

International Advanced Level Geography

Unit 1 Going Global

WGE01

Topic 2: Going Global

Topic Guide Booklet

Contents

Introduction	3
Big Picture Overview	4
1.4.1 Globalisation, networks and trade	5
1.4.2 Global organisations	11
1.4.3 Globalisation's impact on development	15
1.4.4 Global population trends	19
1.4.5 Global migration	22
1.4.6 World urbanisation	27

Introduction

This booklet has been written to support teachers and learners teaching and studying the Pearson Edexcel International Advanced Level Geography qualification.

This guide should be used alongside other published teaching and learning materials available on the IAL Geography web page [here](#).

Big Picture Overview

Topic 2 Going Global has six Enquiry Questions which must be covered, which focus on different aspect of globalisation. Enquiry Questions 1-3 focus on what globalisation is an its direct impacts on people, whereas Enquiry Questions 4-6 take a broader view of the links between globalization, population and resources, urbanization and migration.

EQ1 Global economic connections	EQ2 Organisations and globalization	EQ3 Globalisation's winners and losers
<ul style="list-style-type: none"> • Flows • Transport • Communications • Trade 	<ul style="list-style-type: none"> • TNCs • Governments • IGOs 	<ul style="list-style-type: none"> • Consumers • Developed and developing countries • Global hubs • Asia • Environmental impacts
EQ4 Globalisation and population & resources	EQ5 Globalisation and migration	EQ6 Urbanisation and Globalisation
<ul style="list-style-type: none"> • Population trends • Ageing and youthful • Population and resources debate 	<ul style="list-style-type: none"> • Migration trends • Costs and benefits • Managing migration 	<ul style="list-style-type: none"> • Urbanisation trends • Housing challenges • Megacities

Assessment:

Topic 2 is assessed as part of Paper 1. This is a 1 ½ hour exam. Going global is assessed:

- In Section A Questions 3 and 4: a series of data stimulus and short-answer questions with a maximum mark of 6. These questions are compulsory.
- In Section B Questions 6: a 10 mark data stimulus question plus a 20 mark essay question. This question is optional as candidates can choose to complete question 5 instead (World at Risk)

In addition, themes from Going Global can be assessed as part of the content of Question 3 the 15 mark synoptic question in the Paper 3 Contested Planet examination.

1.4.1 Globalisation, networks and trade

Enquiry question: Why are global economic connections increasing?

The Globalisation process

Defining globalisation is quite challenging. It is a very commonly used geographical term, but its meaning is not always clear. Three definitions are shown below:

Financial Times newspaper	OECD	IMF
“Globalisation describes a process by which national and regional economies, societies, and cultures have become integrated through the global network of trade, communication, immigration and transportation.”	“Increasing internationalisation of markets for goods and services, the means of production, financial systems, competition, corporations, technology and industries.”	““The increasing integration of economies around the world, particularly through the movement of goods, services, and capital across borders.”

These definitions focus on trade in goods and services across international borders. The OECD and IMF definitions have a very economic focus. The FT definition is broader. It includes ideas about people (societies) and cultures as well as immigration. It is usual for Geographers to accept this broader definition of globalisation that recognises globalization involves increased connections between places:

- WIDENING: new connections being made between places.
- DEEPENING: the density of connections between places increases

Globalisation can be thought of as a network of connections and flows between these connections:

Economic	<ul style="list-style-type: none"> • Trade in goods and commodities; the movement on data and money (capital) around the world. • Growth of global TNCs, presence and global brand image. • The spreading of investment around the globe and rapid growth in world trade.
Cultural	<ul style="list-style-type: none"> • Convergence of food tastes, fashion, music and - values many of which are ‘western’ in origin i.e. from North America and Europe. • Mixing / churning of cultures.
Political	<ul style="list-style-type: none"> • Dominance of western democracies in political and economic decision-making • Spreads the view that democratic, consumerist societies are the most ‘successful’.
Demographic	<ul style="list-style-type: none"> • Occurs as migration and tourism increase • Populations are becoming ever more fluid and mixed.
Environmental	<ul style="list-style-type: none"> • As problems such as global warming, ocean plastics etc become ever more pressing • The realisation that global environmental threats require global solutions.

It has become clear that some countries are more globalised than others. Globalisation can be measured in a variety of ways:

AT Kearney Global Cities index	Measures how globalised specific cities are, using measures such as education levels, global TNCs, internet use, number of embassies and international travellers. https://www.atkearney.com/global-cities/full-report
KOF Index	Measures economic, social and political globalization using a wide range of measures. https://www.kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html

2018 KOF Globalisation Index top 15 countries (Economic globalization score)		
1	Singapore	92.47
2	Hong Kong, China	90.07
3	Netherlands	89.31
4	Belgium	89.23
5	Malta	86.73
6	Ireland	86.19
7	Luxembourg	85.49
8	Estonia	84.31
9	Switzerland	83.82
10	Hungary	83.02
11	United Arab Emirates	82.47
12	Denmark	82.21
13	Czech Republic	81.69
14	Austria	81.36
15	Sweden	81.32

AT Kearney Global Cities index	
Top 10 most globalised cities 2017 (index score)	
New York	63.2
London	62.9
Paris	53.2
Tokyo	47.4
Hong Kong	44.7
Singapore	39.1
Chicago	38.3
Los Angeles	38.1
Beijing	37
Washington DC	34

Both the KOF and Kearney scores reveal similar patterns:

- Developed countries / cities are the most globalised, especially European ones.
- Relatively small countries which rely on trade and have culturally mixed populations with large numbers of both emigrants and immigrants score highly (Hong Kong, Singapore, Ireland, Netherlands, UAE)
- The USA as a country does not make the top 15 in the KOF index, but 4 of its cities are in the Kearney top 10.

Transport and communication

Transport and communication have been very important in terms of creating a 'shrinking world': this is the idea that the world is perceived as smaller today than in the past because the

speed of travel and communication has reduced. This process is called ‘time-space compression’.

The process of ‘shrinking’ began in the 19th Century as the speed of transporting people, goods and messages increased due to new technology:

- The development of steam railways in the 1830s and 1840s
- Electric telegraph systems in the 1860s and telephones around 1900
- Steam-ships in the 1850s and 1860s

In the 20th Century further developments occurred:

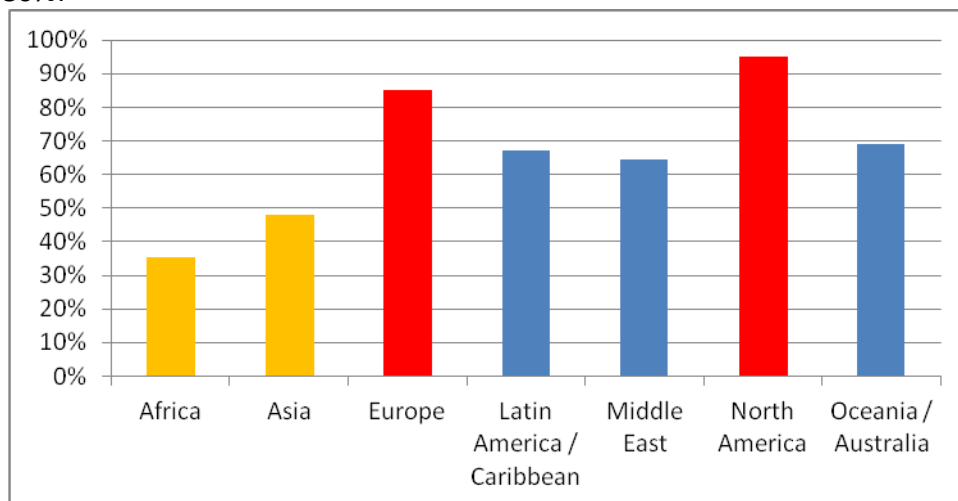
- Propeller aircraft and by the 1950s, jet craft
- Containerisation of shipping in the 1970s.

The development of inter-modal shipping containers that can be transferred between HGVs, trains and ships has dramatically lowered the cost of transporting goods worldwide. It is a key technology behind global trade.

In the 20th and 21st Centuries communication has increased in speed dramatically, allowing instant global communication and the ability to send data around the globe at the touch of a key:

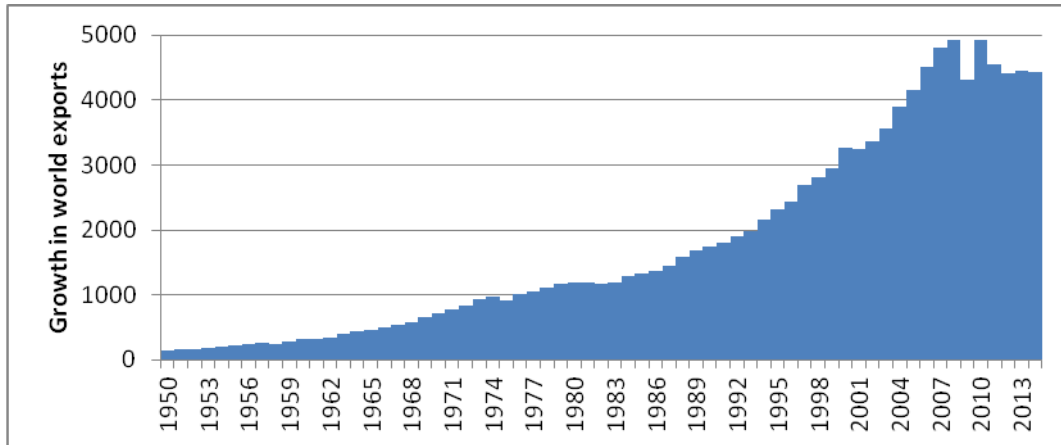
First sub-marine fibre optic cable	First mobile phone text message sent	First online consumer banking	Facebook launched	1 billion people are on the internet	Apple iPhone launched
1988	1992	1995	2004	2005	2007

Although the internet and mobile ‘phones have become very common, it is important to recognise that they are not universal. The graph below shows the percentage of global region populations connected to the internet in 2017. Some regions are below 50% whereas others are above 80%:



Trade

Trade, meaning the exchange of goods or services between people, has grown dramatically in the last 50 years. This is especially true of international trade between countries. The graph below shows an index of world-wide exports illustrating dramatic growth since the early 1990s.

