

Use this Revision book alongside side your CGP and exam questions.

Column 1: Key Facts about a Case Study, Example or Concept.

Column 2: A potential development point for the fact in column 1. (These are usually not yet double developed!)

Column 3: An overview of the big idea for the Case Study, Example or Concept.

Paper 1: Living with the Physical Environment

1: Earthquakes in a richer and poorer country. (L'Aquila, Italy 2009) and (Kashmir, Pakistan 2005) (CGP P7)

One <b>primary effect</b> of the L'Aquila Earthquake in Italy (a richer country) is <b>only 300 people died</b> .	The number of <b>deaths</b> was <b>low</b> because <b>buildings were well constructed</b> so they <b>did not collapse</b> .	Proves that <b>poorer countries</b> are <b>more vulnerable</b> to <b>natural hazards</b> because they have less <b>capacity to cope</b> because there is more money to <b>predict, protect and prepare</b> .
One <b>secondary effect</b> of the L'Aquila earthquake was that <b>electricity and phone services were interrupted</b> although these were repaired quickly.	So those affected could more <b>easily be contacted by emergency services</b> reducing the number of deaths.	
One <b>primary effect</b> of the Kashmir Earthquake in Pakistan (A poorer country) is that <b>80,000 people died</b> .	The number of <b>deaths was high</b> because <b>buildings were poorly built</b> so the majority of deaths were caused by <b>collapsing buildings</b> .	
One <b>secondary effect</b> of the Kashmir earthquake was that many <b>roads were narrow</b> and blocked by landslides.	Due to this <b>emergency services</b> could not reach those effected quickly <b>increasing the death toll</b> .	
One <b>immediate response</b> to the earthquake in <b>L'Aquila, Italy</b> (a richer country) was <b>blocked roads were cleared quickly</b> .	Due to this this <b>emergency services</b> could quickly reach those effected <b>reducing the death toll</b> .	
One <b>long term response</b> to the <b>L'Aquila earthquake in Italy</b> (a richer country) was an investigation was set up to find out why some buildings were not built to withstand an earthquake.	Due to this <b>future building would be earthquake proof</b> reducing the number of deaths from <b>collapsing buildings</b> .	
One <b>long term response</b> to the <b>Kashmir earthquake in Pakistan</b> (a poorer country) was that money given by aid organisations was used to pay for food.	This <b>prevented starvation</b> but did not <b>help prepare Kashmir for future earthquakes</b> .	

## 2: Hurricane Katrina (Effects and response to a tropical storm. (CGP P12)

One <b>social effect</b> of Hurricane Katrina was that <b>300,000 houses were destroyed</b> mainly as a result of <b>flooding</b> .	Due to this hundreds of thousands of people were made <b>homeless</b> .	The <b>effects</b> of a <b>tropical storms</b> can be <b>severe</b> but can be <b>reduced</b> through <b>effective use of the “Three P’s” (Predict, Planning, Protection.</b> This is <b>more likely in richer countries</b> due to higher levels of tax income.
One <b>economic effect</b> of Hurricane Katrina was <b>80% of New Orleans was flooded</b> .	Due to this <b>230,000 jobs were lost</b> from damaged businesses.	
One <b>environmental effect</b> of Hurricane Katrina was that <b>coastal habitats were damaged</b> .	Due to this <b>local ecosystems and</b> food chains were <b>disrupted</b> .	
One <b>immediate response</b> to Hurricane Katrina was that <b>75% of people were evacuated</b> before Hurricane Katrina reached land.	Due to this the <b>number of deaths was reduced</b> .	
One long term response to Hurricane Katrina was that the USA government provided \$16 billion to help rebuild New Orleans.	Due to this, businesses quickly provided jobs replacing those lost as a result of flooded buildings.	

## 3. Extreme UK Weather event – Freezing Rain – Dorset 2018 (CGP P14)

One <b>social impact</b> of the <b>freezing rain</b> in <b>Dorset 2018</b> was that many people were admitted to hospital.	This placed <b>pressure on local hospitals</b> meaning other <b>operations were cancelled</b> .	Due to <b>climate change</b> the <b>UK weather is becoming more extreme</b> . The UK is <b>not prepared (3 P’s)</b> so there are significant <b>social, economic</b> and <b>environmental</b> impacts.
One <b>economic impact</b> of the <b>freezing rain</b> in <b>Dorset 2018</b> was that transport networks such as <b>Bournemouth Airport and the A35 were closed</b> .	Due to this, businesses were <b>less able to transport goods reducing the profits</b> of local businesses.	
One <b>environmental impact</b> of the <b>freezing rain</b> in <b>Dorset 2018</b> was that crops such as <b>corn fields were destroyed</b> .	Due to this, <b>farmers lost income</b> reducing their standard of living.	

## 4. The human and natural causes of climate change (CGP P16)

One <b>natural cause</b> of <b>climate change</b> is <b>volcanic eruptions</b> which emit large quantities of material into the atmosphere.	These particles <b>reflect the suns energy</b> back out into space so the <b>earth’s surface cools</b> .	<b>Climate Change occurs naturally</b> but <b>human activity</b> (burning fossil fuels) since the industrial revolution. is <b>increasing the pace of climate change</b> .  This is proved by <b>temperature records (shown in line graphs, ice cores and tree rings)</b> .
One <b>human cause</b> of <b>climate change</b> is <b>burning fossil fuels</b> . This is because <b>Increased CO2</b> is released into the atmosphere.	Due to this too much energy (heat) is <b>trapped in the atmosphere</b> which causes <b>temperatures to rise</b> .	

