

ZNOTES.ORG

UPDATED TO 2021-22 SYLLABUS

CAIE AS LEVEL
GEOGRAPHY
(9696)

SUMMARIZED NOTES ON THE CORE HUMAN GEOGRAPHY SYLLABUS

1. Population

1.1. Natural Increase

Natural Increase Rate

- **NIR:** when birth rates exceed death rates.
- **Birth Rate:** live births per 1000 people, per year.
- **Death Rate:** deaths per 1000 people, per year.
- **Fertility Rate:** average number of children a woman has during her lifetime. If FR > 2.1 (replacement level), there will be population growth.
- **Infant Mortality Rate:** number of children under the age of 1 who die, per 1000 live births, per year.
- **Life Expectancy:** average number of years at birth a person is expected to live.

$$\text{Overall population change} = (\text{BR} - \text{DR}) \pm \text{net migration.}$$

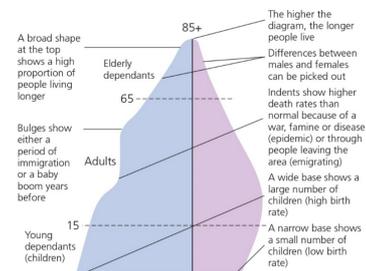
1.2. Factors Affecting Fertility/Mortality

- **Fertility**
 - **Tradition:** cultural expectation for large families. Early marriage leads to earlier reproduction.
 - **Education:** increasing female literacy offers job prospects and delays childbirth. Birth control is understood and adopted, but this takes time.
 - **Religion:** Islam and Roman Catholics reject the use of birth control, but this is becoming less important as people become richer and are faithful in different ways.
 - **Age structure:** if high proportion of young, then future fertility rates will be high compared to low rates with a small youthful population.
 - **Economics:** in LICs, children are a working asset and can support parents in old age. In HICs, children are a financial burden and companies must allow for childcare and flexible working time.
 - **Female Status:** as women gain a higher place in society, more of a focus is placed on educating and employing them – reducing the BR.
 - **Government Policy:** pro/anti-natalist policies influence the immediate fertility variables (contraception, sterilisation, abortion, ability to conceive, ability to form physical relationships, frequency of physical relationship).
- **Mortality**
 - **Poverty:** populations in LICs are more likely to die younger producing a higher DR, due to:
 - **Medical Infrastructure:** facility/staff/medicine shortages increase the DR, as people can't access good healthcare when they need it.
 - **Economic Development:** richer country leads to infrastructure developments, producing better water,

sanitation, diets and access to healthcare. Reduces DR.

- **Ageing Population:** increasing proportion of elderly causes DR to increase.
- **HIV/AIDS:** causes DR to increase dramatically. In Botswana, 2010 (where 25% of population is positive), 16 people died per day.
- **Non-Communicable Diseases:** result from social conditions. Cancers/heart disease common in HICs, caused by less activity, bad food, alcohol/tobacco and increased life expectancy.
- **Injury Related Illnesses:** road traffic accidents, war casualties and industrial/repetitive strain injuries.
- **Public Pensions/Healthcare:** increase level of care for elderly which lowers the DR.

1.3. Age/Sex Structure Diagrams



Absolute Data is measured in millions. Relative Data is measured in percentages.

1.4. Population Structure

- **Sex Ratio:** number of males per 100 females. Male births outnumber female births, due to social reasons.
- **Dependency Ratio:** shows the relationship between people of working age, and those who are dependents.
 - **Limitations:** does not consider full time education up to 19, longer working age, unemployment of the economically active.
 - $\frac{(\%0-14) + (\% \geq 65)}{(\%15-64)} \times 100$
- **Support Ratio:** inverse of the dependency ratio.
 - $\frac{\text{working population}}{\text{dependents}} \times 100$.
- **Juvenility Index:** proportion of younger people in a population.
 - $\frac{\% < 20}{\% > 20} \times 100$
- **Old Age Index:** proportion of elderly people in a population.
 - $\frac{\% > 60}{\% < 60} \times 100$

1.5. Demographic Transition Model

Changes in Birth/Death Rates

- **Origins:** based on the assumptions that mortality responds quicker to socio-economic progress, than fertility. Where fertility exceeds mortality, population will grow, and socio-economic progress transitions a

traditionally rural society to an urban industrialised economy.

- **The DTM in LICs:** has happened differently to Europe.
 - Much higher initial birth rates.
 - Much steeper fall in death rates (ignoring HIV/AIDS).
 - Steep fall in fertility due to contraception access.
 - Steeper falls due to Western technology being implemented.
- **Advantages of DTM**
 - Easy to understand.
 - Universal concept can be applied to all countries.
 - Flexible timescales.
 - Allows comparisons to be made.
- **Criticisms of DTM**
 - Original model did not contain a 5th stage, and can't predict when changes will occur for a country.
 - Eurocentric, so assumes all countries will follow the way that Europe developed.
 - Ignores regional differences within a country.
 - Does not consider migration, government policies or war/disaster events impacting a population.
 - Diseases such as HIV/AIDS can put the model in reverse.

1.6. Youthful Populations

- **Causes:** high BR (lack of family planning and contraception, high infant mortality), migration, tradition and a lack of care for old dependents leads to high DR amongst that age group.
- **Advantages**
 - Lower DR, higher demand on country.
 - IT literate and educated population.
 - Large future market.
- **Issues**
 - Abundance of future workers may result in unemployment.
 - Cost of childcare and child benefit is high.
 - Short term worker shortage.
 - High healthcare costs.
 - Spending diverted from other uses.
- **Solutions**
 - Anti-natalist policies, reduced BR/IM
 - Privatised education/healthcare
 - Increased immigration of middle aged, restricted immigration
 - Removed child benefits
 - Greater care of old dependents, to reduce death rate in elderly.

