

## Theme 1 – Population and settlement

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# 1.1 Population dynamics

**Birth rate** - no of ppl born per 1000 in a pop per year

**Death rate** - no of ppl died per 1000 in a pop per year

**Natural population change** - difference between birth rate & death rate

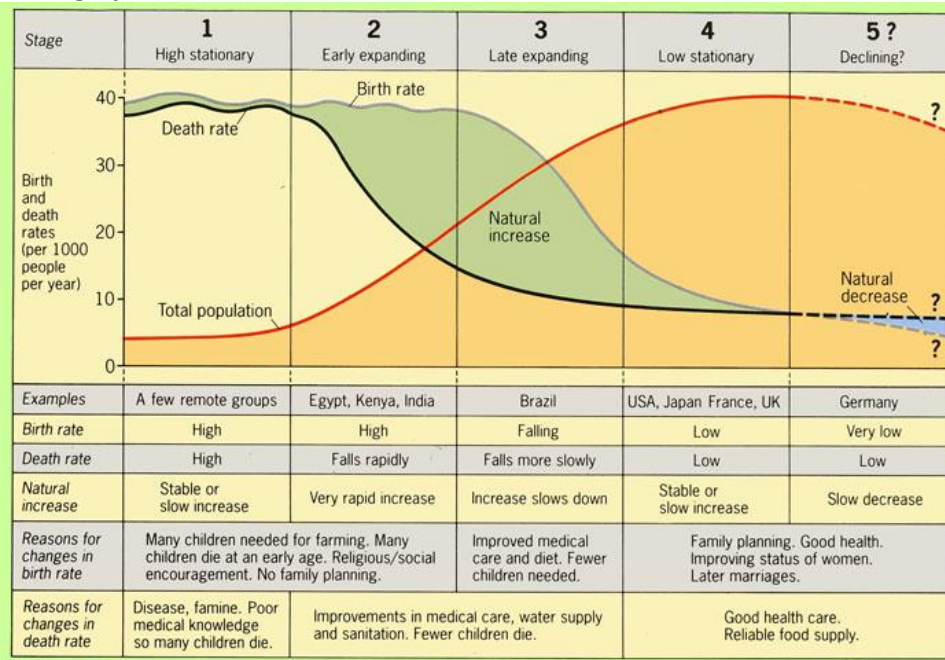
**Overall population change** - difference between BR & DR +/- for migration

**Fertility rate** - average number of children a female is expected to have in their lifetime

**Life expectancy** - no of years on average that a person is expected to live within a country

**Infant mortality rate** - no of deaths of children under the age of 1 per 1000 live births per year

## Demographic Transition Model



**Over-population** - too many ppl living in an area for resources & space available

**Under-population** - not enough ppl living in an area so resources & space are wasted

**Optimum population** - level of pop is enough to fully use resources available, total pop at which GDP is at the highest level

### Why countries become over-populated (3)

- High population growth
- High birth rate due to lack of family planning
- Low death rate due to good healthcare services
- Large amount of immigration

### Describe problems of over-population on a country. (4)

- There will a lack of sufficient resources to meet the needs of its population, which leads to lower standards of living and increase number of people living in poverty.
- Also, the government does not have sufficient money to invest in public services eg education and healthcare, leading to a poor quality of services and facilities.
- Moreover, diseases can spread easily in overcrowded living conditions and with insufficient medical services, the life expectancy is reduced.
- Furthermore, traffic congestion occurs leading to atmospheric pollution from combustion.
- Additionally, deforestation occurs for building infrastructure or fuel wood to generate electricity to meet the demand of its population

### Describe problems of under-population (4)

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Population and Settlement

- One of the problems caused by under-population is shortage of workers lead to lower optimum productivity, which limits the countries' GDP.
- Also, resources are not able to be fully exploited eg outback is undeveloped and unused.
- Moreover, it is difficult to defend the country due to the lack of people in the defence force.
- Besides, government lacks financial resources to invest in public services due to the lack of tax collected. This causes closure to public services eg schools and hospitals as they cannot meet the threshold population, consequently, reduce the accessibility to public services.

**Explain why countries with large areas of land may not be under-populated (5)**

- High population density
- Large areas of land could be of little use eg deserts
- Few resources might be available eg coal
- High level of technology allows economy to develop without much labour, so all resources can be easily exploited by few ppl

**Explain why some areas are underpopulated. (3)**

- Relatively few ppl living there coz of eg extreme climate
- Large amounts, surplus of resources

**Suggest why child mortality is high in some countries in Africa (4)**

- Poor healthcare, lack doctors, lack vaccination, lack medicine
- Poor food & water supply, hygiene, waterborne disease eg cholera
- Poor education about diet

**Suggest why countries with high child mortality have high birth rate (5)**

- Ppl have lots of children to replace those that die at a young age
- Need children to help on land, in home to look after siblings and parents in old age, collect water, work to earn money
- No state pensions for elderly so need to rely on children

**Explain how gov policies influence pop growth rate (5)**

- Anti-natalist policy
- Restrict family size by limiting no of children
- Education ppl about contraception
- Make birth control or contraceptives more affordable
- Educate women to encourage them to take jobs
- Increase marriage age

**HIV/AIDS**

Origin	Impact
<ul style="list-style-type: none"> <li>• HIV-1 – arose in Central Africa</li> <li>• HIV-2 – arose in West Africa</li> </ul>	<ul style="list-style-type: none"> <li>• HIV mostly occurs in women</li> <li>• When women give birth, they infect the child → ↑ death rate for infants</li> <li>• Death rate of mothers → ↑ orphans</li> <li>• Due to countries being poor → lack of state welfare → poverty &amp; lack of education</li> </ul>

**Case studies**

**High rate of natural population growth / Over-population - Bangladesh**

For more help, please visit our website [www.exampaperspractice.co.uk](http://www.exampaperspractice.co.uk)

