

EDUQAS A LEVEL GEOGRAPHY

Specimen Assessment
Materials - Component 3

Marked Student Responses



The following booklet is compiled from student responses to questions from the Specimen Assessment Materials submitted by their centres. Where typed responses have been used for the purposes of legibility, the original student answer has been reproduced faithfully.

The Principal Examiner, in each instance, has provided detailed comments and an indication of marks/levels where appropriate.

All figures and mark schemes referred to in these responses can be accessed by downloading the original Specimen Assessment Materials from the Eduqas Geography A Level homepage.

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Question 1 (38 marks):

'Volcanic activity results in only local hazards.' Discuss.

Volcanic activity can affect areas hugely based on the scale of the eruption and the vulnerability of the area. It can also cause local as well as national hazards and impacts. Local hazards include the loss of life and the amount of destruction caused and are mainly social, however, national hazards have a greater impact on the economy around the world. This essay is going to examine the extent to which volcanic activity only results in local hazards.

In 1995, the volcano Soufrier Hills, located in the British overseas territory of Montserrat erupted. It is located on a destructive plate boundary where the South American and Caribbean plates are converging. In 1995, the volcano began emitting ash and dust. In 1996, the southern population were evacuated and exclusion zones were put in place, and in 1997 5 million m³ of pyroclastic flow erupted. This resulted in many local impacts as 2/3 of housing was destroyed, including the airport and 19 people were killed. However, there was also an international impact as half of the population were evacuated to the USA and the UK. This would have impacted them economically as they would have to provide for the evacuees and ensure they had food, water, shelter, and medical care. In addition, NGOs also provided those who remained in Montserrat with shelter, schools, food and water as well as helping to monitor the volcano and maintain the exclusion zones. The UK also funded a 3 year re-development programme that aimed to re-build the island and increase tourism by building more hotels and a better airport, and in 1998 they granted full residency rights to all evacuees in the UK.

This impacted Britain as they funded the redevelopment programme and helped reduce the number of deaths caused by the local hazards, showing that despite Montserrat producing local hazards, it caused international secondary effects showing that volcanic activity does not only result in local hazards.

In 2010, Iceland also experienced a volcanic eruption. Iceland is located along the Mid-Atlantic Ridge on a constructive plate boundary where the North American and the Eurasian plates are diverging. It was the first eruption in 200 years and started below a 650ft glacier. The volcanic activity resulted in an ash cloud of more than 1200m high. This caused a local hazard and resulted in 800 local people being evacuated as well as livestock which would suffocate on the ash. The glacial melt also raised rivers by 3 meters so flooding was feared. However there were much greater international hazards as the ash cloud spread around the world. It caused all flights to be grounded, costing the airline industry \$130 million each day and resulted in Britain losing \$1 billion. In addition, millions of pounds worth of flowers and vegetables were lost in Kenya and 4000 British tourists were stranded in South Africa. A school in Croydon was also missing 12 teachers after the easter break. This therefore contradicts the statement that volcanic activity results in only local hazards as the local hazards caused by E15 were considerably smaller than the international hazards as it resulted in huge economic and social impacts for many other countries, not just Iceland.

These two examples of volcanic activity show evidence that not only local hazards are caused. Montserrat had far worse local impacts than E15, however it still caused secondary international impacts. E15 on the other hand, experienced very little local hazards, however the 1200m ash cloud caused huge international impacts. However, this was due to the vulnerability of each location. Montserrat is an LEDC and the volcano was located within an urban environment as E15 is located in an MEDC in a rural area where there aren't many buildings to be damaged or a large population. In addition, the type of eruption also affects the hazards caused. Montserrat erupted pyroclastic flows which are much more of a local hazard than an ash cloud produced by E15, and Mauna Loa located in Hawaii erupts daily, but does not cause any local or international hazards. Therefore, volcanic activity does not only cause local hazards, the extent of the hazards depends on the vulnerability of the location as well as the type of eruption.

Examiner Comments:

The introduction needs a sharper focus on the requirements of the question (the reference to social and economic impacts is more appropriate to question 2, although the tectonic context is correctly rooted in volcanic activity). The spatial dimension of the question is directly addressed, with reference made to local, national and global scales, but reference to volcanic activity is overlooked apart from a brief reference to the 'scale of the eruption'. Candidates need to ensure that the word 'hazard' is understood (a natural event that threatens or causes loss of life or damage to human settlements) and that a distinction between hazards and impacts (the influence the hazard has) is clearly made as, although linked, the two terms are often conflated. A brief reference to tectonic processes (collision at destructive and divergence at constructive) leading to the production of the named hazards the candidate plans to address in their response would be helpful here. These AO1 elements are identified in the sample mark scheme.

The second paragraph is stronger as tectonic processes are outlined and located and linked to specific hazards (ash, pyroclastic flows), therefore the AO1 content is good. Case study detail of Montserrat is good and arguments are clearly expressed with many specialised concepts implied in the discussion (scale, globalisation, mitigation, resilience). However, a drift to impacts is also evident, taking the discussion away from the specific hazards. Differences in the nature of volcanic hazards could have been highlighted as the hazard associated with the pyroclastic flow was more localised than the hazards associated with volcanic ash.

The third paragraph is much more focused on the hazard itself, illustrating with plenty of evidence how the ash cloud (a hazard) emitted from Eyjafjallajökull, originally local, did extend to become a regional and ultimately global hazard. The candidate also makes reference to the secondary hazard of lahars. The case study detail is strong (AO1) and the discussion is analytical, recognising that the local hazard was much smaller than the international one (AO2).

The conclusion is strong, focusing on differences in scale, different types of hazards in different tectonic contexts (explosive, effusive) providing critical comment on the hazard operating at a variety of different scales, from local to global, with scale linked to the type of eruption, location and vulnerability of the country affected (AO2).