1.7. Ageing Populations

- **Causes:** good medical care, diet, sanitation, water supply and hygiene; emancipation of women, increasing cost of children, emigration of economically active.
- **Advantages**
 - Valuable experience and expertise.

- Less money needs to be spent on schools and pre-/child medical care due to declining BR.
- Lower crime rates, less police needed.
- Elderly workers don't need maternity leave, more willing to work and loyal.
- **Issues**
 - Elderly workers do not have IT skills, get sick easier, could retire at any time, unable to work manual jobs.
 - Shortage of economically active workers.
 - Reduced tax revenue for government; so reduced spending on education, healthcare, transport, policing...
 - High pension cost, and high cost of providing healthcare/care homes.
 - Service reduction (sports facilities, schools) not used by older population.
- **Solutions:** pro-natalist policies, increased immigration of economically active, increase retirement age, private pensions/healthcare, increase taxes.

1.8. Population and Development

- **Development:** classed as improvements to the quality of life. Occurs when:
 - Food supply improves as a result of investment in fertilisers and machinery.
 - Literacy levels improve throughout the country.
 - Average income increases above inflation level.
 - Infrastructure (inc. Elec grid) improves throughout.
- **Physical:** land locked countries have slow development, small islands have restricted trade, tropical countries are unproductive, rich in natural resources results in high development.
- **Economic Policies:** encouragement of foreign investment, high savings rates, low spending (relative to GDP), good government, law and order and lack of corruption leads to faster developments.
- **Demography:** fast progress though the DTM results in high development. High economic growth rates correlate with fast birth rate drop.
- **Human Development Index:** 4 variables (life exp at birth, mean schooling years at 25, expected schooling years, GNI pp) define development since it cannot be based on only one.
- **Infant Mortality:** (globally) in 10 years, reduced from 46/1000 to 38/1000, and in 100 years, reduced from around 150/1000. Due to better nutrition, health and sanitation improvements, housing improvements and health advancements directly for the neonatal period.
- **Life Expectancy:** 1900 global was 30 years. 1950 global was 46 years. 2020 global is 70 years. In the future gap between HICs and LIC/MICs life expectancy will reduce, as increased life expectancy is the reward of economic and social development.

1.9. Population-Resource Relationships

Food Security

- **Security:** when all people at all times have access to sufficient, safe, nutritious and affordable food to maintain an active lifestyle. A lack of food security can push more people into poverty, erode developmental gains and threaten political stability.
 - **Availability:** sufficient food quantities available on a consistent basis.
 - **Access:** having enough land/money to obtain appropriate food for a nutritious diet.
 - **Use:** appropriate use of food using basic knowledge of nutrition, care and having adequate water/sanitation.
- **Causes of shortages**
 - **Soil Exhaustion:** desertification occurs with the overuse of a patch of soil – soil erosion occurs.
 - **Drought:** dry period that lasts longer than usual, plants struggle to grow, or as big as normal.
 - **Floods:** severe flooding can kill an entire crop yield.
 - **Tropical Cyclones:** flatten crops, limit export ability.
 - **Pests:** insects destroy 25% global crops. Can also destroy stored grain.
 - **Disease:** fungal diseases damage stored cereals, and foot-and-mouth disease reduces milk/meat yields.
 - **Low capital investment:** poor productivity as a result of poor investment into new technologies.
 - **Poor distribution:** rising transport costs, poor infrastructure limits a farmer's ability to export.
 - **Conflict:** people stop producing food to flee/fight.
 - **Biofuels:** farmers can earn more to produce rapeseed and elephant grass to be used for fuels.
 - **Rising population:** grain demand outstrips supply, high BR and falling DR causes population growth.
- **Consequences of shortages**
 - **Malnutrition:** people unable to work/resist disease. 800 million suffer from chronic malnutrition.
 - **Starvation:** ultimately leads to death. 30 million die from starvation each year.
 - **Death:** 1 million died in Ethiopia. Animals will die too when there is a food shortage.
 - **Aid dependency:** farmers can't sell their food, so stop producing, whole country relies on aid.
 - **Migration:** people may move to access food aid, reducing food production capacity.

1.10. Technology and Innovation

- **The Green Revolution:** India in 1966. A high yielding variety programme was introduced, with hybrid varieties of Rice, Wheat, Maize, Sorghum and Millet, the latter 4 were drought resistant. All were fertiliser responsive and had a shorter growing season.
 - 90% of Asian wheat fields are HYVs. Fertiliser use ↑ 360%. Rice HYVs ↑ from 12% to 67%.
 - + short growing season, varied diets, 2/4x higher yields, employment increases.
 - - high fertiliser inputs, more weed control required, high debts, salinisation, diets low in vitamins and

minerals.