<b>Basic info</b>	<p><b>Capital city</b> - Dhaka  <b>Neighboring countries</b> - India &amp; Myanmar  <b>Population</b> - 160 million  <b>Population density</b> - 1000ppl/km<sup>2</sup>  <b>Growth rate</b> - 1.2%</p>	
<b>Causes for high pop growth</b>	<p><b>Birth rate: 18/1000</b></p> <ul style="list-style-type: none"> <li>• Lack of availability &amp; knowledge of child cost &amp; family planning</li> <li>• Lack of access to contraceptives - 62% use contraception, which increases the risk of unintended pregnancies and fertility rate</li> <li>• Most ppl are subsistence farmers → need many children as economic assets to help them work on the farms</li> <li>• Many women are uneducated, don't have a job. They have an early marriage - 1/3 girls married by 18 years old, women marrying earlier tend to have children earlier &amp; bear more children over their lifetime</li> <li>• No state pension → many children to take care when they're old</li> <li>• High infant mortality rate (30/1000 per year) so ppl have lots of children to replace those that die at a young age</li> </ul>	<p><b>Death rate: 6/1000</b></p> <p>Improvement in</p> <ul style="list-style-type: none"> <li>• Health care → ↓ child mortality</li> <li>• Education</li> <li>• Clean water supply</li> <li>• Food supply</li> <li>• Sanitation</li> </ul>
<b>Impacts</b>	<ul style="list-style-type: none"> <li>• Shortage of job opportunities cause high unemployment. Consequently, 25% of the population living below the poverty line of \$1.25 per day.</li> <li>• Lack of education, housing, health care provision, due to the lack of sufficient resources to meet the needs of it's the population, 13% of the population do not have access to clean water, which cause more people to suffer from water borne disease eg cholera. Also 33% of the children under 5 are underweight due to the lack of food supply</li> <li>• Life expectancy is reduced to 52 years old as overcrowding cause diseases to be spread easily and lack of medical service</li> <li>• Urban area → pollution from traffic congestion</li> <li>• Over cultivation of land to grow crops to meet the demand of large pop reduces soil fertility, which reduces crop yield &amp; leads to malnutrition for many ppl</li> <li>• Unemployment → low standard of living, GDP: US\$380</li> </ul>	
<b>Solutions</b>	<ul style="list-style-type: none"> <li>• <b>Anti-natalist policy</b> (family planning / ↓ birth rate)</li> <li>• Law-marriage age, women: 18, men: 21</li> <li>• Support for full-time area health workers who provide contraception service</li> <li>• Limit families to 2-3 children</li> <li>• Improve women's education</li> <li>• <b>Success?</b> - In 1981: 18%, 2015: 60%</li> <li>• <b>Obstacles</b> - Many women governed by purdah → can't leave home without permission</li> </ul> <p>→ difficult for health workers to contact</p>	

**Low rate of natural population growth / Under-population - Australia**

<b>Basic info</b>	<p><b>Capital city</b> - Canberra  <b>Population</b> - 24.6 million  <b>Population density</b> - 3ppl/km<sup>2</sup></p>
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	<b>Growth rate - 0.4%</b>	
<b>Causes for low pop growth</b>	<b>Birth rate: 12/1000</b>	<b>Death rate: 8/1000 (life expectancy: 82)</b>
	<ul style="list-style-type: none"> <li>• High childcare cost</li> <li>• Well-educated women</li> <li>• 95% use of birth control methods</li> <li>• Low infant mortality rate</li> </ul>	<ul style="list-style-type: none"> <li>• Good health care, education, clean water supply, food supply, sanitation</li> </ul>
<b>Impacts</b>	<ul style="list-style-type: none"> <li>• Less paying taxes / Not enough tax so the government lacks financial resources to invest in all the public services eg healthcare and education. This cause closure to public schools or hospitals as they cannot meet the threshold population, consequently, reduce the accessibility to public services</li> <li>• Unsuccessful businesses</li> <li>• Less innovation</li> <li>• Gov services eg school doesn't have enough ppl to meet threshold population</li> <li>• Shortage of workers lead to lower optimum productivity, which limits Australia's GDP. Also, resources are not able to be fully exploited eg outback is undeveloped and unused. Moreover, it is difficult to defend the 25000km coastline due to the lack of people in the defence force.</li> <li>• To increase the workforce, the government encourages immigration of foreign workers by relaxing visa rules. However, this causes conflicts because many Australians do not want foreigners to interfere their work</li> <li>• Rural urban migration occurs because people leaves the countryside for better opportunities in the cities eg Sydney. This causes more areas in outback to be left unused</li> </ul>	
<b>Solutions</b>	<ul style="list-style-type: none"> <li>• <b>Pro-natalist population policy</b> (↑birth rate)</li> <li>• Assist families with living cost</li> <li>• ↓ burden childcare costs</li> </ul> <p>Success? - Fertility rate still low. Women on average have 1.6 children, not enough to ↑ natural pop growth rate</p> <ul style="list-style-type: none"> <li>• Give benefits to ppl with children</li> <li>• Relax visa rules → more immigrants get citizenship</li> <li>• Expand economy to persuade ppl move to work</li> <li>• Attract age 25-35 - educated, have work experience, long time till retirement</li> </ul>	

### Describe pop policy used to influence its pop growth rate (7)

Bangladesh has a population of 160 million, high population density of 1000ppl/km<sup>2</sup> and growth rate of 1.2%. The population is growing rapidly because death rate is reduced to 6/1000 when birth rate remains high at 18/1000. To control the growth rate, the government introduced an anti-natal policy in 1975, which is a family planning that reduces birth rate. It includes educating ppl on the problems caused by rapid population growth eg limited resources of food and clean water. The minimum age of marriage was also increased to 18 years for women and 21 of men so women have a later marriage, which reduce children bearing over their lifetime. Moreover, there's support for health workers who provide contraception service to increase ppl's access to birth control and made it more affordable. Besides, there's provision to improve women's education so more women go to work and have a later marriage. Apart from that, small family size are encouraged through advertising campaign on TV and poster.

