

# SL IB Geography



Your notes

## 10.1 The Variety of Urban Environments

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## 10.1.1 Characteristics of Urban Places

### Urban Site & Function

What is a settlement?

- A **settlement** is a place where people live and carry out a range of activities, including trade and manufacturing
- Settlements have different types based on:
  - Shape or form
  - Population size
  - **Function**
  - Features
  - **Hierarchy**
- Settlements range from isolated buildings in rural areas to urban megacities of over 10 million people
- The physical geography of an area impacts on the settlement pattern

What are urban settlements?

- The definition of an urban area varies:
  - In the UK, the government defines settlements with a population of over 10 000 people
  - In many places, urban settlements are those with more than 5 000 residents

Urban settlement characteristics

- Urban areas tend to:
  - Have a **high density** of human structures, such as houses, commercial buildings, roads, bridges, and railways
  - Be large and have a **high population density**
  - Depend on water supply, relief, and soil fertility for their location and development
  - Have diverse social and cultural activities, such as entertainment, education, and healthcare
  - Be **densely populated** areas that have a high degree of economic, social and cultural diversity
  - Be located near major transportation routes, such as roads, railways, ports and airports, to ensure trade and mobility
- Urban areas:
  - Have a complex and hierarchical structure of land use, with different zones for residential, commercial, industrial, recreational and administrative functions
  - Are influenced by various factors, such as:
    - Physical geography
    - Climate
    - History
    - Politics
    - Culture
    - Globalisation

What is meant by settlement site and situation?



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- The **site** is the physical land that the settlement is built on
  - Natural conditions, historical development, planning regulations, market forces, and social preferences are just a few of the factors that have an impact on the site
- The **situation** can be thought of as the position of the settlement in relation to other features, e.g., a forest, a lake, etc.

### What are settlement functions?

- The functions of settlements change over time
- The functions are the main activities which occur in a settlement
- Many settlements first start with only one function, then develop others as the settlement grows or is forced to change, for instance:
  - Liverpool, in the UK, began as a major port of trade, but this function went into decline during the 1970s with the advent of containerisation, and the Mersey was too shallow to allow large ships into dock
  - Tourism has become the major function of Liverpool's economy, focusing on The Beatles and the Merseybeat era
  - In 2008, Liverpool became the European Capital of Culture, beating other British cities such as Newcastle and Birmingham
  - The city's waterfront was designated a World Heritage Site in 2004.
    - This status was revoked in 2021 because its redevelopment didn't maintain the site's original authenticity.
    - It lost the features which made it a maritime feature

#### Examples of Functions in Urban Settlements

Function	Example
Political	Town halls, parliaments
Commercial	Shops, markets
Tourism	Museums and art galleries
Transportation	Railways, roads, airports
Educational	Schools, universities, and colleges
Agriculture	Farming

 **Examiner Tip**

Students often confuse site and situation. Remember that the site is the physical location of a settlement whereas the situation is the settlement in relation to other features.



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## Urban Land Use

### Urban land use

- This refers to activities that are found in towns and cities
- Towns and cities tend to grow outwards, from a historic centre or **core** to an **urban fringe**
- Each zone grows due to the needs of the city during its development over time
- As a general rule, all **towns and cities**, regardless of place or level of development, **show the same four features**:
  - **A central core**
  - **An inner-city zone**
  - **A suburban zone**
  - **An urban fringe**

### Central Core

- The central core is the oldest part of a city, with features such as:
  - The central business district (**CBD**) e.g. banks, retail and commercial offices
  - Multi-storey development, with vertical growth rather than horizontal growth due to lack of space
  - Land of high value
  - Concentrated retail and office space
  - Pedestrianisation for high footfall
  - Convergence of public transport
  - Traffic restrictions for private vehicles
  - Low residential population

### Inner city zone

- A 'frame' to the inner core which developed as the core developed
- Older, compact, terraced '**worker**' housing to support a growing population density
- Surrounded by older industrial areas
- Areas are centred around transport links and access to manufacturing
- Available land increases with distance, so costs are reduced
- Residential land is in direct competition with commercial usage

### Suburban zone

- Residential areas
- Emergence of segregated residential zones based on wealth, ethnicity, choice or government policy (e.g. social housing)
- Semi-detached and detached housing with gardens
- Tree-lined avenues and cul-de-sacs
- Smaller retail premises
- The cost of land decreases but the size of the property increases with the distance

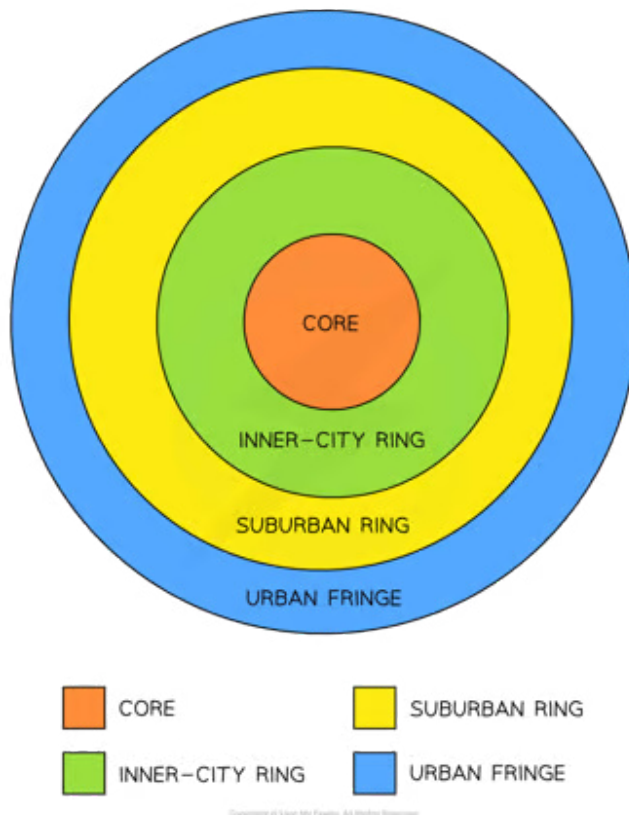
### Urban fringe

- Outer edges of the city:
- The countryside is eroded through the urban spread/sprawl
- Housing is clustered into estates, which increases 'spot' density

