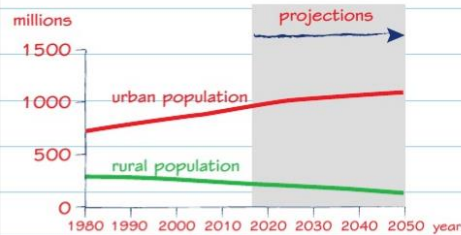


# Urbanisation trends

**Case study** The world's population is becoming increasingly urbanised. Cities in developing global regions are growing especially fast.

## Developed regions

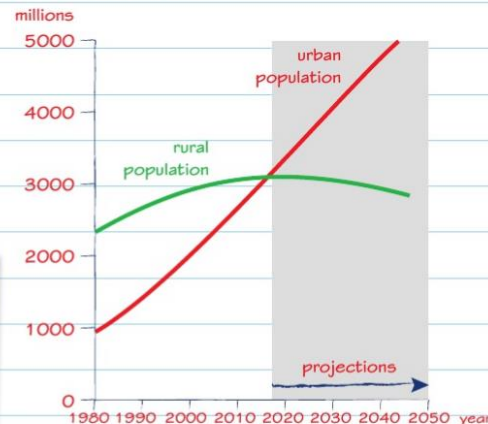
Europe, North America, Australia  
New Zealand and Japan



Developing global regions have very rapid urbanisation. The rate of urbanisation in developed global regions is much slower. This is mainly because developed countries are already highly urbanised. For example, 80 per cent of people in the UK live in cities.

## Developing regions

Africa, Asia (excluding Japan), Latin America and the Caribbean, Melanesia, Micronesia and Polynesia



## Worked example

Explain why most of the future growth of cities is likely to be in the developing world. **(4 marks)**

Cities in developing countries are growing much faster than cities in developed countries. In developing countries, the urban population is growing because of natural increase – the birth rate is higher than the death rate. There is also migration from rural areas to urban areas (urbanisation). Many people are moving to the cities because agricultural practices are becoming more mechanised and there are fewer jobs, so people move to cities for work. Drought or other natural disasters may also force a move. Generally, urban areas provide people with better living conditions, such as piped water, electricity and healthcare, and higher wages.

## Maths skills

### Calculating the rate of change

You may be asked to calculate the **rate of change of urbanisation**.

You need to divide the actual increase by the original value and then multiply it by 100.

Percentage increase =

$$\frac{\text{actual increase}}{\text{original value}} \times 100\%$$

## Now try this

The urban population of the world in 2000 was 2.84 billion. By 2005 it had risen to 3.15 billion. What was the percentage rate of change from 2000 to 2005? Round your answer to the nearest whole number. **(1 mark)**

**Hint:** The actual increase is 3.15 billion minus 2.84 billion, and the original value to divide it by is 2.84 billion.

### Urbanisation happening fastest in poorer countries:

1. Urbanisation is the growth and proportion of a country's population living in urban areas.
2. More than 50% of the world's population live in urban areas (3.9 billion people) and this is increasing.
3. During the industrial revolution urbanisation happened in developed countries (in the 18<sup>th</sup> and 19<sup>th</sup> centuries), and most (79%) of the population now already live in urban areas.
4. A smaller proportion (35%) in developing countries currently live in urban areas.
5. The percentage of people living in urban areas in emerging countries varies. Some, such as Thailand, Nigeria and China, are experiencing rapid urban growth.

### Urban Land Use

**Commercial** – Office buildings, shopping centres and hotels.

**Industrial** – Factories and warehouses.

**Residential** – houses, flats, apartments

Different types of land use are found in different areas:

1. The central Business District (CBD) has commercial and public buildings. High density buildings and lots of transport links.
2. The inner city is mainly residential – (low class housing) and older industry. Look for short, parallel roads of terraced housing and larger factory buildings.
3. The suburbs are mainly residential (medium-class housing). Look for lots of short, curved streets and cul-de sacs.
4. The rural-urban fringe has a mix of commercial business parks and residential (high-class) housing. Look for more green spaces between built-up areas and clusters of larger office buildings or shopping centres with car parks.