## 1.2 Migration

**Migration** - movement of ppl from one place to another

**Immigration** - ppl enter country to live/work

**Emigration** - ppl leave country to live/work

**Net migration** - immigration - emigration

**Illegal immigrants** - ppl who doesn't have permission to travel into a country

**Refugee** - ppl who's forced to leave their country (coz war / natural hazards)

<p><b>Internal migration</b> - migration within country</p>	<p><b>International migration</b> - person who moves from one country to another</p>	
<ul style="list-style-type: none"> <li>● <b>Rural-urban migration</b> - movement of ppl from rural to urban areas</li> </ul> <p><b>Describe problems faced by migrants who have recently moved to urban areas in LEDCs. (5)</b></p> <ul style="list-style-type: none"> <li>● Lack of employment</li> <li>● Low pay</li> <li>● Long working hours</li> <li>● Can't afford food / housing</li> <li>● Traffic congestion - air pollution - breathing problems</li> </ul> <p><b>Describe impacts of rural to urban migration on rural areas from which ppl have migrated. (5)</b></p> <ul style="list-style-type: none"> <li>● Rural pop becomes lower</li> <li>● Reduction of workforce</li> <li>● Less food supply - starvation</li> <li>● Child labour</li> <li>● Separate from family</li> <li>● Less innovation</li> </ul>	<p><b>Difficulties which international migrants may experience when settling in a new country</b></p> <ul style="list-style-type: none"> <li>● Lack of qualifications to be employed</li> <li>● Cannot speak the language</li> <li>● High living cost</li> <li>● Difficulty affording housing</li> <li>● Racisms and discrimination may occur</li> <li>● Hard to fit in due to difference in culture</li> <li>● Live away from family - home sick</li> <li>● Do dirty jobs</li> </ul> <p><b>Explain how economic factors cause international migration (4)</b></p> <ul style="list-style-type: none"> <li>● More job opportunities</li> <li>● Better wages</li> <li>● Lower house prices, heathcare fee, education prices</li> <li>● Lower taxes</li> <li>● Lower living costs</li> </ul> <p><b>Describe +ve impact of international migration on destination countries</b></p> <ul style="list-style-type: none"> <li>● Enlarge labour force, increase productivity</li> <li>● Supply cheap labour working in low paid jobs</li> <li>● More skilled labour eg doctors</li> <li>● Multi-cultural society eg Chinese restaurant</li> <li>● More tax paid to gov</li> <li>● Bring new ideas and larger market for businesses, which develop economy and increases competition lowers price</li> </ul> <p><b>Explain how remittance money sent home by international migrants may benefit ppl in country from which they have migrated. (3)</b></p> <ul style="list-style-type: none"> <li>● Support family - escape poverty, higher living standard</li> <li>● Send children to school</li> <li>● Improve water supply, housing, healthcare</li> </ul>	
	<p><b>Voluntary</b> - ppl choose to move</p> <ul style="list-style-type: none"> <li>● Better job, wages, education, health care</li> <li>● Peaceful &amp; safe</li> <li>● Family &amp; friends already live there</li> </ul>	<p><b>Involuntary</b> - ppl forced to move</p> <ul style="list-style-type: none"> <li>● Refugees</li> <li>● Persecution - ppl attacked for what they believe eg religion</li> </ul>

**Describe pull factors of MEDC for migrants from LEDCs**

- Employment
- High wage

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Population and Settlement

- Good quality of education, healthcare, housing, water supply
- Bright lights
- Adequate food supply
- Family/friends live there
- Political stability

**Suggest possible impacts on Lithuania of a large amount of emigration**

- Loss of working population
- Decline in economy
- Hard to produce enough food
- Family split up
- Less pressure on services
- Less taxes paid to gov
- Less traffic congestion

**Case study - international migration from Mexico to USA**

- 6.5 million Mexicans migrated to USA illegally, which is 57% of illegal migrants

Push factor (leave Mexico)		Pull factor (Move to USA)	
<ul style="list-style-type: none"> <li>• Min wage: \$5/day</li> <li>• 47% below poverty line</li> <li>• Adult literacy rate: 55%</li> <li>• 40% unemployed</li> <li>• High crime rate</li> <li>• Poor standard of living</li> <li>• Lack of water coz hot climate &amp; parched arid land</li> </ul>		<ul style="list-style-type: none"> <li>• Min wage: \$7/day</li> <li>• 13.5% below poverty line</li> <li>• Adult literacy rate: 99%</li> <li>• Low crime rate</li> <li>• Better standard of living</li> <li>• Diverse economy → more job opportunities &amp; greater range of goods/services</li> </ul>	
	Mexico	USA	
+ve impacts	<ul style="list-style-type: none"> <li>• \$13 billion/year in total sent back to Mexico from family members working in USA as remittances, which is one of the most important sources of income and helps economic growth in Mexico through multiplier effect</li> <li>• when migrants return, they're more skilled &amp; can help develop Mexico economy</li> </ul>	<ul style="list-style-type: none"> <li>• Benefit US economy by supplying need of cheap labour working in low paid jobs eg truck drivers</li> <li>• Enlarge labour force</li> <li>• Enriched Mexican culture with food, language &amp; music &amp; establish a multi-cultural society</li> <li>• More tax paid to gov</li> <li>•</li> </ul>	
-ve impacts	<ul style="list-style-type: none"> <li>• Migration of people reduces workforce in Mexico, which declines economic growth</li> <li>• Many men migrate and leave women behind to raise children or children are grown with the absence of a father</li> <li>• Young adults tend to migrate, leaving ageing communities behind</li> <li>• Many illegal immigrants died when walking across Arizona Desert - hot &amp; dry</li> </ul>	<ul style="list-style-type: none"> <li>• Remittances are lost from American economy</li> <li>• Cause problems due to cultural &amp; racial issues</li> <li>• Illegal migration costs USA millions of dollars for border patrols and prisons</li> <li>• Mexicans are seen as a drain on USA, tensions have risen because less jobs are available for American working-class</li> <li>• Migrant workers keep wages low which affects the wages of American citizens</li> </ul>	

