

Examiners' Report  
June 2016

GCE Geography 4 6GE04 01

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## Introduction

At this stage of a specification with only one year left, it is fair to suggest that an Examiner's Report of candidate performance is probably read with less avidity than in previous years. However, it is reasonable to comment that although this unit, with its very particular format, did cause some difficulties for centres in the early years, those days have long gone and the formula adopted almost universally is fit for purpose. That formula involves preparation of candidates in the nature of a report style answer including clearly structured introductions based on the pre-release materials, clear methodologies including an appreciation of any significant theoretical material, adequate referencing and on-going evaluation.

Nonetheless, there are still a few lessons to be learned that do have broader relevance both about the subject matter and about the ability of candidates to focus effectively on the question asked, rather than leaving it to the examiner to draw the appropriate conclusions. This latter, 'Grimm Tales' approach when the 'moral' of the story is not spelled out but left to the imagination of the reader is still quite widespread and, of course, is the real test not only in this unit but in many areas of extended writing both in Geography and beyond. With all the new specifications focusing so clearly on assessment and evaluation of the subject material it is obviously an area that centres will both continue to develop and refine their methodologies as they embark on that work in September. The contested nature of much of the content should make this an interesting and positive progression for candidates and teachers alike.

## **Question 1**

Option 1 is, of course, very much the 'people's choice' on this paper with over 60% of candidates choosing this topic or, at least, having it chosen for them by their teachers. As one might expect this entry includes some of the very best but also some of the very weakest of Advanced level candidates with this latter group not actually relating their research well to the question. The least successful appeared to simply describe the processes involved at the varying plate boundaries and give some locational examples.

As in previous years, too many candidates provided a long-winded description of tectonic theory in the introduction. This was hard to reward in the mark scheme, and usually resulted in candidates running out of time for the conclusion (they may gain a mark in D, at the expense of perhaps 10 marks in C).

This question lent itself to high quality annotated diagrams (rewarded in Q too, if incorporated in text). The best also demonstrated a wide technical vocabulary when illustrating the contrasting processes. Weaker scripts showed little technical development above that which might be expected at GCSE.

The focus was different landscapes which were very clearly flagged up in the pre-release steers. Accepting that the concept of a 'landscape' is quite challenging it was, nonetheless, disappointing that so few did much more than simply identify some landforms, assert that they were 'different' from other landforms and then move on. For this analysis to be meaningful candidates need to be able to evaluate how their chosen example is actually illustrating the point they wish to make – for example how the Himalayas is distinctive as a landscape because it is so much bigger in scale/or has shown how the importance of geology or glaciation also has an impact, perhaps limiting its 'distinctiveness'. Perhaps the most telling example of this lack of focus was in the frequent use of the Isle of Arran as a case-study but not to the effective level it could have been, with examiners waiting, very often in vain, for candidates to make the connection in relation to the fact intrusive vulcanicity has a very different impact on landscapes than extrusive. The most impressive responses were able to explain not only how the process affected a landscape but could also state that there were other factors involved, such as erosion, weathering and hydraulic processes as well as time and human activity, in shaping a landscape.

Another strength was to recognise the role of other geomorphological factors, which could influence the nature of the landscape. However, this was best done briefly; otherwise there was a tendency to drift too far from the focus of the question.

It is worth reiterating that there is more value in a limited number of well selected case studies which are applied intelligently to the question, than simply offering a large quantity of case studies. Some candidates were working through 7 or 8 case studies, and rarely taking the time to relate their knowledge to the question.

The sample included here is a strong response towards the top end of the mark range (it was awarded a total mark of 62) but it has its own strengths and weaknesses. Analysing those strengths and weaknesses is a very useful exercise – initial preparation should involve discussing the pre-release steers and the question itself.

## Introduction

Tectonic processes can be defined as the structural forces that cause movement, uplift and deformation of the earth's crust (USGS). Radioactive decay generates intense heat through the inner and outer core. This heat passes through the mantle which triggers convection currents. This in turn causes tectonic plates to shift (seismic activity) and also magma plumes to rise to the earth's surface (volcanic activity). Both of these processes produce a variety of land ~~s~~ landscapes, on varying scales, to a great extent across the globe.

## Framework

My report will be structured around different stages of the Wilson Cycle. The first stage is the embryonic stage. My example is the East African Rift Valley where extensional, seismic processes have started the process of ocean formation. The next stage is the terminal stage ~~where~~ My example is the Mid-Atlantic Ridge where ~~last~~ volcanic processes have widened the Atlantic Ocean over millions of years.

The <sup>extensive</sup> pillow lavas at the Giant's Causeway will be included at this stage to emphasise the scale of the volcanic processes. In addition, the batholith, at Goat Fell, will be included to show that volcanic processes can also create intrusive features far away from the Mid-Atlantic Ridge. The last stage is the maturity stage where two plates are converging which has caused the ocean to reduce in size. This process is evident on the west coast of the USA where the Sierra Nevada fold mountains and Mount St Helens have been formed. In addition, the Himalayan fold mountains will be included to emphasise the large scale impact of seismic processes.

### Focus

I am going to be focussing on assessing a range of different tectonic landscapes by investigating the scale of the landforms and the reasons behind this. I will also be discovering whether ~~to~~ tectonic processes are the sole driver in determining landscape features or if other factors such as ~~denudation~~ denudation, from water and ice are a more important, over time.