- **Genetic Modification:** taking DNA from one species and adding it to another - such as pest-resistant genes from soya beans.
 - + helps solve food shortages, reduces chemical inputs, improves development.
 - - uncontrolled pollen spread means modifications may spread to other crops, organic status lost, poor farmers cannot afford, possible human health impacts.
- **Integrated Pest Management:** pest control strategy causing least hazard to people, property, environment.
 - Use of mechanical traps, natural predators, insect growth regulators, pheromone distribution.
 - Pennsylvania saved \$20m on pesticides in the 1990s.
- **Irrigation:** controlled watering. Sprinklers = wasteful.
 - Drip irrigation: drips at the roots, evaporation and runoff are minimised, therefore very efficient.
- **Micro-Propagation:** use of tissue culture to rapidly produce disease free, ready to grow, robust plants. Expensive and infections will spread quickly.
 - Caribbean banana industry uses such methods.
- **Growth Hormones:** improve weight gain, feed conversion efficiency, carcass quality.
 - Possible public health/animal welfare issues.
 - Improve USA milk yields by 10%.
- **Appropriate/Intermediate Technology:** small scale, sustainable, low-tech ideas, that are relevant to local climate and environment.
 - Examples: choosing drip irrigation over sprinklers, dung over fertilisers, local tools, to balance profit and subsistence crops.
- **Land Colonisation:** exploitation of land not previously used for agriculture. Used to grow commercial crops or provide new land for subsistence farmers.
 - Drain land, reclaim land from the sea, take advantage of dry areas by providing irrigation.
- **Land Reform:** Brazil in the 1990s. Redistribution of land by the consolidation of small fragmented farms, state ownership, or land colonisation.
- **Commercialization:** TNCs source food from less developed countries. Small farmers are drawn into contracts - increasing output by intensification, but this results in a decline in staple foods for the locals.
 - 100,000 smallholders in Kenya. Biggest veg supplier to the UK.
- **Indoor Farming:** Farms without soil in warehouses and shipping containers. UV lights used, controlled climates created, heavily managed growth, but high in nutrients and little environmental impact. High costs - electrical energy.
 - New Jersey/Brooklyn and Western cultures are taking advantage of modern technologies and sciences.

1.11. Constraints in Sustaining Populations

- **Poverty:** lack of money means an individual cannot sustain themselves, and the country cannot afford infrastructure for economic development.
- **Famine:** soils get overused, and droughts kill crops. Soil exhaustion increases with the food demand that an increasing population applies.
- **Plague:** controlling disease affects the most vulnerable (poorest, youngest and oldest) first.
- **War:** kills people in the conflict over shortage of resources, such as oil and foods.
- **Natural Disasters:** earthquakes, floods, droughts, volcano eruptions and storms all have huge potential to cause large scale catastrophe and deaths.
- **Political Instability:** discourages foreign investment that would help to sustain a population and develop. Any money that is received/made will be misused if the government is corrupt.
- **Trade Barriers:** many LICs subject to tariffs, quotas and regulations that limit their exporting ability. In some countries one product makes up a huge proportion of their income, if the price drops on that one product, then the whole economy suffers.

1.12. Carrying Capacity

- The largest number of people an environment can support without damaging the environment, and living standards deteriorating.
- **Ecological Footprint:** a measure of natural resource consumption, measured in global hectares per person. For a country, it is the sum of all cropland, grazing land, forest and fishing grounds needed to produce the wood, fibre and timber it consumes, to absorb wastes emitted and provide space for infrastructure. Allows comparisons to be made between countries.
 - Global average is 2.7gha per person. To be sustainable, it can only be 2.1gha per person.
- **Biocapacity:** is the capacity of a biologically productive area to produce a continuing supply of renewable resources and to absorb wastes.
 - **Unsustainability:** occurs when ecological footprint exceeds its biocapacity.

1.13. Optimum Population

- **Overpopulation:** available resources are unable to support population. Often a result of unsustainable development and occurs when a population outstrips the resources or resources dwindle. Causes low incomes, high unemployment, emigration and low living standards.
- **Underpopulation:** occurs when there are too few people in an area to use all the available resources efficiently for the current level of technology.
- **Optimum Population:** an economic concept for where population is in balance with the available resources, given a level of technology. Overpopulation occurs when the optimum population has been exceeded. High

average living standards show optimum population. Hard to achieve as populations and technology/resources are constantly changing.

- **Optimum rhythm of growth:** states that population growth responds to technological advancements, any movement astray will cause excess capacity (more carrying capacity than population) or population pressure.
- **Population Pressure:** population per unit area exceeds carrying capacity. Most severe in LICs. May be due to pure overpopulation, or just underdevelopment.
- **Thomas Malthus:** stated that food supply increases arithmetically, while population increases geometrically (if unchecked). Population increase causes increased food demand, so less food per person. Increased mortality and decreased fertility, so population decreases.
- **Esther Boserup:** state that population increase causes an increased food demand and then a technology improvement in response, allowing population growth to remain unchecked.

2. Migration

2.1. Migration as a Component of Population Change

Movements of Populations

- **Migration:** permanent change of residence of an individual/group of people that lasts for more than a year.
 - **Short term movements:** last for less than 1 year; commuting, tourism, seasonal movements.
- **International:** when an individual or group of people cross an international border for more than 1 year.
 - **Immigrant:** someone who moves into a country.
 - **Emigrant:** someone who leaves their country.
- **Internal Migration:** when people move from one place to another inside a country.
 - **Out-migration:** movement of people out of a region.
 - **In-migration:** movement of people into a region.
- **Net migration:** the difference between in-movements and out-movements to a region/country.
- **Source:** place that migrants come from/where migration started.
- **Destination:** where migrants go/where migration is completed.
- **Migration stream:** the common route that migrants take to get from a source to a destination.
 - **Counter stream:** the reverse of the migration stream, as people return home. Reduced volume of people.
- **Distance-Decay:** as the distance increases between source and destination, the number of migrants reduces.

