

# 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
<b>Political</b>	Town halls, parliaments
<b>Commercial</b>	Shops, markets
<b>Tourism</b>	Museums and art galleries
<b>Transportation</b>	Railways, roads, airports
<b>Educational</b>	Schools, universities, and colleges
<b>Agriculture</b>	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

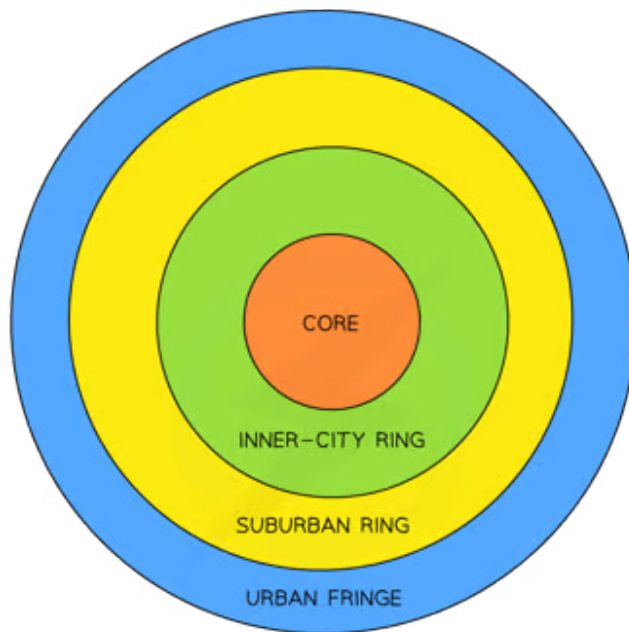
### Urban fringe

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



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- 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?

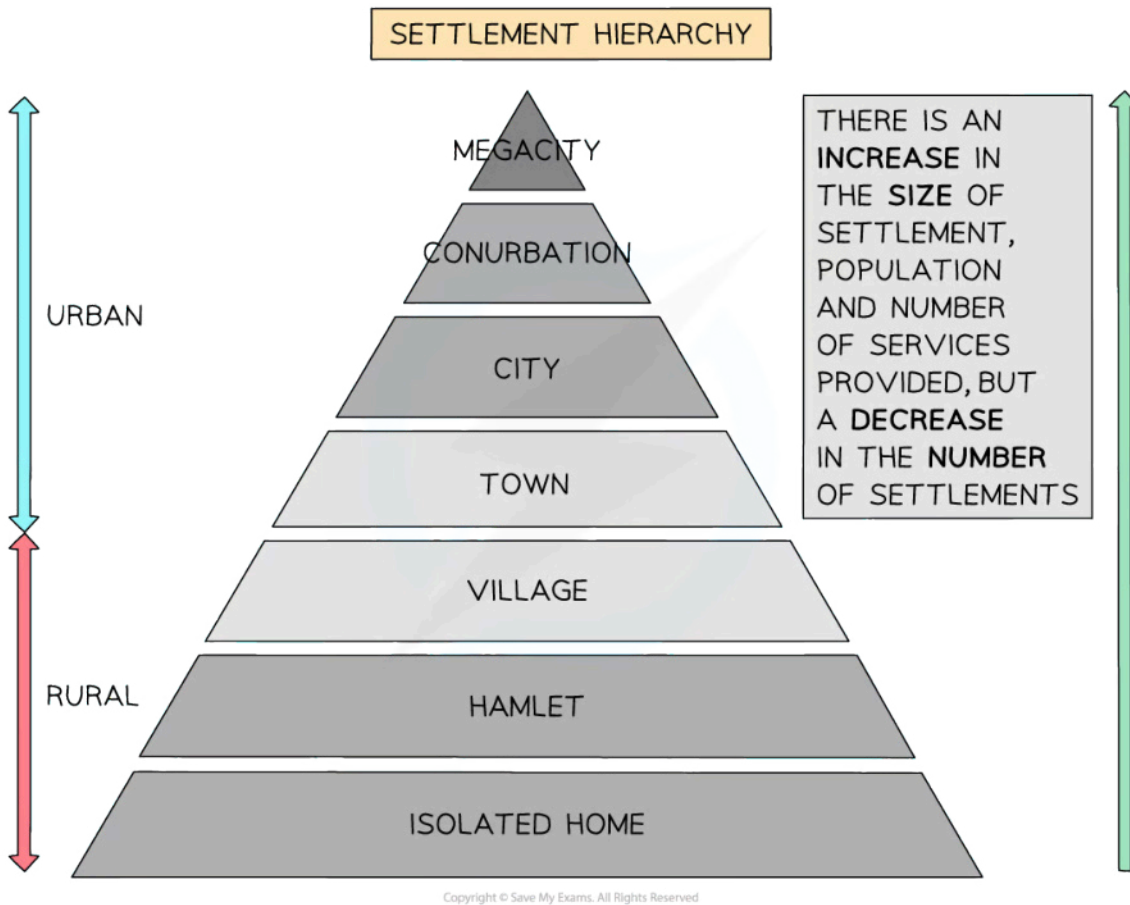
- The importance or significance of a settlement is determined by its place in the settlement **hierarchy**
- A hierarchy is when settlements are ordered and classified based on three principles:
  - Population size
  - Number of services provided
  - Number of settlements
- The higher up the hierarchy, 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