## methodology

Case Study	Resources
<del>Mid</del> East African Rift Valley	National Geographic, USGS, Wikipedia, <del>Youtube</del> YouTube, geology.com, The Geological Society, NASA, Dunn et al 2009
Mid-Atlantic Ridge & The Giant's Causeway, Goat Fell	Wikipedia, USGS, The Geological Society, Isle of Arran Museum, NASA, Daily Mail, San Diego University
West Coast of USA	<del>San Diego</del> Oregon University, USGS, Britannica, NASA, The Geological Society, The Guardian, Dunn et al 2009
Himalayan Fold Mountains	National Geographic, USGS, Physical Geography & Environment textbook, The Geological Society, geology.com, Wikipedia

Throughout my report various sources of information have been used. Objective sources such as USGS and National Geographic are unbiased because their information is factual and not based on opinion. On the other hand, subjective sources such as the Daily Mail have been used. These sources are <sup>type of</sup> sensationalist because they exaggerate their information in order to entertain the general public. In addition, Wikipedia is ~~or~~ not a trustworthy source because the information can be freely edited by the

the general public. However, the San Diego University website is reliable because the information has been accurately provided by research staff. Finally, textbooks such as Physical Geography and the Environment are trustworthy because the information has been thoroughly moderated before being published.

### The Embryonic Stage → East African Rift Valley

The divergent nature of the plate boundary in East Africa has ~~been~~ moved the Arabian plate eastwards and the African Plate westwards. This process has helped to form volcanic landforms <sup>and seismic</sup> on a large scale. ~~and a~~

Continental convection in the mantle is causing the ~~a~~ central block of the plate to slip downwards, to form a graben, one being the Laxeda Graben (National Geographic). These grabens are lowers for water, hence why the Zambezi River has formed within multiple grabens (USGS). In addition, there are many seismic fault scarps across the region which are also magnets for water. As a result, the Red Sea has recently formed. Therefore, this is the early stages of



Ocean creation, stage 1 of the Wilson Cycle (USGS).

Furthermore, there are a variety of normal faults across the region where the hanging wall has slipped downwards to leave a fault scarp on the foot wall (Dunn et al, 2009). At these normal faults are where strato-volcanoes form within the steep sided tectonic scarps (YouTube). These mountains are some of the highest peaks in Africa at over 2000m (Wikipedia).

Examples include Mount Kilimanjaro and Mount Kenya (geology.com). The strato-volcanoes are extinct because over millions over of years, convection currents have moved the landforms away from the magma plume (NASA). However, these strato-volcanoes are still much higher than those found in Iceland due to the higher viscosity of the magma and the greater seismic, compressional forces. In addition, flat, raised plateaus, called horsts have formed beyond the main steep mountain ranges.

At the East African Rift Valley, tectonic processes have formed a variety of landscapes to a great extent. This is evident with the ~~East~~ formation of the Zambezi River, one of



East African Rift Valley because the seismic forces are stronger there. In addition, geysers have formed across the region where super-heated water from close to the magma plume has been expelled to the surface. This heated <sup>geothermal</sup> water has been able to power various ~~are~~ geothermal power plants across the region.

Furthermore, volcanic processes have had a large scale impact on the terrestrial landscape by forming steep strato-volcanoes of up to 2000m in altitude (NASA). Examples of <sup>active</sup> volcanoes that have erupted in the last 50 years are: Bardarbunga, 2014; Grimsvotn, 2012 and Eyjafjallajökull, 2010. These are mostly fissure eruptions where the magma plume bulges at the surface and fissures (small cracks) allow the lava to be violently expelled from the crustal chamber. These <sup>volcanoes</sup> volcanic eruptions are on a smaller scale than the strato-volcanoes in North America. This is because, the lava is more viscous in the USA, helping to form Mount St Helens.

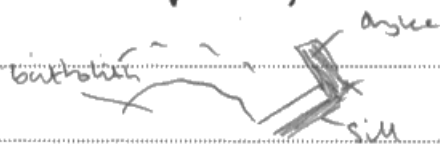
Moreover, volcanic processes have had a large scale impact on the marine landscape by forming underwater volcanoes, called seamounts 16,000km across the ridge (the geological society). These

seamounts have formed due to a continental sea floor spreading. In addition, convection currents have allowed magma to ~~of~~ "leak" onto the ocean floor, where it cools rapidly when in contact with the cold seawater, to form ~~pill~~ extensive pillow lavas. These pillow lavas have had a large scale impact on the region because they are evident at the Giant's Causeway in Northern Ireland. At this location, there are 16,000 interlocking basaltic lava columns (San Diego University) ~~formed when the magma flows~~. In addition, there is evidence of ~~small~~ extensive volcanic landforms at Goat Fell, Isle of Arran in north-west Scotland. Volcanic processes helped to form a strato-volcano when the magma plume was over this point, 500 million years ago (Wikipedia). However, continental plate movement caused the loss of a magma source to leave <sup>an extinct</sup> ~~an~~ magma chamber in its place. There ~~are~~ is also evidence of small scale, intrusive sills and dykes which are evidence of fissure eruptions. The dykes are ~~more~~ <sup>less</sup> prominent than the sills because this is because the dykes are discordant so are less resistant to the weathering of the country rock whereas the sills are concordant (Isle of Arran Museum).

These features are not on the same scale as the same features found at the Deccan Plateau, India. This is because the Deccan Plateau is younger at 50 million years old and, hence covering an area of  $500,000 \text{ km}^2$  (The Geological Society).

Overall, volcanic processes have had a large scale impact across the Mid-Atlantic Ridge because it is an example of a hotspot where the magma plume is only 4km below the surface (USGS).

As a result, the <sup>divergent,</sup> tectonic movement is continual at 2.5cm per year. On the other hand, seismic processes have only had a small scale impact at the Thingvellir Rift due to minimal seismic activity. At the batholith, Goat Fell other factors such as denudation are now more influential as the feature moved away from the magma plume. This has resulted in the shrinking of the peak to 100m in the past, to 850m now (The Daily Mail).



### Maternity Stage - West Coast of USA

Volcanic landforms have formed on a large scale in north-west USA where the Juan de Fuca plate <sup>subducted</sup> has collided to beneath the North American Plate (USGS).