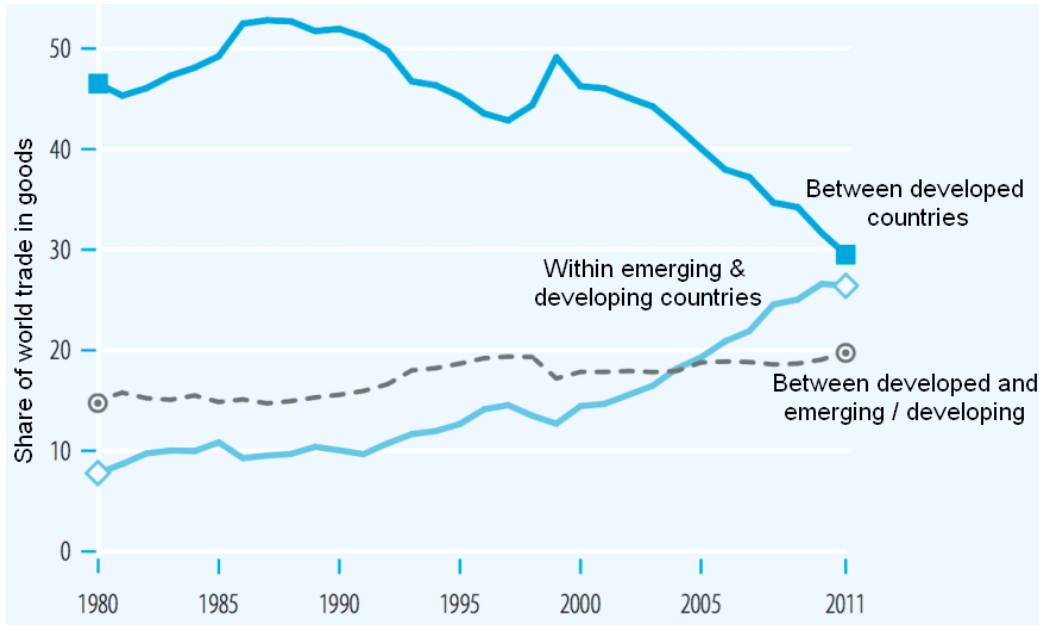


There are a number of reasons why world trade has grown:

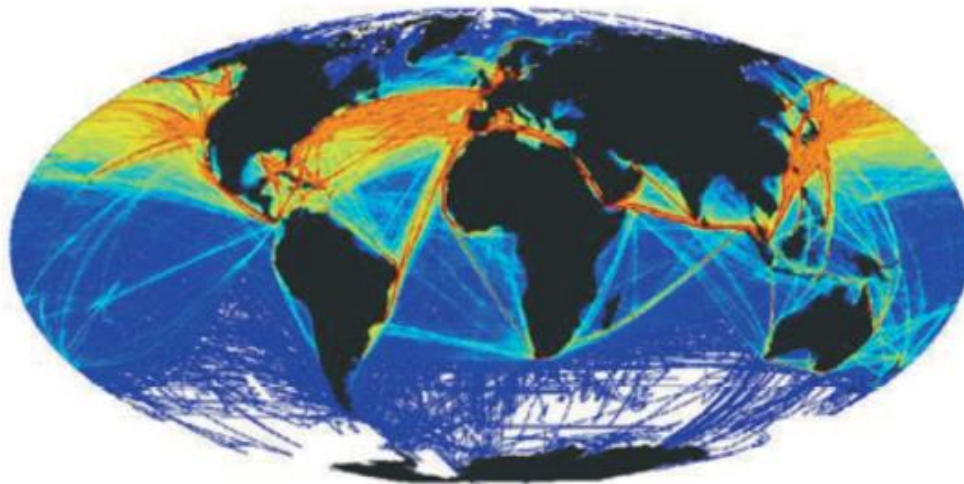
- Firstly, there were only 2.5 billion people in 1950 compared to 7.6 billion by 2018.
- Secondly, in developed countries people are much wealthier and can consume more: inflation adjusted real incomes increased from \$6000 per person in 1950 to \$40,000 by 2016, and from \$15,000 to \$50,000 in North America.
- Thirdly, trade barriers have been removed increasing free trade between countries: when trade is easier and cheaper there is more of it.
- Lastly, since 1980 the global shift of manufacturing industry to Asia (Taiwan, China, South Korea) has increased trade between Asia and Europe / North America.

As emerging countries in Asia and Latin America have grown economically, the share of world trade in goods between these countries has increased (see graph below). Trade has changed in a number of other ways:

- The volume of commodity exports (oil, coffee beans, metal ores) exported from developing countries has increased: for instance in 1990 only about 200,000 tonnes of coffee beans were exported worldwide but this increased to around 1 million tonnes by 2017.
- Services have become more globalised. 40 years ago most banks, law firms and accountants served their home market but many are now global, serving customers and businesses worldwide.
- Examples of global service TNCs include American Express, AXA Group, Veolia, Berkshire Hathaway, Prudential, Amazon, Verizon,)



The map below shows the pattern of global shipping movements. The ships carry manufactured goods, bulk commodities, metal ores and fossil fuels. Most shipping is between North America, Europe and East Asia. Trade to other parts of the developed and developing world is much more limited. This map shows the density of a particular type of network connection: other networks such as Facebook, global air travel, the internet subsea fibre optic cable network all have a very similar pattern.



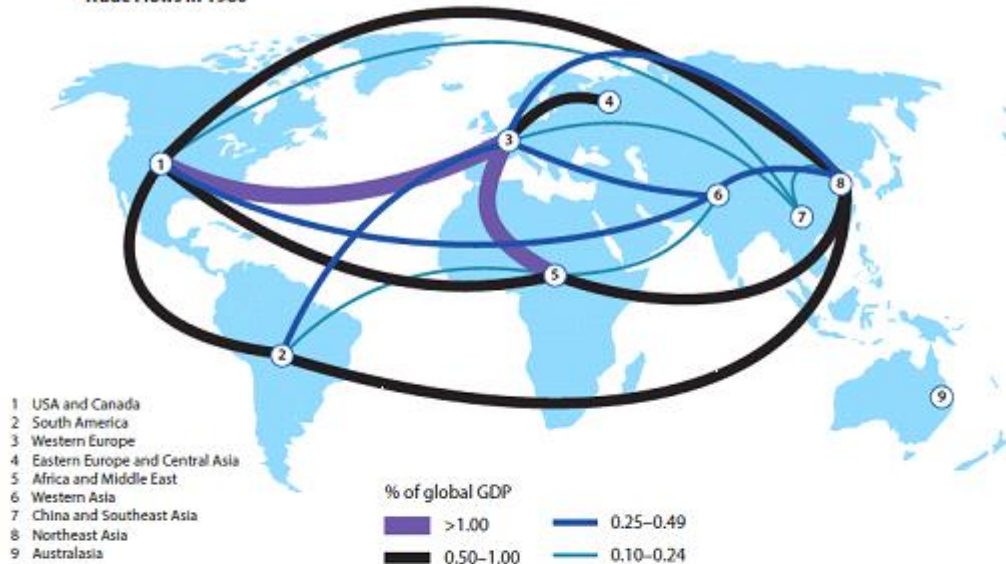
Global shipping movements



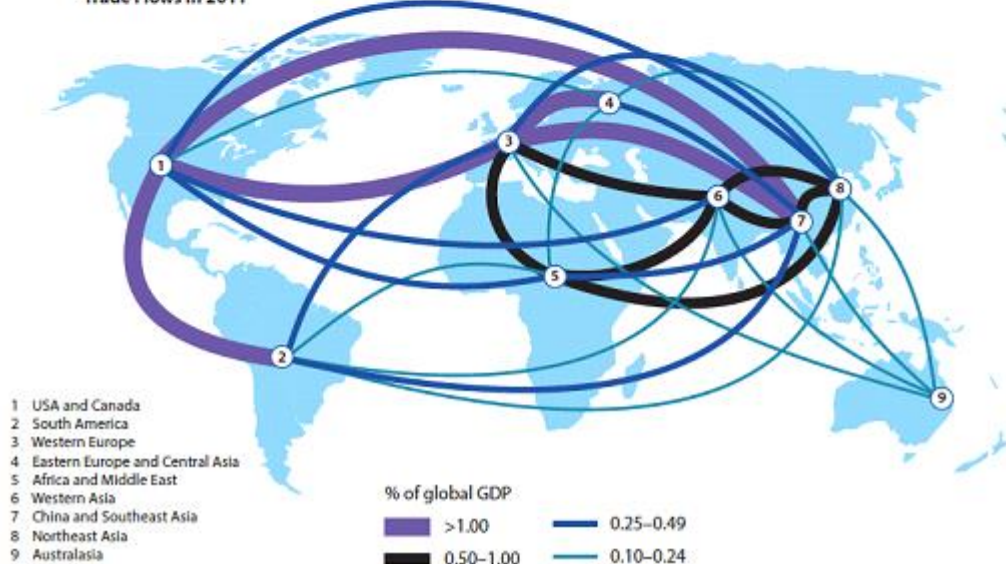
The maps below show the huge changes that have taken place in world trade in goods between 1980 and 2011:

- In 1980 the largest flows were between Europe and North America and between Europe and Africa.
- The Europe and Africa flow was dominated by Europe importing raw materials / commodities from Africa
- By 2011 the trade network is denser: there are more connections
- The proportion of world trade that includes Asia, in 2011, has dramatically increased (the global shift) and Africa's share has decreased.
- The overall pattern illustrates the economic importance of Asia in 2011 compared to 1980.

Trade Flows in 1980



Trade Flows in 2011



1.4.2 Global organisations

Enquiry question: Which organisations are involved in globalization and what are their roles?