2.2. Causes of Migration

- **5 migratory types**
 - Primitive (moving for physical farming factors)
 - Forced (slave trade, Chernobyl, natural disaster)
 - Impelled (under perceived threat)
 - Free (not forced)
 - Mass (high magnitude).
- **Push factors:** negative reasons behind people move away from the source.
 - Social intolerance/civil war
 - Government corruption
 - Natural disaster/climate conditions
 - Poor employment and low income
 - Bad education
 - Bad healthcare.
- **Pull factors:** positive aspects about the destination.
 - Job prospects and high-income promise
 - Higher living standard
 - More entertainments
 - Better education and healthcare
 - Stabler government, environment and socially.
- **Chain migration:** after a few migrants leave, a chain reaction is set off, and many more follow.
- **Relay migration:** at different stages in the family life cycle, different people migrate to improve financial situation.
- **Step migration:** rural migrant progressively steps to bigger settlements. Rural town small town small city larger city...
- **Patterns:** some famous examples include, Mexico USA, Asian countries USA, Eastern European Western Europe. LICs HICs; HICs HICs; South North.
- **Constraints:** factors that may prevent migration.
 - **Closing up cost:** the cost of leaving the source. Insignificant in LICs, but in HICs; possessions, houses, and emotional costs are factors.
 - **Opening up cost:** the cost of purchasing a house, legal fees, essentials to survive in the destination.
 - **Journey:** may pose its own risks/costs. For HICs, there is a large cost to travel and transport. For LICs, the journey may be long walk or perilous boat/lorry ride. High risk of scam, death or highway men.
 - **Immigration laws:** may encourage/discourage migration. Europe encouraged migration in 1950s to tackle labour shortage. Now UK is trying to control immigration.
 - **Physical border:** US/Mexico wall inhibits migration.

2.3. Migration Theories

- **Todaro model:** a migrant's decision to migrate can be explained with economic costs/benefits. Migrants willing to endure short financial difficulty for better future.
- **Systems model:** migrant works through a flow chart to decide if migration is the best thing to do.
- **Marxist theory:** migration is the only option after the alienation of land. Labour migration will occur with the transition into capitalism. Local employers use migrants as bargaining power with local workers.

- **Gender:** men traditionally move to find work, and return remittances – gives destination a large economically active population. However, women have a higher status, so many choose to migrate now – eg. female nurses into UK from Philippines.
- **Age:** the young are more likely to migrate, in search of employment, as they are fitter and just completed education. Many European pensioners now migrate for their retirement.
- **Distance:** with longer distance, the pull factors must be much stronger, otherwise people will find it difficult to migrate.

2.4. Internal Migration

Rural/Urban and Urban/Rural

- **Macro scale:** colonial roots, transition from traditional societies to capitalism, currently occurring in LICs and previously occurred in HICs. Makes generalisations, doesn't account why people do/don't migrate in the same situation.
- **Meso scale:** considers push/pull factors, movement based mainly on economic with some social factors, regional rather than national. Doesn't view source regions as differentiated.
- **Micro scale:** views migration on individual bases, acknowledges migration stream, includes factors such as: income, stage in life, education. Doesn't consider migration patterns.
- **Rural/Urban migration**
 - **Causes:** poverty, low wages, hard/menial jobs, unemployment, poor amenities and services. Farming mechanisation reduces the need for jobs. Service improvement in rural cities leads to rural population growth, and more people move out to find employment. Low barriers to stop people trying.
 - **Source Impacts:** remittances returned, so more money to improve rural areas. Separated families; young males move, leaving children to work and elderly uncared for. Deforestation.
 - **Destination Impacts:** pressure put on housing, water supplies and services. People live in poor conditions. Informal economy created; no tax paid. More pollution and landfill sites.
 - **Population structure:** **rurally;** many dependents, few economically active, large child population. **Urban;** bulge in economically active ages, few young and elderly dependents.
- **Urban/Rural migration**
 - **Causes:** pollution, crime, congestion, loneliness and racial tension. Rural areas are cleaner, more affordable, more social, and service provision (particularly education & healthcare) is much better.
 - **Source Impacts:** city enters a downwards spiral as only the rich can move out. City's taxes reduced, so less money to tackle social and economic problems.

- **Destination Impacts:** more money brought into the area, but negatively affects rural poor as: shops shut, services and public transport cut (increased private car ownership), more congestion, decline in community life, house prices shoot up and old traditional buildings converted to modern houses.
- **Population structure:** dependency ratio generally increases, as only rich older people move from city.
- Also called **counter urbanisation**. Occurs primarily in HICs where urban areas degenerate, and rural areas gain services to make them more attractive.

2.5. Stepped Migration

- Migrants move from rural settlements to big urban cities, but complete the move in a series of steps over many years.
 - Initial movement is to a slightly bigger settlement; new skills, money and confidence developed.
 - Next move occurs to slightly larger settlement, and migrant becomes more aware of employment opportunities and personal contracts, so
 - Next move is from small urban area to large urban area using contracts/employment opportunities (eg. promotion). Skill development and money is a factor throughout the steps.
- Occurs in LICs (Nigeria: villages Lagos), and in HICs (students leaving school).

2.6. Causes and Impacts of Intra-Urban

- Movement from one urban area to another. It is closely linked to the life cycle of a family and income – which changes housing type and location.
- **Middle class cycle**
 - Childhood in private semi-detached house
 - Moves into rented flat in CBD after Uni, close to job
 - Marries; Private semi-detached house close to good school. Further away from CBD but still commutable
 - Promotion enables affluent detached house further away from CBD
 - Retires in a large house on rural-urban fringe.
- **Working class cycle**
 - Childhood in rented council house
 - Moves into industrial shared rooms after school, close to CBD
 - Marries; Moves into rented council flat in tower
 - Starts family and moves into bigger rented council house – ring 3 or 4 on CBD model (still close)
 - Retires in rented council bungalow.