## 5. The effects of climate change. (CGP P17)

One <b>environmental effect</b> of <b>climate change</b> is that the <b>amount of sea ice is shrinking</b> .	Due to this species such as the <b>polar bear</b> are <b>losing their habitat</b> so <b>may become extinct</b> disrupting food chains.	<b>Climate change</b> since the <b>Industrial Revolution</b> effects people and the environment <b>forcing people to change the way they live</b> .
One <b>effect on people</b> of <b>climate change</b> is that <b>low lying coastal areas</b> are more likely to flood <b>due to rising sea levels</b> .	Due to this, residents will need to leave coastal areas and migrate inland where land is higher creating overcrowding.	

## 6: The management of climate change. (mitigation and adaption)

One <b>mitigation strategy</b> to <b>reduce the effects climate change</b> is to <b>plant trees</b> . This increases the amount of <b>carbon dioxide that is absorbed</b> into the <b>atmosphere</b> through <b>photosynthesis</b> .	Due to this <b>more energy</b> will <b>leave the atmosphere</b> reducing <b>climate change</b> .	Local, National and Global Strategies can be used to <b>manage climate change</b> . Attempts can be made to <b>reduce</b> climate change ( <b>mitigation</b> ) or accept climate change and change the way ( <b>adapt</b> ) people live their lives.
One way of <b>adapting</b> to <b>climate change</b> is by <b>coping with rising sea levels</b> for example <b>building flood barriers</b> for example the Thames Barrier in London can be raised to <b>prevent flooding</b> .	Due to this, <b>less homes are flooded</b> meaning less homes are at risk of flooding reducing the need for <b>migration to higher ground</b> .	

## 7: Deforestation in the Amazon Rainforest. (CGP P25)

One negative <b>environmental effect</b> of <b>deforestation</b> in the <b>Amazon Rainforest</b> is that <b>the Amazon Rainforest stores 100 billion tonnes of carbon</b> . Deforestation means much of this <b>carbon</b> is released into the atmosphere.	Due to this the <b>speed of climate change increases</b> as <b>energy</b> and heat from the sun is <b>less able to leave the atmosphere</b> .	Deforestation in tropical rainforests has <b>positive economic effects</b> but <b>negative environmental effects</b> . This means there is a conflict. <b>Effects can be local, national or global</b> .
One <b>positive economic effect</b> of deforestation in the <b>Amazon Rainforest</b> is that <b>in 2008 Brazil made \$6.8 billion from trading cattle (cows)</b> .	Due to this a lot of <b>tax income</b> is generated which Brazil uses to <b>improve public services</b> like <b>schools</b> increasing <b>literacy rates</b> .	

## 8. The sustainable management of tropical rainforests. (CGP P26/27)

<b>Selective logging</b> means that only <b>older or inferior trees are logged</b> . This is <b>environmentally sustainable</b> because only a <b>small number of trees are removed</b> from the forest structure.	Due to this, <b>habitats are not destroyed</b> so <b>food chains are not disrupted</b> .	<b>Tropical rainforests</b> can be <b>managed in a sustainable way</b> to ensure that they provide <b>economic benefits to local people</b> and governments. <b>but do not damage the environment</b> .
<b>Ecotourism</b> means <b>tourism that minimises the damage caused to the natural environment</b> and benefits the local people for example they're <b>employed as guides</b> and provide accommodation and transport. This is <b>economically sustainable</b> because <b>profits</b> stay in the <b>local community</b> .	Due to this <b>local business benefit</b> so less, people are likely to work in industries such as <b>commercial logging</b> .	
<b>Educating the international community</b> is <b>socially sustainable</b> because people can be <b>encouraged to buy products</b> such as <b>palm oil</b> that have been <b>certified</b> as being from <b>sustainable sources</b> .	Due to this more people who live in rainforests will work in <b>sustainable businesses</b> reducing rates of deforestation.	

### 9. The Sahara Desert provides both opportunities for economic development but also challenges. (CGP P30)

The <b>Sahara Desert</b> is a <b>challenging place for economic development</b> because of <b>extreme temperatures. Temperatures</b> often go <b>above 40 degrees C.</b>	Due to this people can get <b>sick from the heat</b> and <b>healthcare services</b> can be very far away so businesses are less likely to locate there.	The <b>extreme environment</b> makes <b>economic development difficult</b> in extreme environments like a hot desert but <b>minerals in the ground</b> , and <b>unique natural environments</b> and <b>climates</b> make some economic development possible.
The <b>Sahara Desert</b> is a challenging place for economic development because it is <b>inaccessible</b> because it is extremely large for example it takes <b>5 days to export minerals from salt mines in Mali.</b>	Due to this, <b>profits are reduced</b> so businesses are less likely to locate there.	
The <b>Sahara Desert</b> is a challenging place for economic development because of <b>poor water supply</b> for example there is less than <b>70mm of rainfall per year in some places.</b>	Due to this it is hard to grow crops as there is not enough water to irrigate them so it is difficult to provide food for water.	
The Sahara Desert provides <b>opportunities for economic development</b> for example in <b>Algeria</b> gets <b>60% of its income</b> from <b>exporting oil and gas</b> creating <b>tax income.</b>	Due to this more <b>money is available</b> to the <b>government</b> to improve facilities such as <b>schools and hospitals</b> in <b>remote areas</b> making economic development more likely.	
The Sahara Desert provides <b>opportunities for economic development</b> for example in Morocco tourists are attracted to the remote desert sand dunes where they can trek and go sand surfing.	Due to this, <b>jobs are created</b> improving <b>standard of living</b> for <b>local people</b> and ensuring <b>more money</b> comes into the <b>local economy.</b>	