- Some industrial land uses
- Accessibility is best
- **Other similar** characteristics of modern urban settlements include:
  - The age of the built-up area decreases from the core to the fringe
  - The density of building developments decreases from the core to the fringes
  - Grandeur, function, design and style change across the zones
  - Over time, population density and land use change



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***Based on Burgess's Concentric Ring Theory***

- The model above is a simplification but shows there is a core where most of the commercial activity is found
- The **CBD** is usually the most accessible (public transport) with the highest land value
- High-rise buildings are seen here due to the high demand for land
  - There is a lack of space to satisfy that demand, e.g. Singapore, New York and Hong Kong are known for their 'skyscrapers' and land prices are amongst the highest in the world

## Settlement Hierarchy

### What is a settlement hierarchy?

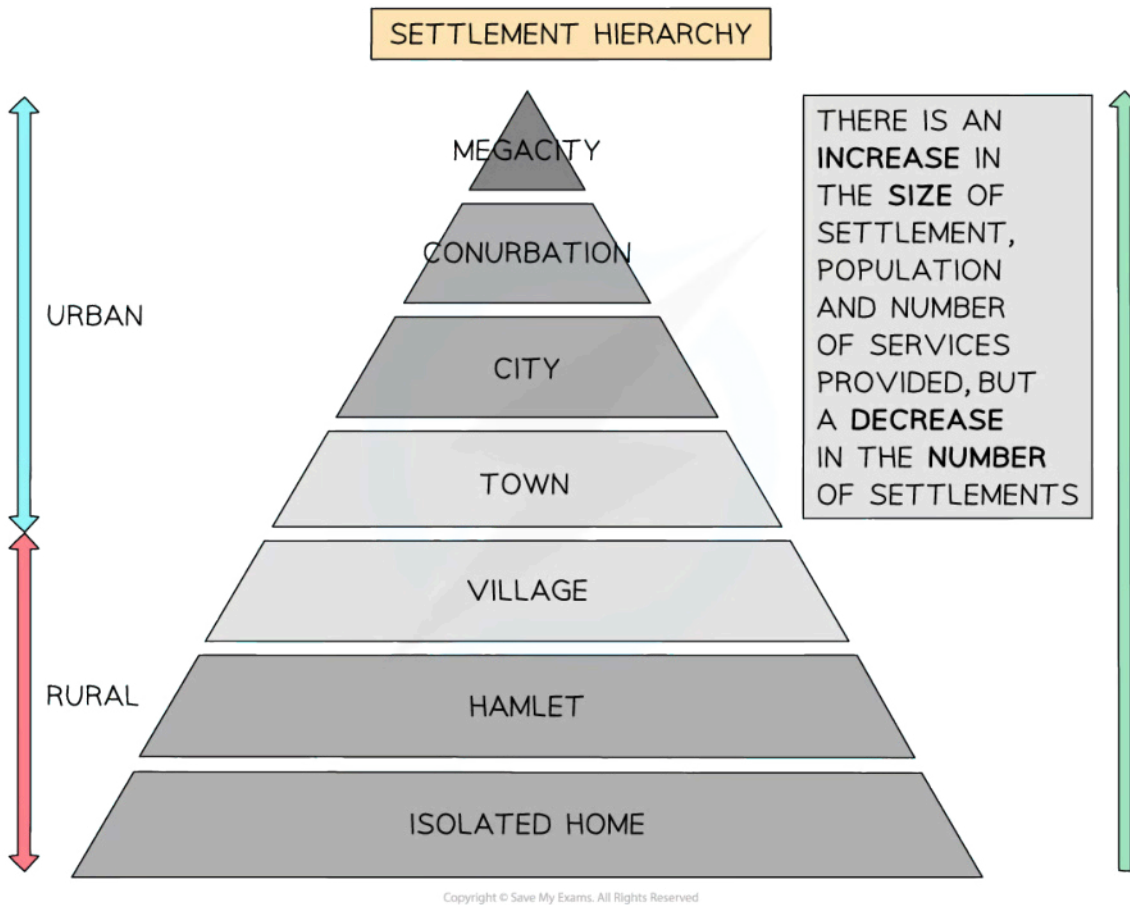
- The importance or significance of a settlement is determined by its place in the settlement **hierarchy**
- A hierarchy is when settlements are ordered and classified based on three principles:
  - Population size
  - Number of services provided
  - Number of settlements
- The higher up the hierarchy, the fewer settlements are found
- However, there is an **increase** in the:
  - Population of the settlement
  - Number of services provided
  - Type of services
- The hierarchy follows a path:
  - Dispersed ⇒ Hamlets ⇒ Villages ⇒ Market towns ⇒ Large towns ⇒ Cities ⇒ Conurbations ⇒ Megacities
- The result is a pyramid-shaped model, where there are more cities than megacities and more villages than towns



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**Settlement hierarchy diagram**