2.7. International Migration

Voluntary and Involuntary

- **Voluntary:** migrants choose to move on their own accord. Many who voluntarily move are economic migrants,

moving for a job or living standards, moving HIC HIC. Increasing female movement aided by globalisation.

- **Independent movement:** decision is taken by the individual.
- **Dependent movement:** decision is collective by the household. Individuals may not have a significant say – dependent of age/gender/prospects.
- **Involuntary:** migrant has little or no choice to move or feel they must move to be safe.
 - **Refugee:** someone who is allowed to stay in the country fled to, after proving persecution risk and asylum claim being approved.
 - **Asylum seeker:** someone who has fled their country to the nearest safe one. Has a legal right to stay with protection (UK = 1yr), but not allowed to work. Must prove the risk of persecution and tell authorities.
 - **Internally displaced person:** someone forced to leave their home for the same reasons as an asylum seeker, but remains in the country.
 - Currently increasing due to warfare, ease of access to weapons, ethnic cleansing and natural disasters.
- **Golden visas:** new waves of people granted visas, who invest in the country in some form. Preferential treatment based on wealth/assets (eg. Canada).

2.8. Causes and Patterns

- **Causes:** population pressure, economic differences, civil war, natural disasters.
- **Barriers:** cost of moving, distance to move, cultural/information barriers, immigration laws (visa requirements, border walls, intercepting illegal entries, checking return tickets for tourists etc...)
- **Patterns:** LICs HICs; HICs HICs; South North. May involve gender, distance, level of development, former colonies of a nation.
- **Impacts on source**

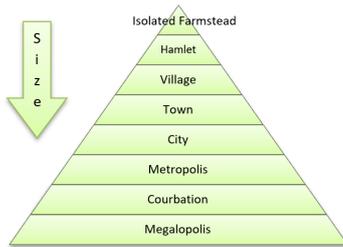
Positive	Negative
Remittances major income source (\$467bn in 2014)	Loss of young adult workers (brain drain)
Emigration eases levels of unemployment	Increased ageing population
Reduces health/ education pressure	Lower agricultural output as labour falls
Returning migrants bring new skills and ideas.	Returning migrants may question traditions, causing division.

3. Settlement Dynamics

3.1. Rural Changes

Rural Settlement Background

- **Rural area:** low population density countryside area, where the economy is dependent on primary activity.
 - **Rural landscape:** visual picture of a countryside settlement and how it is perceived.
- **Greenbelt:** areas of open land retained around a city, where development is restricted.
- **Urbanisation of poverty:** increasing concentration of poverty in urban areas, often due to rural-urban migration.
- **Rural-Urban Continuum:** no sharp difference between settlements, there is a graduation.



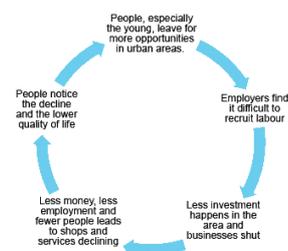
- **Settlement patterns**
 - **Isolated**
 - Due to extreme environmental conditions
 - Insufficient natural resources.
 - **Dispersed**
 - Farmhouses separated by large farm areas.
 - No nucleation of properties.
 - 2-3 housing hamlets.
 - **Nucleated**
 - Has economic, social and defensive purpose.
 - Originally clustered for defences in war.
 - Area of resources (valley region, river confluence, coastal location)
 - **Linear**
 - Properties along roads, rivers and transport lines.
 - People want close proximity to transport network.
 - Rivers historically used for cooking, cleaning, water.
 - **Loose Knit**
 - Similar to nucleated, but settlements not closely clustered.
 - Farmland separates properties.
 - 'Traditional rural settlement'.
 - **Green ring**
 - Village built around circular field for communal or religious purposes.
 - **Planned**
 - US city fringes have planned settlements.
- **Rural perceptions**
 - Tight community where people know each other.
 - Strong family ties.
 - Homogeneity – shared languages, culture, religion.
 - Less expressed differences between social classes.
- **Key Villages:** villages that have a high concentration of services, reduced service decline and an assured

threshold population. They satisfy the needs of surrounding villages/hamlets.

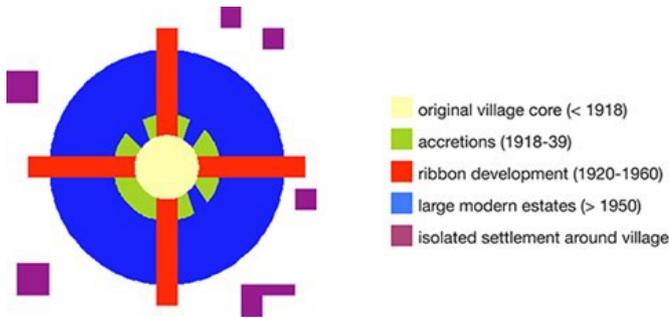
- **Characteristics:** has existing employment/services, accessible by public transport and roads, relatively close proximity to urban centre, land value high enough to encourage development.

3.2. MIC/HIC Contemporary Issues

- **Rural-Urban migration**
 - Rural depopulation is the primary driver for other rural issues. As people leave, BRs decrease below the replacement level – leading to cut services. Cut services leads to unemployment and further 'out-migration'.
- **Changes in agriculture**
 - Decline in farm work due to increased mechanisation, reduced wages, poorer farmers.
 - Farms increase in size and hedgerow reduces – harming the ecological network.
 - Farms bought up by corporations.
 - Farm diversification occurs. Farms used for other industries such as tourism. However, too much diversification = oversupply, which leads to decline.
- **Service decline (due to lower population density)**
 - Shops, post offices, healthcare, transport and activities provide a backbone for communities; they provide a sense of belonging which stops people leaving for urban areas.
 - Service decline = reduction in quality of life.
 - **Causes:** depopulation, market forces, changing expectations and population patterns, governmental focus on urban areas.