### 10. The causes of desertification and the management of desertification. (CGP P31)

<b>One human cause</b> of desertification is <b>overgrazing</b> . This means that <b>cattle or sheep eat plants faster than they can grow.</b>	Due to this the plants are <b>no longer able to hold the soil together</b> so it is <b>more likely to be blown away.</b>	<b>Desertification</b> occurs on the <b>edge of hot deserts</b> . It is caused by <b>human activity</b> and <b>climate change</b> but the <b>risk of desertification can be reduced.</b>
<b>Climate change</b> can create <b>desertification</b> for example some areas of hot deserts experience <b>less rainfall and drought.</b>	Due to this there <b>is less water available</b> for plant growth so <b>plants are more likely to die</b> and <b>soil is then blown away.</b>	
One way of <b>reducing the risk of desertification</b> is <b>tree planting</b> . Trees can be planted <b>as windbreaks</b> to <b>protect soil from wind erosion.</b>	Due to this <b>the fertility of the soil is maintained</b> so more <b>plants can grow</b> . The trees also <b>provide shade</b> from the heat <b>reducing evaporation.</b>	
One way of <b>reducing the risk of desertification</b> is water management for example growing <b>crops that do not require much irrigation</b> (watering) water such as millet or olives.	Due to this there <b>is less water</b> to <b>wash away</b> the low level of <b>nutrients in the soil.</b>	

### 11. A UK coastal Landscape – The Dorset Coastline (CGP P43)

<b>Old Harry Rock</b> is an example of a <b>stack</b> and is formed by erosion.	Be able to explain how a <b>stack</b> is formed.	The <b>UK coastline</b> is influenced by <b>rock type (hard and soft)</b> and <b>coastal processes (erosion, deposition, transportation and weathering)</b> and as a result amazing coastal features are created.
<b>Lulworth Cove</b> is an example of <b>headlands and bays</b> and is formed by erosion and transportation.	Be able to explain how <b>headlands and bays</b> are formed.	
<b>Sand dunes on Studland Beach</b> are an example of <b>sand dunes</b> and are formed by <b>deposition.</b>	Be able to explain how <b>sand dunes</b> are formed.	
<b>Chesil Beach</b> is an example of a <b>tombola</b> and is formed by <b>deposition.</b>	Be able to explain how a <b>spit and a tombola</b> are formed.	

### 12: Hard and Soft Engineering on coasts (P44)

One form of <b>hard engineering</b> is <b>sea walls</b> . They are <b>curved walls</b> to <b>reflect</b> the power of the waves <b>back out to sea</b>	They are <b>effective because</b> but can <b>fully protect import areas</b> of the coast for example areas of <b>high population density</b> from the <b>effects of coastal erosion</b> .	<b>Sea walls</b> however are <b>not fully effective</b> . They are <b>very expensive</b> to build and maintain so local authorities have <b>less money</b> to spend on other important public services like <b>schools and hospitals</b> .	<b>Hard engineering</b> is <b>man made structures</b> that <b>control the flow of the sea</b> and <b>reduce flooding and erosion</b> .
One form of <b>soft engineering</b> is <b>sand dune regeneration</b> . This is when <b>vegetation</b> is <b>planted on sand dunes</b> to stabilise them. This <b>builds up the beach</b> limiting coastal erosion.	This is <b>effective</b> because the <b>wave energy</b> can be <b>absorbed by the beach</b> preventing coastal erosion.	<b>Sand dune regeneration</b> however is <b>not fully effective</b> . The strategy is <b>limited to a small area</b> so <b>other areas</b> of the coastline are <b>left to erode</b> .	<b>Soft engineering</b> works using <b>knowledge of the sea</b> to <b>prevent erosion and flooding</b> . Each have their <b>advantages</b> and <b>disadvantages</b> .  An <b>alternative</b> is <b>managed retreat</b> .

### 13: The Holderness Coastline. An example of coastal management in the UK. (CGP P45)

The <b>Holderness Coast</b> is a fast eroding area of soft boulder clay on the east coast of England. In <b>1991 450 metres of coastline</b> was protected around the village of <b>Mapleton</b> by placing rock groynes along the coast. This was <b>effective</b> because it <b>prevented sediment</b> being <b>transported</b> along the coast by <b>longshore drift</b> .	Due to this <b>sediment built up on the beach</b> so it was able to <b>more fully absorb</b> the power of the waves so there was <b>less erosion</b> of the cliff behind.	The <b>UK coastline</b> can be <b>protected</b> through <b>hard or soft engineering</b> but <b>coastal management strategies</b> always cause <b>conflict</b> . There are some <b>winners</b> and some <b>losers</b> .
The <b>rock groynes at Mapleton</b> on the <b>Holderness Coast</b> however were not fully effective. The <b>rock groynes starved the beach</b> of <b>sediment</b> further <b>south</b> down the coast.	Due to this <b>the beach was narrower</b> and there was <b>increased erosion</b> because the beach <b>did not absorb the full power of the waves</b> , for example, at the <b>Great Cowden Caravan Park</b> .	

### 13. The River Clyde: An example of a river landscape. (CGP P53)

There are <b>four waterfalls</b> called the <b>"Falls of Clyde"</b> near <b>Lanark</b> in the <b>upper course</b> . They are formed by <b>erosion</b> .	Be able to explain how <b>waterfalls</b> create a <b>gorge</b> when it <b>retreats</b> .	<b>Rivers</b> are influenced by the <b>long profile and cross profile</b> , <b>levels of discharge</b> and <b>rock/soil type</b> . These combines to create <b>different landforms from the source to mouth</b> .
There is an <b>oxbow lake</b> in the <b>new Lanark</b> area. It is in the rivers <b>middle course</b> and is formed by <b>erosion and deposition</b> .	Be able to explain the formation of an <b>oxbow lake</b> .	
<b>The City of Glasgow</b> is built on a <b>Floodplain</b> it is <b>landform of deposition</b> and is in the rivers <b>lower course</b> .	Be able to explain how a <b>floodplain</b> is formed.	