**For a named urban area, describe strategies used to reduce problems caused by rural to urban migration. (7)**

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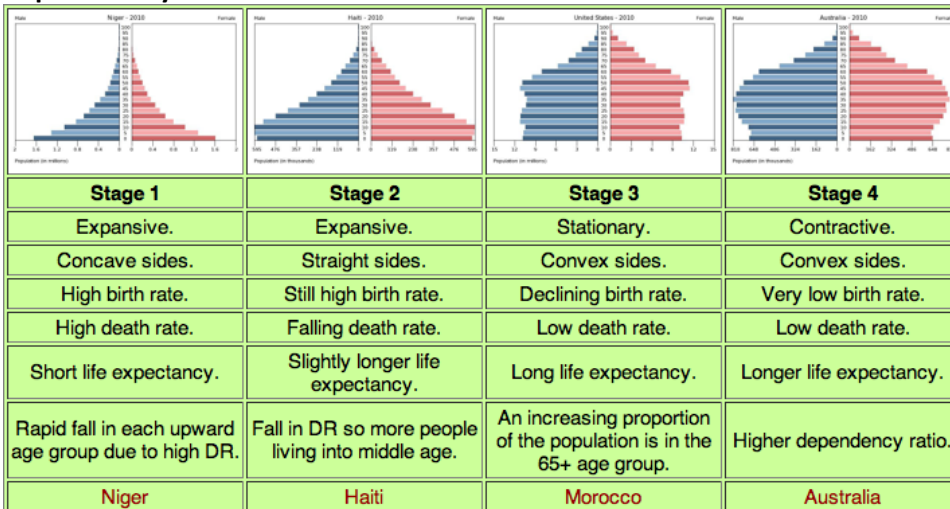
- Self-help schemes
- Site & service schemes
- Building of low cost housing
- Road building
- Investment in rural areas
- Investment in education & healthcare
- Creation of employment
- Strategies to deal with traffic congestion

For a named country you have studied, explain why internal migration takes place from rural areas to rapidly growing urban areas. (7)

- Employment
- Food, water supply
- Education, healthcare
- Natural disasters

## 1.3 Population structure

### Population Pyramid



Population structure - how the population can be divided up

Young dependent - ppl aged 0-14

Economically active - ppl who work (aged 15-64)

Old dependent - ppl aged 64-80+

Describe the shape of the pyramid. (3)

- Base, top - narrow / wide
- (Less) pyramid shaped

Suggest reasons for changes (narrower base, wider top) % of young & old dependents. (4)

Young dependents (Suggest reasons why birth rates reduced. (5))

- More use of family planning - control the family size
- Have education of birth control - know how to use it
- Have knowledge of child cost
- Gov anti-natalist policy - limit family size
- More women being educated, go to work, later marriage
- Decrease in subsistence farming and more machines used on farms so less need for child labour as farm workers



- Low infant mortality rates

**Old dependents (Suggest reasons why death rates reduced. (5))**

- Better health care, more doctors/nurses, vaccinations, medicines
- Pensions, better care for elderly
- Better water & food supply (clean water, better diet), hygiene, reduces diseases
- (Education about ) Healthier lifestyle (balanced diet, regular exercise)
- Higher living standards

**Explain what challenges are likely to be faced as population increases. (5)**

- Need to provide more housing, health care, educational facilities
- Traffic congestion
- Loss of natural vegetation / deforestation
- Pollution (air/water/noise)
- Unemployment
- Poverty
- Overcrowded housing

**Describe challenges faced by MEDCs as % of old dependents in population increases. (5)**

- More pressure on economically active population due to the shortage of workforce in eg armed force
- Higher taxes as less economically active people is paying taxes to the gov
- More money spent on care for elderly/pension, healthcare (services eg 'meals on wheels' or charities eg ' Help the Aged')
- Less money spent on education & infrastructure
- Longer waiting lists for hospital treatments
- Less workforce, reduce productivity, GDP falls, limit economic growth
- Less innovative workforce
- Increase retirement age - ppl force to work longer

**Case studies**

For a named country you have studied, describe the problems caused by an increasing % of young or old dependents.

**High young dependents - Bangladesh**

<b>Basic info</b>	<ul style="list-style-type: none"> <li>• 30% of young dependents - Due to high birth rate (18/1000)</li> <li>• 6% of old dependents - death rate (6/1000)</li> </ul>
<b>Problems</b>	<ul style="list-style-type: none"> <li>• Rapid ↑ working pop - not enough jobs - ↑ unemployment rate</li> <li>• 24% live below poverty line, low living standard</li> <li>• Insufficient money spent on education coz rate of pop growth faster than investment on education - ↓ education quality</li> <li>• Half the population under 15years old, future birth rates will increase &amp; so pop will continue to grow rapidly</li> </ul>
<b>Solutions</b>	<ul style="list-style-type: none"> <li>• Anti-natalist policy (family planning / ↓ birth rate)</li> <li>• Law-marriage age, women: 18, men: 21</li> <li>• Support for full-time area health workers who provide contraception service</li> <li>• Limit families to 2-3 children</li> <li>• Improve women's education</li> <li>• Success? - In 1981: 18%, 2015: 60%</li> <li>• Obstacles - Many women governed by purdah → can't leave home without permission</li> <li>• → difficult for health workers to contact</li> </ul>

**High old dependents - Australia**

<b>Basic info</b>	<ul style="list-style-type: none"> <li>• 13% of old dependents - low death rate (8/1000)</li> <li>• 19% of young dependents - low birth rate (12/1000)</li> </ul>
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<b>Problems</b>	<ul style="list-style-type: none"> <li>• More pressure on economically active population due to the shortage of workforce in eg armed force</li> <li>• Higher taxes as less economically active people is paying taxes to the gov</li> <li>• More money spent on care for elderly/pension, healthcare (services eg 'meals on wheels' or charities eg ' Help the Aged'), less money spent on education &amp; infrastructure</li> <li>• Longer waiting lists for hospital treatments</li> <li>• Less workforce, reduce productivity, GDP falls, limit economic growth</li> <li>• Less innovative workforce</li> <li>• Increase retirement age - ppl force to work longer</li> <li>• There're few young economically active people, low birth rate, meaning there'll be a further decline in working pop in the future</li> </ul>
<b>Solutions</b>	<ul style="list-style-type: none"> <li>• Pro-natalist population policy (↑ birth rate)</li> <li>• Assist families with living cost</li> <li>• ↓ burden childcare costs</li> <li>• Give benefits to ppl with children</li> <li>• Relax visa rules → more immigrants get citizenship</li> <li>• Expand economy to persuade ppl move to work</li> <li>• Attract age 25-35 - educated, have work experience, long time till retirement</li> <li>• ↑ retirement age (67 → 70) - ↑ working age group</li> </ul>

