities are port cities located around coasts.

The process of urbanization is accelerated mainly due to rural urban migration. Migration has both positive and negative implications. The positive consequences are:

- a. migration relieves the surplus population of the agricultural sector
- b. it allows the introduction of agricultural technology at one hand and it brings more and more labor force to the city for industrial development.

Negative effects:

- A. it drains the labor force away from the agricultural sector
- B. it creates problems of unemployment, housing, congestion in urban areas and serious socio-political unrest.

The argument that migration will adversely affect is not relevant in the case of Ethiopia, because the size of average land holdings is as small as 1 hectare/per households.

Why do people migrate to urban areas? There are different explanations to answer this question:

1. economic determinant model:
2. it can be looked at from two ways a. income differential model  
b. push and pull model

Income differential model regards the decision of individuals to migrate from rural to urban areas as a function of differences in wages and salaries. Accordingly, this model predicts that the magnitude of migration to urban areas increases as wages and salaries exceed in urban areas. Individuals calculate how much they will earn in their areas and in urban areas. So migration involves the rational decision of individuals to move towards urban centers.

Rural out migration is thus explained by comparison of income differences in rural and urban environments.

b. the push and pull model:

According to this model migration is regarded as the response of individuals to economic push and pull factors.

Push factors may include: archaic land tenure, overcrowded land holdings, rural labor surplus, low farm productivity, etc. pull factors are factors which attract rural migrants to urban areas including: employment opportunities, availability of social amenities, hospitals. Schools, etc. so the push and pull factors operate in combination.

### **The spatial determinant model**

The spatial aspect of rural-urban migration is the contribution of geographers. The rate of migration decreases as distance increases. Distance is inversely related to migration, i.e the rate of rural-urban migration is likely to decline as distance increases. If the origin is far away from destination, migration will be minimal. The main theme of this model is that distance determines the rate of migration. This explanation seems valid in the case of Ethiopia. People from the

peripheral part of the country do not migrate to urban centers as much as those who are close to the city centers.

### **3. Educational determinant model**

This model can be looked at in two ways

- a. accessibility of educational facilities
  - b. educational level of individual migrants
- a) it is assumed that high level of educational facilities attract migrants from other areas. In most of the developing countries such high level educational facilities are concentrated in urban areas and this act as a stimulant for rural urban migration.
- b) By focusing on the individual migrants it is stated that educated individuals are more likely to be aware of and to take advantage of differential opportunities between their place of residence and other alternative places. The higher an individual is educated, the more likely to be aware of differential opportunities, and thus to be more prone to migrate.

#### **Summery:**

So we can summarize that in developing countries the major part of urban growth is due to rural urban migration. It the primate city (often the political capital) that attracts more migrants. Migrants prefer the primate city for many reasons. Since there is a great concentration of socio-economic activities it gloves employment opportunities for immigrants. Many people argue that there is urban bias favoring primate cities in terms of investment.

The problem is how to stop migration towards the primate cities. Many countries try to reduce migration to the primate cities through the establishment of secondary cities. If we encourage the growth of secondary cities migrants will

migrate to them. The tertiary level cities are also important. In Ethiopia this type of policy was pursued long time ago during the emperor's regime.

For example: Awasa, Arbaminch and Bahirdar were established deliberately by the emperor's government. These were intended to be the growth pole of secondary cities.

### **Common features of third world cities**

1. They have colonial origin.
2. They have limited function (administration and export). They are not wealth generators; rather they suck services from the hinterland and are parasitic.
3. They are symbols of faction rather than integration and national unity. they are more of regional than national
4. Have critical location because of their colonial origin, they are mostly port cities.
5. Skewed economic structure; tertiary economic activities predominate (service) and there are limited manufacturing.
6. Over urbanization and primacy. Cairo has nearly 50% of the total urban population, Addis 35%
7. Urbanization is simply a demographic transition. There is no accompanying industrialization.
8. Economic dualism- the modern and traditional sectors exist side by side.
9. Spontaneous or squatter houses and slums. Slum areas are characterized by deteriorated and unsanitary condition.
10. Not all the interland is served by towns. The role of town is performed by periodic markets. This is done to maximize profit by

reducing traveling cost in order to maximize demand or minimize cost  
the markets should be far apart in place and time.

**Urban problems:**

1. Slums and squatter settlements; slums are characterized by unsanitary housing condition that is deteriorated or degenerated due to lack of care. Squatting takes place mostly in marginal lands and steep slopes that are not good for development. Squatters occupy these areas and erect structures using plastics and old board to shelter themselves.

Since the land is not demanded for development, they often escape the attention of municipal authorities. They can also develop in the main area in times of political transition. In Ethiopia they are called "chereqa bet" and have different names in different countries. Settlers are poor who work in the informal sector. They do not have regular income and can not pay housing rent. Squats develop in to slums and shanty towns. Governments have varying attitudes toward slums. In 1960's slum eradication was the rule of the day. Later in 1970's it became clear that kit is meaningless to bulldoze informal settlements (slums and squats) as it reduces the housing stock. It was understood that owner occupied houses are well cared than rented houses. So if owners of informal houses are given title deeds. The settlements will be improved up to the standard of municipalities. So the prevailing agreement is to make slum upgrading programs instead of demolishing slums. in contrast there are people who argue that this will encourage lawlessness.

2. Urbanization also has got many problems like anomie, depression, crime, substance abuse, suicide and many other dirty and vice things. Counselors and psychiatrists became very important.