#### 14: River discharge and flooding. (CGP P 54)

One <b>physical cause</b> of flooding is <b>prolonged rainfall</b> . After a period of time the <b>soil becomes saturated</b> .	Due to this further rainfall <b>can not infiltrate</b> into the soil leading to <b>increased surface run off</b> making <b>flooding more likely</b> .	<b>Flooding</b> is caused when rivers burst their banks. Flooding is caused by <b>physical factors</b> but the chances of flooding can be <b>increased due to human activity</b> .
One <b>human cause</b> of flooding is <b>deforestation</b> . Trees <b>intercept</b> rainwater on their <b>leaves</b> which then <b>evaporate</b> .	Due to <b>deforestation</b> , more <b>rainwater will reach the ground</b> so more water will reach the river <b>increasing the chances of flooding</b> .	A <b>Flood hydrograph</b> shows <b>how quickly</b> rainwater reaches the river. ( <b>lag time</b> )

#### 15: Hard and Soft Engineering on Rivers. (CGP P55)

<b>Channel straightening</b> is one example of <b>hard engineering</b> . It is <b>effective because meanders are cut off</b> by building <b>artificial straight channels</b> .	Due to this <b>water can flow more quickly to</b> the sea because it <b>does not travel as far</b> which <b>reduces the risk of flooding</b> .	<b>Channel straightening</b> however is <b>not fully effective</b> because there may be <b>more flooding downstream</b> as rainwater flows there <b>more quickly</b> .	<b>Hard engineering</b> is <b>man made structures</b> that <b>control the flow of the river</b> and <b>prevent flooding</b>
<b>Planting trees</b> is one example of <b>soft engineering</b> . It is effective because it increases interception of rainwater.	Due to this flood risk is reduced because less water reaches the river making flooding less likely.	<b>Planting trees</b> however is <b>not fully effective</b> because it means there <b>is less land available for farming</b> which <b>increases food insecurity</b> .	<b>Soft engineering</b> works using <b>knowledge of the river</b> to <b>prevent flooding</b> .  Each have their <b>advantages</b> and <b>disadvantages</b> .

#### 16: Boscastle – An example of flood management (CGP P56)

<b>Boscastle in Cornwall</b> is a village at <b>risk of flooding</b> . A <b>flood management scheme</b> was <b>finished in 2008</b> .  A <b>new flood wall</b> has been built so the river is <b>able to hold more water</b> .	This is economically <b>effective because</b> homes and businesses are now <b>less at risk of flooding</b> so <b>insurance costs are lower</b> .	<b>Flood management strategies</b> can be used to <b>reduce the risk of river flooding</b> but these are <b>never fully effective</b> and can cause <b>conflict</b> for the <b>local people</b> .
The flood wall however is <b>not fully effective</b> as many people believe <b>less tourists</b> will <b>visit Boscastle</b> because the flood wall is <b>not in keeping with the character of the village</b> .	Due to this, local businesses such as <b>pubs will suffer</b> as there could be <b>less visitors</b> meaning there is <b>less tax income</b> to spend improving <b>public services</b> such as <b>schools and hospitals</b> .	

**Paper 2: Challenges in the Human Environment (CGP P72)**

**17: Regeneration of Anfield, an inner city area in Liverpool. (Not in CGP but read New Islington P71)**

<p><b>Anfield in Inner City Liverpool</b> needed regenerating because the estate had become <b>run down</b> due to the <b>loss of jobs</b> caused by <b>deindustrialisation</b>.</p>	<p>Due to this by the <b>1990's 30% of homes were empty and were used as squats</b> and drug dens leading to <b>social problems</b> such as high unemployment, joyriding, and burglary and drug abuse.</p>	<p><b>Regenerating</b> old derelict a <b>brownfield land</b> that have declined due to <b>deindustrialisation</b> can bring "<b>economic and social</b>" and <b>environmental benefits</b> and helps <b>prevent urban sprawl</b>.</p>
<p><b>Anfield was regenerated.</b> The government worked with <b>private companies and local residents</b> to improve the areas for example build <b>1400 new homes</b> and new <b>transport links into the city centre</b>.</p>	<p>Due to this people moved to the area and were able to use new public transport services to <b>access jobs in the CBD</b> helping to reduce social problems such as unemployment and burglary.</p>	

**18: Change in a UK City – Liverpool**

<p>One <b>social and economic opportunity</b> created by change in Liverpool is the creation of new recreational and entertainment facilities in the Albert Docks which closed due to deindustrialisation.</p>	<p>Due to this many jobs have been created for local people providing tax income for the government to improve public services in poorer areas like Anfield.</p>	<p>Changes in <b>urban living</b> such as urban regeneration <b>created by deindustrialisation</b> have brought <b>opportunities</b> and <b>challenges</b> to urban areas. <b>Opportunities and challenges</b> can be "<b>environmental</b>" or <b>economic and social</b>.</p> <p><b>Decision makers</b> should consider these when <b>planning changes to urban areas</b> or the <b>rural/urban fringe</b>.</p>
<p>One <b>environmental opportunity</b> created by is <b>urban greening of run down open spaces and wasteland</b> created by <b>deindustrialisation</b>.</p>	<p>Due to this more space is available for <b>outdoor activities</b> such as <b>running</b> which leads to <b>healthier lifestyles</b> so there is <b>less pressure on the NHS</b>.</p>	
<p>One <b>social and economic challenge</b> created by <b>urban change in Liverpool</b> is. <b>urban deprivation for example Anfield and Toxteth are two of the most deprived areas in England</b>. Many <b>traditional jobs were lost</b> due to <b>deindustrialisation</b>.</p>	<p>Due to this there was <b>high unemployment</b> which <b>leads to crime</b> so <b>less businesses are likely to be attracted to the areas</b> and residents with enough money left to move to the <b>suburbs</b> such as <b>Aughton</b>.</p>	
<p>One <b>environmental challenge</b> created by <b>urban change in Liverpool</b> is <b>congestion</b>. As more <b>people move to the suburbs from inner city</b> areas like <b>Anfield</b> more <b>commuters drive into the CBD</b> creating <b>congestion</b>.</p>	<p>Due to this <b>more harmful gases</b> are <b>emitted</b> creating <b>breathing problems</b> such as <b>asthma</b> placing <b>pressure on the NHS</b>.</p>	
<p><b>Urban Sprawl in Liverpool</b> has created <b>environmental problems</b> in the <b>rural urban fringe</b>. <b>Commuter settlements like Croxteth Park</b> have been built on <b>greenfield land</b> <b>damaging the environment</b>.</p>	<p>Due to this <b>natural habitats</b> have been destroyed <b>disrupting local food chains</b>.</p>	
<p><b>Urban sprawl</b> has created <b>economic problems</b> for example <b>demand for houses</b> in the urban rural fringe for example <b>Aughton</b> has <b>increased</b> as people move out from inner city areas like Anfield.</p>	<p>Due to this <b>house prices</b> in the <b>rural/urban</b> fringe increase so <b>less local people are able to afford their own home</b> and need to <b>move away</b> from friends, relatives and jobs.</p>	