At this convergent plate margin, the oceanic plate has subducted beneath the continental plate and has melted in the asthenosphere. The friction has built up (The Geological Society). This process has helped to form the viscous, andesitic magma which has helped to form Mount St Helens and the Sierra Nevada Fold Mountains, that peak at 4000m at Mount Whitney (NASA). The 1980 eruption at Mount St Helens had a large scale impact on the landscape when as the north-west side of the volcano collapsed as a <sup>devastating</sup> pyroclastic flow developed on a large scale.

On the other hand, only seismic processes have had a large scale impact across the San Andreas Fault on the west coast of the USA. This transform plate margin has formed as the Pacific plate moves faster (8-9 cm per year) than the North American plate (2-3 cm per year) (Dunn et al 2009). This process has formed large scale faults across the region. This is evident at Wallace Creek where the river has been offset due to seismic movement along

the plate margin (Oregon University). In contrast, to other locations, the cold climate has had a positive impact on the landscape by preserving the fault scarps. This has helped to strengthen the extent to which the seismic processes act.

Likely, there is an intra-plate hotspot away from the San Andreas Fault where there is a hot magma plume. This has formed Yellow Stone Super volcano <sup>volcanic landform</sup>. This has had a large scale impact on the region because there are 7 calderas found in a south-easterly direction away from the <sup>(Britannica)</sup> ridge. These calderas are  $\hat{=}$  steep depressions which are formed during past eruptions. The volcanic processes will continue to have a large scale impact because some of the largest ash falls ever recorded have been found here, at over  $500,000 \text{ m}^3$  (The Guardian).

Latter stages of the Maternity Stage - Himalayas

The Himalayan ~~for~~ Fold Mountains have formed on a large scale where there is frequent seismic activity. This activity has been caused by the Eurasian plate colliding with the Indian plate 50 million years ago and they continue to collide to this day (The Geological Society).

During this intense collision, orogenic processes (powerful, seismic, compressional forces) have helped to warp the crust into a series of anticlines (an <sup>an</sup>-shape) and synclines (a U-shape) (Physical Geography & Environment). On the anticlines are large scale fold mountains that peak at nearly 9000m at Mount Everest. In addition, the constant building process has helped to form steep nappes around the mountains (National Geographic). On the synclines are where steep river <sup>gorges</sup> valleys have formed. These have been widened due to denudation from water (Wikipedia). An example is the Kali Gandaki Gorge which is 5,500m lower than the adjacent Annapurna mountains (geology.com). In addition, landslides have frequently occurred as seismic activity occurs in a very mountainous terrain.

Overall, there are only seismic processes that have impacted the landscape to a great extent at the Himalayas.

This is because there are no surface magma plumes because the crust is 75km thick (The Geological Society). Denudation



only plays a role in shaping the sedimentary and metamorphic rock on a to small scale because the orogenic compressional forces are much more powerful (USGS). The Andes fold mountains are less steep than the Himalayas because an oceanic plate and continental plate is colliding. whereas, at the Himalayas, the collision of two continental plates is far more powerful.

My report has highlighted that tectonic processes have created a variety of landscapes to a great extent. This is evident with the Himalayan Fold mountains (seismic) and Mount St Helens (volcanic).

Volcanic processes have had a large scale impact at a range of locations. This is evident at the East African Rift Valley where the magma plume has helped to form steep strato-volcanoes at over 2000m (Wikipedia). There is also evidence of large scale volcanic features at Mount St Helens where even steeper strato-volcanoes have formed than at Iceland due to the high viscosity of the magma (USGS). However, volcanic processes at the Mid-Atlantic Ridge, volcanic processes have helped to form strato-volcanoes on a relatively large scale. However, volcanic processes have

also had a smaller scale impact by forming gently sloping shield volcanoes, such as Mauna Kea (geology.com). In addition, volcanic processes have helped to form small scale geyser. However, volcanic processes have had the largest scale impact at Yellowstone Super Volcano where 7 calderas have been formed (Britannica) and a future eruption has the potential to wipe out all life on Earth (The New Express).

On the other hand, in comparison, seismic processes have also had a large scale impact at the Mid-Atlantic Ridge where grabens and horst blocks have helped to form the Zambezi River, one of the largest drainage basins in the world (Wikipedia).

There is also, ~~long~~ large scale seismic activity at the San Andreas Fault where offset rivers and rivers have formed at Wallace Creek (Oregon University).

However, the largest scale seismic activity has occurred at the Himalayan Fold Mountains. This is because the collision between two continental plates has helped to ~~form~~ create the largest tectonic forces, ever.

formed on Earth. As a result, the mountains peak at nearly 9000m at Mount Everest (Wikipedia).

Overall, seismic processes are the tectonic forces that have produced distinctive low landscapes to the greatest extent. This is because the Himalayan Fold Mountains are nearly 9000m tall in places and these have had a large scale impact across the whole Tibetan Plateau. On the other hand, volcanic processes have the potential to have a larger scale impact than volcanic <sup>processes</sup> in the future if Yellowstone erupts. (~~Daily Mail~~ <sup>is to</sup>)

This is because some of the largest ash falls ever recorded on Earth have been <sup>recorded</sup> found here, in the past. ~~How~~ However, denudation from ice and water is becoming more influential than seismic and volcanic eruptions now. This is because as the time ~~increases~~ since the last volcanic/seismic event ~~increases~~ increases, the landforms are more prone to weathering. This is most evident at Goat Fell, Isle of Arran where the peak has decreased from 900m in the past to 850m now (The Daily Mail).

Therefore, in the future, denudation will remain more influential than volcanic processes because this is because the batholith will <sup>continue</sup> ~~continue~~ to move further away from the magma ~~plus~~ plume due to continual convection within the mantle.