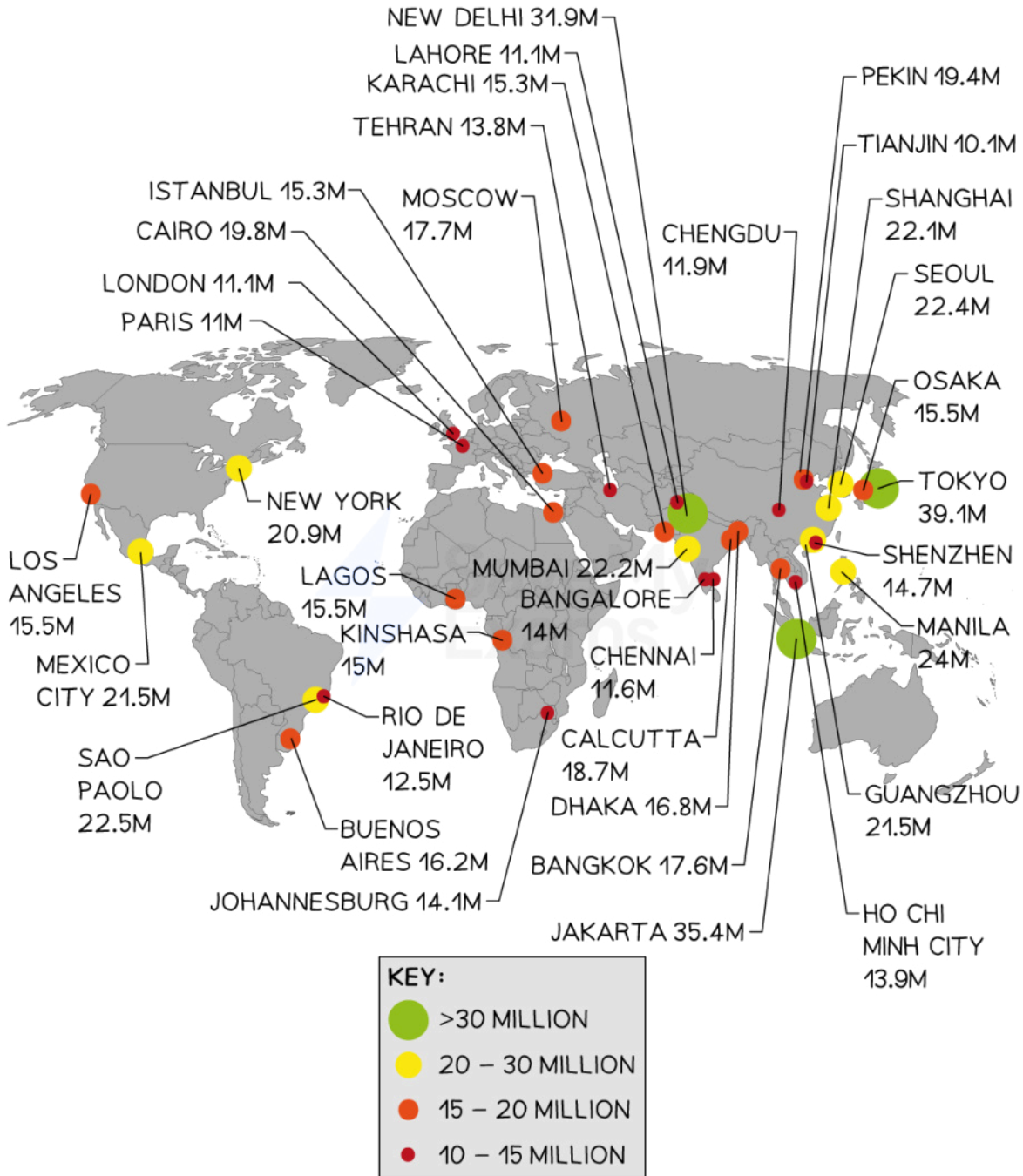
What are megacities?