On balance, the marks would be awarded as follows:

AO1 - lower **Band 4**. Good knowledge and understanding is evident, although the distinction between hazards and impacts needs to be more clearly understood as this question is focused on hazards. A wider coverage to include a variety of 'hazards', the magnitude of the event and the very low frequency of extreme events, as identified in the mark scheme, would have avoided the drift to impacts that extend well beyond the hazard itself. The impacts mentioned in the m/s are directly linked to hazards e.g. the eruption of Mt. Pinatubo causing global cooling and the eruption of E15 directly affecting aviation. Candidates need to avoid listing impacts where the necessary link to the hazard is not central to the discussion.

AO2 - lower **Band 4**. The response is discursive, demonstrating sound application of knowledge and understanding particularly in paragraph 3 and the conclusion. The specialised concepts of causality (tectonic processes), scale (local to global), globalisation (aviation industry), and risk (type of eruption) are all evident in the response.

AO3 - **Band 4**. The response is appropriately structured, clear and coherent. However the conclusion is much stronger and more clearly targeted at meeting question requirements than the introduction.

Question 2 (38 marks):

‘The economic impacts of earthquake activity are always greater than the social impacts’. Discuss.

Candidate A

The economic impacts for many High Income Countries (HIC) are greater than the social impacts, however for many Low Income Countries (LIC) the social impacts are more larger, more long term and more severe than the economic impacts.

The economic impacts from an earthquake causing the primary hazard of ground shaking was much greater than the social impacts in Chile. In February 2010, Chile was hit by an 8.8 magnitude earthquake which led to \$30 billion worth of damage to the country. The 3mins of ground shaking caused some buildings foundations cracking and collapsing causing substantial buildings to be damaged and needing repairs. Many of the buildings had insurance allowing for repairs to be calculated and rebuilding projects to start almost immediately although it took 5 years for the area to fully recover. Although, 2 million people were made homeless from the Chile earthquake, temporary housing was provided and homes rebuilt within 3 years to allow the return of all the residents showing how the social impacts are much more short term after an earthquake in a HIC than the economic impacts.

The economic impacts from the Chile earthquake was also felt more regionally and globally than the social impacts. The region of Chile the earthquake struck contributes to 22% of the countries agriculture with 90% of the wine, grain and fruit grown is exported to other countries around the world including the UK, France and USA. The earthquake caused issues with the local infrastructure (roads and bridges) meaning some of the food went to waste and couldn't be exported leading to some shortages in certain supermarkets in the UK. Whilst the number of residents affected and having mental health issues of fear of future tremors were much more localised to the disaster area showing how the economic impacts from an earthquake are on a larger scale than the social impacts.

However, the economic impacts do not always have greater than the social impacts depending on the tectonic hazard. Ground shaking often has larger economic costs for HIC's, but tsunamis have more social impacts than economic. The earthquake in Chile causes a tsunami which was a 10m high wave hitting the shoreline destroying 80 houses. These homes had to be rebuilt further from the coast to stop future tsunamis damaging and destroying these homes however, for many of these residents their previous lives were in the old location so getting to school/work became more challenging demonstrating how the social impacts are greater than then economic impacts in a tsunami.

Whereas in Haiti, the smaller earthquake of 7 on the Richter scale only caused \$14 billion worth of damage since it is a LIC meaning many of the buildings were poorly built with limited number of buildings insured so the economic damage was much lower than in Chile. However, the Haiti earthquake was smaller in magnitude so it would be expected for the economic cost to be lower than Chile. In Haiti over 1.5 million people ended up in aid camps which were mainly run by NGO's such as Oxfam. These aid camps were over-crowded and were still being used 5 years later by some residents. The aid camps were so over-crowded and over-whelmed that cholera spread quickly causing a further 500 people to die illustrating how for many LIC's earthquake activity has greater social impacts then economic impacts. Furthermore, earthquakes can have social impacts which in turn makes longer term economic impacts for some LIC's. The earthquake that hit Haiti damaged 50 schools interrupting the education for many young people. Since the Haitian Government had limited funds the schools took many years to rebuild and repair meaning many children lost their education which is a social impact. This in turn could damage the economic growth of the country for generations to come since this generation would struggle economically due to limited qualifications. This illustrates how short term social impacts could have long term economic impacts for Haiti.

Overall, for many HIC's the economic impacts are much greater than the social impacts since these countries are often more globalised and have responses/mitigation strategies to reduce the social impacts. However, for many LIC's the social impacts are greater than the economic impacts since these impacts have a larger spatial impact and longer term impact.

Candidate B

2) Earthquake activity occurs as a result of the tectonic plates on the Earth's crust. ~~The~~ The elastic rebound theory shows how the plates 'snap' back after being subducted or having had pressure applied for too long. The economic impacts include building damage and repairs, ~~also~~ also imports of food and water to aid the rebuild process. Social impacts include the loss of life. I will compare case studies to determine if economic or social impacts are greater after an earthquake.

One case study includes Haiti which was hit by a category 7 earthquake in 2010. Haiti is a small Caribbean island, ~~on~~ on a conservative plate boundary. The South American and North American Plate are moving along side each other. Haiti is a LEDC, one of the poorest countries in the western hemisphere and as a result $\frac{3}{4}$ of all infrastructure was damaged ~~to~~ due to a lack of building regulations. On the other hand New Zealand is

an MEDC. New Zealand was hit by a category 7.8 quake ~~on~~ on 13th November 2016. However despite this quake being almost 10x stronger the country did not declare a state of emergency because they had the capacity to cope. Building regulations meant there was not as much economic damage and they had the money to afford the recovery. Where as in Haiti, 1 year later 40% of rubble remained. Socially, ~~the~~ Haiti lost ~~25%~~ 25% of civil servants, ~~and~~ who would help relieve social impacts, and due to poor sanitation there was a cholera outbreak. This situation was similar in Thailand after the 2001 Boxing Day Tsunami which occurred as a result of an earthquake in the Indian Ocean. 37,000 people died on the first day and as a result the country struggled to dispose of the bodies so had to burn them to prevent the spread of disease. Once more Sri Lanka lost 60% of its fishing fleet and Thailand lost thousands of pounds through tourism. In New Zealand trained personnel were sent immediately and evacuees were put up in empty student accommodation in Christchurch.