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**Examiner Comments**

Writing a good report is a skill that can be learnt – the most important trick is to bring the material that you have researched into the exam hall and then apply it to the hypothesis that is posed in the question which will often be contentious and allow both arguments and counter-arguments drawing on your understanding of the topic.



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**Examiner Tip**

Use the sample report to improve your understanding of how to translate a general understanding of a topic into an answer to the question posed. You should evaluate the work in the following ways:

1. Is the question obvious in the introduction – do the keywords feature?
2. Is the methodology clear and coherent with case studies that will allow a thorough examination of the question?
3. Is the analysis focussed on the title or does it just offer a great deal of information – if it is applied where does this take place?
4. Is there a coherent conclusion in which the title of the question is paramount and an answer is delivered?

Try to identify sections of the report that you regard as superfluous/unnecessary and suggest what could be added and where it should be placed.

## **Question 2**

As in previous years, this was not an especially popular question but the centres that choose to deliver this option are often highly motivated and very well informed. In consequence the answers at the top end of the mark range were excellent and showed a wide range of knowledge and understanding of cold environments and the management of those environments. Most candidates also had a very decent background understanding of the processes that create these environments and, of course, the latter knowledge was not especially pertinent to this title with its clear focus on management but some simply couldn't resist the temptation to show it off. Reports were often long but irrelevant material was probably more common here than in any other option as was evidence of time constraints.

The better responses considered how their examples/case studies were managed and if other locations would be successful under that same type/style of management. The biggest problem was that many candidates were unable to explain what actually constituted success in the evaluation of their case studies. Those that did attempt this were often weak - simply stating that they had seen an increase in polar bears/whales rather than considering the scale of any environmental degradation or whether the local population's needs had been managed and whether they saw this as a success. Too many candidates also failed to see that some cold environments are substantial in scale and that even within one location it is virtually impossible to manage it using one technique - Alaska is an excellent example. Some showed a sophisticated understanding of the fact that the Alps cross into many countries with different 'aims' and therefore one management technique will not satisfy all the players all of the time; therefore variation was always going to be important to some degree.

Source range was generally fairly limited with this question - most candidates relying on Geofiles and text books. It would have helped them to get a wider range of management practices if they had tried to open their research portfolio further.

The best responses considered success under the key headings of economic, environmental and social aspects rather than a case study by case study approach.

The sample included here is a strong response towards the top end of the mark range (it was awarded a total mark of 62) but it has its own strengths and weaknesses. Analysing those strengths and weaknesses is a very useful exercise - initial preparation should involve discussing the pre-release steers and the question itself.

## Plan:

Different c.e. = physically + 'humanly' diff.

Similar ways = even though diff, manag. tech = the same

Suc. merged. = effective. aims fulfilled by plans + actions

1) Physically diff. c.e. → sim. man.

- Antc. - Surtsey - ANWR

2) Phys. diff. ce → diff. man.

- Iceland - Scandinavia - Tibet

3) Hum. diff. → sim. man.

- Antc - Arct

4) Hum. diff. → diff. man.

- ~~Iceland~~ Scandinavia - Antc.

- Hum. complexer man.

- Expect: diff. phys. ce → diff. man. but human complication.

Hum. diff. = shared vs domestic

Phy. diff. = glacial periglacial etc.

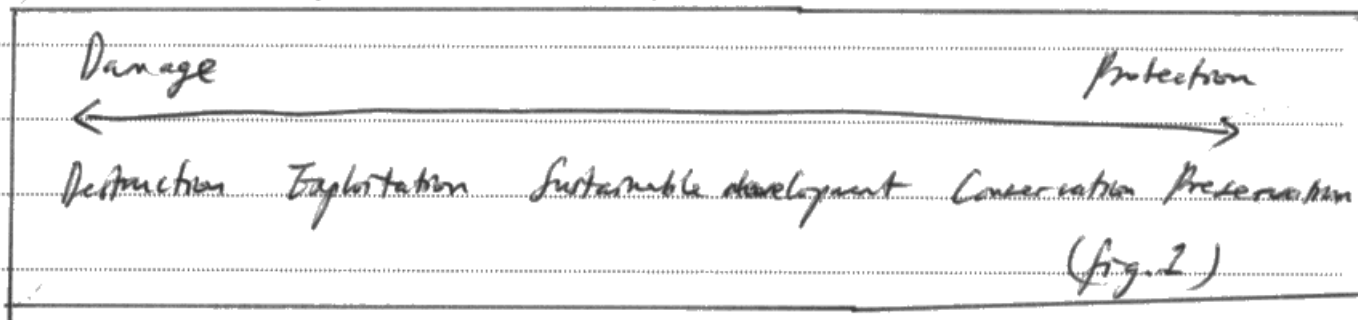
## INTRODUCTION:

Cold environments are defined as area in the world that are either glacial or periglacial, with variations such as alpine, glaciavolcanic and relict glacial environments. These variations in physical geographies of the cold environments render the vastly different cold environments as implied by the title, because they have different physical landforms and abiotic and biotic environments and pose different challenges in the management due to the physical differences. Cold environments can also, by an extended definition, be different in terms of human conditions, as in there can be 'shared' cold environments (e.g. Antarctica and the marine Arctic as 'global commons' that are unowned) and 'domestic' cold environments (e.g. individual nations e.g. the Nordic countries and Tibet) for they are sovereignly owned.

The different cold environments are managed in many ways that are suitable to their own conditions. The 'similar ways' the title suggests, means that although the environments or conditions are different, to an extent, they can still be managed similarly. 'Successful management' implies the effective carrying-out of plans and actions (management strategies and approaches) that fulfills the aims to utilize and administer cold environments to cater both environmental and human developmental needs for good.