- 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

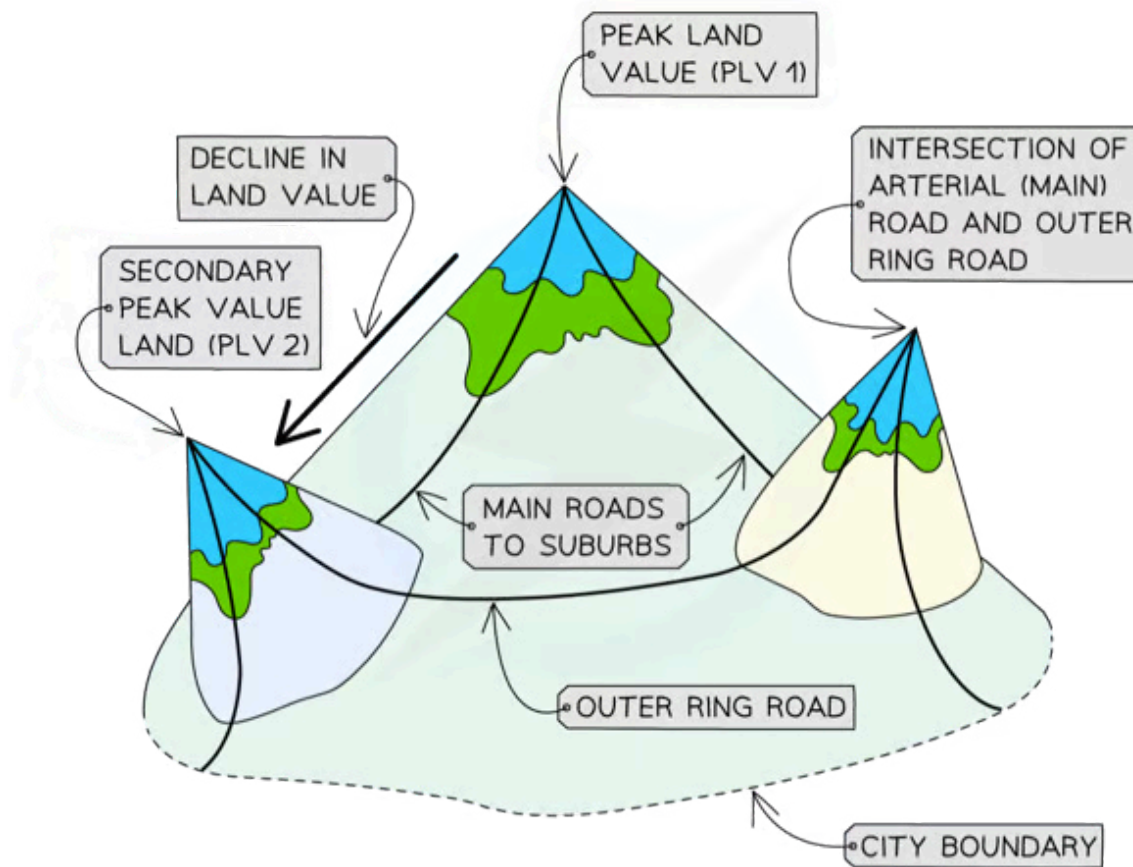
## Land Values & Urban Economic Activities