TNCs as key players

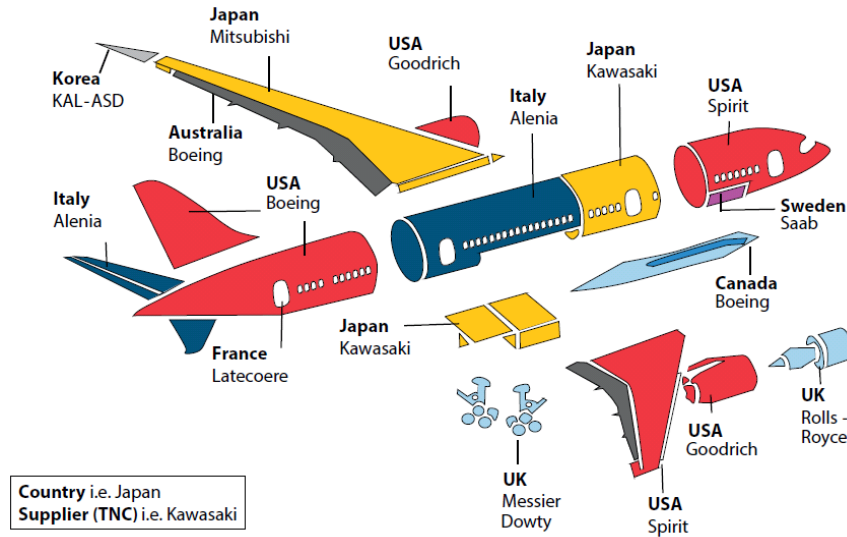
Trans-national corporations (TNCs) are a very important part of the global economy and globalisation. The 20 largest TNCs in the world, according to the 2018 Forbes Global 2000 list <https://www.forbes.com/global2000/list/#tab:overall> are shown in the table below:

Rank	Company	Country	Sector	Sales	Profits
#1	ICBC	China	Banking	\$165	\$43
#2	China Construction Bank	China	Banking	\$143	\$37
#3	JPMorgan Chase	USA	Banking	\$118	\$26
#4	Berkshire Hathaway	USA	Business services	\$235	\$39
#5	Agricultural Bank of China	China	Banking	\$129	\$29
#6	Bank of America	USA	Banking	\$103	\$20
#7	Wells Fargo	USA	Banking	\$102	\$21
#8	Apple	USA	ICT / Electronics	\$247	\$53
#9	Bank of China	China	Banking	\$118	\$26
#10	Ping An Insurance Group	China	Insurance	\$141	\$13
#11	Royal Dutch Shell	Netherlands	Energy	\$321	\$15
#12	Toyota Motor	Japan	Automotive	\$265	\$22
#13	ExxonMobil	USA	Energy	\$230	\$20
#14	Samsung Electronics	South Korea	Electronics	\$224	\$41
#15	AT&T	USA	Communication	\$159	\$30
#16	Volkswagen Group	Germany	Automotive	\$272	\$13
#17	HSBC Holdings	UK	Banking	\$63	\$10
#18	Verizon Communications	USA	Communication	\$128	\$31
#19	BNP Paribas	France	Banking	\$117	\$8.
#20	Microsoft	United States	ICT / Electronics	\$103	\$14

The list is dominated by TNCs from developed countries, especially the USA. Most of the Chinese companies are state-owned enterprises i.e. they are owned by the Chinese government. Many large TNCs have annual sales larger than the total annual GDP of most countries. TNCs influence globalisation in a wide variety of ways:

1. They have global production networks (see diagram of an aircraft, below) which create numerous connections between countries.
2. Most TNCs have global brands (Nike, McDonalds) but they adapt their products to suit local markets and cultures: this is called glocalisation.

3. TNCs promote free trade and economic liberalisation (opening up of markets to foreign companies and reduced regulation) to gain access to new markets.
4. By moving production overseas (outsourcing and offshoring) to countries such as China and India they contribute to economic growth and job creation in those countries.
5. Many TNCs actually invent the new communications and transport technology that has allowed globalization to accelerate.



The diagram above shows the global production network for the Boeing 787. This aircraft is made in Seattle, USA. However, parts for the aircraft are made worldwide in the USA, Europe and Asia.

A key feature of TNCs from Europe, North America and Japan since 1980 has been the way they have outsourced production and services to lower cost locations in emerging countries. Examples include call centres and business processing in Bangalore, and manufacturing in Shenzhen and Vietnam. This outsourcing has both costs and benefits:

	Costs	Benefits
Economic	<ul style="list-style-type: none"> • TNC products can undercut locally made products on price • Governments have to spend money to attract TNCs 	<ul style="list-style-type: none"> • Job creation, and higher incomes • Improved workplace skills • Local companies supply larger TNCs with components and services
Social	<ul style="list-style-type: none"> • Young people migrate to cities, separating them from their families • Living conditions in cities / factory dormitories can be poor. • Risks of worker exploitation, low wages, long hours and lack of union 	<ul style="list-style-type: none"> • Most work is in cities, which have improved access to education and healthcare • There are opportunities to move jobs, and increase income as skills improve

	representation.	
Environmental	<ul style="list-style-type: none"> • Rapidly growing cities, and housing shortages • Urban air pollution • Loss of forests and farmland for factories and urban areas • Industrial land and water pollution • Pressure of local water supplies 	(there are very few, if any environmental benefits)

Government polices

Many, but not all, governments are in favour of globalisation and have put in place polices to encourage it, including signing free trade agreements and joining trade blocs such as the EU, ASEAN and TTIP. A key policy for many governments has been to create free trade blocs with other countries, usually ones that they are geographically close to. Free trade blocs have a hierarchy of levels of 'free-ness':

- Customs unions reduce the need for border checks e.g. on lorries
- Import / export taxes, tariffs and quotas on goods
- Opening up services to free-trade
- Freedom of movement of people
- A joint currency like the EURO



Only the EU has done **all** of the above. Most free-trade blocs are for trade in goods being tax / tariff free. Governments often promote free-market liberalisation as an economic framework. This means they:

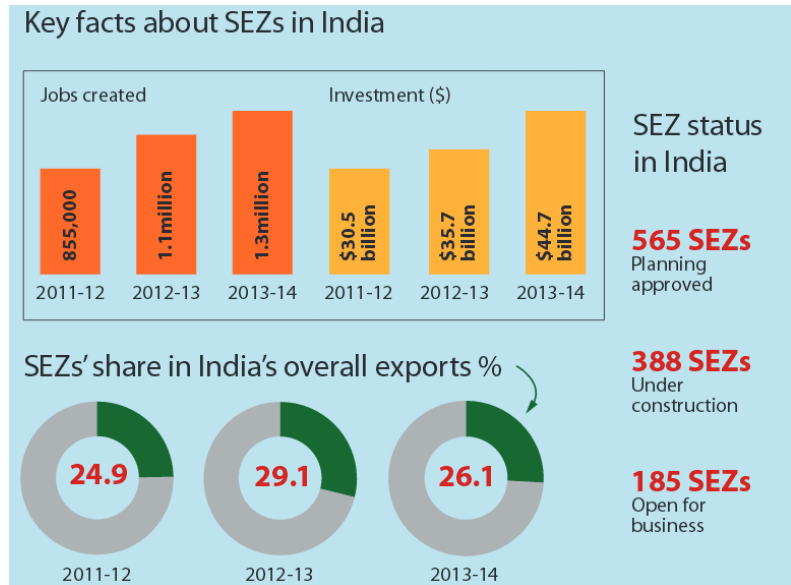
- Trade freely between countries, as a key way of making money.
- Are open to migration, so workers can move to where their skills can be used.
- Have open access to Foreign Direct Investment (FDI) from TNCs
- Encourage business start-ups using loans and grants
- Privatised government owned companies

In addition, many governments have set up special economic zones (SEZs, sometimes called 'export processing zones' or 'free trade zones) particularly in Asia. SEZs often include many of the following:

- Cheap, or even free, land for TNCs to build factories and offices on.
- Subsidised water and energy supplies
- Low taxes, and tariff free import and export of goods and profits.

- Limited environmental regulation and labour laws, plus unions are banned.

SEZs encourage FDI from TNCs and have been a key policy in promoting job creation in emerging countries and contributing to the global shift to Asia. The importance of SEZs to the Indian economy is shown in the diagram below:



IGOs and globalisation

A number of IGOs have contributed to globalisation:

World Bank (WB) 1944	World Trade Organisation (WTO) 1947	International Monetary Fund (IMF) 1945
<ul style="list-style-type: none"> Lends money to developing and emerging economies to promote economic development. This is done within a western capitalist model. The money originates from developed economies. 	<ul style="list-style-type: none"> Works to remove barriers to international trade. Has negotiated a sequence of global free trade agreements that have gradually removed trade taxes and quotas 	<ul style="list-style-type: none"> Promotes global economic stability. Aids economies in opening up to world trade and investment. Comes to the aid of countries in economic difficulty.

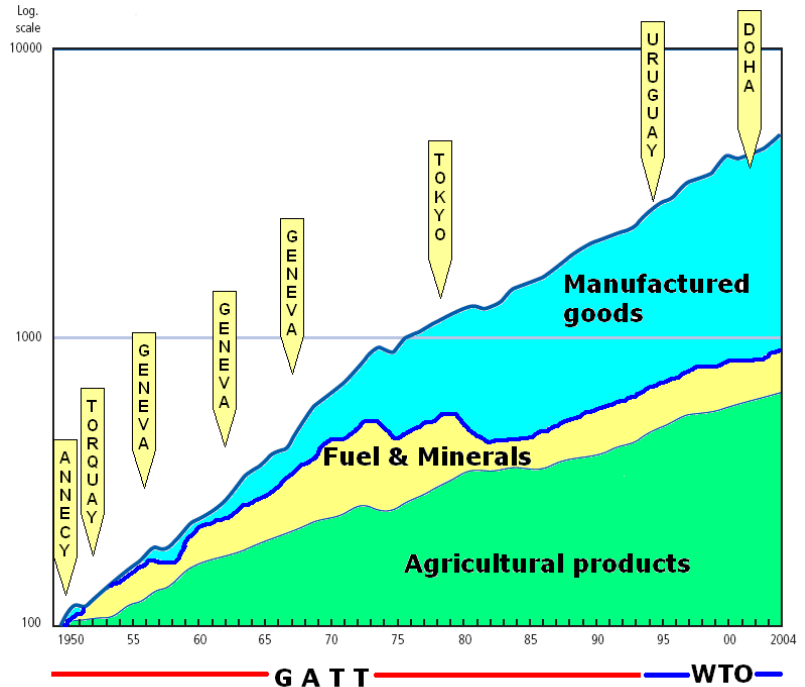
These IGOs have contributed to a relatively stable economic and political world since 1945 which has encouraged global economic growth. All three organisations promote economic liberalisation:

- Free trade between countries
- Private industries, not government owned ones
- Free movement of capital, including foreign direct investment

The WTO (called GATT between 1947 and 1995) has helped free trade through a number of negotiation 'rounds' since 1947 (arrows on the diagram) which have gradually increased the volume of goods traded freely – and contributed to a dramatic increase in world trade as shown by the diagram.