## 19. Sustainable urban living (CGP P74)

<b>Waste recycling</b> can make urban living more <u>environmentally sustainable</u> for example recycling plastic glass and paper can mean <b>less waste goes to landfill sites.</b>	Due to this less <b>harmful gases</b> such as <b>methane</b> will be released helping to <b>reduce climate change.</b>	<b>People</b> and governments can <b>adapt</b> the way they live in <b>urban areas</b> to be <b>more sustainable.</b> This can bring <b>environmental, economic and social benefits.</b>
<b>Urban greening</b> can make urban living <b>socially sustainable</b> because parkland provides areas for local people to exercise.	Due to this people lead <u>healthier lifestyles</u> which means there is <b>less pressure on the NHS.</b>	
<b>Energy conservation</b> can make urban living more <u>economically sustainable</u> . If people are encouraged to be <b>energy efficient</b> (eg switch off lights in unused rooms) <b>energy costs will be lower.</b>	Due to this people will have more <b>disposable income increasing standard of living.</b>	

## 20: Traffic Management (CGP P76)

Increased congestion in urban areas creates <b>economic problems.</b> <b>Congestion</b> can make people late for <b>work and deliveries</b> to be late.	Due to this <b>companies lose money</b> and tax income for the government is reduced.	<b>Increased car ownership</b> and <b>commuting</b> to the CBD from <b>suburbs and the rural/urban fringe</b> are creating <b>congestion</b> in urban areas which causes problems but it can be managed,
Increased congestion in urban areas creates <b>environmental problems.</b> Congestion can create <b>air pollution.</b>	Due to this more harmful gases are <b>emitted into the atmosphere</b> contributing to <b>climate change.</b>	
Increased congestion can cause <b>social problems.</b> Pedestrians and cyclists can develop <b>diseases such as asthma.</b>	Due to this more <b>pressure is placed on the NHS.</b>	
<b>Congestion can be managed</b> by <b>improving public</b> transport for example in <b>Liverpool</b> people can use the <b>Walrus Card</b> to pay for all types of <b>public transport</b> and are quick and easy to use.	Due to this more people will <b>use public transport</b> like trams reducing the amount of <b>congestion.</b>	
<b>Congestion can be managed</b> by <b>managing the traffic flow</b> for example in <b>Liverpool</b> they have built <b>bus lanes</b> where cars are not allowed.	Due to this it is <b>faster to travel</b> to the CBD from the suburbs so more people will choose to take the bus <b>reducing the number of cars and congestion.</b>	

## 21: Case study of urban growth in a city in the poorer world – Lagos (CGP P69)

<b>Rapid Urbanisation</b> in <b>Lagos, Nigeria</b> has created <b>social opportunities</b> for example <b>68% of the population</b> in Lagos have a <b>secondary education.</b>	Due to this <b>literacy rates</b> improve so more people will be able to access a <b>high skill job</b> increasing <b>tax income</b> for the government.	<b>Rapid urbanisation of</b> cities in the poorer world
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<p><b>Rapid Urbanisation</b> in <b>Lagos, Nigeria</b> has created <b>economic opportunities</b> for example there are lots of <b>construction jobs</b> for example building the new <b>Eko Atlantic Commercial Centre,</b></p>	<p>Due to this <b>secondary jobs</b> are available to <b>migrant workers</b> which provide a <b>good income</b> increasing <b>standard of living.</b></p>	<p>means <b>more are becoming Megacities</b> which creates <b>opportunities</b> to people who live there but <b>governments</b> often find it difficult to provide the <b>housing, services and infrastructure</b> required which creates <b>economic, environmental and social challenges.</b></p>
<p><b>Rapid urbanisation</b> in <b>Lagos</b> has led to <b>social challenges for example over 60% of the city's population live in squatter settlements for example in Makoho where there is only one primary school.</b></p>	<p>Due to this <b>less children attend primary school</b> so will not learn to read and write so will be <b>less able to access a high skill jobs</b> in the future.</p>	
<p><b>Rapid urbanisation</b> in <b>Lagos</b> has led to <b>environmental challenges</b> for example <b>waste disposal and emissions</b> from factories are <b>not controlled.</b></p>	<p>Due to this there is <b>increased air pollution</b> which leads to <b>breathing problems</b> for the people of the city.</p>	
<p><b>Rapid urbanisation</b> in <b>Lagos</b> has led to <b>economic challenges</b> for example there are not enough formal jobs so some migrants work in informal jobs eg scavenging on the Olusosun rubbish dump.</p>	<p>These jobs are <b>low paid</b> and <b>dangerous</b> so <b>standard of living</b> and health are <b>likely to decrease</b> for workers.</p>	