This ~~the~~ therefore did not cause any further social problems and it could be concluded that the countries development and capacity to cope is what determines if social or economic impacts are worse. For instance in New Zealand they had building regulation and were educated on the tectonic risks so knew how to cope, ~~as~~ as a result their economic impacts were greater due to building repairs. On the other hand in Haiti they had no preparation and 80% of the population were subsist on less than \$1.25 a day. This resulted in greater social impacts because what little they did have was destroyed and the lack of regulation ~~meant~~ and healthcare resulted in more deaths.

Examiner Comments:

Candidate A - In the introduction there is a clear statement indicating the direction of the candidate's argument (AO2) that the level of economic or social impact is a function of a country's level of development.

In the second paragraph good knowledge and understanding of a specific earthquake event (Chile 2010) and its impacts is demonstrated (AO1) linked to a discussion of the temporal dimension of each category of impact (AO2).

In the third paragraph the differences in the spatial dimension of each category of impact is highlighted (AO2) and well exemplified with specific details, using the Chile 2010 earthquake event (AO1). The specialised concept of globalisation is applied to the discussion.

In the fourth paragraph it is argued that the degree of economic or social impact is a function of the nature of the earthquake hazard, with ground shaking producing greater economic impacts and tsunamis resulting in greater social ones (AO2). Developed case study material is provided to support the arguments (AO1).

In the fifth paragraph the relative importance of economic and social impacts is linked to a country's level of development (AO2) with the magnitude of the event factored in (AO2): the 2010 Haiti and Chile earthquakes are used to provide comparative comment and to exemplify arguments (AO1).

In the sixth paragraph the interdependence of social and economic impacts is highlighted (AO2), with reference made to the temporal scale of each category of impact (AO2), again using Haiti as exemplar material (AO1).

The conclusion synthesises the arguments together effectively, reinforcing the statement made in the introduction by arguing that the degree of economic or social impact (in terms of amount, spatial and temporal scale) is a function of level of development, which in turn influences a country's resilience and ability to mitigate against the consequences of earthquake events (AO2).

On balance, the marks would be awarded as follows:

AO1 - high **Band 4**. The response demonstrates wide ranging, thorough and accurate knowledge with a high order of conceptual understanding throughout. The response is consistently relevant and uses wholly appropriate, accurate and well-developed examples and very good geographical terminology.

AO2 - high **Band 4**. The assessment element is sustained, balanced and supported with wide ranging and relevant evidence. The candidate's application of knowledge and understanding is evident through sophisticated synthesis and use of the specialised concepts of causality, globalisation, interdependence, resilience, mitigation and variations over time and space, which are consistently well-integrated throughout the response.

AO3 - **Band 4**. The response is very well-constructed, totally coherent and contains sophisticated arguments and conclusions.

Candidate B - The introduction is focused, although generic, but it does provide a brief overview of tectonic processes and associated impacts.

The second paragraph provides some secure case study material of the Haiti (2010) and the New Zealand Kaikoura (2016) earthquakes and the Boxing Day tsunami (2004). The paragraph provides evidence of factual and secure knowledge and understanding of tectonic processes and associated economic and social impacts (AO1), but these are concise and lack depth and developed detail.

Examiner Comments (cont):

AO2 discursive elements are briefly interwoven throughout the paragraph, with reference to differences in building regulations influencing resilience and an acknowledgement that increased resilience and mitigation 'despite this quake being almost 10x stronger' resulted in an increased capacity to cope in the case of the New Zealand earthquake and therefore a reduction in impacts. Variations in the level of, firstly, economic, and secondly, social impacts between the three tectonic events are clearly stated.

There is no separate paragraph comprising a conclusion, although one begins at the bottom of the second page with the a strong AO2 component linking the balance of impacts to a country's level of development and its capacity to cope evidenced by further details of specific impacts in the case studies selected.

On balance, the marks would be awarded as follows:

AO1 - higher **Band 3**. Although there is some knowledge and understanding of processes and associated impacts, it is secure rather than thorough. Specific details are provided, but there is limited depth/development. The response is wholly relevant and uses appropriate terminology.

AO2 - higher **Band 3**. The application of knowledge and understanding is accurate, but the limited extent of the answer results in a more partial response. The evidence in support is entirely appropriate and relevant and specialised concepts are applied effectively, but briefly.

AO3 - **Band 3**. Clearly written, but containing only two paragraphs, with no separate conclusion.

Question 7 (45 marks):

'China's natural resource base provides more opportunities than constraints for economic development'. Discuss.

China is growing economically in the world today, likely to overtake the USA in the close future in manufacturing. China also has a huge resource base able to sustain economy independently and allowing them to grow rapidly. This resource base consists of large minerals reserves such as coal, iron, steel, natural gas and energy. China is also located close to the sea, allowing easily accessible ports to be built for trade, as well as it making it good for manufacturing and business opportunities (for example providing water for cooling machinery). The climate also gives opportunities for tourism year round, while rivers supply drinking water and, again, tourism opportunities. These influences give massive opportunities for growth however, they bring with them restrictions and negative feedback that will restrain China from reaching its full economic potential.

One of Chinas most valuable and largest resource bases is of coal, ~~steel~~, iron, natural gas *and (other forms of)* energy. China was the world's leading producer of minerals such as aluminium, iron and coal and many more, to date geologists have confirmed reserves of 153 different making China third in the world for total reserves. These mineral reserves supply China with opportunities in trade and exports as many countries have high demand for these resources, especially those of coal and metals. Trade brings in large economic value. These minerals also mean that China does not have to rely heavily on importing these materials and is able to sustain them independently and make their own materials to build infrastructure and other construction. This can further mean that they can build roads to increase accessibility and buildings to hold more people along with buildings for business opportunity. All of which provides room for economic growth from profits brought by these materials. On the other hand, although China has the ability to meet its energy demand from domestic sources due to its relatively rich endowment of coal, the energy demand is likely to become unsustainable quickly in the near future. China's resource base,

although big, is insufficient to meet the increased use of energy and minerals as China's economy becomes more urban and export orientated. It is estimated that in 20 years' time China is likely to consume more energy and metals than all of the industrialised economies today. This huge demand in China alone will restrain the economy from advancing as they will be restricted from trading their resources and their resources aren't sustainable, meaning there potentially will be no economic gain in the long term. Furthermore the quality of these resources has an impact on the opportunities available from these resources. Many of the important, high in demand, metallic materials such as iron, aluminium and copper are of poor quality and are difficult to smelt making it questionable whether other countries will be interested in the trade of low quality materials and making it difficult and expensive to handle. Altogether, restraining economic development.

