URBAN ENVIRONMENTS

Urbanisation

Megacities: *cities with over 10 million inhabitants; are growing in numbers, particularly in NEEs and LICs in Asia and Africa*

Fortress developments: *housing and business complexes with high security; may include deterrents for outsiders, such as high walls.*

Mixed developments: *complexes that includes a range of purposes: housing, businesses, retail, restaurants, leisure, cultural or historical spaces, such as museums*

Urban forms

CBD: *Central business district*

Edge cities: *when suburbs become developed enough to become their own recognised urban area.*

Postmodern Western cities: *the concept that all cities are becoming homogenised as a result of globalisation.*

Cultural and heritage quarters: *areas of historical significance*

Counter-urbanisation: *when people move from urban areas to rural areas in search of a better quality of life (occurs mostly in HICs)*

Suburbanisation: *smaller urban communities on the outskirts of cities and towns*

Urban resurgence: *Regeneration or redevelopment of an urban area to increase economic flows*

Factors of urbanisation

Urbanisation rates have been increasing since the Industrial Revolution in HICs and are rapidly increasing in LICs and NEEs

Push and pull factors *encourage rural–urban migration (one of the most common pull factors being increased employment opportunities)*

Urban sprawl: *When cities expand outwards into nearby rural areas*

Natural urban population growth occurs when people living in urban areas have children

Urbanisation

1979 – Thatcher's government: *focus on privatisation and private urban investment*

British Urban Policy

1991 – Major's government: *focus on partnerships between private companies and local authorities*

1997 – Blair's government: *focus on regeneration and regional development*

2000s onwards: *devolution of power to local councils and New Deal for Communities (NDC) scheme*

Urban change

Decentralisation: *when shops and businesses move away from the CBD and inner city to surrounding areas in the suburbs and out-of-town retail and industrial parks*

Economic shift: *rise of the tertiary (services) and quaternary (research and development) industries*

Gentrification: *redevelopment of a run-down area that usually results in social inequalities and prices out locals*

Deindustrialisation *has led to urban decline in many cities (especially in HICs). This has led to poverty, dereliction and increased crime rates in some areas.*

Socio-economic issues associated with urbanisation

Cause	Effect	Management
Wealth gap, unfair wages and informal work.	*Poverty, social inequalities and poor standard of living.*	*'Living wages' and improved employment opportunities.*
Discrimination due to social, demographic or economic grouping, e.g. racism.	*Social segregation, social injustices, wealth gaps and physical/verbal harassment.*	*Equal opportunities for all. Public education on diversity and inclusivity. Legal reforms (e.g. UK's 2010 Equality Act).*
High land values, high house prices, gentrification and private housing developments.	*Unaffordable housing, informal settlements (slums / shanty towns) and homelessness.*	*Affordable housing quotas, help-to-buy schemes, NGO involvement and improved accessibility to employment.*

SUSTAINABLE URBAN FUTURES

- *Urban areas tend to have high ecological footprints (the amount of resources or environmental stresses required to do an activity or make a product).*
- *Urban greening is a method of incorporating sustainability into urban development. Not only do trees, plants and open green spaces improve air quality and create permeable surfaces, they are also linked to a better quality of life for residents.*
- *Incorporation of SUDS to reduce risk of flash flooding and encourage natural water drainage.*
- *Urban areas in LICs and NEEs can 'leapfrog' certain aspects of development to incorporate higher rates of sustainability, e.g. solar panels for energy on newly built houses and offices.*
- *Sustainable cities must include all dimensions of environmental, economic and social sustainability.*
- *Liveability refers to how well an urban area gives a good quality of life to all of its residents; aspects include good accessibility, affordable housing, open/green spaces and good air/water quality.*
- *e.g. Bristol is often considered a sustainable city due to its increasing accessible public transport and extensive cycle routes.*

URBAN DRAINAGE

- *Impermeable surfaces of infrastructure make natural drainage difficult.*
- *This also makes urban areas at risk of flash flooding.*
- *Rainwater is directed to drains and then on to rivers away from the city; this can create issues downstream, such as excess erosion and salinisation.*
- **Sustainable Urban Drainage Systems (SUDS)** *are a method of ensuring excess rainwater can percolate into the environment as naturally as possible. Examples include green roofs, urban greening (planting trees) and rainwater recycling.*

URBAN WASTE

Personal: *household waste; food, packaging, clothing*

Commercial: *from retail, catering, offices and e-waste*

Industrial: *infrastructural (building waste), hazardous waste*

Development is generally leading to more people having a disposable income and, therefore, spending it on items that produce waste. Types of waste management include:

Unregulated: *causes significant environmental issues, such as pollution, and affects the ecosystem as well as causing a hazard to human health.*

Recycling: *can be energy-intensive and there is a limit to how many times a material can be recycled.*

Incineration: *burning waste. Unfiltered incineration leads to harmful emissions (CO_2, SO_2) and air pollution.*

Recovery: *when energy is recovered from incineration of waste materials; filters are often used to reduce emissions, e.g. Viridor Energy Recovery Facility near Cardiff, UK.*

Burial and landfill: *causes pollution and land degradation, and is seen as the least sustainable option. Materials such as plastics are unlikely to ever decompose, and pose high risks to the ecosystem.*

Submergence: *burial of waste underwater (seas, lakes). It is illegal in most countries but still occurs and causes pollution.*

Trade: *often cheaper to buy waste materials than to source new, raw materials. China buys waste from the UK.*

URBAN CLIMATE

Temperatures: *urban areas have a microclimate and experience the* **urban heat island effect**. *This makes urban areas hotter than surrounding rural areas, due to the low albedo of urban infrastructure absorbing solar radiation and giving off heat. Extreme urban heat can affect vulnerable groups of society.*

Precipitation: *can be higher over urban areas (largely due to the urban heat island effect contributing to convection currents above the urban area). There is a higher chance of thunderstorms in urban areas, which poses a risk to the highly dense population.*

Wind: *channelling and the Venturi effect create strong winds through narrow streets and between buildings. This can be dangerous for some people or can be used as natural air conditioning in hot countries (e.g. UAE).*

Air: *photochemical fog and smog is an issue in some urban areas, causing poor air quality and affecting the human respiratory system, as well as affecting the natural ecosystem.*

Pollution-reduction strategies

- *Legislations, e.g. UK Clean Air Act (1956).*
- *Low/zero emission zones.*
- *Pedestrianisation of certain urban areas/streets.*
- *Air quality monitoring.*
- *Regenerating derelict areas to incorporate sustainable designs.*

SYNOPTIC GEOGRAPHY

Changing places: *how are urban places represented in the media? How do people create a sense of place from urban areas?*
Water and carbon cycles: *how does the urban environment affect the natural water cycle?*
Hazards: *how do urban areas relate to areas associated with hazards?*
Population and the environment: *why do people tend to live in urban areas?*

CASE STUDY: RIVER RESTORATION

The Magnificent Marden Project
Volunteers have been asked to help rebuild the riverbank, to increase biodiversity. The project is still ongoing but has so far been successful.

Strategies such as this help to reduce the impact of urban drainage into nearby rivers which creates pressure on riverbanks and risks bursting. This could lead to flash flooding.

A photo of Shanghai, showing the smog in the city