However, the Doha Round of negotiations was never completed, having started in 2001.

Since then, protectionism has increased somewhat. A number of countries have argued that free trade is 'unfair' and that their own industries and companies should be protected from foreign competition.



Most, but not all, economists argue that protectionism reduces the overall volume of trade and therefore overall economic growth.

1.4.3 Globalisation's impact on development

Enquiry question: How far does globalization produce winners and losers, and switched-on and switched-off places?

Consumers and workers

Consumers in developed countries have benefited from globalisation in a number of ways:

- The cost of products is lower because many are made in emerging countries, with low wages and other costs.
- Choice has increased, because containerisation and global trade means goods can be sourced from almost anywhere.
- Familiar brands are available worldwide: this is true of goods (Nike trainers) but also services (CNN, Emirates, Visa).
- Travel, and therefore tourism, has reduced in price and increased in availability.
- The internet allows easy communication and connectedness through email and social media.

However, there are anti-globalisation groups that argue the benefits are outweighed by costs. These anti-globalisation groups fall into 3 main categories.

Environmental / green groups	Left-wing / socialist groups	Right-wing / nationalist groups
That focus on the cost to the planet from resource exploitation and pollution.	That focus on the human cost of globalisation. i.e. worker exploitation and the wealth of TNCs.	That focus on loss of jobs in developed countries, and to some degree the impacts of migration in a globalised world.

Some developed countries have experienced widespread deindustrialisation as a result of the global shift of manufacturing and services to Asia. This includes regions such as:

- Northern England, Glasgow and South Wales in the UK
- The 'Rustbelt' of the USA (Detroit, Cleveland, Buffalo, Pittsburgh)
- The Ruhr Valley in Germany
- Northern France and Alsace-Lorraine

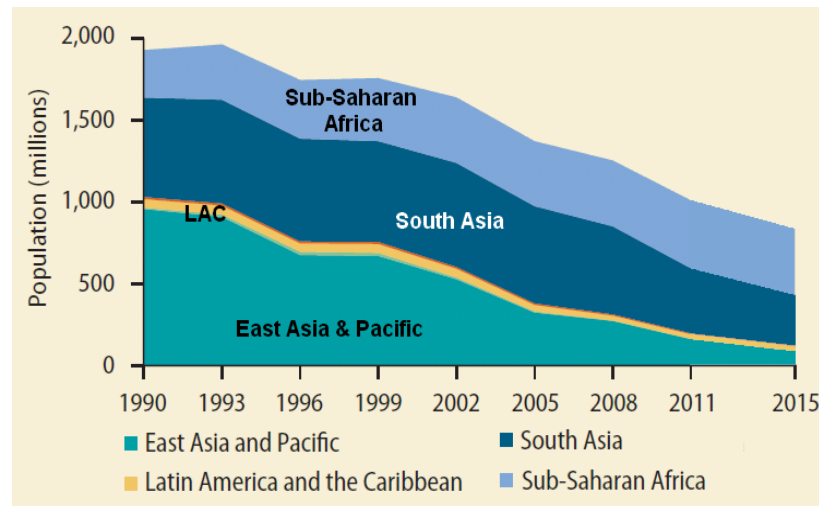
Job losses due to economic restructuring – as industries have left for cheaper locations or simply closed due to cheaper foreign competition – have led to:

- Derelict land because of factory closures
- Depopulation, as people with some skills have left to look for work elsewhere.
- Rising crime, linked to rising unemployment and increasing poverty.

Detroit is an extreme case. Its population fell from high of 1.85 million in 1950 to 678,000 in 2015 as car factories closed. By 2016 there were 90,000 vacant or derelict plots of land in the city, and the average house price was less than \$10,000. About one third of the city population live in poverty, and the crime rate is the highest for a major city in the USA. Because of the decline in economic activity, jobs and taxes the city council was declared bankrupt in 2013.

Unequal benefits

Not all places have been affected positively or negatively by globalisation. Some places have barely been affected at all. This is most true in rural parts of Sub-Saharan Africa and some parts of South Asia. The graph below shows the reduction in poverty 1990-2015 for global regions. While poverty has declined sharply in East Asia, it has only declined in South Asia since around 2000, and in Sub-Saharan Africa it actually increased.



This suggests some parts of the world have not experienced the impacts of globalisation. This is because:

- War and conflict prevent foreign investment and restrict trade e.g. South Sudan, DRC, Somalia.
- In some places levels of education and health are low and this combines with poor transport, electricity, water and communications infrastructure to prevent investment.
- Some countries (Uganda, CAR) are land-locked or have harsh terrain (Nepal) or climates (Chad, Mali) which are barriers to trade and communication.
- In some cases, like North Korea, the government deliberately prevents connections being made to the outside world e.g. banning foreign travel and use of the internet.

The places have weak links to the wider global economy, and therefore high levels of poverty.

On the other hand, some places are ‘hyper-connected’ with multiple economic, transport and population connections to other places. These are often called global hubs or world cities. According to the 2016 Globalisation and World Cities Research Network the most connected cities are:

Alpha ++ cities	London, New York
Alpha + cities	Singapore, Hong Kong, Paris, Beijing, Tokyo, Dubai, Shanghai

These cities:

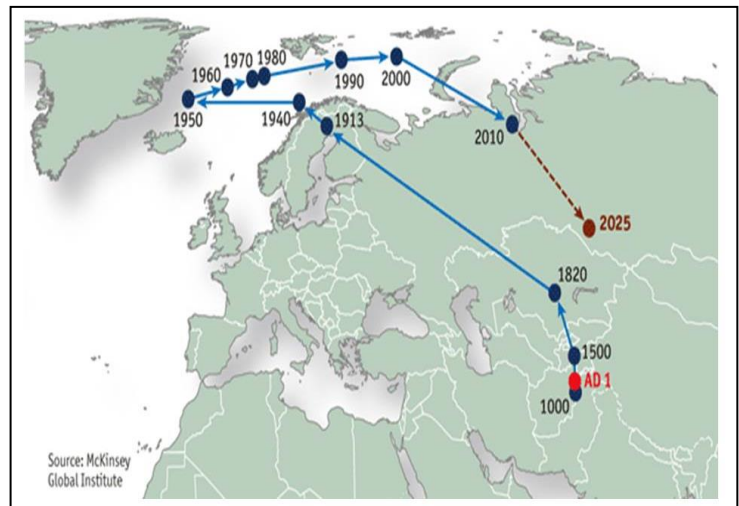
- Are often the HQs of major TNCs
- Have the largest, most well connected airports
- Have a huge range of high value services, hotels, shops, resorts
- Have mixed populations from different countries and cultures
- Are home to the global elite (or ‘1%’) of very high net-worth individuals

Of the 2208 Billionaires listed by Forbes in 2018, 1281 of them came from a country containing an Alpha ++ or Alpha + city.

Asia

The Global Shift has caused the global economic centre of gravity to move towards Asia since 1980 (see map):

- Between AD 1 and 1820 Asia was the economic centre of the world
- Only at the onset of the European industrial revolution did the world economy move towards Europe
- After 1940, a shift into the Atlantic towards the USA took place.
- Between 1950 and 1980, as Europe recovered from WWII, the centre was pulled back east.
- Since 2000 it has accelerated eastward, towards China.

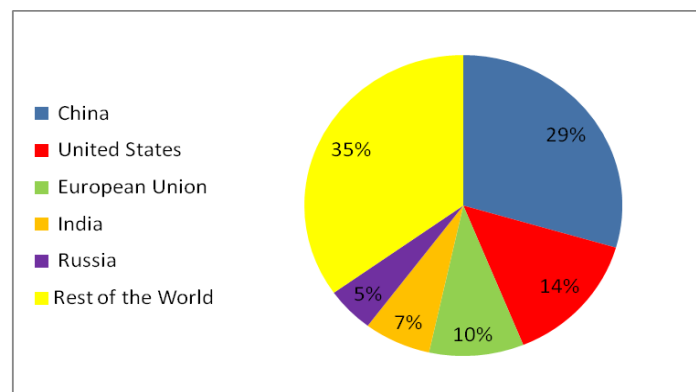


This shift, and the economic growth it has brought has benefitted Asian countries in terms of jobs, rising incomes, better education levels, increased life expectancy and improvements in water, transport, electricity and other infrastructure. In 2000, per capita GDP in China was under \$1000 whereas by 2016 it was over \$8000.

However, there have been costs:

- Low wages, long hours, exploitation, poor health and safety in factories set up with FDI.
- Rapidly growing megacities and slums, urban poverty and pollution
- Growing health problems associated with the nutrition transition e.g. obesity
- Families split up by rural-urban migration
- Traditional cultures eroded by adopting a more western lifestyle, working week, diet and dress
- Serious urban air pollution, and water pollution

China's carbon dioxide emissions have grown to be the largest in the world by 2015 (see pie chart: percentage of global CO₂ emissions in 2015).