**Land use is influenced by accessibility, availability, cost and regulations: (AARC)** e.g. city centres are very accessible for lots of people. The edge of cities have good access to the motorway. Buildings are tall in cities as land is limited. City centres have the highest costs. There are strict planning regulations e.g. development on the green-belt, this stops the city sprawling into the countryside.

# Megacities

You need to know about megacity sizes, locations and growth rates. Some megacities cause problems of 'urban primacy': they 'suck' development out of the rest of the country.

## Definitions

**Megacity** – a city with at least 10 million inhabitants

**World city** – a city with a dominant role in global processes

**Urban primacy** – the most important city in a country, which dominates the rest of the country

**Hinterland** – the region around a city

## Top five megacities

There were 35 megacities in 2015. This table shows the five largest cities in that year.

Megacity	Country	Size (million)
1 Tokyo-Yokohama	Japan	37.8
2 Jakarta	Indonesia	30.5
3 Delhi	India	24.9
4 Manila	Philippines	24.1
5 Seoul-Incheon	S. Korea	23.4

## Growth rate

In 1950 there were only two megacities: New York and Tokyo. By 1985 there were nine. Megacities in developing and emerging countries are growing very fast. For example, Mumbai's population doubled in size between 1991 and 2013. Growth rates are fuelled by rural-urban migration.

## Worked example

Explain two reasons why urban primacy can become a problem for developing and emerging countries. (4 marks)

The main problem of excessive urban primacy is that all economic growth is concentrated in the city while the city's hinterland is deprived of growth.

A second problem is that political power also becomes focused in the city. Decision making that affects the whole country takes place in the primate city and is skewed toward the city's needs, not the country's.

Remember that 'explain' means 'say why.'

## Now try this

In 2015, London had a population of 8.6 million. Calculate the percentage increase required for London to become a megacity. Round your answer up to one decimal place. (2 marks)

## Megacity locations, 2015



**Location:** Asia is the centre of megacity growth. By 2025, Asia should have at least 28 megacities. Megacities are created where economic development is rapid.

## The number of megacities is increasing:

1. High rates of urbanisation are leading to growth of megacities. A megacity is an urban areas with a population of over 10 million people. E.g. Mumbai (India)
2. In 1950 the biggest and most influential cities were mainly in developed countries – These were Tokyo and New York.
3. By 2014 there were 28 megacities and this number is growing. It is predicted that there will be 41 megacities by 2030.
4. More than 2/3 of current megacities are in developing and emerging countries, mostly in Asia, e.g. Jakarta in Indonesia, Karachi in Pakistan and Dhaka in Bangladesh.

## A primate city dominates a country:

These primate cities have a much larger population and influence a country economically. Businesses locate there, attracting investment in infrastructure and services. There are lots of jobs so people move there to find work. Highly skilled workers are attracted by better opportunities, e.g. higher-paid, more prestigious jobs. International ports and airports are often located there, encouraging further investment, migration and making trade easier. Governments and headquarters of large, powerful businesses are often located there. This can mean that decisions about development favour the city rather than the rest of the country.

# Urbanisation processes

Economic change and migration are key factors in why cities grow or decline. These processes in developing and emerging countries have some similarities with developed countries, and some differences.

## Definitions

**Rural-urban migration** – when people change where they live from rural areas to urban areas

**International migration** – when people move to live in another country

**Internal migration** – when people move from one part of a country to live somewhere else within that same country

**Natural increase** – the difference between the number of births and deaths in a year

## How do cities grow (or decline)?

There are two main ways:

- migration – people move to live in the city, or move away from the city
- **natural increase**

These two processes are connected. It is usually young people who migrate to live in cities. The birth rate for young people is higher than the death rate for old people.

# Differing urban economies

You need to know why urban economies are different in developing, emerging and developed countries. Key differences are in formal and informal employment, in the importance of different economic sectors and in working conditions.

## Definitions

**Formal employment** – jobs that pay taxes and provide workers with job security and legal protection (e.g. Health and Safety laws). These jobs are hard to get in developing countries.

**Informal employment** – jobs that are not regulated: informal workers pay no taxes but are not protected by law. These jobs are easy for new arrivals in a city to get.