**Case studies**

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	<p>disease eg cholera. Also 33% of the children under 5 are underweight due to the lack of food supply</p> <ul style="list-style-type: none"> <li>• Life expectancy is reduced to 52 years old as overcrowding cause diseases to be spread easily and lack of medical service</li> <li>• Urban area → pollution from traffic congestion</li> <li>• Over cultivation of land to grow crops to meet the demand of large pop reduces soil fertility, which reduces crop yield &amp; leads to malnutrition for many ppl</li> <li>• Unemployment → low standard of living, GDP: US\$380</li> </ul>
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<b>Impacts</b>	<ul style="list-style-type: none"> <li>• Less paying taxes / Not enough tax so the government lacks financial resources to invest in all the public services eg healthcare and education. This cause closure to public schools or hospitals as they cannot meet the threshold population, consequently, reduce the accessibility to public services</li> <li>• Unsuccessful businesses</li> <li>• Less innovation</li> <li>• Gov services eg school doesn't have enough ppl to meet threshold population</li> <li>• Shortage of workers lead to lower optimum productivity, which limits Australia's GDP. Also, resources are not able to be fully exploited eg outback is undeveloped and unused. Moreover, it is difficult to defend the 25000km coastline due to the lack of people in the defence force.</li> <li>• To increase the workforce, the government encourages immigration of foreign workers by relaxing visa rules. However, this causes conflicts because many Australians do not want foreigners to interfere their work</li> <li>• Rural urban migration occurs because people leaves the countryside for better opportunities in the cities eg Sydney. This causes more areas in outback to be left unused</li> </ul>			
<b>Solutions</b>	<ul style="list-style-type: none"> <li>• Pro-natalist population policy (↑ birth rate)</li> <li>• Assist families with living cost</li> <li>• ↓ burden childcare costs</li> </ul>			

	<ul style="list-style-type: none"> <li>• Success? - Fertility rate still low. Women on average have 1.6 children, not enough to ↑ natural pop growth rate</li> <li>• Give benefits to ppl with children</li> <li>• Relax visa rules → more immigrants get citizenship</li> <li>• Expand economy to persuade ppl move to work</li> <li>• Attract age 25-35 - educated, have work experience, long time till retirement</li> </ul>
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## 1.4 Population density and distribution

**Population density** - no of ppl living in km<sup>2</sup>

**What is measured by pop density?**

- How closely together ppl live

**Factors influence pop distribution**

**Explain how climate influence pop distribution (5)**

**Explain how different physical factors influence pop density (4)**

<b>Climate</b>		
	Polar climate	<ul style="list-style-type: none"> <li>• Long period of freezing temp is too cold for comfortable living &amp; ppl suffer from frostbite</li> <li>• Ground is permafrost so difficult to construct infrastructures</li> <li>• Very short growing seasons so limited food production</li> </ul>
	Hot arid deserts	<ul style="list-style-type: none"> <li>• Low rainfall of less than 250mm per year</li> <li>• Difficult to grow food</li> <li>• Lack of water - suffer dehydration</li> <li>• High temp makes it uncomfortable to live there</li> </ul>
	Temperate climate	<ul style="list-style-type: none"> <li>• Average temp &amp; reliable rainfall makes it easier for growing crops for food supply &amp; supply pop &amp; industry with their water needs</li> </ul>
<b>Relief</b>	<ul style="list-style-type: none"> <li>• Low altitude - climate more moderate</li> <li>• Flat land - easy to construct infrastructures</li> <li>• High mountains &amp; steep slopes - difficult to produce food with colder climate, higher rainfall, infertile soil, not easy to use machinery, difficult to build infrastructures</li> </ul>	
<b>Soil fertility</b>	<ul style="list-style-type: none"> <li>• fertile soils eg deltas / floodplains can increase crop yield and food supply for the population</li> <li>• Infertile soils eg mountain</li> </ul>	
<b>Natural resources</b>	<ul style="list-style-type: none"> <li>• Areas with natural resources available are usually densely populated eg coal because those area of more job opportunities and businesses.</li> </ul>	

**Explain why countries with coastlines are more densely populated? (4)**

- Ports can be developed on coast which provides transport routes eg ferries and increase accessibility for trading
- Industry develops at port eg power stations, which increases job opportunities
- Climate are more moderate which is comfortable for living
- There are beaches which attracts tourists to go there

**Describe global distribution of these areas (3)**

- It is unevenly distributed
- Area of high pop density include South Asia eg India & East Asia eg China
- Area of low pop density include Polar regions eg Arctic & around tropic of cancer/deserts eg North Africa

**Suggest reasons for low pop density in Mongolia (4)**

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- It is landlocked
- High mountains and steep slopes
- Arid area
- Cold long winters
- Few jobs
- Infertile soils

**Suggest difficulties which planners face in urban areas with high population densities (5)**

- Not enough housing
- Increase pressure on healthcare & education
- Traffic congestion
- Unemployment
- Crime eg robbery
- Lack of clean water supply, electricity and good sanitation
- Problems associated with waste disposal
- Air, water, noise pollution

**For a densely populated country you have studied, describe and explain the population distribution.**

Name of country: Bangladesh

- Bangladesh has a population density of 1000people/km<sup>2</sup>. The population distribution is uneven where 75% of the population live in rural areas and 25% in cities.
- There is a high population density in Dhaka of 50000people/km<sup>2</sup> because it is urbanising rapidly and people are attracted by the potential for better job opportunities and better services eg healthcare and education. Also, many people are forced to flee from rural areas to Dhaka on south coast due to flooding. There is also a high population density on Ganges river delta because flat land makes it easier to build infrastructures eg housing. Building transport networks eg roads also makes the land more accessible. Moreover, it's the soil is fertile due to annual flooding and deposit of alluvium. This makes it easier to grow crops for food supply.
- On the other hand, there is a low population density in SE highland of less than 250people/km<sup>2</sup> because the steep sided hills rise to 900m above the sea level which makes it difficult for intensive agriculture as the soils are infertile. It's also difficult to construct infrastructure eg transport routes so the area is less accessible. The population density in south coast region is also low of less than 250people/km<sup>2</sup> because of the extremely low lying land of less than 10m above sea level and the rise of sea level due to climate change. This makes the land easier to be flooded so people are encouraged to migrate to cities eg Dhaka.