1.4.4 Global population trends

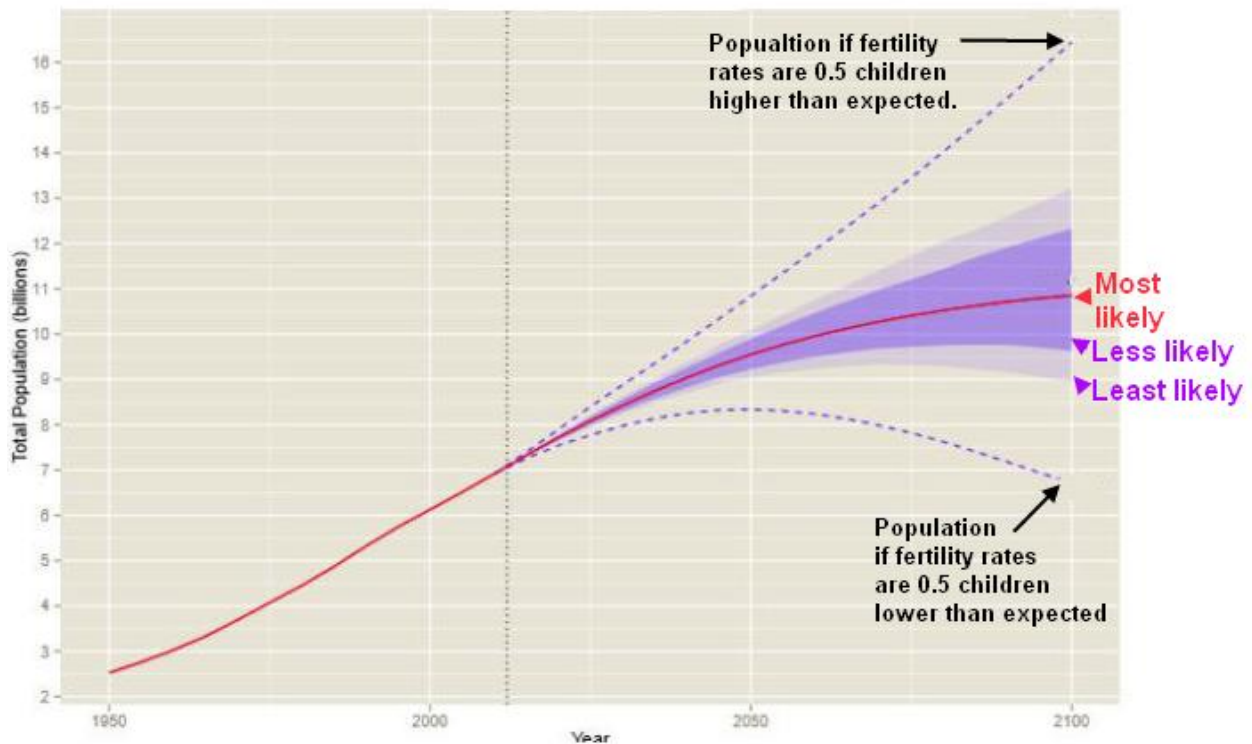
Enquiry question: What are the impacts of global and regional population trends on resources and wellbeing?

Global population

World population is rising, as shown in the graph below. However, there is much uncertainty about what future world population will be. It depends on the global average fertility rate in the future. Small changes in overall fertility rate can have a huge impact on long-term population projections (see the upper and lower dashed lines on the graph, below).

The most likely population by 2100 is around 11 billion, or 3.5 billion more than the population in 2018. There are also major differences between regions:

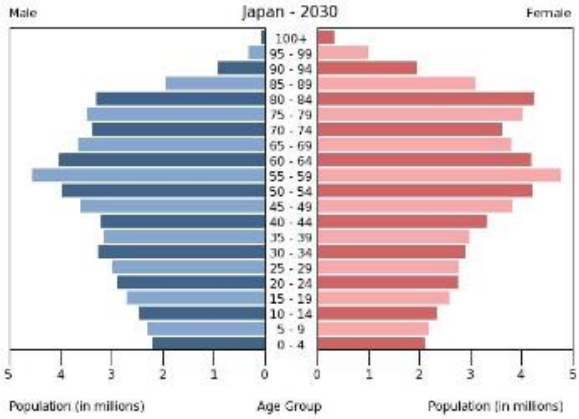
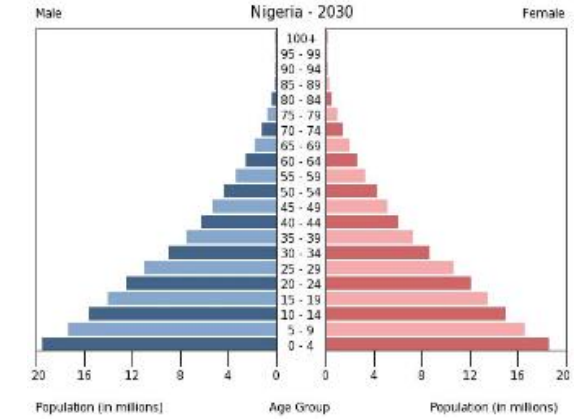
Population of global regions in 2000 and 2050 (projected, billions)			
Global region	2000	2050	Comments
Asia	3.7	5.3	Rapid growth, but uneven
Africa	0.8	2.5	Very rapid growth even after 2050
Europe	0.7	0.7	Stable, or declining slightly
Latin America & Caribbean	0.5	0.8	Slow growth
North America	0.3	0.4	Slow growth
Oceania	0.03	0.06	Steady growth, but small



The US Census Bureau has a global database of population, which can be used to view population pyramids for any country: <https://www.census.gov/data-tools/demo/idb/informationGateway.php>

Ageing and youthful populations

Population is a very important variable in the development of countries. People are the human resource base of a country, and differences in types of people can affect a country in many ways.

Ageing populations	Youthful populations
<p>Japan in 2030:</p>  <p>The pyramid for Japan in 2030 shows a population that is heavily skewed towards older age groups. The x-axis represents population in millions, ranging from 0 to 5 million on both sides for males and females. The y-axis shows age groups from 0-4 to 95-99. The bars for males are on the left and for females on the right. The population is significantly larger in the 50-54, 55-59, and 60-64 age groups, with a noticeable tapering off in the younger age groups, particularly below 30.</p>	<p>Nigeria in 2030:</p>  <p>The pyramid for Nigeria in 2030 shows a population that is heavily skewed towards younger age groups. The x-axis represents population in millions, ranging from 0 to 20 million on both sides for males and females. The y-axis shows age groups from 0-4 to 95-99. The bars for males are on the left and for females on the right. The population is significantly larger in the youngest age groups (0-4, 5-9, 10-14, 15-19), with a noticeable tapering off in the older age groups, particularly above 30.</p>
<p>By 2030 Japan's population is set to be ageing rapidly, with a low birth rate, low fertility and few people aged under 30. There will be very large numbers of 50, and large number of retired people aged over 65. Life expectancy is very high.</p>	<p>By 2030 Nigeria's population will be very youthful. Most people will be aged under 30 and the largest single groups are under 15. Few people will be aged over 65.</p>
<p>Ageing populations are challenging:</p> <ul style="list-style-type: none"> • The low proportion of working age people risks shortages of key workers. • Working people's taxes will have to pay the high health and social care costs of retired people, and their pensions. • Lack of young people could mean lack of innovation. • The high old-age dependency ratio could be a social issue, as the working population resent high taxes and time spent caring for elderly relatives. 	<p>Youthful populations have a future 'demographic dividend' because young people today become a large future working age population. However:</p> <ul style="list-style-type: none"> • There is high demand for education and child health services. • A youthful population today means future population growth is inevitable, and therefore high future demands for housing and services. • Some countries may struggle to provide decent jobs for everyone.

Japan and Nigeria are in some ways at the extremes of ageing and youthful populations. Most countries are somewhere between these two, but still face the same problems just not at the same scale. China's population is likely to be ageing, and possibly declining, by 2030.

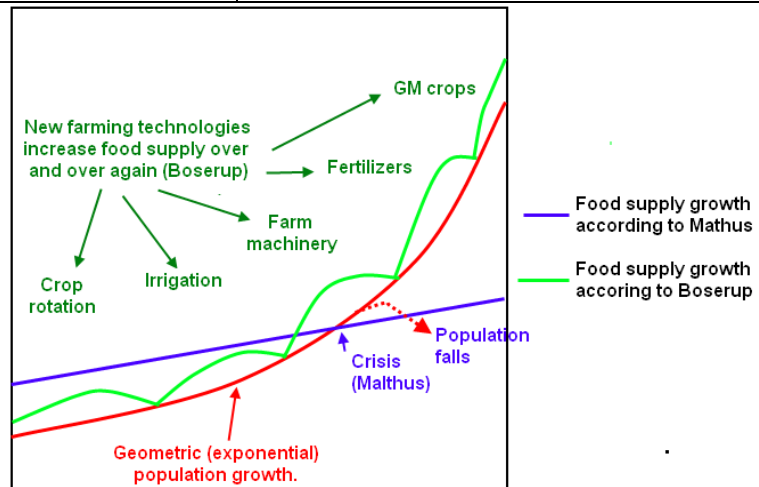
Resources

The question of future population is an important one, because of its inclusion in the debate over the relationship between population and resources. This is an extremely old, but unresolved, geographical issue. Geographers have worried about the number of people on the planet who need to be fed for at least 200 years. There are two viewpoints:

<p style="text-align: center;">Pessimistic Malthusians or Neo-Malthusians</p>	<p style="text-align: center;">Optimistic Boserupians</p>
<p style="text-align: center;">Thomas Malthus Professor John Beddington The Club of Rome</p>	<p style="text-align: center;">Ester Boserup</p>
<p>The Reverend Thomas Malthus wrote his 'An Essay on the Principle of Population' in 1798. It is important to note that he was writing at a very pessimistic time during the Revolutionary Wars. He argued that population could increase geometrically (1,2,4,8,16 etc.) by doubling in each generation but that food production could only increase arithmetically (1,2,3,4,5 etc.). According to Malthus, population would eventually out-strip food supply leading to a 'population versus resources crisis'. Population would have to fall and this would happen by:</p> <ul style="list-style-type: none"> • Positive checks: war, starvation and famine would reduce population numbers. • Preventative checks: later marriage, not having children <p>The balance between population and food supply would therefore be restored.</p>	<p>Ester Boserup, a Danish economist, published her view in 1965, in a book called 'The Conditions of Agricultural Growth'. She argued that 'necessity is the mother of invention' – which means that as population grows innovative humans simply invent new ways of producing more food. Technology like farm machinery, fertilisers, GM crops and irrigation can all be seen as examples of this. The 1960s were a time of optimism, especially in terms of new technology (computers, space exploration) and Boserup's view reflects this.</p>

The competing relationships are shown in the graph:

A group called the **Club of Rome** updated Malthusian ideas in the 1970s – again arguing a resource crisis was inevitable. They included all resources (water, fossil fuels etc) in their analysis – not just food supply as in the original 1798 hypothesis.