Coal is a highly desired resource, along with others, and could well bring China extreme economic gain due to the expanse of global demand for this natural resource. However, burning coal as a fossil fuel comes with its own environmental issues. Burning fossil fuels is the main cause of greenhouse gas emissions, causing large global scale pollution and global warming. Potentially this could pose risk of permanent damage to the environment, including but not limited to, coral reefs and other fragile environments affected by rising CO₂ and global temperatures. The combustions of China's low grade coal will lead to increased cost in environmental amenity and repair, this overtime will lead to costs of repair and cleaning the environment, questioning the sustainability of this resource. This pollution will not only create damage in China but also on a global scale as everywhere is affected by the heavy pollution and rising temperatures. The damage to the environment is already clear in China where many deaths occur purely due to heavy smog and bad air pollution, making it questionable how much further the pollution levels can go. This means that the cost of environmental repair will be felt across the globe, not just in China. This leads into the issue of increased global pressure from other governments on China to lower its emissions. For example China refusing to sign the protocol that limits the greenhouse gas emissions that they are able to emit annually. Globalisation in China and other countries has led to large pressures to be held on China for their large carbon footprint. Another restraint on China's coal reserves is the extent at which accessibility has an impact on the opportunities provided by natural resources. The coal reserves are distributed unevenly all over China. With limited reserves of high-quality coking coal and anthracite coal could constrain China's economic development as the money spent on locating the coal and digging for it will be substantial and the lack of access will limit how much of the coal can be used and traded.

The climate of China, the flatland and the topography allows for a lot of opportunity in tourism. For example the Gobi desert attracts tourism with activities such as sand boarding and quad biking allowing people to experience the culture of China all over. This desert also acts as a defence border meaning that China does not have to invest in building defence themselves. Along with this there is also the mountain range in Tibet, the Himalayas. Mount Everest attracts tourists all year round and also supplies China with rivers and another natural defence boundary. To the east, land is flatter making it good for building and infrastructure allowing people to live and work in these areas. The climate also allows for good agriculture and therefore more trade opportunities as exports of food to other countries is popular. However these opportunities also restrain the economic development to some extent. For example the inaccessibility of tourist attractions such as the mountains and desert mean that money must be spent on making routes to these places. They are also inhospitable meaning that all human life is mainly centred in the East, and with China having such a large population this can put strain in these areas of overpopulation and therefore, the causality of this, is that there is a strain on water and food. This uneven land can't be used for farmland or agriculture limiting the space available to grow food for China and for trade. This physical isolation is also followed by political isolation which altogether makes China inaccessible and therefore leaving a lot of land of no economic value. Due to the unpredictable climate, droughts often occur which can mean that agriculture can be restricted and with the large tourism industry in China it's not only China's own people that must be supported adding extra strain. All of this can constrain China's economic development as China has to invest money into food imports and accessibility routes in order to allow for tourism and its own people. Along with political isolation limiting their trade opportunities.

All in all I believe that China's resource base provides more constraints as, although the opportunities allow for economic development a lot of these opportunities also provide a constraint and can't reach its full potential. Money often must be spent to control or sustain the opportunities such as with tourism. Minerals and other natural resources are unsustainable and are damaging to the environment. Essentially all opportunities must be managed and this management and the limitations of these opportunities is more of a constraint to the growth of China's economy.

Examiner Comments:

The introduction makes reference to China's rapid economic development (although this would benefit from statistics in support) and provides an overview of China's resource base. Knowledge and understanding of China's resource base is provided in the wider sense of the term, making valid reference to proximity to the sea (not specified) and climate in addition to mineral resources. A clear argument is made for this resource base providing both opportunities and constraints. Therefore the opening paragraph is direct with AO2 elements, but lacks some rigour and precision when, for example, identifying steel as a natural resource and referring to 'energy' in addition to coal and natural gas. Therefore it is a focused introduction which summarises the main arguments and provides a balanced overview (AO2), but it lacks exemplar material and precision.

The second paragraph establishes the link between China's resource base and economic development (AO1). The paragraph is discursive, with the application of specialised concepts of causality, interdependence, globalisation and sustainability integrated together with a recognition of different time scales. In many respects the AO2 element is stronger than the AO1 element, as the paragraph lacks specific locational detail and examples. There is also some lack of understanding as China's trade is mainly in manufactured goods produced from resources rather than trade in resources themselves. Details of the locations/concentrations of manufacturing industry in coastal SEZs would also aid the discussion, together with reference to the location of coal reserves in the north and north-west (AO1) posing a logistical problem (constraint) for supplying electricity to the more industrialised and populated coastal areas (AO2).

The third paragraph focuses on coal as one of China's most important natural resources. References to the uneven distribution of coal reserves and the poor quality does provide evidence of the candidate's secure knowledge base (AO1) missing from the previous paragraph, although specific locational detail is still lacking. The candidate recognises that these limitations present constraints for China's development (AO2), particularly in terms of sustainability. A synoptic link to rising CO2 emissions is provided but there is incorrect knowledge and understanding about China's current stance on climate change, as China has supported the Paris Climate Change agreement and is working with other governments to fight climate change and launched initiatives to advance clean energy. Reference could have been made to the constraints presented by low grade coal in terms of the health of workforce and the cost of healthcare.

The fourth paragraph explores China's landscape and climate (AO1) as a catalyst for economic development in terms of tourism, agriculture and providing border security. This paragraph provides more information about the Geography of China than the preceding paragraphs and also the basis for illustrating many of the constraints presented by these natural resources (AO2). A good and balanced discussion is provided and effective synthesis made, but specific locational detail would take the discussion further.