Management is the active administration of cold environments

to cater certain needs and the approaches can range from destruction to preservation as illustrated by the Management Spectrum below (fig. 2).



Hence, an 'aim' of management can be both to protect a cold environment or to exploit it. One would expect that 'different' cold environments should be managed 'differently' (different positions on the Spectrum (fig. 1)), but to an extent, as the question suggests, the opposite can still be true.

This Report will explore the argument in this framework: Section 1 - Different cold environments (physical) managed ~~diff~~ similarly (case studies: Antarctica, Svalbard, Iceland and ANWR); Section 2 - Different cold environments (human) managed similarly (case studies: Antarctica and ANWR); Section 3 - Different cold environments (~~physical~~) managed differently (case studies: Tibet (miscellaneous case studies)).

As a counter argument, the success of these approaches will also be evaluated.



## METHODOLOGY:

For this Report, I have read a wide range of and a multitude of different sources but I have selected these few ones to use for their relevance to the question.

Source	Type	Relevance	Limitations
1. The Lonely Planet Guide: Iceland by Brian O'Connell	Book	Comprehensive articles for that describe the environment and biodiversity and tourism in Iceland and the challenges it faces to show contrasting management methods.	Only a small section is relevant. The rest is more like a travel guide.
2. Glaciation and Periglaciation by Jane Kayat	Book	Chapter 7 is directly relevant to managing cold environments and contains case studies on different cold environments' challenges, and management methods.	Other parts illustrates glacial processes so only chapter 7 is relevant.

3. Central Tibet Administration	Website	Very detailed and comprehensive info on the management challenges and methods and the cold environments are described in very specific detail along with the dangers they have faced.	Written by the self-appointed autonomous government of Tibet so it is biased and sharply accusative of China's role in the mismanagement of <del>the</del> the Tibetan environment.
4. Arctic Council's Arctic Biodiversity Assessment	Documentation	Very relevant in terms of the 'Key Findings' that point out challenges faced and how to tackle (manage) them. 'Recommendations' section describe management goals and approaches in the circumpolar Arctic.	The accounts can be general and generic without specific comments on how exactly the <sup>management</sup> goals will be logistically carried out.

<p>5. Geography Review (Philip Allan Publications)</p>	<p>Magazines (A-level extension)</p>	<p>Very useful 'Poles Apart' section with articles written by Geography Professor at Durham to enlighten issues faced by Antarctica and <sup>the</sup> Arctic and how they are managed.</p>	<p>The material can be simplified as it has to be reduced to A-level standard</p>
<p>6. Iceland + the Scandinavia (Norway, Sweden, Finland, Denmark)</p>	<p>Field trip</p>	<p>First-person experience of the highly developed and productive cold environments and lifestyles. Visited the Sami people in Finland, felt the impact of tourism, did glacial walking, with specialist lecturers detailing the environmental issues and management used.</p>	<p>Research had to be done further after the trips as spoken lectures were <del>more</del> brief.</p>

## MAIN BODY:

Section 1: Physically different cold environment managed ~~differently~~ similarly

Cold environments can be managed differently and successfully as they are physically different with different features, so one would expect that different management methods should be used in order to cater the differing environmental circumstances.

Antarctica is a vast glacial continent and the biggest ice sheet on Earth. Its environment is rather uniform with 100% glacial (permanent ice sheet) cover and it is within the Antarctic Circle and hence the climate is uniformly polar. The few settlements (no permanent population) makes its environment an almost entirely physical one, so its management aim would be to preserve its physical environment and the value of its existence (as the 'world's last refuge' and regulator of global climate through albedo reflection). Its management is the Antarctic Treaty, <sup>(crediting source 5)</sup> signed in 1959 and now has 53 signatory countries all striving to 'preserve' (see fig. 1) the continent: it is only for scientific research and low impact, small amount of tourism in restricted parts (the Antarctic Peninsula); it is the first nuclear disarmament treaty; and the Environmental Protocol bans

mining for 50 years starting from 1991; whaling and other destructive activities are all banned; the 7 land-claims are also dismissed to make Antarctica a true global common. The management adopted hence is 'near-preservation' (see fig. 2).

Similarly, in a physically contrasting place to Antarctica, Surtsey in Iceland is a volcanic cold environment without glacial cover, and yet it is managed similarly to Antarctica. It is a UNESCO World Heritage Site but most of all, entry (other than for scientific research) is 100% banned, and on the island there can be no other activities other than scientific research. Similar to Antarctica, there is also no permanent population but a small prefabricated hut for scientist to stay in and a solar power system to power an emergency radio and other essential electronics and a weather station. Entry is by helicopters or small ferries. Same as Antarctica, there is strict check of visitors' clothing / belongings to ensure no introduction of alien species (IATA strictly check tourists' Velcro and disinfect boots before they enter Antarctica). A poorly treated human defecation once led to a tomato seed growing on Surtsey but it was dug out and destroyed once discovered. So both Antarctica and Surtsey are managed in the same strict way, allowing only very limited activities and monitoring them strictly to ensure complete preservation (fig. 2) of these areas.

The success of them is wide because the Falkland was did not reach Antarctica due to the protection of the Treaty and Surtsey is protected as a study base for a young volcanic island's life cycle without other disturbance. <sup>To conclude,</sup> So, even though they are physically different, they can still be managed similarly and successfully.

## Section 2: Different cold environments, <sup>terms of</sup> human conditions managed similarly

'Human conditions' that differentiates cold environments can be that some are 'domestic' and some are 'shared' (see Introduction) or that they have different players affecting ~~the~~ and complicating the management approaches for they have different, <sup>and often conflicting</sup> agendas, and that changes the ~~an~~ ultimate aim of the management.