**For a sparsely populated country you have studied, describe and explain the population distribution.**

Name of country: Australia

- Australia has a population density of 3people/km<sup>2</sup>. The population is uneven.
- There is a higher population density of 10people/km<sup>2</sup> in cities in SE eg Sydney and SW eg Perth because the climate is temperate. The average temperatures and reliable rainfall of 800mm makes it easier for growing crops for food supply and provide water for domestic and industrial use. Several cities are located close together eg Sydney and Canberra with close trading connections and good transport links which attract businesses to occur, increases job opportunities and make the areas more accessible. There is also a higher population density in some sparsely populated areas eg Port Hedland in NW because the raw materials eg coal are located there which creates job opportunities for miners. Transport links eg Highway 1 is built along the west coast to link mining settlements with coastal ports eg Port Hedland for exporting raw materials.
- On the other hand, there is a low population density in the centre eg the Great Sandy desert because the low rainfall with less than 250mm per year makes it difficult for the population due to the lack of water for domestic use or agriculture use to grow crops for food supply. Also, the poor transport network makes reduces the accessibility to travel between communities. The population density is also low in northern Australia because the tropical climate has an extremely high rainfall with over 2000mm per year. The climate has a distinct wet and dry season which makes it difficult to build infrastructures eg roads because of the flooding. It's also difficult to grow crops because the soil is infertile as it will be removed by large amount of surface run off.

## 1.5 Settlements (rural and urban) and service provision

**Rural / urban settlement:** residential area where ppl live in countryside/cities

**Site:** area which settlement is built on

**Situation:** area surrounding settlement

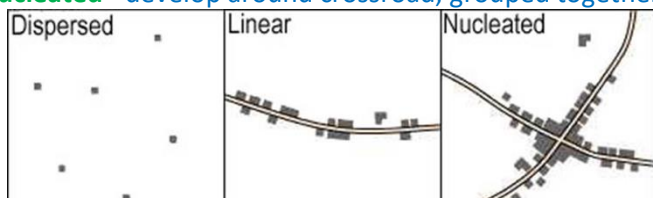
### Factors affect location of settlements

1. **Wet point sites** - water supply
2. **Dry point sites** - higher land near river to avoid flooding
3. **Hill tops** - defensive sites
4. **Flat land** - easier to construct settlements & grow crops coz soil is likely to be fertile
5. **Fertile soil** - grow crops
6. **Aspect** - get more sunshine
7. **Bridging point** - easier to build bridge to cross river
8. **Nodal point** - crossroads / rivers meet encourage trading
9. **Transport network** - increase accessibility

### Settlement patterns

#### What is the settlement pattern? (1)

- **Dispersed** - spread out, separated by countryside, low pop den.
- **Linear** - develop along road / river, restricted by highland / river
- **Nucleated** - develop around crossroad, grouped together, flat all around, common resource



#### Give 2 reasons for growth of settlement (2)

- Along a road for transport
- Near river for water supply

#### Suggest why there're no settlements? (3)

- There's a river - flooding may occur
- Area could be marshy land
- It could be farmland / forested

#### Identify settlement pattern & suggest possible reasons for this pattern. (4)

Settlement pattern - dispersed

Reason

- Area could be farmland / forest
- Ppl need large areas of land to make a living
- Some parts of area may not be habitable

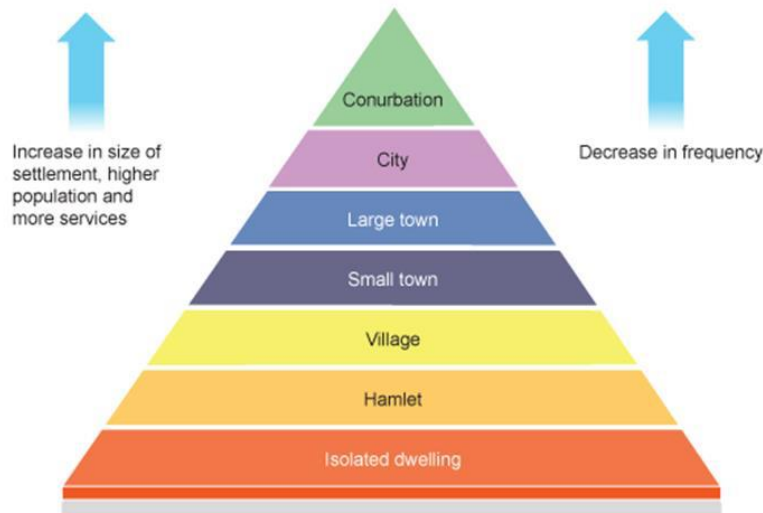
**Function:** purpose of the settlement

Function of a settlement	Definition
<b>Market town</b> (agricultural)	Provides services for surrounding agricultural area e.g. selling farm products
<b>Mining town</b>	Extract materials e.g. coal
<b>Industrial</b>	Where many factories are located

<b>Port</b>	Located on the coast or large river where goods are imported and exported
<b>Route Centre</b>	Has excellent transport links e.g. roads
<b>Commercial</b>	Provides needs of trade e.g. financial or retail centre
<b>Residential</b>	Where ppl live
<b>Tourist resort</b>	For luxury