**Working conditions** – in emerging and developing countries there may be unsafe, stressful or uncomfortable working conditions (e.g. hot, polluted); long working hours without enough breaks; harsh penalties for lateness or absence.



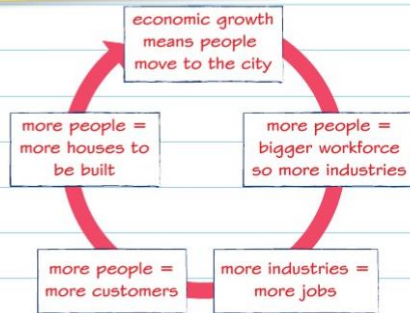
Street hawkers in Lagos, Nigeria. This is **informal employment**. The hawkers don't pay taxes and have no legal protection. Informal employment is characteristic of developing countries.



Workers in a clothing factory in Shenzhen, China. The **urban economies** of emerging countries have much more manufacturing than the urban economies of most developed countries. **Working conditions** are often tougher than in developed countries.

Economic development creates a multiplier effect

Rural-urban migration is the main cause of rapid urbanisation in emerging and developing countries



## Rural

- few opportunities
- poor healthcare
- low pay, difficult work
- low level of education

## Urban

- many more jobs
- better paid
- better education
- better healthcare
- better housing
- modern lifestyle
- many more opportunities

## Worked example

Study the photo opposite.

Explain **two** reasons why economic changes can cause a city to decline in population. (4 marks)

Economic problems can mean that industries shut down. If it is no longer easy to get a job in a city, people will move away. City governments rely on taxes from businesses and residents to make the city a pleasant, safe place to live and work. If economic problems mean that tax payments go down, the city starts to become run-down, crime rates rise and more people move away.



An abandoned building in the US city of Detroit, which has lost over 60 per cent of its population since 1950.

## Worked example

Contribution of economic sectors to Mumbai's economy (per cent of total)

Years	Primary (%)	Secondary (%)	Tertiary (%)
1993-4	1.25	36.12	62.64
2005-6	0.88	25.30	73.82

Study the table above. Which one of the following does it suggest would have grown the most in Mumbai between 1993 and 2006? (1 mark)

- textiles manufacturing
- farming
- IT services
- steel production

The tertiary sector is the service sector so IT services is the correct choice here.



The economic sectors of developed countries' cities are often dominated by services, including tourism. This is the British Museum – visited by 6.8 million people in 2015.

## Now try this

State **one** advantage of informal employment in cities in developing countries.

(1 mark)

# Changing cities

Cities change over time, and these changes show up in the way land is used in the city.

## Definitions

**Urbanisation** – an increase in the number of people living in cities

**Suburbanisation** – the movement of people, industry and jobs from the centre of the city to its outer areas

**Counter-urbanisation** – the movement of people out of the cities into the countryside (developed world process)

**Regeneration** – new investment into old, run-down parts of the city (often inner city areas)

## Factors affecting land use



You can tell the area of a city where land has highest value, because that's where the tallest buildings are.

## Change over time

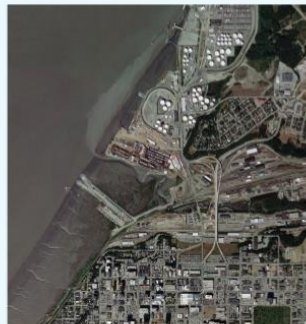
Theories of city development suggest these stages.

- 1 The **central business district (CBD)** is located where the city first developed, where all the major roads join.
- 2 A manufacturing zone develops.
- 3 New migrants live in this inner city zone, where housing is poor but cheap and they are close to their jobs.
- 4 Developing public transport lets richer people live further out, in the pleasant suburbs.
- 5 The city gets too congested for industry, which moves out to cheaper land in the suburbs.
- 6 The inner city areas get poorer.
- 7 As the city expands, commuter journeys from the outer suburbs become very long. Some wealthier residents move back to the inner city and redevelop the old housing.

## Worked example

Study the satellite image of the city. Describe **two** features of the land use you can see in this image. (2 marks)

There is an industrial zone in the northern half of the city, located next to the sea. The industrial units are widely spaced out on flat land. In the south of the city the land use is residential plots, suggested by the small size of the blocks and the green gardens and parks.