- **Rural transport**
 - Increase in car ownership = public transport decline.
 - Poor, elderly, young and vulnerable are isolated.
 - Creates a barrier for low-income families to access employment.
 - Fuel prices increase.
- **Rural turnaround:** movement back into rural areas, often just beyond a cities greenbelt, so commuting is still possible.
 - **Dormitory settlement:** rural settlement that has become increasingly urbanised recently, that is largely occupied by people employed in nearby urban areas.
 - **Morphological Evolution of suburbanised villages:** shows land use changes, ribbons along roads and the addition of private/council estates, over time:



• **Second home concept**

- Urbanites purchase 2nd homes in rural locations.
- Offers higher local employment and increased taxes paid funds communities and services that may have stopped otherwise.
- More money allows new infrastructure to be installed, services have a higher threshold population.
- However; house prices rise, farm land fragments, visual degradation occurs, building work may be sub-standard, cultural/environmental issues exist.

3.3. LIC Contemporary Issues

• **Social**

- – ageing rural population, as young move to the city.
- – public and private services close, due to population decline.
- + reduced unemployment due to smaller population.
- + big focus on traditional family structures, customs and reuse/repair to material possessions.

• **Environmental**

- – natural resources exploited by large companies; government/rural population have few legal property rights
- – harsh environments make surviving and farming difficult.
- + rural population decline reduces pressure on resources such as food and water.

• **Economic**

- – reduced agricultural production, insufficient labour.
- – development schemes tend to focus on high profile urban areas, leaving rural communities forgotten.
- – political corruption and discrimination of gender, race and religion increases poverty.
- – families that are large/rapidly growing (high dependency ratio) will suffer financial hardship.
- + remittances provide a large proportion of a family's income.

3.4. Urban Trends and Issues

Urban Growth

- **Urbanisation:** an increasing proportion of population, in a geographical area living in urban settlements.
- **Urbanisation causes**
 - Natural population growth

- Rural-Urban push and pull factors
- **In LICs:** better healthcare/education, plentiful food as it is imported, higher wages, employment protection, government investment policies.
- **Urbanisation consequences**
 - **Overcrowding:** rapid population rise leaves houses overcrowded, children may be abandoned, and people forced to sleep rough.
 - **Squatters:** houses built on unused land (dirty, unsafe, polluted) as no housing available.
 - **Lack of available work:** labour influx exceeds demands, so people unemployed. Many unskilled labourers cause wages to decrease – enhances poverty. Factories employ women and children to do dirty and dangerous work.
 - **Pollution:** smoke and toxic liquids directly released. Raw sewage and rubbish dumped and flows into rivers.
 - **Taxes:** councils can't raise taxes when many are in poverty/the informal sector, so public services and infrastructure begin to suffer.
 - **Crime:** generally, increases.
 - **Improvement strategies:** if money is available, build high-rise housing. Self-help schemes. Site/service schemes (where services and jobs are provided).
- **Counter urbanisation:** process of population decentralisation, that tends to occur in HICs as people move from urban areas to rural settlements, and adds to the effect of urban decline. In most places counter urbanisation is counteracted by in-migration.
- **Suburbanisation:** outward growth of urban area to engulf surrounding rural areas, that started with the middle-class, as a result of: low interest rates, good public transport and infrastructure, government support for houses, new amenities, building societies.
- **Re-urbanisation:** movement of people and economic activity back into the CBD and inner/industrial areas. May just be a temporary phase as a result of large cash injections, or a result of the changing times (4 million extra houses needed in UK – most will be urban).
- **Competition for land:** reflected in land prices and property rental prices. Often competition leads to derelict sites, social classes forced into ghettos and poorer people being forced out of the inner city.
- **Urban renewal:** can be property-led, partnership schemes or private initiatives; where the best parts of a location are kept, and adapts them to fit new uses.
 - **Urban redevelopment:** involves complete clearance.
- **Urban regeneration:** a program of land redevelopment that usually makes attempts to fix urban decline, allowing business and higher-class opportunities.

3.5. World City Concept

- **Mega city:** population > 10 million, density > 2000 people per km², can be made up of converging areas.
- **Millionaire city:** has over 1 million inhabitants.

- **World city:** acts as a major centre for finance, politics, trade, culture, business. Serves more than a country or single region. Not linked to population size.
- Recent shift (last 50 years) from New York and London being largest cities to Asian countries such as Tokyo. HIC cities have stagnated while LIC cities increased.
- **Causes of growth**
 - **TNCs:** central HQ, where manufacturing is outsourced to LICs with cheaper labour.
 - **Communications:** phones and the internet allow one office to provide services all around the world – global brands can be easily managed from one place.
 - **Demographics:** high natural increase and 'in-migration' produces a large working population.
- **Hierarchy of world cities:** based on the Global Cities Index, where rankings consider 24 measures across business activity, human capital, information exchange, cultural experience, political engagement.
 - **Alpha ++:** London and New York.
 - **Alpha +:** Hong Kong, Paris, Dubai, Tokyo...
 - **Alpha:** Milan, Beijing, Mumbai, LA...
 - **Alpha -:** Miami, Dublin, Melbourne, New Delhi...
 - **Beta +, Beta, Beta -:** Washington, Oslo, Munich.
 - **Gamma +, Gamma, Gamma -:** Montreal, Perth, Manchester.

Growth in these 5 sectors make up the index.