A clear overall conclusion is provided.

Examiner Comments (cont.):

On balance, the marks would be awarded as follows:

AO1 - low-mid **Band 4**. The response is relevant with mostly accurate knowledge and understanding of concepts and principles. Knowledge of China's resource base is mostly good in term of the variety and availability of natural resources and opportunities /constraints for economic development (L4) so, although breadth of coverage is good, there is some lack of precision and rigour in places (L3/L4.) A base map outlining locations of some of the main mineral, energy and landscape resources could have been used and would have earned good credit.

AO2 - mid-upper **Band 4**. The assessment element is sustained. Application of knowledge and understanding is mostly good and the candidate has produced a coherent response supported by appropriate evidence. The specialised concepts of causality, globalisation, interdependence, sustainability and changes over time and space are consistently integrated throughout the response. With a more thorough AO1 element, this mark could have been lifted further.

AO3 - **Band 4**. The response is structured and coherent and mostly clear.

Question 8 (45 marks):

Assess the importance of China's political and economic influence in the wider world.

China's political and economic influence in the wider world is growing due to its booming economy and becoming a superpower. A superpower is a country which has increased influence on to other countries often created by the economic wealth, but as the country becomes more powerful on the global stage, a country will gain economically more favour trade deals as well which creates a cycle of increasing economic and political strength globally.

China has had increasing economic influence on to the wider world after the 1978 Open Door Policy. Before 1978, the country was a strict communist country allowing limited international trade, but it was seen by Deng (the leader at the time) that China had fallen behind the rest of the world in terms of economic development so a radical reform was implemented – the Open Door Policy. Within this policy, Special Economic Zones (SEZ's) were set up in many cities along the coast which would encourage Trans National Companies (TNC's) to move to China for tax breaks, cheap labour and reduced environmental regulations. As part of this global shift, TNC's moved their manufacturing part of their company from often HIC's (High Income Countries) to countries like China causing wide spread de-industrialisation in places such as Manchester and Salford. This de-industrialisation caused over 27,000 people to lose their jobs at Salford Docks and with many of these workers being low skilled they struggled to find alternative work. This in turn led to the spiral of deprivation whereby whole areas particularly the major northern cities in the UK lost their main source of industry within a 10 year period to China. It could be argued that Chinas economic drive to 'catch-up' with the rest of the world in the 1970's and 80's led to huge economic negative influence on to many HIC's across the globe, this negative influence is still felt today and still is a challenge for many Governments to try to combat. However, even though China has had economic influence on to HIC's, it could be argued that it is often Eastern China that have seen the benefits, while rural China still live profound poverty with over 25% of the rural population living under \$3 a day.

China's economic influence has brought positive gains to HIC's as well due to the increased buying power of the growing middle class in China. As China has economic developed and disposable income has increased, China has become its own market with over 300 million middle class residents. 55% of China's online shoppers buy from the UK, spending an average of £104 per month on items from British retailers. There is a real appetite for 'Brand Britain' and goods are regarded as being well made and genuine. This helps to boost British companies with increased orders which leads to expansion of British companies and an increased employment for British workers illustrating the interdependence between Chinese residents and British companies which increase the wider influence China has on to HIC's.

China also has huge economic influence on to HIC's through investment into infrastructure which is seen to increase further in the future. China is part-funding the £26billion Hinkley powerplant in the UK. This huge investment is required both with money, technology and experts to help design, construct and maintain a powerplant that will provide power for over 13% of the UKs energy demand. Chinese investment is crucial in this investment since the UK relies heavily on coal power stations which under new EU laws need to be shut down and are also coming to the end of their functioning life. The UK requires new powerstations to provide future energy supply to keep up with the rising energy demand in the country showcasing how China is investing heavily into HIC's future infrastructure is illustrating Chinas economic influence both now and for future generations. Although, security alerts have been raised by Theresa May over the political power China could hold over the UK's energy infrastructure so plans were halted for a short time to allow for certainties to be made upon this to ensure the UK is not political bound to China over other future political issues.

Chinas economic influence will continue to grow in the future with the creation of the new \$900 billion

silk road to be made through China, parts of Asia and into Europe crossing 56 countries. The new railway line will be built by Chinese investment to transport large containers across these countries to allow for an increase in trade and economic development instead of the current longer version of shipping which has to go through a number of chokepoints such as the Suez Canal. It is hoped that trading between the 56 countries will increase allowing for companies to move products between countries quicker, cheaper and easier which in turn will boost both China's as well as the 56 countries economies. This increase in international trade using Chinese investment illustrates the economic influence China has on to the wider world. However, India particularly has an issue with this new trade links due to the fear that China will become too economically dominant on the world stage that China will become too politically powerful. China has had and will continue to have large influence in many countries in Africa such as Kenya. China has recently invested and helped to build a \$4 billion railway through the heart of Kenya to encourage more trade within Kenya but also allowing easier access to Kenya's rare materials and minerals. The hope this will encourage economic development in Kenya which could become a growing market for Chinese goods. This economic interdependence between the 2 nations, has led to increasing political power of China in international organisations such as the UN where China's influence has grown on making decisions and leading debates with countries such as Kenya supporting many of China's decisions and stances. This demonstrates how China's global economic policy has greatly improved China's political influence to developing nations and will continue to in the near future as more announcements and investment into African countries.

China's influence as a global superpower has grown further with the countries growing political influence. In the recent Chinese Sea crisis between China, Philippines and USA, China has exerted political stance on claiming over 250 reefs and small islands in the Chinese which are outside their 200 nautical mile EEZ zone (Exclusive Economic Zone) with China making 7 new islands which will become future military/navy bases. Philippines has raised the growing military presences to the ASEAN committee with limited success because of the political influence China has onto neighbouring islands leading to the Philippines, backed by the USA, to debate the growing tension at the UN. Even with this growing global tension on the issue, China has continued to ignore growing claims from countries to halt construction of the islands showing how China has large superpower status whereby other nations and even global institutions decisions and stances are ignored. However, this growing political action has caused the USA to take a tough stance with China with growing economic battles over import and export tax implemented on selected items such as solar panels.