## Now try this

Which of the following factors affecting city land use would best explain why a polluting industry has located away from residential areas of a city? (1 mark)

- A accessibility     B availability     C cost     D planning regulations

## Migration is a result of push and pull factors:

Push factors	Pull factors
A shortage of jobs or low wages	More employment opportunities and higher wages.
Poor standard of living	Better standard of living.
Poor healthcare and education	Better healthcare and education.
War or conflict	A safe place with little crime.
Natural disasters	Little risk of natural disasters.
A poor environment due to pollution or crime.	A cleaner environment.

**National migration** – When people move to a city in the same country, e.g. rural-urban migration is the movement of people from the countryside to the city.

**International migration** – When people move from one country to a city in another country.

## Economic change leads to migration:

**Developing countries** – Cities grow as rural areas are poor. Improvements in agriculture mean that fewer farm workers are needed. Which leads to national migration.

**Emerging countries** – Some cities have become industrial centres – There are lots of manufacturing jobs. Other cities have a rapidly expanding service sector. E.g. The IT industry in India. As countries get wealthier they are able to invest in projects e.g. sports stadiums for international events to attract foreign investment. This creates more jobs attracting workers.

**Developed countries** – De-industrialisation has led to the decline of industrial areas. Some cities are still declining e.g. Sunderland, however many cities have been regenerated and are attracting people, e.g. Bristol and Birmingham. A lot of low-skilled workers e.g. cleaners and factory workers, are attracted to more successful cities this leads to decline elsewhere.

	Developing	Emerging	Developed
<b>Formal and informal employment</b>	Many workers are employed in the informal sector.	Number of workers in the informal sector decreases as the country develops.	Few workers are in the informal sector.
<b>Economic sectors</b>	Many people work in the primary sector (farming) Lots of people work in low skilled tertiary sector jobs e.g. on market stalls. Few people work in the secondary sector because there's not enough money to invest in technology needed for this type of industry, e.g. to build large factories. A very small percentage work in high-skilled tertiary sector jobs e.g. government offices or IT.	Employment in the secondary sector is high. There are established industrial zones and good infrastructure. There are lots of low-skilled tertiary jobs e.g. in retail or tourism. As the industrial economy grows people have more money to spend on services – Jobs are created in higher-skilled jobs in the tertiary sector e.g. medicine or law. Some cities specialise in certain services e.g. IT and development.	Fewer people work in the secondary sector than in emerging countries. Most people work in the tertiary sector because there's a skilled and educated workforce, and there's high demand for services like banks and shops. There's some employment in the quaternary sector because the country has lost of highly-skilled labour and has money to invest in technology needed.
<b>Working conditions</b>	Conditions are poor, pay is low, hours are long and conditions can be dangerous.	Conditions improve and workers' rights increase.	Conditions are good, pay is high, and workers have many rights which are protected by law.

**There are 4 different economic sectors:**

**Primary** – Collecting raw materials e.g. farming, fishing, forestry and mining.

**Secondary** – Turning a product into another product (manufacturing) e.g. textiles, furniture and cars.

**Tertiary** – Providing a service and includes anything from financial services, nursing, teaching and retail to the police force and transport.

**Quaternary** – The information economy e.g. research and development, where scientists and researchers investigate and develop new products e.g. in the electronics and IT industry.

# Location and structure



You will have studied a megacity in an emerging or developing country. We've used the example of Mumbai, in India, here to illustrate the sort of information you need to know about your case study. In the exam, refer to the case study you did in class.

Make sure you know basic geographical information about your megacity case study.

The location of your megacity within its country and in the world has influenced its growth into a megacity. Where it is will also have affected its structure and the economic sectors that are important to it.