In 2009, Professor John Beddington the UK Government's Chief Scientific advisor said: *"Our food reserves are at a 50-year low, but by 2030 we need to be producing 50% more food. At the same time, we will need 50% more energy, and 30% more fresh water."* He was describing what has been called the '2030 Perfect Storm' idea. This argues that by 2030 the world will be running out of resources. His is an updated version of the 1970s Club of Rome idea.

1.4.5 Global migration

Enquiry question: Why are numbers of internal and international migrants rising?

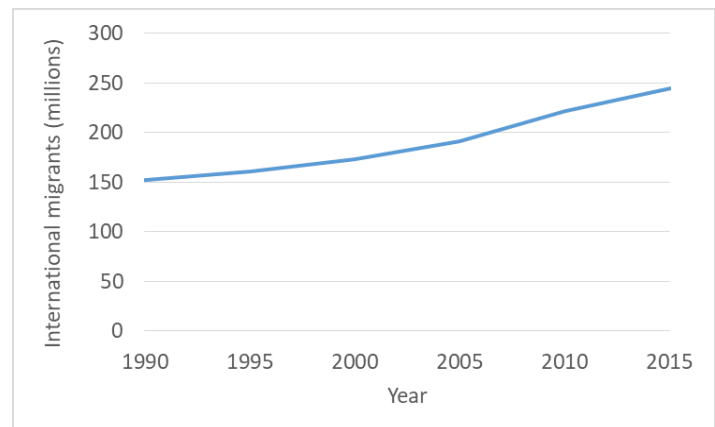
Globalisation and Migration

Globalisation has contributed to an increase in the number of international migrants, as shown in the graph below. Migration is a complex subject because there are different types of migrant:

- Internal: within a country e.g. from the north of England to London: this includes rural-urban migration.
- External: between countries e.g. a UK citizen migrating to Germany.

In terms of international migration, there is a difference between:

- Economic migrants who move for work: these make up the bulk of international migration both legal and illegal.
- Refugees: migrants forced to move across an international border, to escape a threat (war, political persecution, genocide, famine or the impacts of natural disasters).
- Asylum Seekers: these are refugees to have applied for asylum i.e. the right to remain in another country and are awaiting a decision.
- Illegal immigrants: those who have entered a foreign country without documentation, but done so voluntarily.
- Trafficked illegal migrants: people forced, or tricked, into migrating to a country who often end up as sex workers, or in modern slavery.

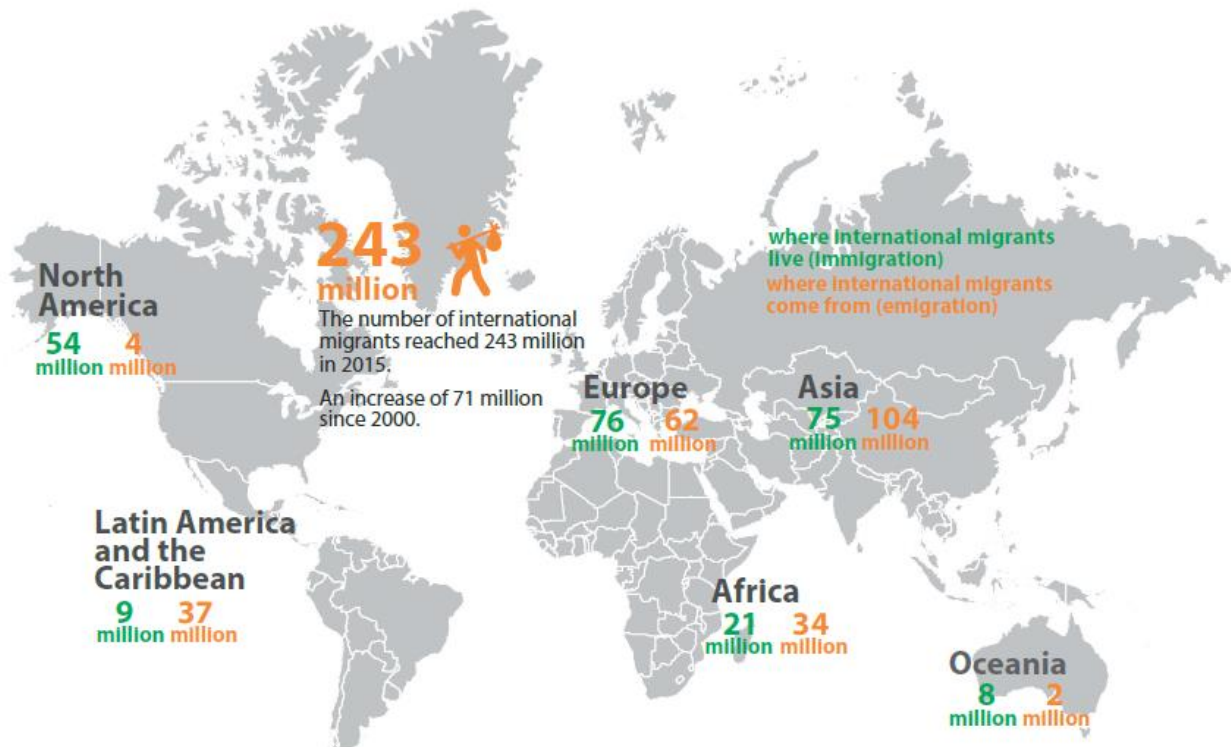


There is a strong link between globalisation, the global shift and migration patterns. This has encouraged people to leave their traditional homes and move to new places:

Location	Global Shift	Impact on migration
Pearl River Delta, China	Outsourcing of manufacturing jobs by developed world TNCs, to lower cost locations.	Mass internal rural-urban migration from the countryside to China's cities, especially of men and women aged 15-25.
UAE, Qatar and Bahrain	Growth of the small Gulf States as an air-travel, finance and tourism hub situated between Europe and Asia.	International elite migration of professional workers from the developed world, plus large scale low-skill migration from South Asia (construction workers, domestic servants)
The USA Rustbelt	Deindustrialisation in old industrial revolution heartlands of the developed world, caused by factory closures.	Internal migration from the northeast Rustbelt (Detroit, Pittsburg, Buffalo) to the southwest Sunbelt (California, Arizona), as people move to find work.
Bangalore, Chennai and Pune in India	Offshoring of call-centre and back-office functions, by developed world TNCs, to low cost locations, utilising internet and mobile phone networks.	Internal rural-urban migration from the Indian countryside to cities, especially of graduates.

Globalisation encourages migration to particular locations where there is strong economic growth and therefore jobs. The map below shows that there are:

- More immigrants than emigrants in Europe, North America and Oceania i.e. in developed countries
- More emigrants than immigrants in developing and emerging regions.



There is also a finer detail pattern whereby:

- Megacities, world cities and global hubs attract both rural-urban migrants and international migrants.
- Some countries, for instance in Europe, are more open to migrants so attract more e.g. Germany.
- Global elite migration tends to focus on world cities, because these host major TNCs and many highly paid business people move between these cities.
- Within one country areas can be experiencing high levels of internal out-migration (the USA Rustbelt) whereas other places are experiencing high internal and international immigration (New York).

Costs and Benefits

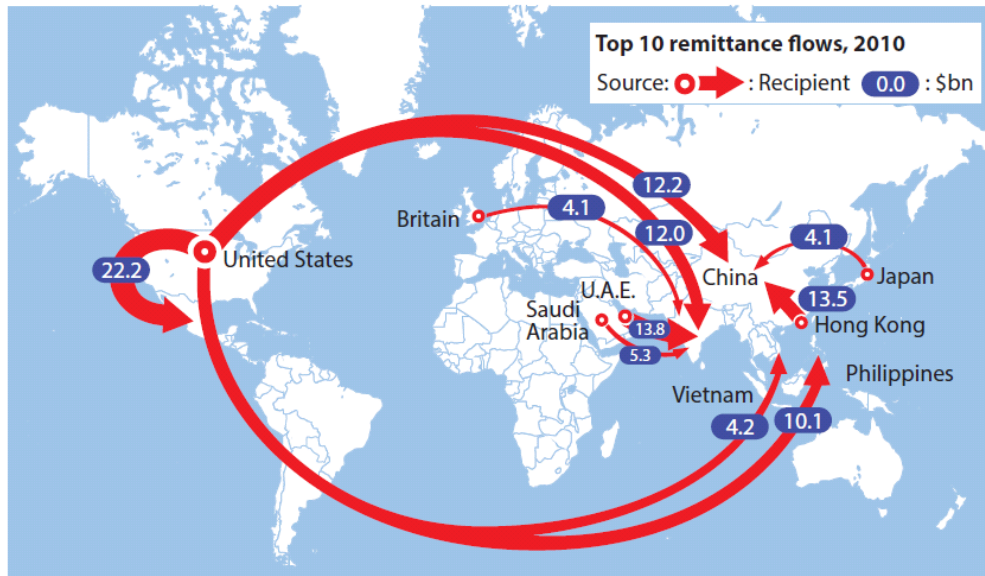
The question of whether migration is positive or negative is a very hard question to answer. It has to be evaluated from the standpoint of both:

- The host country – where immigrants are moving to,
- The source country – where people are emigrating from

The table below considers some costs and benefits for both:

	SOURCE	HOST
COSTS	<ul style="list-style-type: none"> • Loss of workforce • Brain Drain and skills shortages: • Ageing and declining population • Social / age imbalance: as most migrants are young and male, this creates an imbalance at home which may affect traditional family units and relationships. • Exploitation: some workers are exploited by gang-masters and are paid less than the minimum wage. 	<ul style="list-style-type: none"> • Social / cultural tensions especially in rural areas with no history of immigration. • Crime: a rise in low-level 'cultural unfamiliarity' crime • Downward pressure on wages for the low paid. • Pressure on space and housing causing locally rising housing costs • Locally there will be pressure on education and health services.
BENEFITS	<ul style="list-style-type: none"> • Remittances: temporary workers send some of their earnings home. • Skills can be taken back: returning migrants can help skill levels back home • Working migrants abroad are better than unemployed people at home who require benefit payments. 	<ul style="list-style-type: none"> • Skills gaps filled: many industries have been 'saved' by low cost labour. • Business opportunities: banks, and other business providing goods and services to migrants • Counter-acts ageing: if migrants stay, and have children, then an ageing population can be reversed.