In conclusion, it is clear that China's huge and ever growing economic wealth has had and will continue to have large economic impacts across the world, although some nations gain more than others depending on their natural resources availability. As China continues to grow economically, the country has developed into a global superpower who have influenced international decisions and stances, and this will only continue to grow as the political decisions by the ruling Government is to look more outwards and become the leading country in the world.

Examiner Comments:

The introduction contains the argument that China's booming economy has resulted in its global economic influence growing and this is linked to China's increasing political influence (interdependence) (AO2).

The second paragraph presents reasons for China's economic boom (causality) with some good knowledge and understanding evident of the Open Door Policy acting as the catalyst for economic change increasing China's global economic influence (AO1). There is an apparent loss of focus to examine the negative impact of these changes on deindustrialised regions of HICs; this section could be made more relevant by linking the increasing global economic influence of China to the demise in the influence of countries that were formerly economically powerful. The regional inequalities arising from China's economic boom are factually correct, but arguments are not well applied to the question set.

The third paragraph which links China's economic boom to increasing trade and economic ties between China and the UK argues that this has increased China's global economic influence as a result of the growing interdependence between countries (AO2).

The fourth paragraph reinforces the previous point, making reference to China's investment in UK infrastructure (AO1) leading to China's increasing present and future influence and highlighting the link between economic and political influences (AO2).

The fifth paragraph widens the scope of the essay to examine China's growing economic and political influence in Asia (AO1), arguing that tension with other superpowers (India) may constrain China's global political ambitions (AO2).

The sixth paragraph extends the geographical scope to argue that China's increasing economic influence in African countries (AO1) is inextricably linked to its increasing political influence on the world stage, particularly on developing countries (AO2).

The seventh paragraph examines China's increasing political influence and illustrates that this is associated with increasing tensions that feedback to economic influences (interdependence) (AO2). The conclusion brings together the arguments made in the preceding paragraphs to re-iterate the statement made in the introduction.

On balance, the marks would be awarded as follows:

AO1 - high **Band 5**. The response demonstrates wide ranging, thorough and accurate knowledge with a high order of conceptual understanding. The response is mostly relevant, although with an occasional loss of direct focus, and uses wholly appropriate, accurate and well-developed examples and very good geographical terminology.

AO2 - high **Band 5**. As the assessment element is sustained and supported with wide ranging and relevant evidence using a region-by-region analysis. The candidate's application of knowledge and understanding is evident through synthesis and the application of specialised concepts of causality, globalisation, interdependence and variations over time and space which are consistently well-integrated throughout the response.

AO3 - high **Band 4**. As the response is well-constructed, coherent and contains sustained arguments and a clear conclusion, with only a brief loss of relevance.

Question 9 (45 marks):

Political factors are highly important in the development of countries, due to the role of governance in enabling strategies to promote all aspects of social, economic and environmental development. However, in Nigeria and Sierra Leone, due to the role of many political factors, unstable and ineffective governance can hinder development to a significant extent.

Nigeria has struggled with development as a result of political corruption since the 1960s when it gained independence from the UK. For more than half the age of the country it has been ruled under military dictatorships where leaders who claimed to stand for promoting economic growth and business acceleration instead used their military connections to amass a huge amount of wealth along with using their powers for privatization and to misuse funds. These common incidences of bribery, misuse of funds, illegal tax regimes and kick-backs are the largest hindrance of development of any political factor, because of how significantly it damages justice and public trust in the government who should be working in the best interests of the nation by definition, but instead are distracted from all goals of sustainable development due to individual enrichment.

Institutionalized, well-established corruption similarly permeates the government in Sierra Leone. The devastating decade long civil war of the 1990s destroyed any government systems of checks and balances and has left further deepened patterns of bribery and embezzlement. Sierra Leone was ranked 199th of 168 countries in Transparency International's Corruption Perception Index 2015 and also ranked 2.2. on a scale of 0 (highly corrupt) to 10 (highly clear). This has been particularly devastating when strong, transparent and accountable government policies and management is needed now more than ever to help the reconstruction efforts to rebuild the country to stability after the war and more recently the Ebola epidemic. This is the reason why political corruption is the most significant cause of development failure in Sierra Leone.

Political factors don't just hinder development efforts at the top-down scale but also at the bottom-up local scale. Due to the vast poverty which affects 70% of Nigeria's people which is in high contrast to the oil companies and corrupt officials there is tension. Local people are fed-up with inequality and the sub-standard or non-existent public services that have seen little improvement over the years and feel that the only way to get the attention of the TNCs and government is to become militant. Boko Haram recruits desperate people who long for change and are politically unhappy with the ancient colonial borders of West Africa, desiring the establishment of a Sharia state. Their violence has caused devastation in North-East Nigeria damaging public service, agriculture and livelihoods. Conflict is a leading cause of underdevelopment as vulnerable people live in fear and lack basic human rights. This has caused many displaced people to migrate intra-regionally causing further intra-regional conflict as ethnic and religious boundaries are blurred. This has a massive local impact whereas government corruption affects everyone's development. As government corruption is one of the causes of militia rebel groups, it is more significant in hindering development than local terrorism. A similar situation still exists in Sierra Leone, as the inequality of diamond riches and the promise of easily extractable diamonds and its juxtaposition against widespread poverty, were the root cause of the civil war. The Revolutionary United Front group held the mines as the government lost control and fueled their rebellion with diamond money. These groups were politically unhappy with the wealth disparities and went to war. The civil war has had a significant impact on development as it destroyed welfare services and caused huge problems that they are still recovering from 15 years later. This political unrest erupting into conflict further demonstrates how poor political relationships nationally have hampered development extremely.

Outside of the national level, as with the globalized shrinking world, often international organizations and former colonial powers have intervened in political issues, some to facilitate improvements and some to take advantage. Sierra Leone has had a great deal of interest from China who has invested billions in FDI. China is interested in gaining from the mineral resource base and carrying out infrastructure investment

projects, while Sierra Leone is being lured towards its low interest unconditional loans. However, unlike the colonial players in development such as EU member states, China has no interest in aiding political development or improving transparency. Some Sierra Leonean officials have used this investment for personal gain and yet China turns a blind eye. Although this may promote development through improvements to infrastructure, this will likely in the long-term hamper political stability and so hinder long-term socio-economic development.