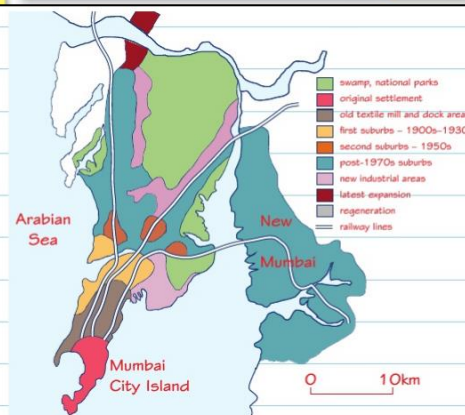
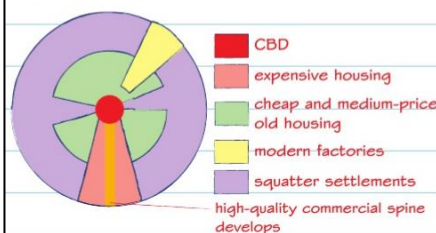
Mumbai has one of the deepest natural harbours in the world. This gives it big advantages as a major port on the Arabian Sea.

Mumbai was built on seven islands. Space for city growth was highly constrained (limited), making land very expensive. New Mumbai was developed on the mainland from 1971.



## Megacity structure

You need to know about the structure of your megacity: its CBD, inner city, suburbs, urban-rural fringe. Have an idea about when each of these developed and what they were used for.



The structure of megacities in emerging or developing countries is often quite complex. Transport routes are often important.

Mumbai has had several stages of expansion, with suburbs spreading along railway routes and onto the mainland. Industrial sectors have moved away from the old city centre too.

### Now try this

Use Google Earth (you can access it from Google Maps or Google Street View by clicking on the panel called Earth) to locate your megacity. See which different areas you can locate by zooming in and looking at the different types of building. Locate: the CBD, slum areas or worker housing areas, suburban areas, and industrial areas.

# Megacity growth

**Case study** Why has your emerging or developing country megacity become a megacity (population of 10 million or over)? What were the factors that caused its population to grow? What makes people want to live there? We've used Mumbai as an example here: revise the megacity you did in class.

For your megacity case study, you need to know:

- how its population grew (some statistics)
- reasons for its population growth.

natural increase? (what rate?)      rural-urban migration? (national migration)

## Reasons for population growth

international migration?      economic investment? economic growth?

### Mumbai fact file

- ✓ Estimated population 2013: 12 million people
- ✓ 1991 population: 9.9 million
- ✓ Population growth is 2.9 per cent per year
- ✓ Size of Greater Mumbai city area: 603 km<sup>2</sup>
- ✓ Population density: 20482 people per km<sup>2</sup>
- ✓ GDP in 2015 was US\$278 billion
- ✓ 42 per cent of people live in slums (2010)
- ✓ 68 per cent work in the informal sector (2013)

### Now try this

Put together a fact file like this one for your megacity.



You need to know how population growth has affected the way land is used in your city and the ways your city has grown.

### Mumbai: reasons for growth

- Rural-urban migration – 1 000 national migrants arrive in Mumbai daily, 9 out of 10 from rural areas.
- High rate of natural increase – Indians still like to have larger families although the birth rate is falling.
- City has strong economy – foreign investment from the 1990s saw many services outsourced to Mumbai from developed countries. Now it is the centre of hi-tech industries, Bollywood and finance.
- Huge informal sector – most people in Mumbai are poor and live in slums.

You need to know about the **opportunities** for people living in your megacity. What makes them want to live there?

- Access to jobs (often to send money back home to their families)
- Job promotions or job transfers
- Access to better education for their children
- Access to better healthcare
- Better marriage opportunities
- More entertainment options

### Reasons for moving to Mumbai

	Rural-urban (%)	Urban-urban (%)
To find a job	68.4	47.2
To start a business	5.5	7.6
Education	2.8	4.9
Marriage	8.0	17.4
Job transfer	3.4	6.9

Rural-urban and urban-urban migrants may have different reasons for moving.

# Megacity challenges

**Case study** Rapid population growth has caused major challenges for many of the people living in megacities in emerging or developing countries.

## Housing

Rapid population growth means there are far more people arriving in the city than there are affordable houses for them to live in.

That shortage of affordable housing means people are forced to live in:

- slum housing – often with many people sharing each room
- shanty towns (squatter settlements) – where people build housing out of whatever materials they can find.

## Challenges of slums and shanty towns

homes built from scrap materials on any spare land      dangers from fire, flooding and landslide      there is no clean water, electricity, rubbish collection or organised sewage disposal

life in the shanty towns is very stressful      **Slums and shanty towns**      crime rates are high

litter and sewage create a breeding ground for disease      people are malnourished because there is a lack of money and food

## Water supply and waste removal

Squatter settlements often do not have a piped water supply, at least when the settlement is first developing.