- All settlements offer certain functions and **services**
- A settlement's physical and population size will determine the number of services it offers
- The minimum number of people necessary before a particular good or service will be provided in the area is called the **threshold population**
- A small village or hamlet with a small population will only provide **low-order services** such as a post office, general store and maybe a pub
- Towns will provide **low- and high-order services** such as a church, medical centre, garages, schools and restaurants
- Cities and conurbations will focus on **high-order services** such as leisure centres, schools, churches, chain stores and hospitals
- There are exceptions to this:
  - Some places may have more services than average, such as a small seaside resort
  - Others may have fewer, such as a commuter or dormitory town

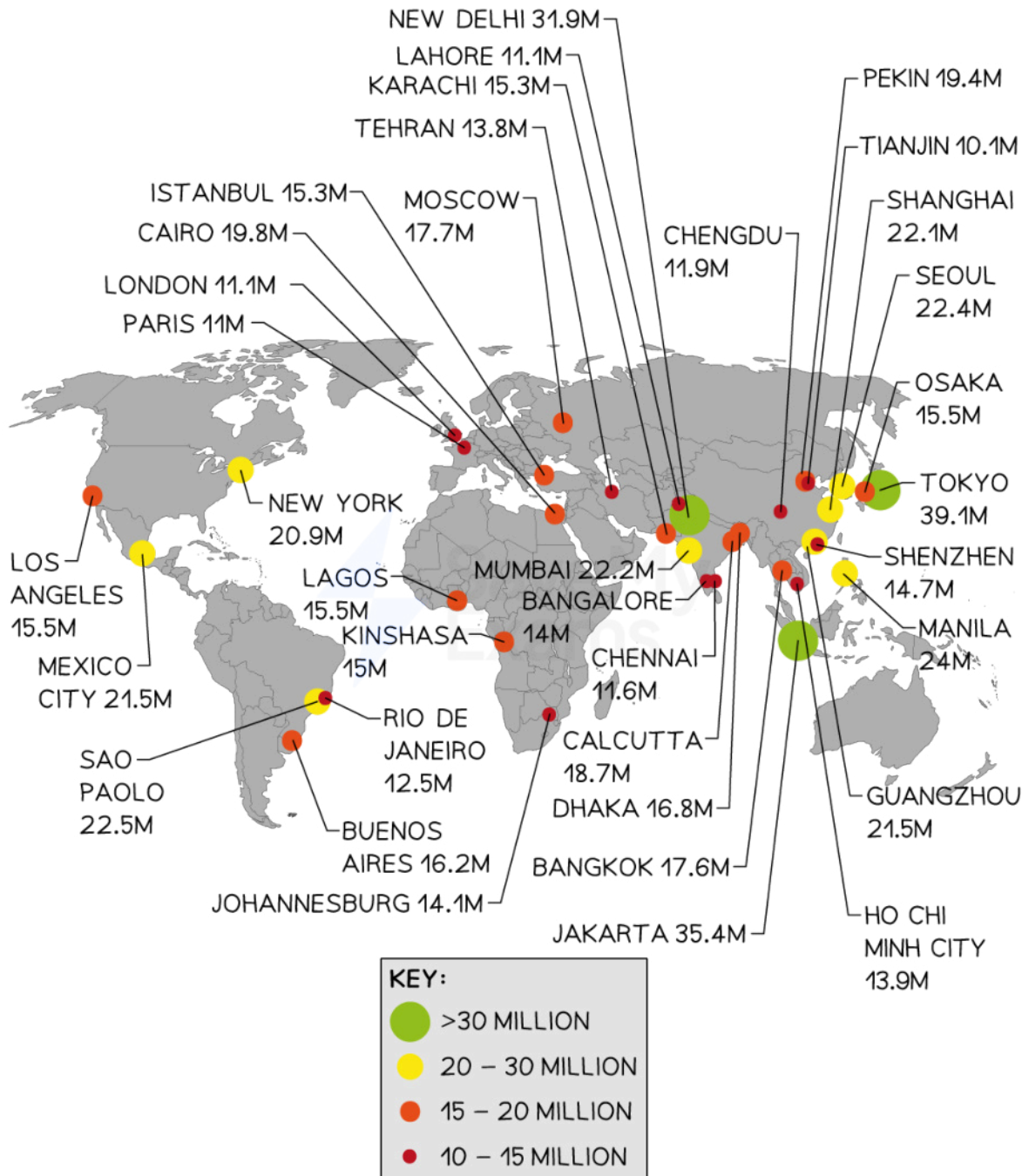
What are megacities?



- Urban areas with more than 10 million inhabitants
  - Examples: Tokyo, Delhi, Shanghai, Sao Paulo, etc.



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**World megacities**

- In 2007, more people lived in an urban environment than a rural one
- By **2050**, it is thought that more than **two-thirds (7 billion)** of the world population will **live in urban areas**
- This scaling up of the urban environment is the **fastest** in human history
- The **largest growth** of megacities is seen in **Asia**

### Reasons for the growth of megacities

- The main reasons for the rapid growth of megacities are:
  - Economic growth due to an increase in industry
  - Natural increase
  - Rural-urban migration



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## Urban Growth

### What is urban growth?

- Urban growth is the increase in size or population of urban areas
- The growth is driven by various factors, including:
  - Economic development
  - Migration,
  - Industrialisation
  - Urban planning
- The urban growth process may be planned or spontaneous
  - **Planned growth** occurs when the growth of an urban settlement is carefully managed
  - **Spontaneous growth** occurs without planning and management
- Urban growth may have both positive and negative effects:
  - **Positive effects** include higher productivity, innovation, and living standards
  - **Negative effects** include environmental degradation, congestion, inequality and vulnerability to disasters and epidemics
- Urban growth is uneven across regions and countries, with higher levels of urbanisation in high-income countries and lower levels in low-income countries
- There are various patterns of urban growth, such as compact, sprawling, or polycentric cities
  - The patterns depend on the physical, social, and institutional factors that shape them