## 22: Example of improving the lives of poor people in poorer countries – The Favela-Bairro Project in Rio De Janeiro (P68)

<p><b>The Favela-Bairro project in the squatter settlements on Rio De Janeiro</b> led to <b>social improvements</b> because they <b>built day care centres</b> for people in the 73 squatter settlements in Rio.</p>	<p>Due to <b>this parents were able to go to work</b> as their children were looked after earning wages which <b>improved their standard of living.</b></p>	<p>The <b>poorest people</b> in urban areas (<b>squatter settlements</b>) are often the <b>worst affected</b> by urban growth in cities in poorer countries because there is <b>limited infrastructure</b> and services but <b>aid organisations and projects can help.</b></p>
<p><b>The Favela-Bairro project in the squatter settlements on Rio De Janeiro</b> led to <b>economic improvements</b> because they <b>ran training schemes</b> for people in the 73 squatter settlements in Rio.</p>	<p>Due to this people were able to get a <b>higher skill job</b> increasing their <b>income</b> and <b>standard of living.</b></p>	
<p><b>The Favela-Bairro project in the squatter settlements on Rio De Janeiro</b> led to <b>environmental improvements</b> because they <b>introduced rubbish collection services</b> for people in the 73 squatter settlements of Rio.</p>	<p>Due to this <b>diseases were less able to spread</b> improving the health of residents and <b>reducing death rates.</b></p>	

## The Changing Economic World

### 23: Development and the DTM. (CGP P79)

<p>Many <b>LICs</b> are in <b>stage 2 of the DTM</b> and the <b>economy is based on agriculture (farming)</b>.</p>	<p>Due to this <b>birth rates are high</b> (lots of children) because <b>children are needed to work on farms</b> so more crops can be harvested.</p> <p>Due to this <b>death rates are high</b> because the government receives <b>little tax income</b> to <b>spend on improving hospitals</b>.</p>	<p>The <b>DTM</b> shows how development changes <b>population</b> in a country. As a country develops from a stage 2 LIC to a stage 4 HIC (NEE in stage 3) <b>birth rates and death rates decrease</b> due to the <b>quality of services and infrastructure</b>.</p>
<p>Many <b>NEE's</b> are in <b>stage 3 of the DTM</b> and the <b>economy is based on manufacturing</b>.</p>	<p>Due to this there is <b>more tax income</b> to spend on health services so <b>birth rates fall</b> because there is <b>better access to contraception</b>.</p> <p>Due to this the government receives <b>more tax income</b> to spend on <b>improving healthcare so death rates fall but slower than birth rates</b>.</p>	
<p>Many <b>HIC's</b> are in <b>stage 4 of the DTM</b> and the <b>economy is based on services</b>.</p>	<p>Due to this <b>birth rates are low</b> because more people (especially women) go to <b>university</b> to help ensure they get a <b>high income</b> job so <b>delay starting a family</b>.</p> <p>Due to this <b>death rates are low</b> because <b>tax income is high</b> which is used to train doctors and <b>provide good healthcare</b>.</p>	

### 24. The causes of uneven development (lack of development) (CGP P90)

<p>One <b>physical factor</b> that can affect how <b>developed</b> a country is, is <b>poor climate</b>. If a country is <b>to hot or cold</b> it is <b>difficult to grow crops</b>.</p>	<p>Due to this <b>less food is grown</b> which means <b>less is exported</b> reducing <b>tax income</b> for the country <b>so less money</b> is spent on improving public services such as <b>schools</b>.</p>	<p>There are a range of factors that have caused the <b>lack of development</b> in poorer countries. These are <b>physical</b> (natural), <b>human</b> and <b>historical</b>.</p>
<p>One <b>human factor</b> that affects how developed a country is, is <b>debt</b>. Very poor countries <b>borrow money</b> from HIC's and this needs to be <b>paid back with interest</b>.</p>	<p>Due to this less money is available on <b>public services</b> and <b>infrastructure</b> such as roads so <b>less TNC's will locate</b> there as it is <b>difficult to export goods</b>.</p>	
<p>One <b>historical reason</b> for lack of development is <b>colonialism</b>. Empires like the <b>British Empire removed raw materials and kept profits</b>.</p>	<p>Due to this <b>money and resources were lost</b> especially in <b>African colonies</b> which led to <b>loss of income, famine and malnutrition</b>.</p>	

### 25: The Global Development Gap between richer and poorer countries can be reduced. (FATMIDI) (CGP P82)

<p><b>Fair trade</b> is one way of <b>closing the development gap</b>. Farmers get a <b>fair price</b> for goods produced in LIC's eg <b>coffee and bananas</b> and pay "<b>extra</b>" to help build <b>schools and hospitals</b>.</p>	<p>Due to this <b>the health of local people improves</b> so less days are taken off from work sick <b>increasing income</b>.</p>	<p>FATMIDI – <b>F</b>air trade, <b>A</b>id, <b>T</b>ourism, <b>M</b>icrofinance loans, <b>I</b>nvestment, <b>D</b>ebt Relief, <b>I</b>ndustrial Development.</p>
<p><b>Debt relief</b> is one way of <b>closing the development gap</b>. <b>Debt</b> can be <b>cancelled</b> or interest lowered so more money is available to spend on <b>schools and hospitals</b>.</p>	<p>Due to this more children will have a <b>secondary education</b> so more people will be able to complete <b>high skill jobs</b> in the future.</p>	<p><b>Many strategies</b> can be used to help poorer countries <b>catch up</b> with richer countries.</p>