Antarctica is a 'shared' cold environment with an agreement to preserve it already signed by 53 countries, so the management technique has been decided on 'near-preservation' to 'low-~~land~~ impact development' in small areas by them all (see fig. 1). However, there had been attempts to exploit the mineral resources on Antarctica (UK tried to use ~~Antarctic~~ South Georgia and South Sandwich and the UN's Limits of Sealed Claim to reach ownership of a part of Antarctic seabed for mineral exploration); fisheries is still

ongoing; Japan uses 'scientific catch' as an excuse to kill 100+ whales for their whale meat market. However, management has been the Environmental Protocol to ban mineral exploitation for 50 years and CCAMLR to monitor ILL-fishing so that 'conservation' can be achieved (see fig 1).

Similarly, the ANWR is already a protected area in the USA ('domestic' cold environment) but is being considered for 'exploitation' (see fig. 1) for the Coastal Plain holds 16 billion barrels of oil.

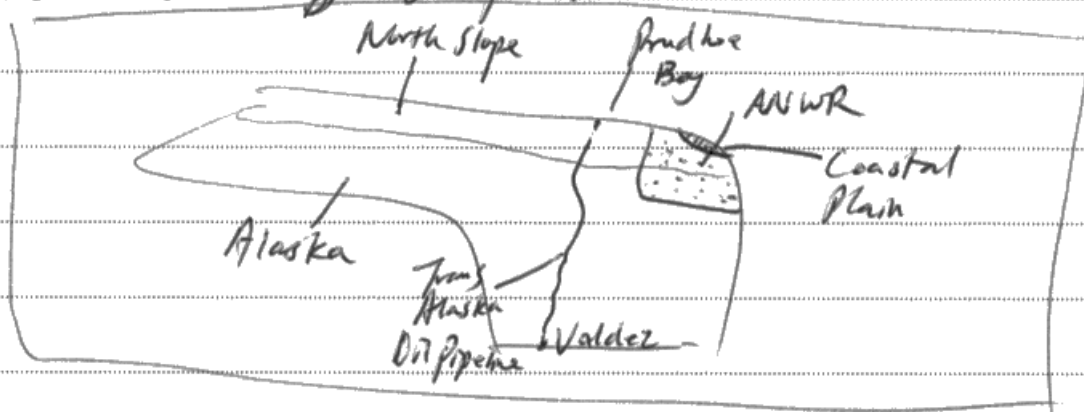


fig 2

The indigenous people Gwich'in see the Coastal Plain <sup>(C.P.)</sup> as a sacred land for the Porcupine River Caribou Herd is their livelihood and the C.P. is ~~the~~ the breeding ground. The Democrats of the Congress also oppose exploitation. But Arctic Power and 75% of Alaskans support it. However, similar to the management of such conflicts in Antarctica, the Center for ~~Biodiversity~~ Biological Diversity states to designate C.P. as a 'wilderness' and polar bears as 'endangered' so that C.P. will be 'locked-up' from any

exploitation

To conclude, these 2 differing cold environments, one 'shared' and one 'domestic', are managed similarly and successfully because Antarctica is protected by the new Environmental Protocol, <sup>as a global effort</sup> and C.P. ~~locked~~ it to be locked up from exploitation by national gov (Obama's policies) with pressure from NGOs.

Section 3: ~~If physically~~ <sup>(both physical + human)</sup> different, cold environments managed differently

As a counter argument to the title, different cold environments are managed differently indeed in many parts of the world and still successfully.

### Tourism

Both Tibet and Jutulheimen Norway are alpine ~~fast~~ <sup>cold</sup> environments but ~~are~~ Tibet is glacial with permafrost and Jutulheimen is only snow-covered.

The Qinghai Railway is the development (fig 2) of tourism in a high-altitude area. Building on permafrost, ammonia heat exchanger is applied to the rail lines to reduce melting due to the pressure of trains running on them; fragile permafrost area are stilted to prevent melting and each cabin



has a doctor as the  $O_2$  partial pressure in Tibet is <sup>only</sup> 13.5% of that at sea level. There is also a revival of traditional handicraft in Tibet brought by tourism development, but Tibet doesn't develop skiing while Jaturheimen does.

Management is different for Jaturheimen <sup>as it is</sup> ~~because~~ for the skiing industry. It is near-destruction (see fig. 2) as the vegetation is scraped for 20 cm to allow snow accumulation and pylons installation caused bird deaths. There is also a challenge of building on permafrost or accessing the area by flight while the Tibetan skies is banned from civil flight paths.

This shows contrasting management for different purposes.

### Marine resource

The marine Arctic is a 'cooler' marine cold environment, in contrast to the reluctant glacial cold environment in Greenland.

Land-grab happens in marine Arctic (2007, Russia planted their flag on Lomonosov Ridge) as UN declared that once proved that a continental shelf has an extension into the sea bed, the country can claim up to 300 nautical miles of territorial waters. (fig. 3)