- **Economics:** New York Wall Street and London Stock Exchange are global leaders. IBM and PepsiCo (TNCs) locate in NY. HSBC bank chooses London.
- **Politics:** EU HQ in Brussels, Belgium. 10 Downing Street and Houses of Parliament in London. Offers single place for politicians, investors and media attention.
- **Culture:** London has attractions such as London Bridge, West End and Buckingham palace (15m visitors/year). Other cultural aspects: universities and food.
- **Technology:** NY has 7,000 tech firms (most in world). Hong Kong has best public transport, Amsterdam pioneers green energy (2nd greenest globally).

3.6. Changing Structure of Urban Settlements

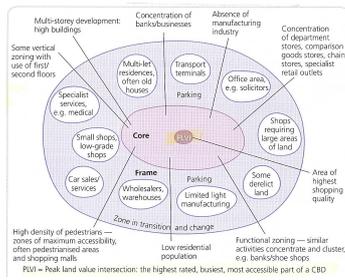
Factors Affecting Location of Activities

- **Manufacturing**
 - **Pre-1960s:** disadvantages of CBD sites became obvious, as motor car allowed urban sprawl to occur. New rural or suburban sites chosen.
 - **Post-1960s:** most HIC cities are post-industrial as manufacturing has moved from HICs to MICs/LICs.
 - **Constrained Location Theory (problems inner-city manufacturing faced)**
 - Multi-storey 19th century buildings unsuitable for modern ground floor manufacturing (sites too

small, land cannot accommodate large industrial parks).

- Intensive land use prevents expansion.
- Previous land contamination renders cost of brown-site clean-up too high.
- Land prices too high for manufacturing due to high competition.
- **Other factors:** urban planning policies in 50s/70s demolished factories in slum housing areas. Companies received government incentives to relocate elsewhere. Inter-firm links steadily broken.
- Severe inner-city job loss, but surplus labour in suburbs leads to new infrastructure and thriving factories. Lower land costs, better quality of life.
- **Retailing**
 - Traditionally in the CBD. Progressive movements out from CBD, with the creation of retail parks, urban superstores, out-of-town shopping centres and home delivery/internet shopping.
 - Out-of-town shopping centres are open, easily accessible, create jobs, offer advantages to shoppers. However, they destroy green fields, create unskilled jobs, require a car to access, take trade from CBD and small businesses, impermeable surfaces and pollution
 - **Trafford Centre:** 300 acres of land, 150 acres of building. 2 million ft² of floor space. 11,500 parking space, petrol pumps on site. 11-stop bus station and coach stops. Local catchment of 9 million people, 31 million people visit each year (67% female). In 2018 footfall increased by 1.6% (+500,000 visits). 243 shopping units, 20 screen cinema, 16,000 seat food court, shoppers spend £145 on average per visit.
 - **Space, land costs and accessibility.**
- **Health**
 - Preference is for one large, central hospital, rather than several smaller ones throughout a location.
 - **Land costs and building space.**
- **Education**
 - Primary schools dotted throughout local areas around a city, and fewer secondary schools with a more central location as they are larger. People travel further for secondary education.
 - **Accessibility and size/cost of land.**
- **Leisure/open space**
 - Sports stadiums that used to be in inner city areas are being moved to edge of cities, due to shortage of space and congestion. Smaller parks/open spaces easily added to cities.
 - **Congestion and space.**

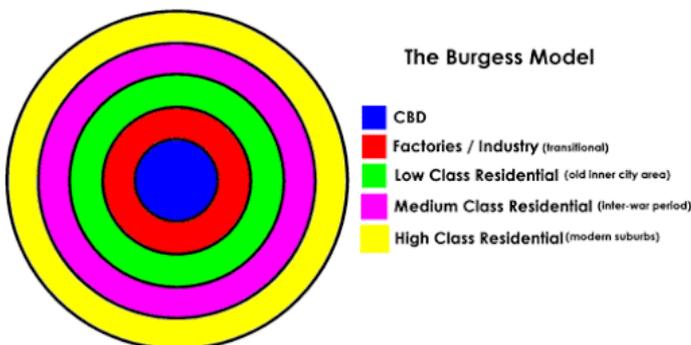
3.7. Changing CBD



- Increased pedestrian zones
- Indoor shopping centres
- Environmental and safety improvements
- Better access, as public transport and road networks improve.
- **CBD decline**
 - Rise in car ownership leads to increased mobility. Leisure shopping and congestion become more common. CBD becomes less accessible.
 - Planning authorities may encourage/discourage out-of-town shopping, leading to changes in how people shop. Uncoordinated plans have a negative effect.
 - Land and investments are cheaper on green-field sites, so retail industry moves out of CBD. In addition, these sites have good access and nice environments.
 - Public perception that area is dirty and unsafe.
 - Urban sprawl blurs previous distinct boundaries, CBD's location fades and becomes less important.
 - CBD development and maintenance cost is high.

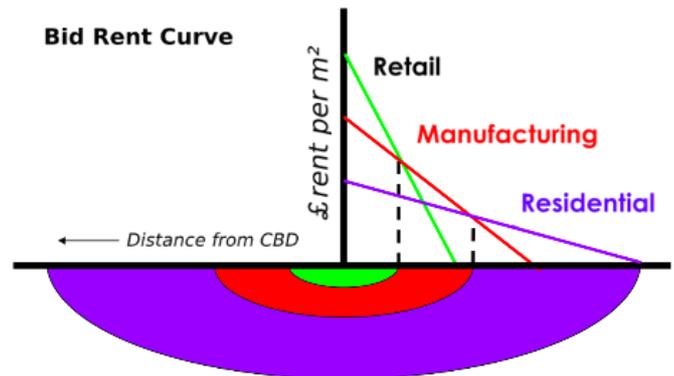
3.8. Space Competition/Functional Zonation

- **Concentric Zone Model**
 - Assumes equal movement, uniform land and free competition for space, in all directions.
 - Development is outwards from the centre with continuing in-migration.
 - Business activity occurs in CBD as most people have access to that central point.
 - Zones of transition outwards, through industry and low-class housing. Migrants drawn to low prices.
 - Areas of better housing further out, as people can afford to move out of centre (occupied by middle-class with newer and larger houses).