**26: Example – Tourism is helping Kenya increase its development. (CGP P83)**

<p><b>Tourism is effective at closing the development gap in Kenya</b> because nearly <b>600,000 people</b> are directly or indirectly <b>employed</b> in the tourism industry. This is 10% of all employment in Kenya.</p>	<p>Due to this more people receive a <b>reliable income</b> creating <b>tax income</b> for the government which can be used to improve services like <b>schools and hospitals</b>. It is effective because Kenya's <b>HDI has increased from 0.45 to 0.55 since 2000</b>.</p>	<p><b>Tourism</b> is one way of <b>closing the development gap</b>. It can bring <b>benefits</b> but <b>problems</b> are also created so a <b>conflict</b> is caused.</p>
<p><b>Tourism in Kenya is not without its problems</b>. Only a <b>small amount of the money</b> earned goes to <b>local people</b> with the rest going to <b>big tourist companies</b>.</p>	<p>Due to this income is lost to <b>Kenya</b> so there is <b>less money</b> improving public services like <b>schools and hospitals</b>. This is called <b>economic leakage</b>.</p>	

**27: Economic Development in a NEE Case Study – India.**

<p><b>Many TNC's are attracted to India</b> for example <b>Unilever</b> and this brings <b>advantages</b>. Unilever <b>employs 16,000</b> people in India.</p>	<p>Due to this the government receive more <b>tax income</b> to invest in <b>infrastructure</b> such as roads and airports which <b>attracts more TNC's</b> to <b>India</b> because goods can be <b>exported easily</b>.</p>	<p><b>India is a NEE</b>. Its <b>employment structure</b> is changing with less people doing <b>primary jobs</b> (eg farming) and more people doing <b>secondary jobs</b> (manufacturing) or service jobs. <b>Aid</b> and investment (<b>FDI</b>) from TNC's is driving this change as well as <b>India's</b></p>
<p><b>Many TNC's are attracted to India</b> for example <b>Unilever</b> and this brings <b>disadvantages</b>. TNC's can often cause <b>environmental problems</b> for example <b>mercury contaminated glass</b> from a <b>Unilever</b> factory ended up in a waste dump.</p>	<p>Due to this <b>environmental problems</b> were caused for example <b>mercury ended up in rivers contaminating drinking water</b> leading to <b>health problems</b>.</p>	
<p><b>Aid</b> has helped <b>India</b> close the <b>development gap</b>. One effective example of aid is "<b>bottom up</b>" aid where money is given <b>directly to local people</b> eg <b>Wateraid trains local people maintain village water pumps</b>.</p>	<p>Due to this <b>local people support the aid</b> and it helps improve <b>health, skills and income</b> building a <b>sustainable community</b>.</p>	

<p><b>Aid</b> has helped <b>India</b> close the <b>development gap</b>. One <b>less effective</b> example of aid is <b>“top down” aid where money is given to the government</b> and decides how it should be spent. Usually money is spent on big infrastructure projects such as dams or irrigation schemes.</p>	<p>Due to this the <b>benefits of aid</b> can be lost due to <b>corruption</b> as it does not reach the people who need it so <b>does not raise standard of living</b> for the <b>poorest people</b>.</p>	<p><b>young and large workforce</b> and <b>access to a large coastline</b> so <b>goods can be exported</b>.</p> <p><b>Industrialisation</b> in India has advantages and disadvantages.</p>
<p><b>Economic development has improved the quality of life in India</b>. There are more jobs and the average Indian wage has increased by about 42 rupees per day since 2010.</p>	<p>Due to this the government receive <b>more tax income</b> to spend improving public services such as <b>hospitals increasing life expectancy</b>.</p>	
<p><b>Economic development has improved quality of life</b> but has <b>led to environmental problems</b>. For example <b>industrialisation</b> (more factories) has meant that <b>India</b> has increased its use of <b>fossil fuels</b>.</p>	<p>Due to this more <b>harmful gasses</b> are <b>emitted</b> into the atmosphere <b>increasing breathing problems</b> and putting <b>pressure on health services</b>.</p>	

## 28: Challenges in the UK’s Post Industrial Economy. (CGP P56,57,58)

<p><b>Deindustrialisation</b> and the loss of manufacturing jobs had a greater impact on the north of the UK than the south which benefited from the post-industrial service industry.</p>	<p>Due to <b>wages</b> are generally lower in the north of the UK. So councils in the north of the UK receive <b>less tax income</b> to spend improving public services.</p> <p>Due to this <b>education</b> (GCSE results) are generally <b>worse in the north of England</b> so less high skill companies will be attracted to the north of the UK because of a <b>lower skill workforce</b>.</p>	<p><b>Deindustrialisation</b> in the UK has <b>created challenges (the north of the UK and rural areas)</b> because some areas are being left behind or face new challenges. The government is trying to <b>solve these issues</b>.</p>
<p><b>Deindustrialisation</b> has had a <b>negative effect on rural</b> areas in <b>northern England</b> for example in <b>Cumbria</b> many jobs have been lost due to <b>loss of manufacturing jobs</b> caused by <b>mechanisation</b> and <b>cheaper wages in NEE’s</b> such as <b>India</b>.</p>	<p>Due to this people have <b>migrated (moved)</b> away from these rural areas and services such as <b>hospitals</b> have closed so there is less access for people who remain.</p>	
<p><b>Deindustrialisation</b> has had a <b>negative effect on rural</b> areas in <b>Western England</b> for example <b>deindustrialisation</b> has led to <b>counterurbanisation in Somerset</b></p>	<p>Due to this <b>house prices have increased</b> so local people are <b>less able</b> to <b>afford their own home</b>.</p>	
<p><b>The Government</b> is trying to solve the <b>north/south divide</b> by creating the Northern Powerhouse. The plan involves improving rail links to northern cities and <b>training local people</b> in new skills.</p>	<p>Due to this the <b>inequality will be reduced</b> because more businesses will be attracted to <b>northern cities</b> like <b>Leeds</b> providing jobs.</p>	
<p>The government is <b>improving the transport network</b> for example a <b>new runway</b> will be built at <b>Heathrow airport</b> to provide new flights to <b>NEE’s in Asia</b> such as <b>India</b>.</p>	<p>Due to this more <b>foreign companies</b> will locate in the UK because they are able to <b>export and import goods</b> more easily creating <b>tax income</b> for the government.</p>	