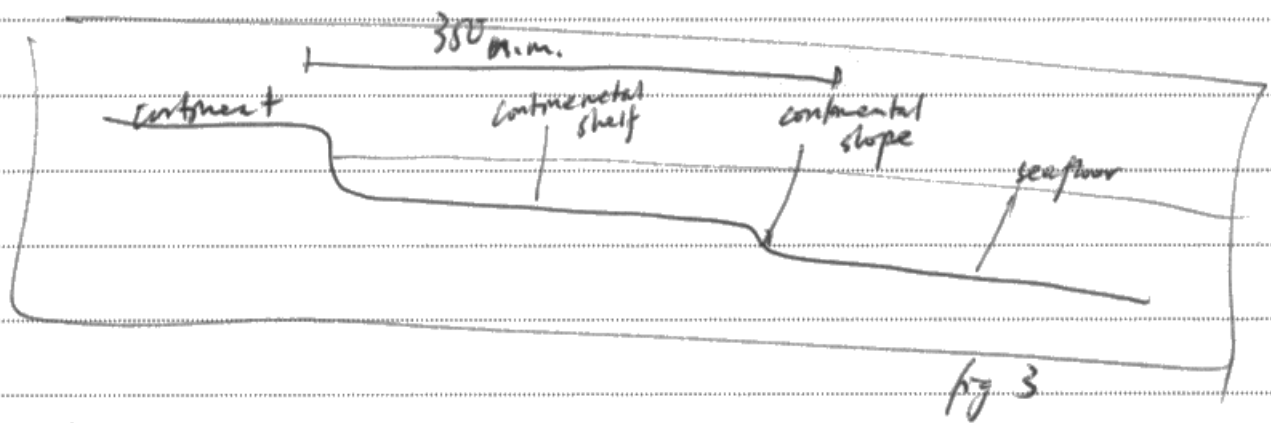


fig 3

Svalbard, Norway had already declared a 20-year plan for offshore petroleum exploration. But if countries abandon the claim (fig. 3), the seas will be administered by the International Seabed Administration.

While in Feroe Islands, management is 'conservation' (fig. 1) instead of 'exploitation' (fig. 2). Saimaa is its largest relict glacial lake and home to the endangered and endemic Saimaa ringed seals. There are only 200 and are threatened by global-warming-caused loss of ice for breeding. So the area is designated a Natural Reserve and snowdrift is used to replace the lost ice for their breeding. Success has been seen as the number rose to 400 in 2011.

### Daily life

Iceland's management differs from many other cold environments as it is glaciated so it has to manage natural hazards too. The 14<sup>th</sup> ~~April~~<sup>April</sup> 2010 eruption under Eyafalla jökull caused jökulhlaups and affected a local farm (Thorvaldseyri) and the main road linking to Stora Dman is destroyed by lava. The management

needed to be immediate such as search & rescue and fixing the HEP generator and geothermal borehole.

To conclude, different cold environments need different management approaches to be successfully managed. Some are exploitation, some have to cater permafrost melting <sup>for development</sup>, some take care of ecosystem (conservation), some have to be immediate hazard response. It is the integration and adaptation of individualized management ways to make it successful.

## Conclusion

Different cold environments can be successfully managed in similar way as illustrated by the Antarctica, ANWR, Surtsey examples, be it hourly or physically different, and can still be effective. But some must be managed differently due to the vastly different physical challenges and human development needs.

Still, the dictating factor in the determination of whether similar or different ways are used is the physical challenges, balancing different players' needs and global warming, because global warming needs global effort and it will melt the permafrost in Tibet and disintegrate the Rannoch bog in the future if untreated and threaten Ireland's

elaboration

So both similar and different ways to manage  
must be explored to cater the complexity of the issue,  
bringing successful fulfilment of the aims into actualisation.



**ResultsPlus**

**Examiner Comments**

Writing a good report is a skill that can be learnt – the most important trick is to bring the material that you have researched into the exam hall and then apply it to the hypothesis that is posed in the question which will often be contentious and allow both arguments and counter-arguments drawing on your understanding of the topic.



**ResultsPlus**

**Examiner Tip**

Use the sample report to improve your understanding of how to translate a general understanding of a topic into an answer to the question posed. You should evaluate the work in the following ways:

1. Is the question obvious in the introduction – do the keywords feature?
2. Is the methodology clear and coherent with case studies that will allow a thorough examination of the question?
3. Is the analysis focussed on the title or does it just offer a great deal of information – if it is applied where does this take place?
4. Is there a coherent conclusion in which the title of the question is paramount and an answer is delivered?

Try to identify sections of the report that you regard as superfluous/unnecessary and suggest what could be added and where it should be placed.

### Question 3

Option 3 was, as is usual, the second most popular topic choice and provided some excellent answers but also, as with Option 1, some of the weakest too, including candidates who failed to get their focus right, usually by concentrating exclusively and narrowly on one or two elements affecting food supply rather than placing it in the wider context of food security.

The pre-release clearly set out socio-economic, political and environmental causes. Candidates that structured their work by these sets of 'factors', taking each in turn, struggled to address complexity except as something of an asserted afterthought. Candidates that structured their work by case study, describing the interaction of all factors, had a better focus on complexity. The stronger answers made specific and considered reference to complexity in their ongoing evaluation, tending to agree with the proposition in the question and illustrating how it applied to deficits and surpluses. It was possible to argue against the view, that certain factors were common to all. However, this was hard and led many that attempted this route into assertions that they couldn't sustain.

At the top of the mark range candidates quantified the food supply in their case studies. World Bank data was used widely and well. This helped enormously because without some sense of the scale of inequality it was hard to make a coherent argument.

Inequalities were rightly identified as ranging from famine to surplus. However, famine is more than a simple deficit of food supply and the strongest responses acknowledged this by, for example, recognising that at least 20 percent of households face extreme food shortages with limited ability to cope. The strongest responses drew on actual case studies of famine (e.g. Bangladesh 1974, Somalia 2011) and described the interaction of all the factors to help address the idea of complexity. The very best then made the point that some of these factors applied to neighbouring regions, but without the interaction of all the factors, famine did not occur.

The strongest responses drew on Unit 1 and Unit 3 ideas of globalisation, 'switched on' countries and consumption beyond the point of need (Rostow), role of subsidy and technical innovation leading to high yields. The key point is that surpluses are the product of factors that increase supply and factors that increase demand; hence complex.

The sample included here is a strong response towards the top end of the mark range (it was awarded a total mark of 62) but it has its own strengths and weaknesses. Analysing those strengths and weaknesses is a very useful exercise – initial preparation should involve discussing the pre-release steers and the question itself.