- People can buy bottled water to drink, but it is expensive and not everyone can afford it.
- Some people take water from nearby rivers or streams, which are often polluted and carry diseases.
- People often go to the toilet in waste ground, disposing of their excrement (poo) in plastic bags left there. These waste areas smell bad and diseases can spread.



A toilet in a Mumbai slum. The toilet is not connected to a sewerage system.

## Employment and opportunities

In megacities like Mumbai, most people work in the informal sector.

- Pay is low and not always regular or reliable.
- Working conditions can be dangerous.
- There are no benefits or security: if people get ill and can't work, they don't get any money.
- As pay is low, many children are put to work instead of going to school. This limits their opportunities in life.

This street barber in Mumbai is part of the informal economy. For poor people the range of services on offer is small and very basic. This barber has basic facilities but will charge an affordable price for his services.



Traffic congestion in megacities is often legendary! The desire for moped and car ownership is very high, but that means the streets are clogged with traffic.

# Megacity living



Megacities in emerging and developing countries can have very wealthy areas right next to very poor areas. This can pose major political and economic challenges for city managers.



Dharavi, a slum area of Mumbai. Where are the areas of slum or squatter settlements in your megacity?



Andheri is a popular suburb for middle-class people in Mumbai. Andheri railway station is one of the busiest stations in the world because of people commuting to work. Where are the wealthier areas in your megacity?



The new suburb of New Mumbai. This suburb is growing very rapidly as middle-class people leave congested Mumbai to go to the mainland. What quality-of-life benefits do new suburbs provide?

These three photos show scenes from Mumbai. Mumbai has both Asia's largest slum and the world's most expensive single-family home! Squatter settlements often develop close to the city centre because the poorest people cannot afford to travel far to work. However, this causes **political** difficulties for city managers as the settlements can be on valuable land. There is a choice between moving the inhabitants to new areas, or helping them to develop their settlement.

Middle-class people commute to work in the city from suburban locations. This causes **economic** problems for city managers with car and moped congestion on the roads that slows the city's economy down, leading to air pollution and commuter stresses that impact on people's quality of life. Mumbai commuters suffer 'super-dense crushloads' in packed trains and buses.

Squatter settlements are usually illegal and so city managers have legal rights to clear the land of houses. However, this is very problematic politically. If poor people are rehoused on cheap land at the edge of the city, there are often no services and no affordable way to reach work.



## Now try this

Use Google Maps to locate a wealthy area and a poor area in your megacity. Provide at least one reason to explain the location of each.

There are challenges in housing, traffic, waste, jobs and services:

**Squatter settlements** – 60% of the cities population live in slums. Houses are often flimsy, wooden huts which are illegally built. People face eviction if slums are demolished to clean up the city. The electricity only comes from illegal connections which cuts out. There are high levels of crime as many slums are patrolled by gangs.

**Traffic congestion** – Mumbai has some of the worst traffic congestion in the world. In a city of 18 million inhabitants there are 1.8 million motor vehicles. The number is growing every day as more drivers take to the roads and frankly, there isn't enough road to go around.

**Waste Disposal** - People have to go to the toilet in the street and there are open sewers. Children play amongst sewage waste and doctors deal with 4,000 cases a day of diphtheria and typhoid. Next to the open sewers are water pipes, which can crack and take in sewage. Dharavi slum is based around this water pipe built on an old rubbish tip. The people have not planned this settlement and have no legal rights to the land. There are also toxic wastes in the slum including hugely dangerous heavy metals.

**Employment conditions** – There are not enough formal jobs so people have to make money anyway they can e.g. by scavenging on rubbish dumps for items to sell. Most people work in informal jobs as street sellers, barbers and shoe polishers. Many have to work under the hot sun in appalling conditions. They earn around a £1 a day for their work. People work in dangerous conditions with toxic substances without protective clothing, this could affect people's life expectancy. Even dangerous hospital waste is recycled.

**Limited service provisions** – There are not enough schools and many families cannot afford to send their child to school. There are not enough healthcare facilities and many people cannot afford to pay for treatment.