### 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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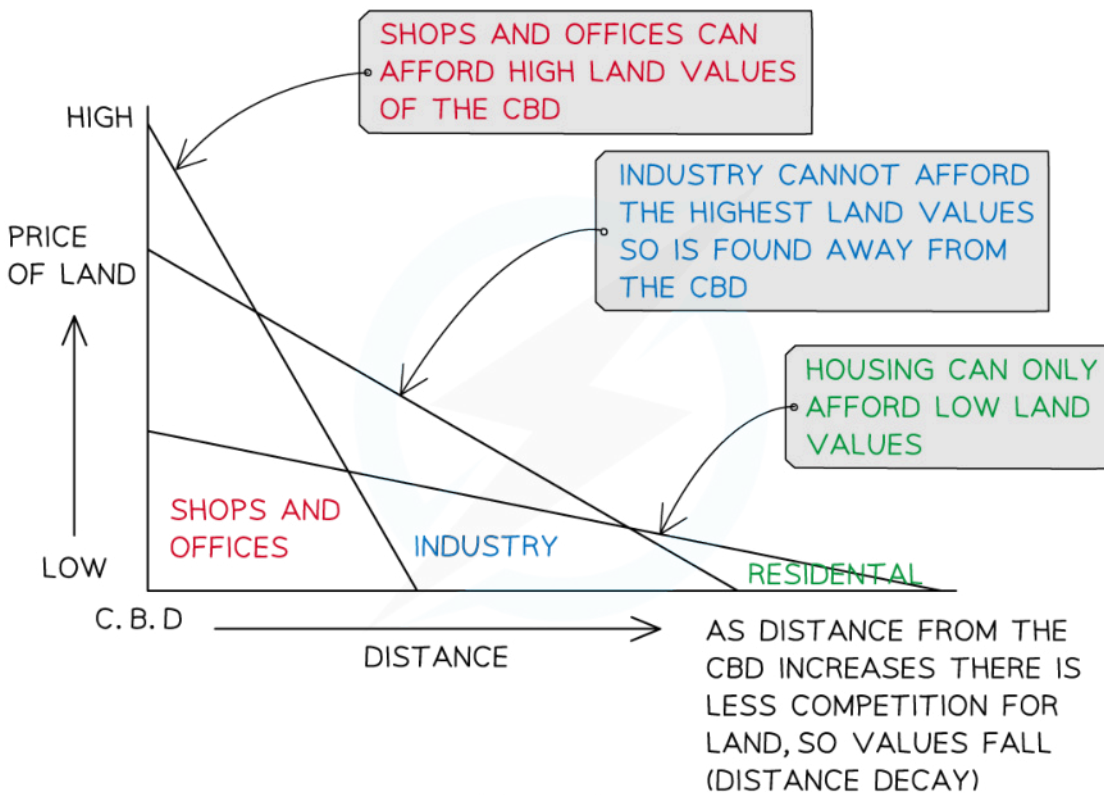
**Peak Land Value**



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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



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**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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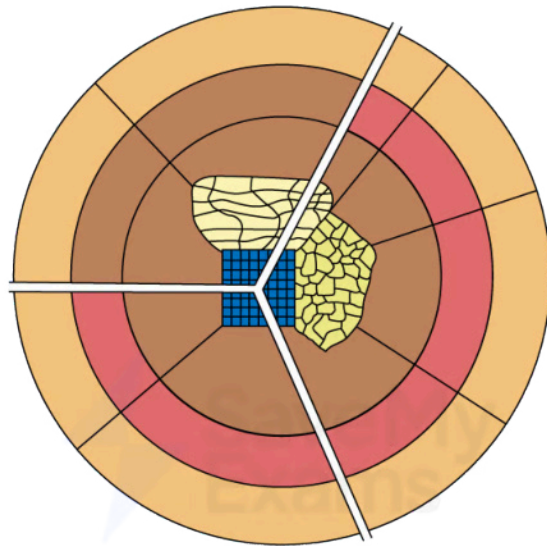










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### 10.1.3 Pattern of Residential Areas Within Urban Areas

#### 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



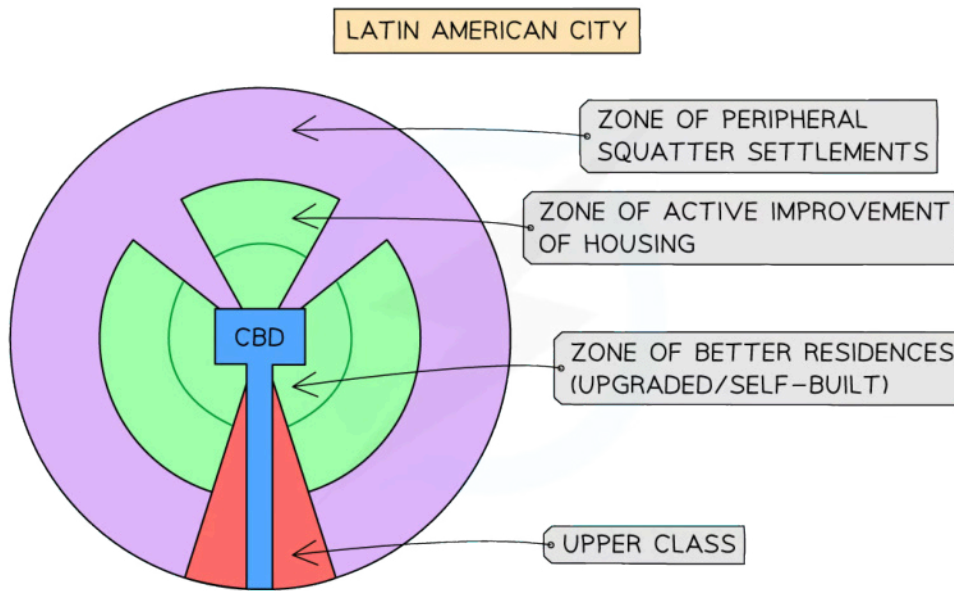
KEY:	
	COLONIAL CBD
	ZONE OF LOWER TO MIDDLE INCOME RESIDENTIAL
	TRADITIONAL CBD
	MARKET ZONE
	MINING AND MANUFACTURING
	ZONE OF SLUMS AND SQUATTER SETTLEMENTS
	MAJOR ROAD
	LOCAL STREET