To conclude, I agree that to a very large extent political factors hinder rather than promote development. It is near impossible to develop when the only people with the power to promote welfare reforms to improve health, education, markets and safety instead act for private investment. This makes inequality even deeper as services are left non-existent, underfunded or deteriorating and the rich get richer. This leads to the endless cycle of discontent about the government which eventually leads to conflict, further hampering development. Although some international interventions can help provide aid and short-term relief, neo-colonial soft power influences brings its own challenges and often other nations act for their own political interests.

Examiner Comments:

The introduction contains a brief, but direct, balanced and discursive opening paragraph. A clear argument about the importance of political factors in promoting all aspects of development is stated with the counter-argument that poor governance, with explicit reference to the unstable and ineffective government characteristic of the Sub-Saharan African countries selected, plays a significant role in hindering it. Therefore the opening paragraph is clear, concise and direct with AO2 elements that identify the direction of the candidate's argument.

The second paragraph is a direct and well-argued paragraph on the influence of political factors in retarding development in Nigeria (AO1), with an indication of the time-scale over which corruption and misuse of funds has impacted on development viewed in a holistic way (AO2). The paragraph is consistently discursive, with the application of specialised concepts of causality and sustainability well-integrated. In many respects the AO2 element is stronger than the AO1 element, as the paragraph lacks specific detail and examples.

The third paragraph provides further evidence of political factors impeding development in Sierra Leone, the second Sub-Saharan African country selected. The candidate provides some specific detail of the level of political corruption by making reference to Sierra's ranking on two development indicators of political corruption. References to Sierra Leone's civil war and recent Ebola epidemic provide evidence of the candidate's sound knowledge base (AO1), but again details are lacking. The candidate recognises the significant role of political corruption in accounting for development failure in the country (AO2).

The fourth paragraph explores some of the political factors operating in Nigeria in more detail with reference to the scale of poverty in the country (AO1) and different scales (national and local) of political disruption (AO2). The discussion is firmly grounded on a sound basis of knowledge and understanding of Nigeria's political problems, concentrating on the particular problem of terrorism in north-east Nigeria and its impact on development (AO1). The links (interdependence) between government corruption and the growth of terrorism are clearly stated, with a case made for the significant role associated impact on development (AO2). Parallels are drawn with the situation in Sierra Leone in the following paragraph where more details are provided about political corruption leading to civil war and its impact on retarding national development over the long-term (AO2).

Examiner Comments (cont.):

The sixth paragraph explores the link between international political factors and development, specifically the influence of China (globalisation) on the development of Sierra Leone (AO1), although specific details are lacking. It is argued that although this may bring benefits in the short term (time scales), the longer-term impact of further political instability on socio-economic development is likely to be negative (AO2).

The conclusion is concise and well expressed with a clear evaluation of the 'extent to which' that follows logically from the preceding paragraphs, with the overall conclusion that political factors at different scales operate as a key constraint on all aspects of development.

On balance, the marks would be awarded as follows:

AO1 - high **Band 4**. The response demonstrates sound knowledge and understanding, although the level of depth and detail is variable and generally improves as the discussion progresses. Initial paragraphs are 'lighter' on AO1 content than later paragraphs. The response is consistently relevant and uses appropriate and accurate examples and good geographical terminology.

AO2 - high **Band 4**. The assessment element is sustained and mature. Application of knowledge and understanding is good and the candidate has produced a coherent response supported by appropriate evidence. The specialised concepts of causality, globalisation, interdependence and changes over time and space are consistently well-integrated throughout the response. With a more thorough AO1 element, this mark could have been lifted further.

AO3 - **Band 4**. The response is clear, coherent and contains generally well-structured arguments and an effective conclusion.

Question 11 (45 marks):

The environmental problems associated with fossil fuels are greater than political ones'. To what extent do you agree?

As research continues to grow, environmental problems from fossil fuels are becoming a greater challenge than political issues particularly with climate change becoming a leading global issue that has a growing international political action. However, fossil fuels are an international market with countries relying on each other for energy both currently but also increasingly for the future as other energy sources are expensive and inefficient leading to often political issues becoming a greater issue than the environment.

Coal has large scale environmental problems which are greater than political issues due to the growing CO₂ emissions. Coal is made mainly out of carbon whereby over millions of years, sediment has landed on top of dead plants and small animals that have decayed creating fossil fuels. The coal is extracted and burnt to create electricity, however at the same time releases carbon dioxide. Coal is used to create energy in many industrialising countries like China which relies on coal for the country's economic growth since 63% of China's energy comes from coal power station. With such heavy reliance on coal, China is now the largest producer of CO₂ in the world. CO₂ has a global environmental impact of climate change whereby the CO₂ reaches the atmosphere and stops the release of long wave radiation into space and instead reflects the radiation back towards the Earth causing temperatures to rise around the world. In the last 100 years, global temperatures have increased by 0.7 degrees causing ice caps to melt leading to sea levels to rise threatening low lying places in the world such as the Maldives. It is feared by many experts that if the world reaches a 2 degrees rise in temperatures then the Earth will hit a threshold and the impacts will be so wide spread and damaging that the world will not be able to recover. One part of the agreement is to increase the use of carbon capturing whereby CO₂ is caught in the process of producing energy then transported and stored deep underground to help reduce the environmental effects from fossil fuels, leading to the argument that environmental impacts are in fact less important than the political issues because instead of cutting the use of fossil fuels, Governments are implementing technology to combat the environmental impacts. The USA has made the decision under Donald Trump to remove the USA from the Paris agreement which is particularly dangerous since the USA is the second largest polluter of CO₂ in the world, after China, with Trump arguing that the Paris agreement will hinder domestic economic growth. This shows how coal has global environmental issues that can only be challenged and resolved using global agreements, but not all countries agree leading to often weaker or compromised agreements being made showing how political domestic decisions which supports economic growth are of greater importance than environmental issues.