### Factors affecting urban growth

- There are a range of factors which affect urban settlement growth, including:
  - **Climate/weather**
  - **Agriculture**
  - **Industry**
  - **Residential**

#### Climate/weather

- The climate and weather have an impact on the:
  - Availability of natural resources
  - Demand for energy
  - Health and comfort of the population
  - Attractiveness of the city for tourism and migration

#### Agriculture

- Agriculture provides food and income for the city dwellers, as well as raw materials for some industries.
- The productivity and diversity of agriculture depends on the:
  - Soil quality
  - Water supply
  - Climatic conditions of the city

#### Industry

- Industry contributes to the economic development, employment, and innovation of the city
- The type and scale of industry depends on the availability of:

- Labour
- Capital
- Infrastructure
- Markets
- Industry also impacts the environment and public health of the city through pollution and waste generation

#### Residential

- Residential refers to the housing and living conditions of the city population.
- The growth of residential areas depends on the:
  - Population size, density
  - Income of urban dwellers
  - Preferences of urban dwellers
  - Mobility of the urban dwellers
- Residential areas also affect the demand for public services, such as transportation, education, health care, and recreation



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## 10.1.2 Pattern of Urban Economic Activities

### Physical Factors Affecting Urban Economic Activities

- Urban activities can be categorised into three main groups:
  - Retail:** shops and markets
  - Commercial:** finance, technology and business
  - Industrial:** manufacturing and production
- Industrial areas require large areas of flat land, which are not at risk from hazards
- Retail and commercial areas require smaller areas of land, which are not at risk from hazards
- Urban activities are affected by:
  - Physical factors
  - Land values
  - Proximity to the CBD
  - Planning

### Physical factors affecting urban economic activities

- The topography of an area, including the height of the land, areas of water, etc. impacts whether an area is suitable for economic activities
- Hazards such as flooding and landslides can lead to the damage or destruction of:
  - Infrastructure
  - Industrial/business buildings
- The existence of hazards impacts which areas are suited to economic activities
- Climate is also a consideration
  - Heavy rainfall can lead to flooding and landslides which would make an area unsuitable for economic activities

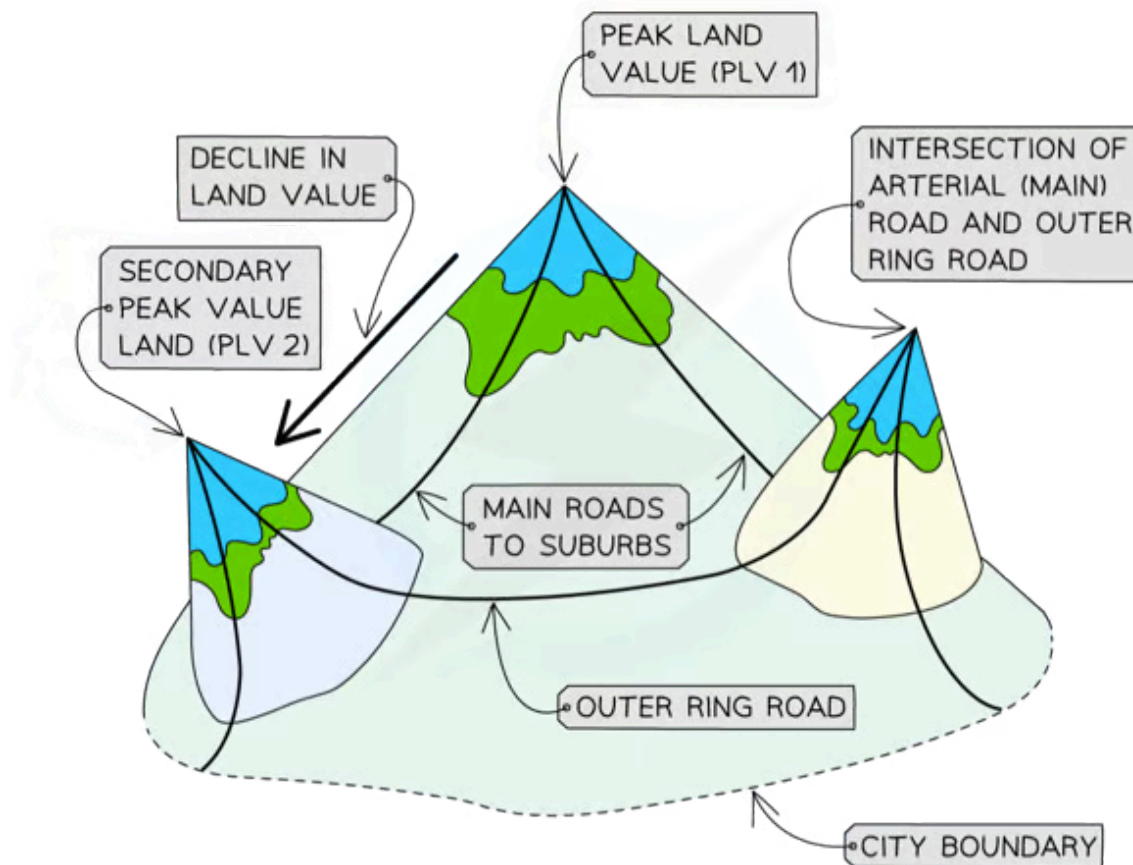
## Land Values & Urban Economic Activities