3. The vulnerability to and dependence on modern technology. If water supply or electricity gets crisis, the whole city will be disrupted in all ways of life. The same happen if fuel is not available for a short time.

4. Water pollution- fresh water is very scarce and polluted by modern technology like pesticides, mercury, lead etc.

5. Air pollution is also another serious problem. Air was polluted by smokes of cars and industries. In some countries, electrified traveling and bicycles are encouraged to minimize pollution.

6. Solid and liquid wastes management- there is an accumulation of waste materials, which causes environmental pollution. Organic wastes can be recycled to produce fertilizer and other useful products. The problem is they are not recycled. Sewer problem is also a serious problem polluting underground water.

7. transportation- there are too many vehicles and the goods are overcrowded. A large amount of urban land is used for parking. Parking shops are built in different parts of cities. In order to minimize congestion inner and outer ring roads are built. Different mechanisms like intersection traffic, zebra crossing, overpasses, underpasses, tube way systems, one way or two way streets are used. Adjusting working hours or separating schooling hours is also used.

8. Another problem is finance- revenue raised by municipalities is hardly enough to cover the cost of cities. A huge amount of investment is necessary to sustain city life. Municipalities need grants and compete for investment.

1. **Traffic Congestion** is caused by:

a) Many people working in the CBD.

b) Narrow streets.

c) Shortage of parking spaces - cars parked on the roadsides and so increase congestion.

c) People not using public transport - either because it is less convenient, too expensive or not available.

e) More people own & use cars.

## 2. Urban sprawl - Reasons for increasing sprawl:

a) Cities continue to get bigger.

b) People want to live in the suburbs.

c) Modern supermarket chains want to set up new stores on the edge of the town.

d) Land is cheaper & space for large car parks.

e) Ring-roads and by-passes are built around cities.

f) All these developments mean that more countryside & farmland is lost.

g) **A Solution?** - Declare a 'green- belt' around urban areas. (Where development is not allowed).

## 3. Urban Decay (when parts of the city become run down & undesirable to live in.)

It causes economic, social & environmental problems.

### *Examples of Urban Decay:*

a) Slum houses - with outside toilets and overcrowding.

b) Many buildings have been poorly built & now have leaking roofs, broken windows & crumbling walls.

c) Empty buildings are vandalized.

d) As factories & housing have been in the same areas; air, noise and water pollution are common.

### **Urban regeneration:**

In many urban centers there is ongoing redevelopment and renovation of existing houses to improve the environment & economy such as :

- New roofs.
- Rewiring of houses & fitting in modern amenities.
- Improving environment by landscaping.
- Building/ improving social facilities such as clubs& medical centers.
- Encouraging new business & industry to set up in the areas with grants & loans.

### **Ethiopian urbanization and urban centers**

Starting from the ancient times, Ethiopian urbanization is characterized by roving capitals starting from the north towards the south. Axum\_Lalibela\_Gondar\_\_Shoa different scholars with different professional background have contributed articles on Ethiopian urbanization.

Mesfin W/mariam= some aspects of urbanization in pre twentieth century Ethiopia

Akalu W/Michael= urban development in Ethiopia

Jean comhaire=urban growth in relation to Ethiopian development

Roland J.Horvath=the process of urban agglomeration in Ethiopia

### **Mesfin W/Mariam:**

Mesfin believes that some beginnings of urbanization had taken place in Ethiopia in the past and these beginnings were relatively short lived due to certain geographical and socio-cultural factors. This ancient country never had a sustained capital city. The three prominent capitals-Axum,lalibela and Gondar areonly brief episodes in in the long history of the country.

A) there was general absence of urbanization except some short lived urban centers

B) discontinuity of urbanization

According to mesfin, three factors are responsible for this lack of sustained urbanization

1. physical
2. social
3. political

Physical factors: the difficult topography of the country hindered contact between people and transport and communication become difficult. The location of the country in relation to other countries was also not favorable for centuries, Ethiopia did not have effective stimulus from its surrounding neighbors, who were as poor or poorer.

Social obstacles: because of the isolation of people imposed by the physical obstacles, the society had negative attitudes towards vital occupational groups: masons, blacksmiths, weavers, potters and merchants with whatever skills they possessed.

Political obstacle: peace was lacking in the country. There was frequent regional warfare and cities were shifting from place to place.

**Akalu W/Michael:**

Akalu argues that the urbanization of pre-twentieth century Ethiopia is intimately related with rise of political capitals. Until the last quarter of the 19<sup>th</sup> century urbanization was cyclical rather than cumulative phenomena. Political capitals were in a constant shifting due to:

1. lack of natural resources(food, wood, water)

2. historical factors(dynastic change, tribal and religious wars, external conflicts)

During the first quarter of the 20<sup>th</sup> century the process of urbanization began to be cumulative during the regime of Menelik II. Important contributory factors for the new trend of urbanization during this period were

1. territorial expansion
2. development of a new system of administration
3. development of communication and commerce

1. **Territorial expansion-** by 1909,Minilk was able to bring all the southern, western, and eastern regions under his control as a result Ethiopia almost tripled in size.

As the country expanded geographically garrisons were set up all over the newly incorporated territories. Overtime these garrisons become permanent urban settlements. Eg. Gorre,Nekemt,Baco etc.

2. **Development of new system of administration:** between 1889 and 1925, Minilik was able to create modern bureaucratic organs like the department of central administration. The country was divided in to smallest administrative units governed by nobles and military chiefs who were subject to the emperor. This achievement of state bureaucracy and administration system helped the growth of urban centers.