Fracking for natural gas has been a growing industry in the UK with fears by many local residents of the environmental damage. In Blackpool, 4 fracking wells have been set up to explore and extract gas trapped in shale. The process involved pumping water and chemicals deep into the ground using high pressure, breaking rock open and forcing the shale gas to return to the surface. Many protesters in Blackpool state how the city got a 4.3 magnitude earthquake in the area due to the fracking process leading to the local council stopping fracking while further research was conducted on the cause of the earthquake. This demonstrates how the environmental damage caused by fracking is much greater than the political issues. However, the UK government have over-ruled the local council and fracking has continued in the area as the Government argue it is a major source of employment and future energy supply for a country that is facing a growing energy crisis. This decision makes it clear that political issues are of greater importance than environmental issues.

Locally, oil is environmental damaging with extraction wells being fenced off and pipelines run across the country. A key pipeline that has been signed off by Donald Trump is the new pipeline through North America which will cut through hundreds of years old forests and hinder migration by many animals.

Trump argues it is vital to ensure a secure energy supply for the future showing how the environment does have large impacts, however political issues are greater and creating a secure energy supply is of greater importance than the environment.

Oil also has localised environmental damage during the extraction process which greatly outweighs the political challenges. In Niger Delta in Nigeria, the continuous oil spillages from some of the world's most powerful and wealthy TNC's such as Shell has caused wide spread environmental damage with experts predicting it will take over 30 years for the area to recover. This has large scale impacts on to the local ecosystems with many animals and birds dying or struggling to breed due to the oil covering their fur/feathers meaning feeding and moving is difficult. This illustrates how oil can cause localised environmental damage to a country with many local residents fighting global TNC's for settlements and clean-up costs. However, the Nigerian Government role was to support the TNC's with the use of police to arrest any troublemakers leading to the leader of the protest to be arrested, charged and later dying in prison. The TNC's often export majority of the oil to High Income Countries where the demand for oil and reliance on OPEC countries for a secure energy supply is crucial. Global NGO's (Non-Government Organisations) such as Amnesty International work on the behalf of the local protesters in Nigeria to take Shell to a Dutch court to fight and win compensation of over \$1 billion for the clean-up of the continuous oil spillages in the Niger Delta. This demonstrates the power that TNC's have over often developing nations for their fossil fuels and the reliance by many HIC's on OPEC countries showcasing how political issues are greater than the environmental issues.

As fossil fuels become more globalised, countries politically become increasingly interdependent on each other for their energy supply. This was clear under the recent tensions between Russia and Ukraine. Russia invaded Crimea (part of Ukraine) in 2014 as Russia claims this part of Ukraine is Russian due to the large population of Russian residents in the part of Ukraine. This led to Ukraine, backed by NATO, to dispute this with the UN and civil war in Ukraine to begin. Ukraine relies on Russia for natural gas with pipelines running through into Europe since Russia has the largest reserves of natural gas in the world. Russia made the decision to double the price of natural gas to Ukraine and require up front payments for the gas causing the transportation of gas to Europe to drop dramatically. This in turn, led to Ukraine having to back down and Russia continuing to run Crimea as part of Russia. Even though natural gas releases CO₂, the reliance by Ukraine and Europe on Russia's gas shows how the political issues with a global market of fossil fuels are much greater than the environmental issues.

In conclusion, political impacts are greater than the environmental issues for many developing, industrialising and developed nations across the world, however there are wider global, regional and local environmental issues which are often ignored or viewed as less important than political challenges of creating energy security for future generations. With the increase interdependence between countries in the global fossil fuel markets, there will be an increase in political tension between countries to secure energy supplies for decades to come.

Examiner Comments:

The introduction contains arguments both for and against the statement (AO2) backed up by evidence (AO1).

The second paragraph provides evidence of very good knowledge and understanding of the environmental problems associated with coal and how the use of technology may reduce these (AO1). Arguments are clear, well-informed, and synoptic and exemplar material is up to date. The interdependence between environmental and political problems is clearly highlighted using the withdrawal of the US from the Paris Climate agreement to illustrate the argument (AO2). The concept of thresholds is referred to in the context of environmental problems (AO2).

The third paragraph uses fracking to illustrate both the environmental and political problems associated with the process (AO1). Arguments of the relative importance of political and economic problems are balanced, although perhaps too much so as there needs to be some further assessment of which category of problem is greater (AO2).

In the fourth paragraph the environmental and political problems associated with oil extraction are illustrated using the controversial Keystone XL and Dakota Access oil pipelines to exemplify arguments, although locational detail and the concern about its environmental impacts could be developed (AO1). Here an effective assessment of the relative importance of environmental and political problems is made and well-articulated (AO2).

The fifth paragraph uses the case study of oil extraction in the Niger Delta (AO1) to argue that in terms of spatial scale, the environmental problems are more localized than the political ones, which take on a global dimension.

In the sixth paragraph the specialised concepts of globalisation and resilience are used to support the contention that international scale political problems over Russia's gas supplies (AO1) exceed environmental ones (AO2).

The conclusion synthesises the material in the preceding paragraphs to disagree with the statement and argue that, due to increased globalisation and interdependence between countries, the political problems associated with fossil fuels are greater than the environmental ones.

On balance, the marks would be awarded as follows:

AO1 high **Band 5**. The response demonstrates wide ranging, thorough and accurate knowledge dealing with different types of fossil fuels in a systematic way to exemplify this knowledge and understanding. The response is wholly relevant and uses wholly appropriate, accurate and well-developed examples with good supporting geographical terminology.

AO2 – high **Band 5**. As the assessment element is sustained and supported with wide ranging and relevant evidence. The candidate's application of knowledge and understanding is evident through sophisticated synthesis and the application of specialised concepts of causality, thresholds, globalisation, interdependence and variations over time and space which are consistently well integrated throughout the response.

AO3 - **Band 5**. The response is well-constructed, coherent and contains sustained arguments and a clear conclusion.