### Peak land value

- Any land that has '**purpose**' will be valuable and cost more to buy or rent
  - Usually, retail shops can make money and seek prime positions
- Therefore, land uses of similar activities will come together, creating 'peaks' and 'troughs' of land values across the urban landscape
- There are two points to consider:
  - The **value** of the land:
    - Varies across the urban areas
    - Usually decreases from the centre, outwards
    - Higher land prices are also found along main roads, urban hubs and around ring roads
  - The **location** of the land:
    - Is important to value
    - The closer to key functions, the higher the value
    - Accessibility and desirability increase land value



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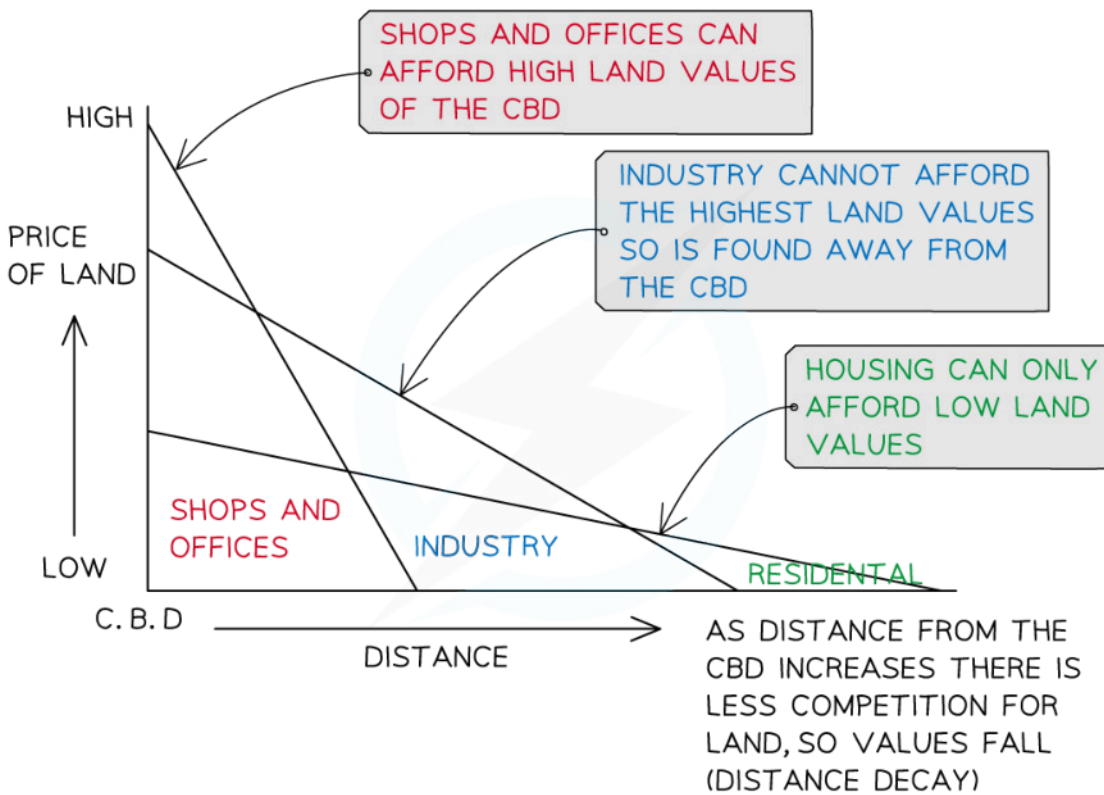
**Peak Land Value**



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**Bid-rent theory**

- Also known as '**distance decay theory**', the price and demand for land change as the distance from the CBD increases
- Different land uses will compete for desirable plots to maximise their profits
- Accessibility increases the potential for more customers
- There is a trade-off between accessibility and the cost of the land
- The closer to the CBD, the more desirable land is to retail and the higher the price charged/paid
- Industry cannot compete with high prices so it tends to be located further away from CBD
- Residential use
  - The highest **density** of residential is nearest the CBD with flats/apartments, where rents/costs are highest
  - The density of residential decreases but the amount of residential increases with distance from the CBD as the price of land decreases



**Bid-Rent Theory**



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## Proximity to the Central Business District & Economic Activities

- The **Central Business District (CBD)** tends to be the oldest part of a city
- Most CBDs are located at the centre of the urban area
  - Where cities are located on the coast, the CBD is more likely to be close to the port
- Features of the CBD include:
  - Banks, retail and commercial offices
  - Multi-storey development (vertical growth rather than horizontal growth due to lack of space)
  - Land of high value
  - Pedestrianised for high footfall
  - Public transport hub
  - Traffic restrictions on private vehicles
  - Low residential population
  - Main public buildings

### Proximity to the CBD

- **Proximity** is a measure of how close a location is to the CBD
- Areas close to the CBD are:
  - More accessible, which is key for customers and workers
  - Often prestigious, which is important for business and finance
- Proximity to the CBD affects the type, intensity and diversity of economic activities in a location

#### Relationship Between Proximity to the CBD and Economic Activities

Factors	Influence on economic activities
<b>Land value</b>	Land closer to the CBD is more expensive and there is less available. This leads to high-density developments and more profitable activities
<b>Accessibility</b>	Land closer to the CBD is usually more accessible. Transport links and infrastructure usually centre on the CBD, which makes the movement of goods and people easier
<b>Agglomeration</b>	Economic activities are concentrated around the CBD which creates [popover id="~NtEjCbPQIZSazHf" label="economies of scale] and enables business networks. These increase productivity
<b>Competition</b>	Competition for land in the CBD increases cost. It also increases pollution and congestion, which further increases cost