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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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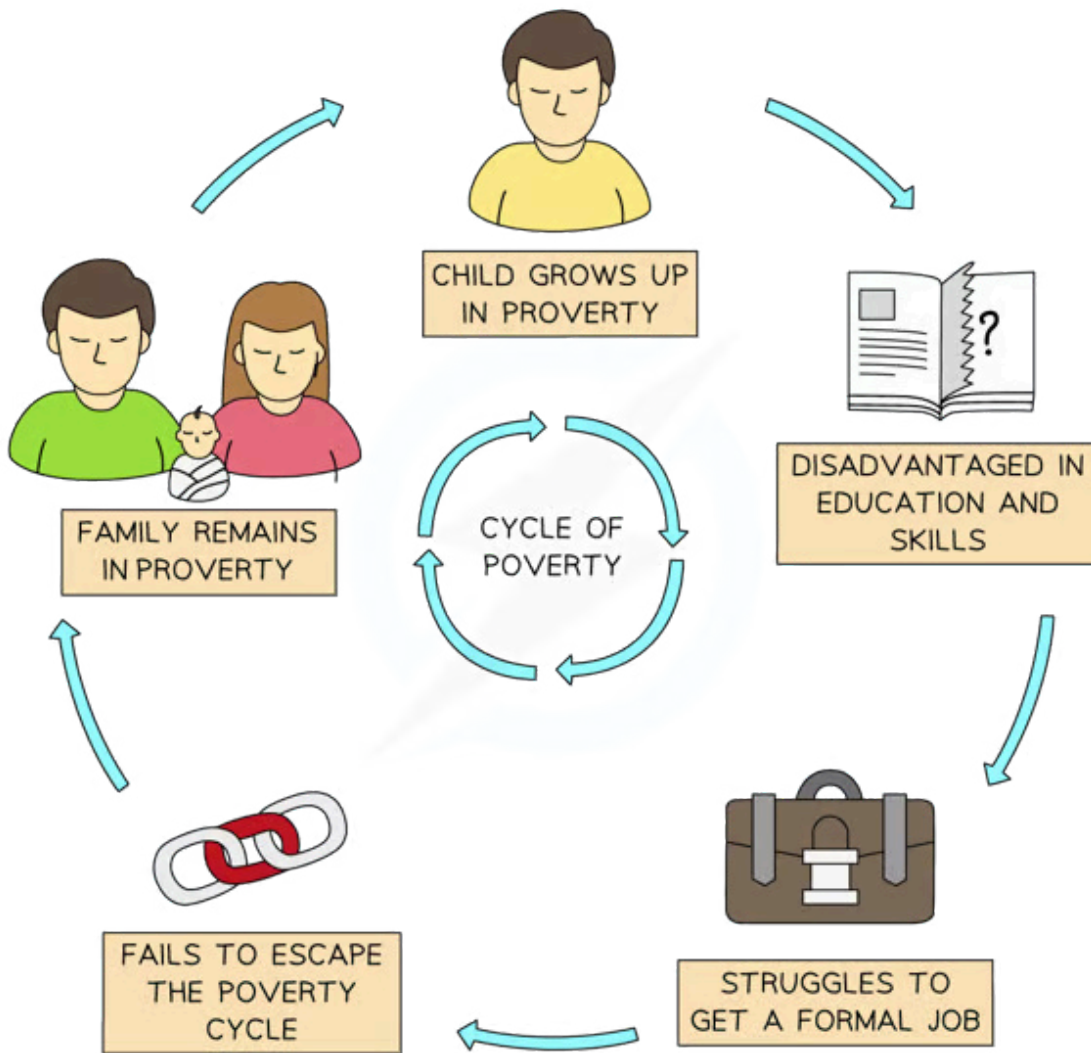
## 10.1.4 Poverty & Deprivation in Urban Areas

### 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