Many countries, as the map below shows, rely on remittance flows from their emigrant populations abroad. For some countries this can amount to 5-10% of total annual GDP:



(Source: © The Economist Newspaper Limited 2010)

Countries and their populations have very different attitudes to immigration. Much of this seems to be related to the scale and pace of immigration. If it is perceived as happening too fast, and involves large numbers of immigrants, the public can turn against immigration. This happened in Germany in 2015-16 when upwards of 1 million refugees were allowed into the country. Immigration was a key issue in the UK 'Brexit' vote and in the election of President Trump.

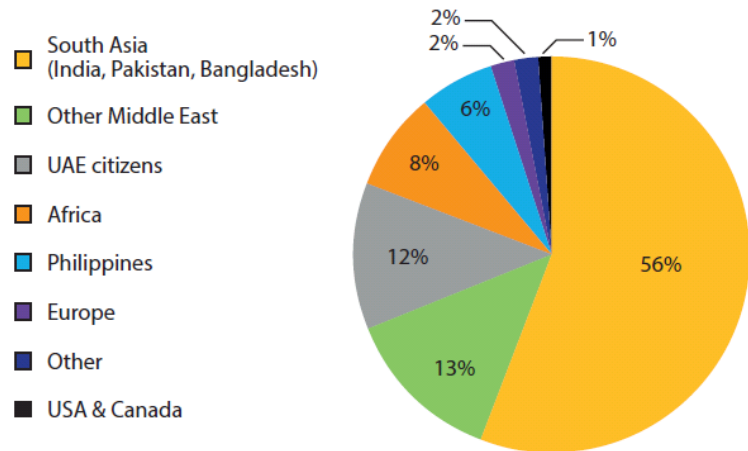
1. Attitudes to immigration may be negative if migrants appear to be depressing local wages, or 'stealing jobs' (a phrase used by some politicians)
2. Some societies are very culturally homogenous, with little history of 'outsiders' moving in, and this could lead to negative attitudes to immigration.
3. Immigration can become a political issue and immigrants can be easily blamed for issues such as crime or housing shortages, and this can affect attitudes.

Alliteratively, immigration can be viewed in a very positive way, especially if migrants are seen as economically and culturally beneficial.

Managing migration

There are examples of countries that have more immigrants than citizens. The UAE (see graph, from 2016) is such a country. 88% of the UAE population consists of immigrants, most from South Asia. Without this immigration Dubai could not be the global hub it has become.

However, this level of immigration is unusual. In most developed countries the immigrant population is between 2% and 20% of the total population.



Managing migration can be challenging. In the EU, which has free movement of people within the EU, individual countries cannot manage the number of EU citizens entering or leaving their borders. However, they can manage immigration from outside the EU. A number of different policies can be used:

Visas	A visa is a legal document allowing entry another country; visa policy can be very strict, or more open.
Work permits	These usually allow economic migrants to work for a set time period, such as 1 or 5 years.
Quotas	The total number of migrants arriving in a year can be limited; quotas can change from year to year
Points system	As in Australia, a points system can be used to match economic need with potential immigrants to fill skills gaps.

Many countries use a combination of the policies above.

A major recent challenge has been managing migration from conflict zones such as Syria, Afghanistan, Iraq and parts of Sub-Saharan Africa.

Large numbers of refugees have fled these war zones and headed for:

- Neighbouring countries such as Turkey and Jordan
- The EU, by crossing the Mediterranean Sea.

International law states that refugees should be protected in the country they first move to. However, the EU's open borders make this difficult to apply in practice. Once in the EU, refugees can easily move to a third country.

The volume of refugees, especially from Syria in 2015-2016, created a 'migrant crisis' in Europe and public opinion in Germany, Italy, Austria, Hungary and Greece turned against the refugees.

1.4.6 World urbanisation

Enquiry question: What are the consequences of an increasingly urban world?

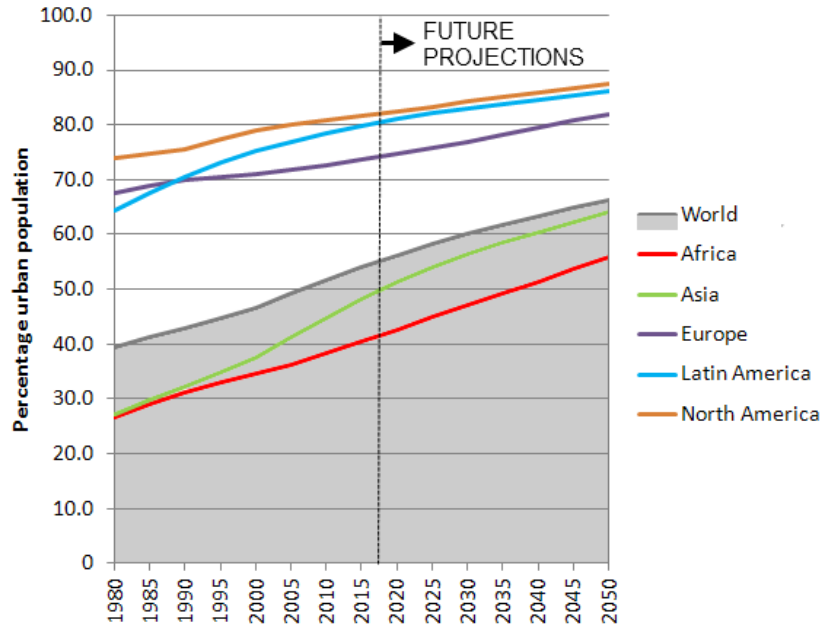
Urbanisation trends

Urbanisation means the increasing proportion of a country's population living in towns and cities. 2007 was a key year, because that was when the world's population became majority urban for the first time. Urbanisation is driven by:

- Internal growth – people in cities having children
- Rural-urban migration.

In the developing and emerging worlds about 60% or urbanisation is caused by rural-urban migration.

The graph below shows that some global regions are already heavily urbanised, whereas others are not (Africa, Asia) but urbanisation is increasing most rapidly in these regions:



Economic growth and globalisation has been a key driver of urbanisation especially in India and China in the last 30 years.

Urban growth rates are very different when we compare countries at different levels of development:

<p>Developed world megacities (London, New York, Tokyo) are growing slowly at about 1% per year.</p>	<p>Emerging megacities in China, Brazil and Mexico are growing quickly at 2-3% per year, but growth rates are slowing.</p>	<p>In low income developing countries growth is very rapid, at 3%+ per in cities like Lagos in Nigeria.</p>
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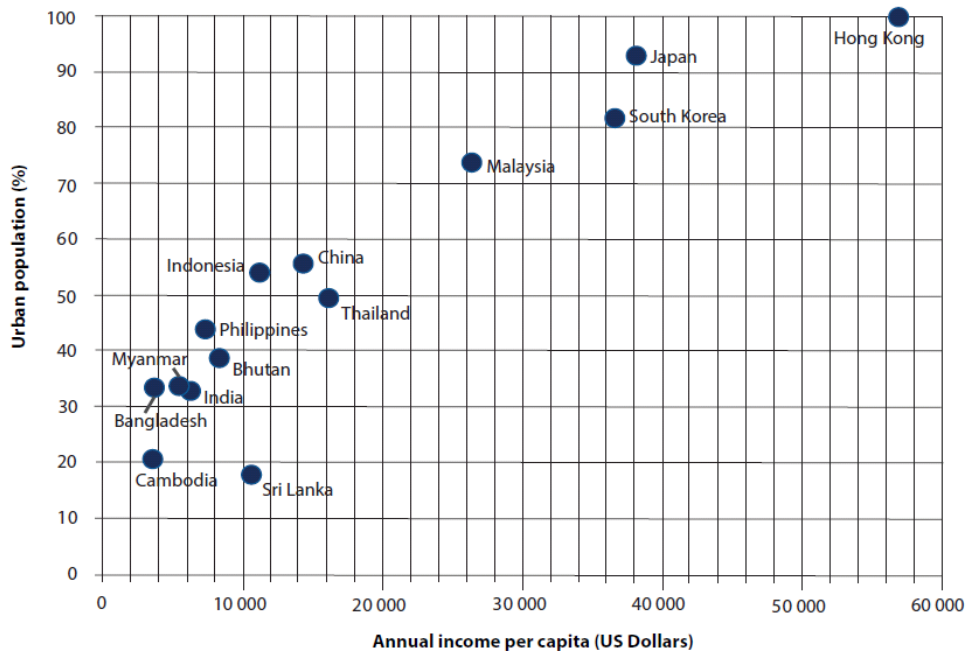
It's important to view urbanisation in a wider context. It has implications for rural areas close to major cities:

- Rural areas can be depopulated by rural-urban migration, robbing them of young people and their farming workforce.
- There are opportunities for rural areas to supply cities with food, water, buildings materials and other physical resources and profit from this.
- Sprawling cities can swallow up surrounding farmland and forests as they grow, and spread water and air pollution into rural areas close by.

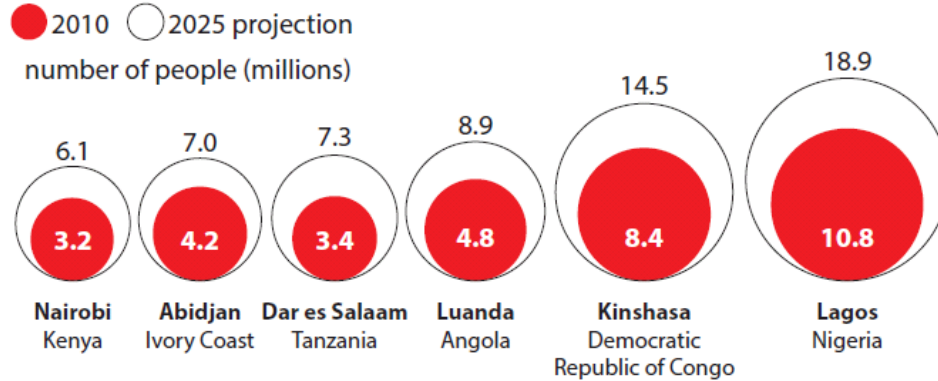
In other words, there are opportunities for rural areas but also costs and challenges.