### Planning

- The urban morphology in cities is where growth is planned and demonstrates several key characteristics, including:
  - Structured and organised layout
  - Clearly defined zones for residential, commercial and industrial use
  - Efficient transport infrastructure



- Open, public spaces
- Where cities have grown up spontaneously, the **urban morphology** is less structured, and the cities often have:
  - Mixed land use
  - Informal or squatter settlements
  - Irregular street patterns
  - Chaotic transport infrastructure



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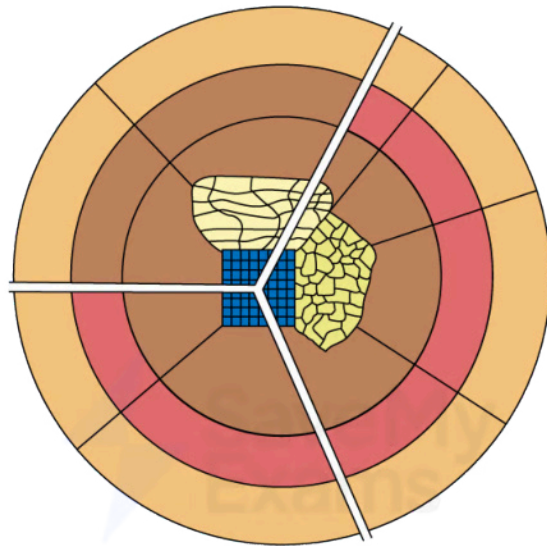










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### 10.1.3 Pattern of Residential Areas Within Urban Areas

#### Physical Factors Affecting Residential Areas

- There are four main factors that affect the location of residential land use in urban areas
  - Physical factors
  - Land values
  - Ethnicity
  - Urban residential planning
- The location of residential in HICs, MICs and LICs is often different
- The pattern in LICs can be seen in the models of Sub-Saharan African cities and Latin American Cities below



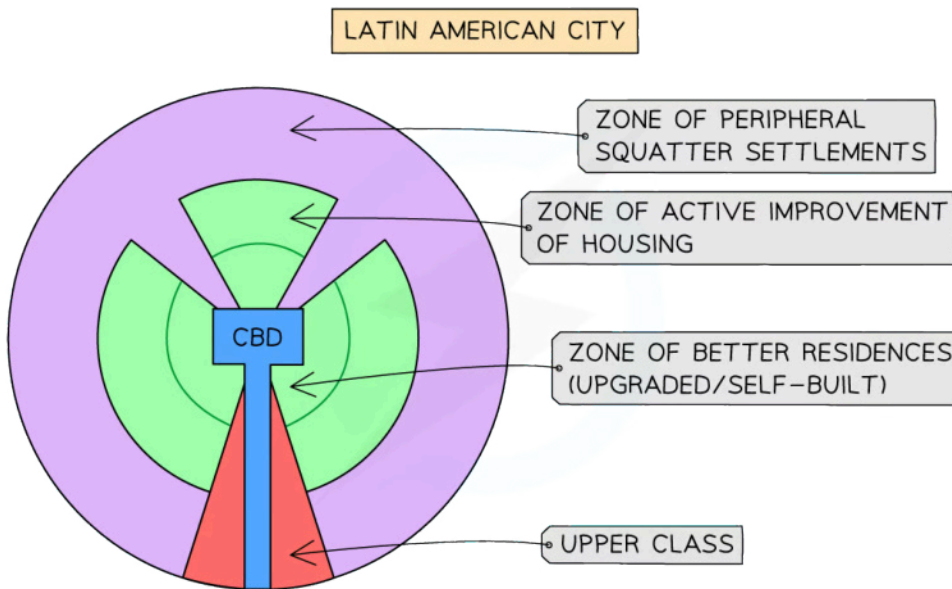
KEY:	
	COLONIAL CBD
	ZONE OF LOWER TO MIDDLE INCOME RESIDENTIAL
	TRADITIONAL CBD
	MARKET ZONE
	MINING AND MANUFACTURING
	ZONE OF SLUMS AND SQUATTER SETTLEMENTS
	MAJOR ROAD
	LOCAL STREET

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*Model of land use in a Sub - Saharan African City*



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*Model of land use in a Latin American city*

## Physical factors

- Physical factors affecting the location of residential areas include:
  - Proximity to water**
  - Slopes**
- These are part of the topography of an area and can impact where residential areas are located in several ways

## Proximity to water

- In **HICs**, the proximity to **water** is often regarded as a **positive feature**
- Waterfront residences are high-value, offering nice views and a pleasant environment
- In some areas, old industrial buildings such as docks and warehouses have been converted into high-value apartments
  - Salford Quays in Manchester
  - New York Dock Building
- In **LIC** cities and some **MIC** cities, **water** is regarded as a **negative factor**
- Housing in these cities, located near water, is often poor quality
  - The risk of flooding may be high and people do not have the resources to prevent it
  - People may be at risk of water-borne diseases and water pollution

## Slopes

- In **HICs**, residences on hillsides are often **high-value** due to the **views**
- In densely populated cities, the hillsides also offer more space
- In hotter climates, higher land is preferred for residences due to the cooler temperatures

- In Hong Kong, 'The Peak' is a popular residential area for the wealthy seeking to live outside of the main centre of Hong Kong
- In **LICs** residences on slopes are often **low-value**
- In densely populated cities, **illegal settlements** often develop on slopes which are not suitable for building
- The slopes are often unstable and vulnerable to landslides
  - Landslides in the Morro Bumba favela close to Rio de Janeiro in 2010 killed over 200 people



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## Land Values & Residential Areas

- Land values have a significant impact on the pattern of urban residential areas
- The closer that land is to the CBD, the higher its value
  - These high-land value areas are often used for retail or commercial purposes