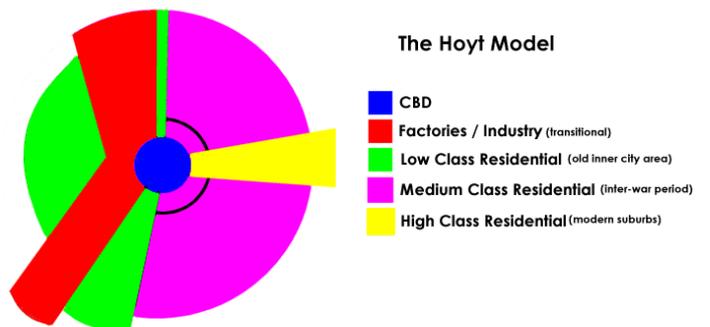


- Bid Rent Theory

- Assumptions are the same as the Concentric model.
- A city centre location is more expensive to buy/rent as it is most accessible, so only retail/offices will bid.
- Moving outwards, industry bids the most, then housing.
- Poor mobility and low-income groups reside in inner locations due to CBD access. High land prices are overcome as people live in high densities.
- Affluent and mobile seek cheaper land for better housing. Space traded off for commute time.
- At line intersection, both uses pay the same, otherwise the use line on top will bid more.

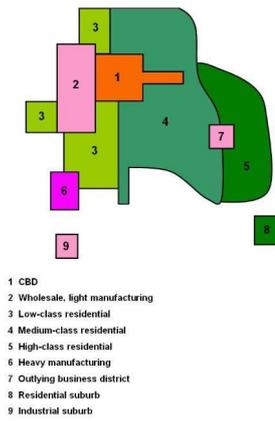


- **Sector Model**
 - Maintains that most people have access to CBD.
 - Industry follows transport routes.
 - High class residential develops around physical/social features, such as rivers. Opposite side of city to where pollution is blown by wind.
 - Low class housing forced in less attractive areas, close to factories, and in the path that pollution is blown.



- **Multiple Nuclei Model**
 - CBD present, but not necessarily in centre of model.
 - Low class housing found in cheap land areas (around industry). Higher class avoids industrial land, so locates on opposite side of the city.
 - Areas of development occur outside the main settlement around new nuclei – such as out-of-town shopping centres.

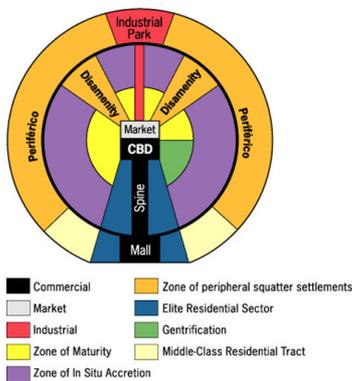
Harris and Ullman's multiple-nuclei model of urban land use



LIC/MIC land use

- States a CBD centre with industry that develops around transport and waterways.
- Zone of maturity consists of services, and a mix of old/new housing that was once occupied by affluent.
- Elite housing develops along the commercial spine.
- 'In situ accretion' has a wide range of housing and is in the process of improvement through government projects.
- Squatter settlements locate in the Periférico, on the most undesirable land.

A NEW AND IMPROVED MODEL OF LATIN AMERICAN CITY STRUCTURE



- Urban density gradients:** population density falls with increasing distance from the CBD.
 - HICs:** there is an initial rise and then decline in density, as affluent population spreads further rurally.
 - LICs:** continued density increase, so density gradient is kept stable as urban area expands.
 - Due to; low personal mobility/public transport, CBD has a residential function (more compact CBD restricts sprawl).

- High suburban densities do exist, and car ownership is increasing, leading to urban sprawl.

3.9. Residential Segregation

- Clustering of certain groups of people/activities/ services.
- Causes**
 - Income:** high income gives people a wide choice of places to live; people can choose the best house/location they can afford (car ownership allows long commutes). Leads to gated communities. Lower income households have choice limited by house prices and access to public transport.
 - Age:** as someone ages, they need an increasingly large house. Young people buy flats, then as a small family grows, then number of bedrooms required increases. Once children move away, parents downsize to smaller properties.
 - Race/Ethnicity:** clustering results in 'ethnic villages' or 'ghettos'. Linked to income too, as migrants typically have low income, therefore must locate close to CBD.
- Processes**
 - Housing market:** housing supply should equal demand – but doesn't. Therefore, housing in short supply causes high property prices, and low-income people are pushed to the urban periphery.
 - Influence of family/friends:** people migrating into an urban area tend to cluster close to family or friends for comfort and support.
 - Culture:** even if people earn enough to live in a certain area, they may choose not to if they don't feel comfortable.
 - Planning:** urban planners aim for a good social mix of people to avoid ghettos.
 - Finance:** if access to mortgages is good, residential segregation won't be severe.
- Urban renaissance:** aims for more sustainable and high-quality living by putting people close to services, with good public transport and maintaining attractive living areas.
- Urban mosaic:** pattern of different residential zones within a city that reflects socio-economic variations.

CAIE AS LEVEL Geography (9696)

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