**29: The food Industry in the UK is changing and is creating challenges. (CGP P91)**

<p>One way the <b>food industry</b> is <b>changing</b> is there is more <b>demand</b> for <b>seasonal food</b> all year round for example <b>strawberries</b> are <b>imported</b> from Mexico.</p>	<p>Due to this the <b>food miles</b> of what we eat in the UK is increasing so more <b>harmful gases</b> are <b>emitted into the</b> atmosphere increasing the problem of <b>climate change</b>.</p>	<p>The <b>food industry</b> in the UK is changing which leads to <b>economic</b> and <b>environmental</b> challenges.</p>
<p>One way the <b>food industry is changing</b> is the <b>carbon footprint</b> of our food is growing for example there is <b>increased growing, processing packaging</b> of food in the UK.</p>	<p>Due to this more <b>harmful gases</b> are <b>emitted into the</b> atmosphere increasing the problem of <b>climate change</b>.</p>	
<p>One way our <b>food industry is changing</b> is farming is becoming more industrialised. <b>Since the 1960's</b> there has been an <b>increase in agribusiness</b> which is <b>large scale industrial farming</b>.</p>	<p>Due to this the number of <b>workers employed in farming</b> has <b>decreased</b> as large scale farms use <b>more machines</b> so <b>jobs are lost</b> especially in rural area.</p>	

**30: Water demand in the UK is changing and it's creating challenges. (CGP P92)**

<p><b>Pollution from pesticides</b> used on <b>large scale farms</b> (agribusiness) causes <b>water pollution</b> for example <b>nitrates and phosphates</b> so strategies have been introduced to <b>reduce pollution</b> for example <b>improved drainage systems</b>.</p>	<p>Due to this the <b>speed of movement of water</b> to rivers is increased so that <b>pollution</b> can be <b>broken down in the soil</b> so <b>less is likely to enter the food chain</b> (through cattle) as <b>river water</b>.</p>	<p>Our <b>water demand</b> in the UK is increasing due to <b>increased demand</b> from <b>industry</b> and <b>households</b> and this leads to <b>economic</b> and <b>environmental</b> challenges.</p> <p>Demand is <b>greater in the south east of the UK</b> but <b>rainfall is greater in the north west</b>.</p>
<p><b>Demand for water</b> is greater in the <b>south east</b> where <b>population density is higher</b> but <b>rainfall is greater in the north west</b>. This creates a <b>water surplus</b> in the north west but a <b>water deficit</b> in the south east. Due to this the government are <b>transferring water to the south east</b>.</p>	<p>Due to <b>this water security</b> in the <b>south east is increased</b> but there is a <b>negative environmental effect</b> because the <b>migration of fish species is disrupted</b>.</p>	
	<p>Due to this <b>water security in the south east is increased</b> but there is a <b>negative economic effect</b> because water transfer schemes are <b>expensive</b> so less money is available to <b>improve public services</b>.</p>	

**31: Energy Use in the UK is changing and it's creating challenges. (CGP P 93)**

<p>The <b>UK's energy mix</b> is changing and this is creating <b>economic issues</b>. <b>Fossil fuels</b> are becoming <b>harder to extract from the ground</b>.</p>	<p>Due to this more <b>renewable energy</b> is used for examples <b>solar energy</b> but this causes <b>economic issues</b> because <b>research</b> into <b>renewable energy is expensive</b> which <b>increases the cost of electricity</b>.</p>	<p>The energy the UK uses (<b>energy mix</b>) is changing. It is moving <b>from non-</b></p>
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<p>The <b>UK's energy mix</b> is changing and this is creating <b>environmental issues</b>. Burning fossil fuels <b>emits harmful gases</b> which contributes towards <b>climate change</b>.</p>	<p>Due to this we are <b>using more renewable energy</b> like <b>wind farms</b> but this causes <b>environmental problems</b> because <b>birds can fly into the windmills</b> damaging natural ecosystems.</p>	<p><b>renewable sources of energy are used less and renewable sources of energy are used more.</b> This creates <b>economic</b> and <b>environmental</b> issues.</p>
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### 32: Sustainable Water Supply (CGP P104)

<p><b>Water supply</b> can be managed in an environmentally <b>sustainable way</b> by <b>water conservation</b> for example fitting homes with <b>water meters</b> so people are <b>charged for the amount of water they use</b>.</p>	<p>Due to this people are <b>less likely to waste water</b> which helps ensure that <b>river levels do not fall</b> due to <b>overextraction</b>.</p>	<p>The <b>world is becoming richer</b> and <b>population is increasing rapidly</b> so <b>more water is needed to meet demand</b>. We can meet the demand by using water in a <b>more sustainable way</b>.</p>
<p><b>Water supply</b> can be managed in an economically <b>sustainable way by</b> using <b>"grey water"</b> so water used in homes is <b>reused to water plants</b>.</p>	<p>Due this less water is used <b>reducing the cost to</b> homeowners who have water meters fitted meaning <b>disposable income increases</b>.</p>	

### 33: China South North Water Transfer Scheme: An example of a large scale water transfer scheme (CGP P105)

<p>China is transferring water from</p>		<p>Countries need to find ways to cope with <b>water insecurity</b>.</p>
		<p>Water can be transferred from an area of <b>water surplus</b> (too much) to an area of <b>water deficit</b> (not enough) which brings <b>economic</b> and <b>social</b> benefits but transferring water causes <b>economic</b> and <b>environmental</b> challenges.</p>