### High-income countries

- The areas around the CBD has high-value residential areas
  - Manhattan in New York and the area surrounding the financial centre of London
- The housing is high-density and usually high-rise
- With distance from the CBD, land value decreases and the amount of residential land use increases
  - Old industrial areas surrounding the CBD tend to have the lowest cost residential areas
    - These are often terraced or other high-density, lower-quality housing
  - Moving further from the CBD, the housing type changes, becoming larger and lower density
    - There are the suburbs and then the rural-urban fringe

### Low-income countries

- Zone of lower to middle income residence is where there is a mixture of old and newer housing occupied by middle classes
- High class (elite) residential often develops in a spine out from the city center, where the land value is highest
- Around the high class residential area, there is likely to be a wide range of housing
- A zone of squatter settlements are often on the most undesirable land at the edge of a city, this is the lowest value land



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## Ethnicity & Residential Areas

- Migration to urban areas increases diversity
- Ethnicity is important in determining the residential patterns in a city
- International migrants tend to cluster in distinctive places across cities (known as enclaves), such as:
  - Russian oligarch families in Kensington and Chelsea, London
  - Indian community in Hounslow, London
- Many of the largest cities in the world, like San Francisco, New York, London and Paris, have an area known as Chinatown
- The location of residential areas as a result of ethnicity is known as segregation and may either have advantages or disadvantages
- The two types of segregation are:
  - **Positive segregation**
  - **Negative segregation**
- Positive segregation refers to the benefits such as culture, restaurants, supermarkets and religious buildings which cater for the needs of the population
- When certain groups are excluded from particular areas, this is referred to as negative segregation
- The level of ethnic segregation varies and changes over time due to:
  - Economic indicators, e.g. income and employment
  - Social indicators, e.g. health, crime and education

## Planning & Residential Areas

- Urban planning has become increasingly important in towns and cities
- Many cities in the world are planned around economic activities
- Planning may take a number of forms, including:
  - Land use zoning
  - Development of infrastructure
  - Types of housing

### Land use zoning

- The types of land use may be pre-determined by planning laws
- The laws may also affect the type and density of housing

### Infrastructure

- The infrastructure of an area includes roads and services
- These are usually planned by the local government and impact on how desirable an area is for residential areas

### Housing type

- Local governments have a role in providing social housing
- The local government may aim to create a mix of housing using social housing and land use zoning



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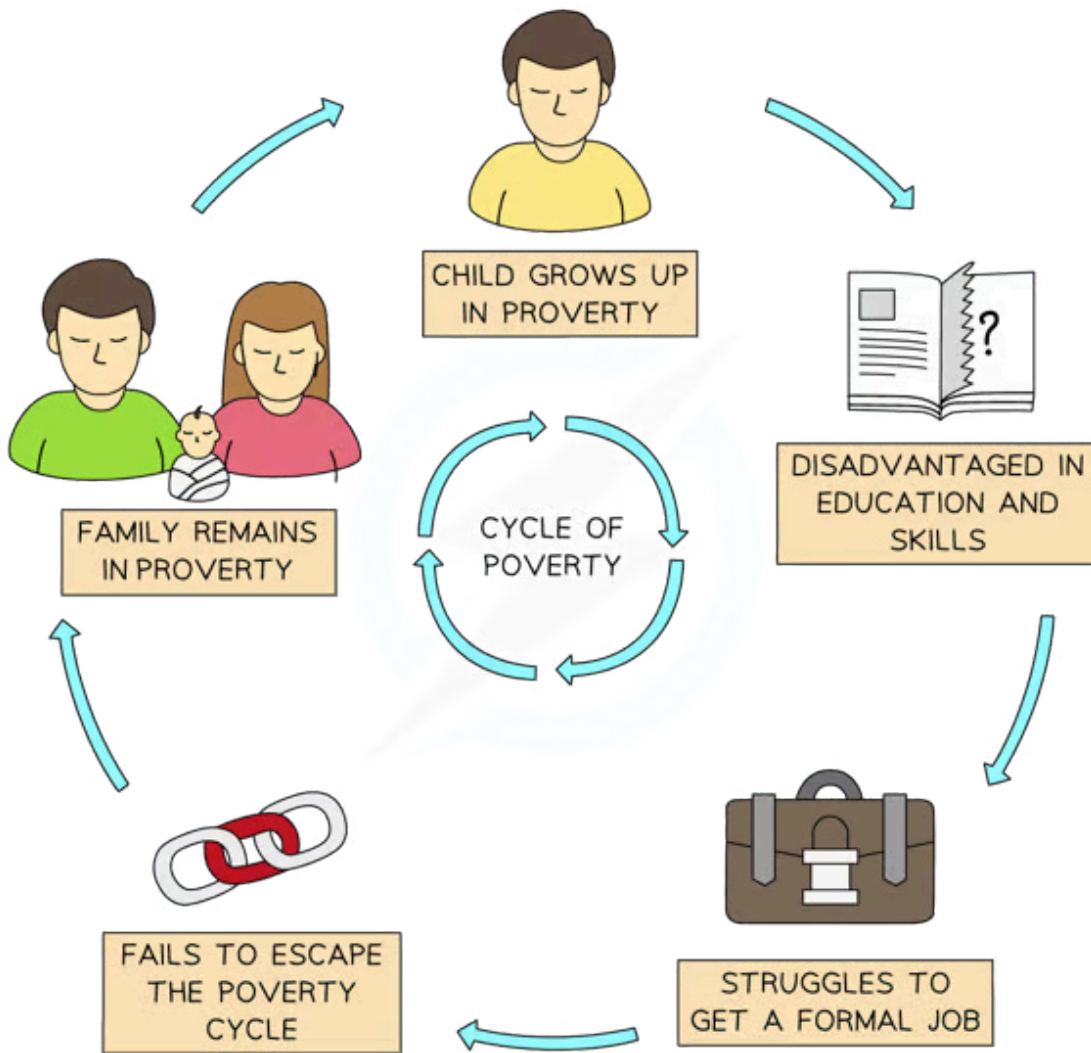
## 10.1.4 Poverty & Deprivation in Urban Areas