**Settlement hierarchy:** settlements in an area in order of importance

Their importance will depend on pop size, range & no. of services, sphere of influence



**Describe relationship between pop size & no of settlements. Give eg of settlement types from diagram above. (2)**

- Larger pop, less settlements
- Eg Less cities than village

**Sphere of influence** - area served by a settlement

**Threshold Population:** min no. of ppl needed to create sufficient demand for a service to make a profit

**Range:** max distance that ppl is prepared to travel in order to obtain a service

<p><b>Low order / Convenience goods &amp; services</b> Eg food stores</p>	<p><b>High order / Comparison goods or services</b></p>
	<p><b>Give 3 examples of high order services which are likely to be located in large cities (3)</b></p> <ul style="list-style-type: none"> <li>○ Wedding dress shop, theatre, university</li> </ul>
	<p><b>Explain why large cities have many high order services. (4)</b></p> <ul style="list-style-type: none"> <li>○ Large pop - lots of customers, high demand</li> <li>○ Large sphere of influence - enough ppl to meet threshold pop</li> <li>○ Good transport links - many tourists will visit</li> <li>○ Wealthy ppl live there</li> </ul>
<ul style="list-style-type: none"> <li>○ Used by most ppl frequently</li> <li>○ Cheaper</li> <li>○ Low threshold pop</li> <li>○ Ppl won't travel far to purchase them</li> <li>○ Have small range</li> <li>○ Sold in low order settlement</li> </ul>	<ul style="list-style-type: none"> <li>○ Specialist services</li> <li>○ Larger in size</li> <li>○ Have greater variety</li> <li>○ Large sphere of influence</li> <li>○ More expensive</li> <li>○ Better quality</li> <li>○ Ppl compare prices</li> </ul>

	○ Sold in high order settlement
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**Explain why service provision in some rural areas is declining. (5)**

- Ppl move away from rural areas - decline of pop - less customer, demand
- Services are unprofitable & not sustainable
- Poor communications make supplying resources to these services difficult
- Young ppl leave
- Many ppl use services in urban areas where they work

**Case study - Shrewsbury vs Acton Burnell**

Shrewsbury	Acton Burnell
<ul style="list-style-type: none"> <li>○ Large town, high order settlement</li> <li>○ County of Shropshire in Western England</li> <li>○ Population: 70,000</li> <li>○ Highest order settlement in hierarchy of Shropshire</li> <li>○ Has a variety of high order services eg 2 hospitals (NHS &amp; private), shopping centres eg M&amp;S, restaurants, entertainment eg cinemas &amp; theatres</li> <li>○ On outskirts of town, there're various retail park eg Meole Brace to take adv. of the cheaper land and higher accessibility</li> <li>○ 3 park and rides, many bus services and a railway station which links to Birmingham, located near the motorway (M54) – increase accessibility</li> </ul>	<ul style="list-style-type: none"> <li>○ Village, low order settlement</li> <li>○ Located 8 miles south of Shrewsbury</li> <li>○ Population: 544 (not including the boarding school students)</li> <li>○ Has a few low order services eg post office which sells convenience goods</li> <li>○ Has an international boarding school for over 500 students and it provides considerable local employment. The college hosts cultural events that local residents.</li> <li>○ Students reach threshold population for post office &amp; shops nearby</li> <li>○ Has church but services are not weekly &amp; a refuse collection service.</li> <li>○ Has bus service to Shrewsbury but doesn't operate frequently</li> </ul>

## 1.6 Urban settlements

### 1.7 Urbanisation

**Central Business District (CBD)**

**Characteristics of land use**

- High rise buildings
- High density land use
- High traffic congestion
- Good transport links
- High order settlements
- High land cost

**Functions** - retail, entertainment, financial services, other professional services

**Problems** - congestion, pollution, lack of space

**Residential Areas**

<b>Inner city</b>	<ul style="list-style-type: none"> <li>○ Area close to CBD</li> <li>○ Has mainly terraced houses in a grid like pattern</li> <li>○ Have convenience stores</li> <li>○ Lack of open areas</li> <li>○ Overcrowding</li> </ul>
<b>Suburb</b>	<ul style="list-style-type: none"> <li>○ Lower cost of land</li> </ul>



	<ul style="list-style-type: none"> <li>○ Higher housing cost</li> <li>○ Better quality housing &amp; most have a garden</li> <li>○ Detached or semidetached homes</li> <li>○ Have shopping centres</li> </ul>
<b>Outer-city estate</b>	<ul style="list-style-type: none"> <li>○ Located on fringes of cities with varied housing</li> <li>○ Ppl relocated here when inner city was being redeveloped</li> </ul>
<b>Rural-urban fringe</b>	<ul style="list-style-type: none"> <li>○ Edge of city</li> <li>○ Mixture of land uses e.g. housing, golf courses, businesses, parks, airports</li> </ul>

**Rural-urban fringe** - border of city & countryside

- **Greenfield Sites:** area of countryside that has not been built on

Adv	Dis
<ul style="list-style-type: none"> <li>○ Better environment</li> <li>○ More accessible</li> <li>○ Have room to build car parks next to shops/ for expansion</li> <li>○ Cheaper</li> </ul>	<ul style="list-style-type: none"> <li>○ Habitat destruction</li> <li>○ Increase pollution</li> <li>○ Gov protect areas</li> </ul>

- **Brown Field Site:** disused part of city suitable for redevelopment

Adv	Dis
<ul style="list-style-type: none"> <li>○ Redevelopment of land</li> <li>○ Near CBD</li> <li>○ Good transport links</li> </ul>	<ul style="list-style-type: none"> <li>○ Polluted site - expensive to clean</li> <li>○ Limited room to expand</li> <li>○ Increase pollution</li> </ul>

**Industrial Areas**

**Factories were built:**

- As close as possible to the CBD but with enough space for expansion
- Near transport links → transport products
- Near sea → water supply, transport products
- Flat land → easy to build settlements

**Characteristics of retail and business parks**

- Modern
- Large area of land
- Areas of parking
- Large / specialist shops, entertainment eg restaurants, services eg car service centre