**Water Supply** - Water is a big problem for Mumbai's population, standpipes come on at 5:30am for 2 hours as water is rationed. These standpipes are shared between many people. Rubbish is everywhere and most areas lack sanitation and excrement and rats are found on the street. 500 people share one public latrine. The famous cloth washing area also has problems, despite its social nature sewage water filters into the water used for washing clothes.

Revision Tip – YOU MUST KNOW MUMBAI AS A CASE STUDY

For levels 4-6 Read, highlight, make notes then highlight your notes, then make revision cards from your highlighted notes.

# Megacity management



There are different strategies for tackling the challenges linked to rapidly rising megacity populations. Each has advantages and disadvantages.

## Definitions

**Sustainability** – in cities, this means planning for an efficient city that uses less energy and minimises pollution to create higher living standards for all.

**Top-down strategies** – large-scale ways of improving city sustainability that are planned, funded and managed by the city government.

**Bottom-up strategies** – small-scale ways of improving city sustainability that do not involve governments directly. They are often funded by NGOs or community organisations.



## Top-down advantages

- Large-scale, so the problems of the whole city can be tackled together.
- City government has the political power necessary to make landowners sell their land for new developments.
- Governments can pass laws to change people's behaviours – for example, to stop industries dumping waste in city rivers.

## Top-down disadvantages

- Impose changes on people that they may not like – for example, slum clearance.
- City governments can become biased – for example, toward the needs of big business, looking after them instead of working for poorer people in the city.
- Top-down strategies are expensive and complicated, so can end up going over budget, adding extra taxes for residents.

## Bottom-up advantages

- Target specific needs of particular local communities – for example, health workers to visit slum areas, provision of affordable public toilets.
- Some city governments (e.g. Mumbai) refuse to recognise slums as legal, so the only help people living there get is from NGOs and community initiatives.
- Can have positive **multiplier effects** – for example, improving child health means children can attend school more.

## Bottom-up disadvantages

- Cannot fix the city-wide problems like transport congestion.
- City governments that should be fixing poor slum conditions may leave it to NGOs and local communities to fix the problems.
- By helping slum communities to improve services, schemes can cause conflict with city governments that want to clear sites for more profitable land uses.

## Now try this

For your case study megacity: a) identify at least **two** advantages and disadvantages of top-down strategies and b) identify at least **two** advantages and disadvantages of bottom-up strategies.

## Large scale redevelopment:

A \$2billion development project threatens the recycling district and part of Dharavi. The land upon which Dharavi is built is next to Mumbai's financial district. This makes it a prime target for redevelopment. The people who are relocated will be put into smaller housing in apartment blocks. An ancient fishing village is also threatened. These areas have strong safe neighbourhoods that have low crime and communal areas. Also at risk are the local shops and markets and the community spirit which has taken generations to develop. The locals would prefer small improvements to the existing slum such as improvements in drainage. The value of land is so high that redevelopment is now a real threat. The alternative accommodation is very small. The slum dwellers face 14 story apartments as accommodation as proposed by the cities Slum Rehabilitation Authority. This will separate communities and make people work away from where they live. Only people who have lived in the slum since 2000 will be relocated. Current redevelopment projects are densely populated and house lots of people. They are not good for community cohesion.

There is an alternative to large scale redevelopment and that is to allow local people to design the improvements to the slum. The Society for the Promotion of Area Resource Centres, better known as SPARC, this is an NGO that supports the efforts of local people to get better housing for their many members. Ideas generated from local people supported by this charity include adding an extra floor to buildings so that all family members can be accommodated in the same building. These flats also had 14-foot high ceilings and a single tall window so are well ventilated, bright, and less dependent on electric fans for cooling. Their loft spaces add extra room without seeming crowded, and include small spaces for bathing. But toilets are placed at the end of each of the building's four floors, and kept clean by the two or three families who use each one. These ideas only work when water is running in Dharavi. As the National Slum Dwellers Federation has repeatedly proven, housing the poor works best, costs less and is better for the environment, when the poor themselves have a say in what is being built.

For 4-6 you MUST know about sustainable projects in Mumbai.

Pages 118-121 in the GeogFacebook