### Poverty in Urban Areas

- **Poverty** is defined as an individual not having the resources needed to meet a certain standard of living
- In urban areas, poverty often means that people do not have:
  - **Basic** services such as clean water, sanitation and electricity
  - **Adequate** housing
  - **Access** to healthcare and education
- There is wide variation in wealth across urban areas
  - In HICs, the poorest areas are usually found in the inner city areas around the CBD
  - In contrast, the poorest areas are the squatter settlements usually found at the rural urban fringe
- Poverty and deprivation lead to a variety of problems in urban areas
- All cities have levels of inequality, but LICs are amongst the worst affected
- Many low-income families are 'pulled' to informal settlements around towns and cities, looking for a sense of 'belonging' with others in the same situation
- In other areas without a strong social network or cities with recently arrived large populations, high levels of crime, begging and petty theft are more common
- Overall, this creates urban poverty that degrades both the physical and social environment around that area
- This makes it difficult for people to escape from poverty and they fall victim to the vicious '**cycle of poverty**' and urban poverty becomes ingrained within the city
- Combined with a lack of suitable work, housing, water supply, sewerage, solid waste disposal and pollution, the quality of life for people in cities is low



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### Cycle of poverty

- Poverty and deprivation are passed on from one generation to the next
- Children will tend to get less parental support and usually have to attend inadequate schools
- They also tend to leave school early with few qualifications
- Lack of qualifications means they cannot find well-paid employment and rely on social handouts
- Children they have will be born into this cycle and so families remain 'trapped' and unable to improve their circumstances
- This feeds into a lower **quality of life**

## Deprivation in Urban Areas

- Deprivation is connected with poverty and occurs when a person's well-being falls below an acceptable minimum standard
- The minimum standard varies from country to country and applies to several different aspects of daily life
  - It is about more than just not having enough money
- There are several indicators of deprivation, including:
  - **Economic:** Access to employment and levels of income
  - **Social:** Crime rates, levels of health, access to health care and the proportion of lone-parent families
  - **Environmental:** Noise, air pollution and derelict land
  - **Political:** Opportunities to vote and participate in the community
  - **Physical:** Levels of pollution, vandalism, graffiti and quality of housing
  - **Housing:** Level of amenities, overcrowding, central heating



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## Informal Activity in Urban Areas

### Informal housing

- Availability and affordability of housing cannot keep up with the rate at which the urban population is increasing in LICs and MICs
- This leads to people building their own homes on any vacant land using scrap materials like cardboard, corrugated iron and plastic
- The UN defines informal settlements as:

”

Contiguous settlement where the inhabitants are characterised as having inadequate housing and basic services

- They are unplanned and unregulated housing (**informal settlements**) with little sanitary facilities, fresh water or reliable energy supply
- The characteristics of the land include that it is:
  - Not usually owned by the residents
  - In areas of no economic value
  - On the urban edges or fringes
  - Along main roads or railways
  - Clinging onto the side of steep slopes
- Depending on the country, these **informal settlements**, or **squatter settlements**, are also called:
  - **Favelas** in Brazil
  - **Shanty towns** in the West Indies and Canada
  - **Bustees** on the Indian subcontinent
  - **Skid row** in the USA
  - **Townships** in South Africa
- In developing countries, about a quarter of urban inhabitants (1.6 billion) live in these impoverished squatter settlements and by 2030, the UN estimates that 1 in 4 people on the planet will live in some form of informal settlement
- Some cities have '**mega-slums**', which are extensive overcrowded areas usually within megacities
  - The largest are found:
    - Nairobi, Kenya, with a population of 1.5 million, is crowded into 3 sprawling slums of mud huts and tin shacks, – Kibera being the largest of the 3
    - Neza, Mexico City, Mexico, has a population of 1.1 million people
    - Dharavi, Mumbai, India, has 1 million people in a warren of narrow lanes, interconnected shacks and single-room living spaces that double as factories
    - Orangi Town, Karachi, Pakistan, has an estimated population of 2.4 million people across 8000 acres of concrete block homes, with 8–10 people sharing two or three rooms

- Khayelitsha in Cape Town, South Africa, has a population of 400,000 in iron and wooden shacks
- These unregulated areas of housing present serious risks such as fire, flooding and landslides
- Informal settlements typically suffer from:
  - Poor, overcrowded, small housing, built very close together using inadequate material and with uncertain electricity supplies
  - They have restricted access to water supplies
  - Little to no sanitation facilities and no solid waste disposal, which leads to a polluted and degraded local environment
  - There are inadequate health facilities, which, along with poor living conditions, increase sickness and death rates
  - The population in these areas have insecure living conditions as they may be forcibly removed by landowners or other authorities



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## Informal employment

- Urban areas, particularly in LICs have rapidly growing populations and job creation cannot match the pace of growth
- As a result, unemployment and [underemployment](#) are not unusual
- People will often work on street corners doing [informal](#) work like shining shoes, giving haircuts, providing transport, selling water or food
- These jobs are often unskilled and labour-intensive and require little money to set up
- The informal economy leaves cities without income to provide adequate services as workers pay no taxes
- It also makes wages and working conditions difficult to regulate