**Urban Growth in Urban Areas**

**Urbanisation** - Increase % of pop in urban areas

**Rural areas** - area of countryside that is not built up

**Urban areas** - Built up area with a large population & high order settlements

**Urban sprawl** - spread of urban into rural area

**Explain why a greater % of pop live in urban areas in MEDCs than in LEDCs. (4)**

- Urbanisation has been occurring for a longer period of time in MEDCs
- More industry developed in MEDCs
- MEDCs mainly industry
- LEDCs mainly farming

**Explain why urbanisation is occurring in LEDCs. (4)**

- Rural areas become built up
- Higher employment
- Better education, healthcare,
- More reliable water & food supplies

**Explain why pop of many cities has grown rapidly. (4)**

- Large amount of inward migration
- Ppl seeking employment
- Better education, health care, electricity & water supplies
- Follow family & friends
- Bright lights - entertainment

**Urban sprawl**

**Explain why urban sprawl is occurring around urban areas? (3)**

- More ppl living in urban areas for eg jobs
- No place to build in cities
- Ppl want large homes
- Settlements are joining together

**Suggest reasons why residents of settlements are becoming increasingly concerned by urban sprawl? (5)**

- Loss of farmland
- Increase house price
- Some rural residents can no longer afford to live in area
- Traffic congestion
- Deforestation...
- Atmospheric, noise, visual, water pollution
- Flooding
- Loss of open space

**Problems of urban growth in urban areas**

- Traffic congestion
- Pollution
- High crime rates
- Inadequate housing, education, medical care provision

**Traffic congestion**

**Explain why many urban areas experience problems of traffic congestion. (3)**

- High population density
- Increase in car ownership
- Rush hour
- Narrow roads
- Lots of tourist attractions, traffic lights

**Explain how traffic & industry may each cause air pollution. (2)**

- Traffic - CO<sub>2</sub>
- Industry - burning fossil fuels

**Explain why traffic congestion is a problem in many urban areas. (5)**

- Causes delays
- ppl late to work/school - result in loss of revenue for businesses
- stress/road rage
- Time wasted
- Emergency services can't get through
- Air, noise pollution

**Suggest ways in which public transport system developed to reduce traffic problems. (5)**

- More regular buses, bus routes - so all parts of city served by buses
- Install railway
- Increase capacity
- Park & ride - ppl park on edge of city & uses buses to CBD
- Subsidise public transport

**Solution**

- One-way systems
- By-passes
- Park & Ride Schemes
- Ring roads
- Improve public transport

**Pedestrian zones**

Benefits	Problems
<ul style="list-style-type: none"> <li>○ No danger from cars</li> <li>○ Less air &amp; noise pollution from vehicles</li> <li>○ Encourages walking</li> </ul>	<ul style="list-style-type: none"> <li>○ More difficult access for emergency vehicles</li> <li>○ Ppl may need to walk further</li> <li>○ Create traffic congestion</li> </ul>

**Squatter settlements**
**Describe problems faced by ppl living in squatter settlements. (5)**

- Poor quality building materials - easily destroyed by storms
- Lack of electricity, clean water supplies (water borne disease)
- Overcrowding - disease spreads easily - lack of open space
- Inadequate waste disposal - lack of hygiene

Characteristics	Explain why a large % of pop in LEDCs are living in squatter settlements (5)	Describe strategies used to improve housing conditions of ppl who live there (7)
<ul style="list-style-type: none"> <li>○ High population density</li> <li>○ High home density</li> <li>○ Lack of running water &amp; electricity</li> <li>○ Poor sanitation</li> <li>○ Lack of privacy</li> </ul>	<ul style="list-style-type: none"> <li>○ Pop growing rapidly - not enough houses</li> <li>○ Ppl can't afford other housing</li> <li>○ Limited building space</li> <li>○ Lack of investment in housing from local authorities</li> <li>○ Can build squatter settlements themselves</li> <li>○ Often located close to work places</li> <li>○</li> </ul>	<ul style="list-style-type: none"> <li>○ Donations of building materials</li> <li>○ Ppl being taught how to build</li> <li>○ Infrastructural improvements eg piped water</li> <li>○ Self-help</li> <li>○ Site &amp; services schemes</li> <li>○ Build low cost housing</li> </ul>

**Suggest why land use changes are likely to cause conflict. (5)**

- Some ppl don't want to change
- Ppl have to move out
- More traffic congestion
- More air, noise & visual pollution
- New housing might be too expensive
- Unemployment

Air pollution - breathing difficulty

Noise - hard to concentrate/sleep - stress

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Water - water borne disease

Visual - spoil views

**Case study - Shrewsbury** (county of Shropshire in Western England)

<p><b>Cause of urban sprawl</b></p>	<ul style="list-style-type: none"> <li>○ Green field site</li> <li>○ Retail park eg Meole Brace</li> <li>○ New housing estates built at Nobold → ↑sphere of influence</li> <li>○ New road infrastructure eg A5 widened</li> <li>○ New park &amp; ride bus services eg Meole Brace → ↑accessibility</li> </ul>
<p><b>Problems</b></p>	<ul style="list-style-type: none"> <li>○ New housing estate at Nobold → loss of greenspace &amp; access to countryside</li> <li>○ Environmentalists concern damage to natural habitat from buildings North West relief road</li> <li>○ Meole Brace retail park → impermeable surface → greater surface runoff → flood</li> <li>○ Traffic congestion at Meole Brace retail park → pollution, health problems</li> </ul>
<p><b>Solutions</b></p>	<ul style="list-style-type: none"> <li>○ One-way system, By-pass, A5 widened → ↑traffic flow around town</li> <li>○ Putting cobbles on streets to deter motorists driving into historic town &amp; control speed</li> <li>○ 3 Park &amp; Ride Schemes on outskirts where ppl park for free &amp; pay a small fee to catch a bus eg south of Meole Brace retail park → ↓car to town centre</li> <li>○ Investment in public transport</li> <li>○ High parking costs in town centre</li> </ul>