The housing challenge

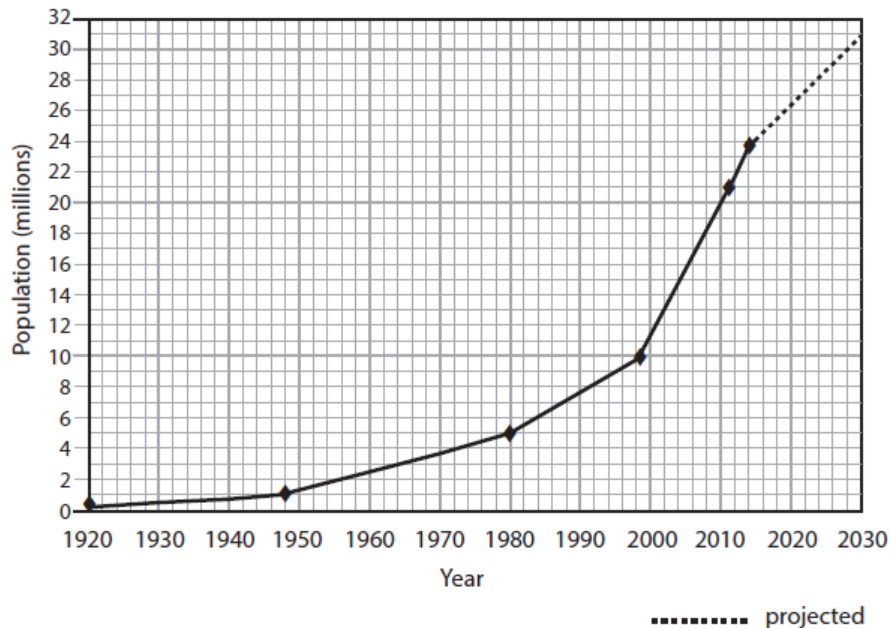
Urbanisation has many benefits. The scattergraph below shows the relationship between per capita income and urbanisation. The relationship is a positive one. As urbanisation increases, incomes rise – especially when about 40-50% of a country is urban. Urbanisation and industrialisation usually happen together, so cities mean better paid secondary and tertiary sector jobs.



However, there are costs. As the proportional circles diagram below shows, many developing world cities are predicted to increase in population dramatically. Lagos is expected to almost double in size between 2010 and 2025, and Dar es Salaam more than double in size. This very rapid urban growth is difficult to manage.



Karachi in Pakistan was a small city of about 2 million in 1960 (see graph, below), but it has exploded in terms of population size in the last few decades to be a city of around 24 million today.



This type of urban growth means developing and some emerging world cities:

- Struggle to provide decent, affordable housing – so many people live in slums
- Basic services like clean, affordable water supply and sanitation / sewage are not provided so disease and poor health are common.
- Population growth outstrips the growth of formal jobs, so many people work in the informal sector for very low incomes, in dirty, dangerous jobs
- Infrastructure like roads and electricity supply cannot keep pace with urban growth

Both Mumbai (Dharavi) and Karachi (Orangitown) have slums which house over 1 million people.

Cities further along the development pathway such as Shanghai, Kuala Lumpur and Rio de Janeiro have less serious slum problems. This suggests that developing world cities will improve given enough time.

The huge housing challenge in developing world cities is met in a number of different ways:

- In Chinese cities, government built apartment blocks have broadly kept pace with demand for housing – but China is relatively rich.
- In Lagos and Karachi, many people simply build their own home on waste land on the city edge, or any bit of unoccupied land: these squatter settlements are often the worst type of housing possible.
- In many Indian cities low-income people rent tiny, cramped rooms and apartments in old, over-crowded tenement blocks.
- In some case local and international NGOs provide housing – or at least improve basic services like sewers – but this is relatively small scale in terms of impact.
- In many cases slum dwellers carry out ‘self-help’ improvements to sewers, roads, water supply and open areas often with NGO support.

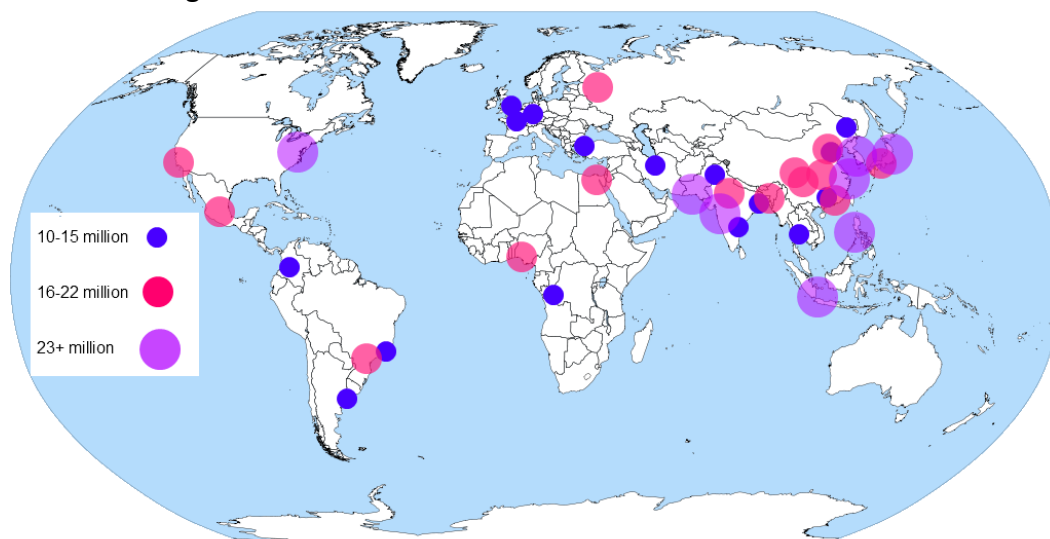
Megacities

A feature of the 21st Century is the megacity: cities with over 10 million people. In 2018 there are around 40 of these (see map, below, 2016 data) and the number is rising.

40 years ago most were in Europe, North and South America. Today most are in Asia. In the future several African cities are likely to join the list. Megacities act as magnets for:

- Rural-urban migrants – why migrate to a small city when you can migrate to the biggest city, which is likely to have the most opportunities?
- Foreign Direct Investment – megacities often have the best connections to the wider world such as ports and airports.

Some megacities have populations much larger than many countries: this presents a huge management challenge.



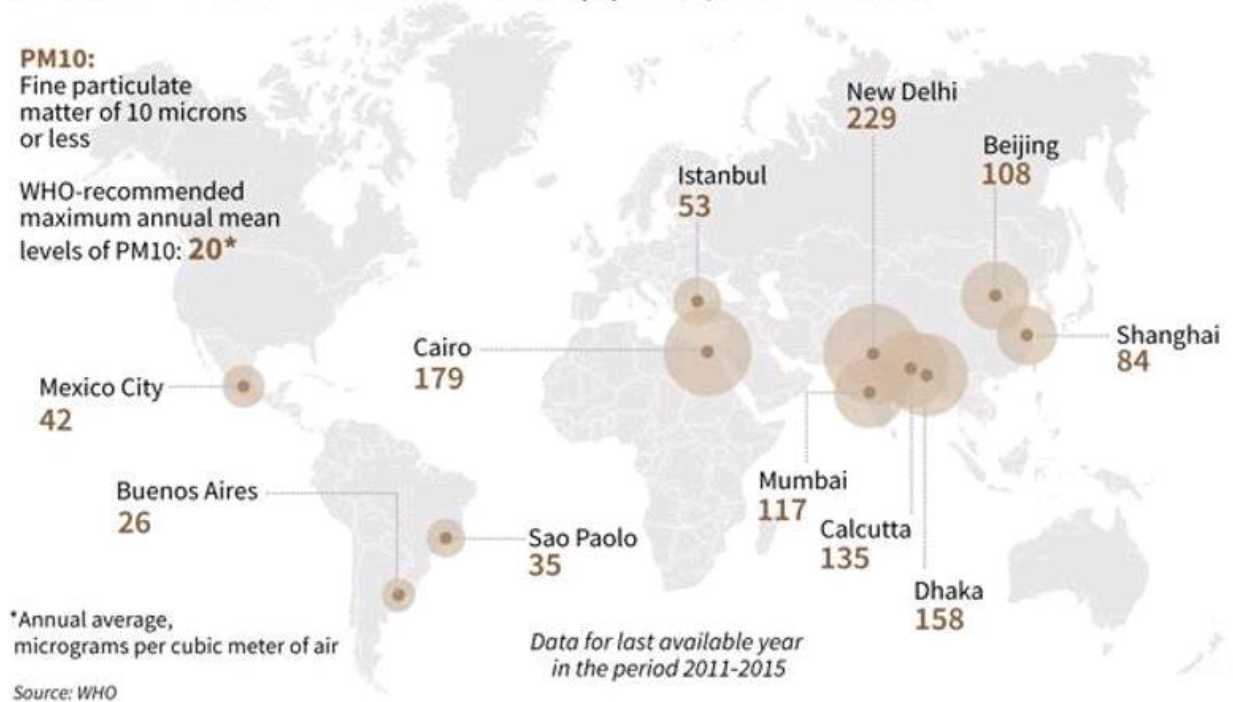
A common feature of many megacities – even ones in the developed world such as London – is very high levels of urban air pollution. The map below shows levels of PM10 urban air pollution in some megacities. In almost all cases levels are far above the safe level according to the World Health Organisation.

The pollution comes from factories, cars, other vehicles, cooking stoves, power stations and other sources. Particulate Matter (PM) has a wide range of negative health effects including:

- Low birth weight
- Lung cancer and heart disease
- Asthma and other lung / breathing problems

Mega-city air pollution

PM10 levels for selected cities with over 14 million population, based on WHO data



Megacities also face other challenges:

Poor water supply	Lack of sanitation
Many low-income people buy water from street vendors at high prices, spending 10-15% of income just on water. Lack of access to cheap, clean water encourages the spread of disease.	Lack of toilets and sewers dramatically increases the risks of diseases like cholera, typhoid – and poor sanitation increases the risk that infectious diseases will quickly spread.
Congestion	Lack of electricity
Many megacities have catastrophic traffic congestion, adding costs to businesses and commuters and increasing urban air pollution.	Many cities have old, out-dated grids that cannot hope to cope with rising demand for power.

Education and healthcare are in short supply, and expensive in many megacities which has negative impacts on peoples health and their future economic opportunities.