The image shows a handwritten student response on lined paper, organized into sections:

- Plan:** Intro → define food insecurity/security → complex causes → political, socio-economic, environmental.
- Framework:** A diagram with a house-like shape on the left labeled "Four Pillars" and a double-headed arrow on the right labeled "Nutrition Spectrum".
- Case Studies:** Haiti, Mexico, Syria.

## 1.- Introduction:

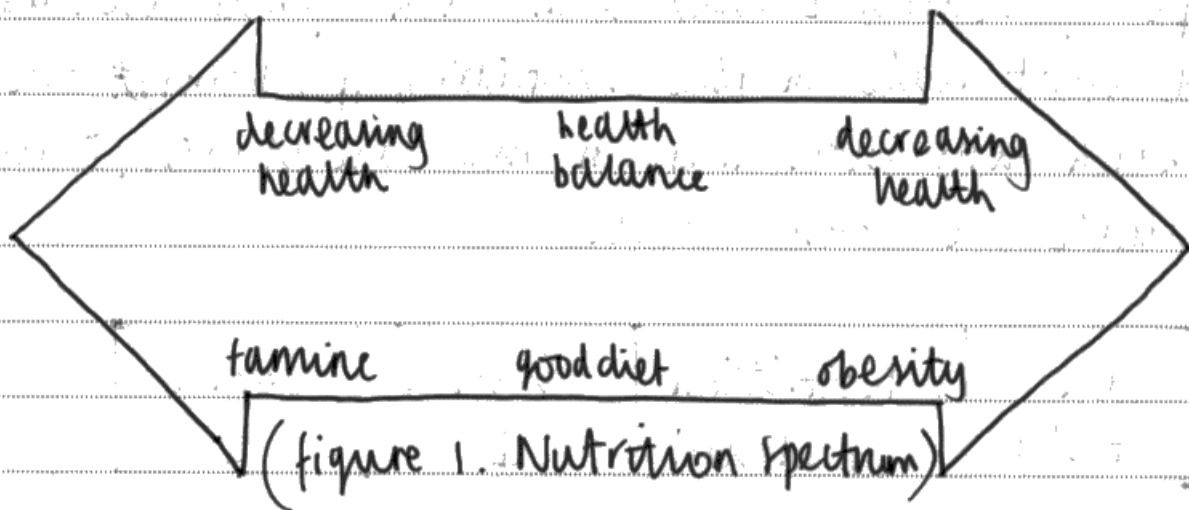
### 1.1 - Definition:

Food security is defined as 'when all people at all times have access to sufficient, safe and nutritious food to maintain a healthy and active life'; this was defined by the World Health Organisation (WHO) at the World Food Summit in 1996. However, food insecurity is when 'adequate food access is limited by a lack of money and other resources during the year'; this ~~is~~ report will be focused on food insecurity and how the causal factors are always complex. The factors are usually classified into three main groups: environmental, political and socio-economic; however as this report will demonstrate, through the use of selected case studies, that commonly the groups overlap and there are multiple causes that consequently lead to inequalities in food supply.

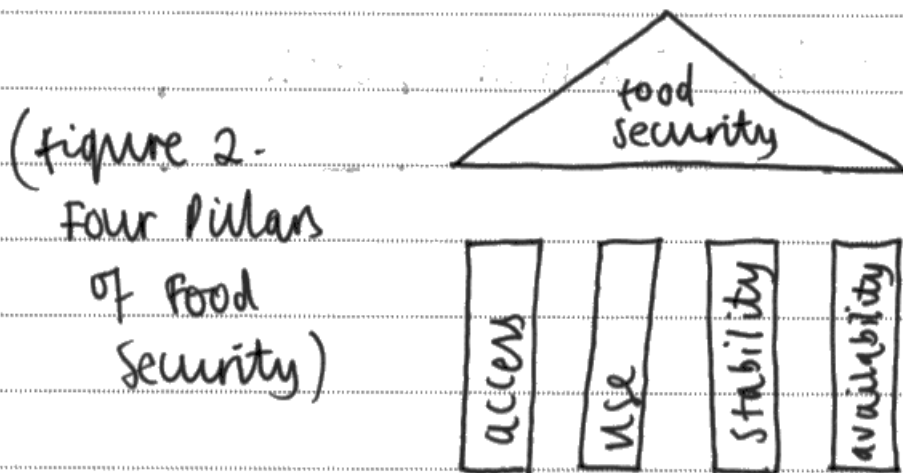
### 1.2 - Framework.

In order to select my case studies so that they demonstrate the full complexities of ~~the~~ causal factors, I have written my report following the framework of the nutrition spectrum. The nutrition spectrum highlights the two extremes within food inequalities, both of them ~~the~~ resulting in decreasing health. Famine

is 'extreme food scarcity', therefore the inequalities will lead to an insufficient supply of food; on the other hand, Obesity is 'the state of being grossly fat or overweight', therefore inequalities have led to a surplus of food.



I will also be using the Four Pillars of Food Security to frame my evaluations; as it will be able to show how if one pillar is compromised, then food insecurity can exist and therefore make individuals vulnerable.



## 2-Methodology:

In order to conduct my research to highlight how causes of inequalities in food supply are always complex, I used a mixture of internet based and literary resources. The table below demonstrates the type of sources I used with each of my case studies and what scale on the nutrition spectrum the research falls into. Then in my case studies, I will evaluate the sources used.

Case Study	Nutrition Spectrum	Source 1	Source 2
Haiti Food Riots	Famine	internet	internet
Obesity in Mexico	Obesity	internet	book
Syrian Conflict	Famine	internet	book



### 3 - Case Studies:

#### 3.1 - Haiti food Riots, 2008

In late March, early April of 2008, Southern Haiti was hit with the consequences of the global food crisis; as a consequence, food prices increased so that the Haitians were unable to afford ~~these~~<sup>basic rations</sup> with their low income wages. Therefore, the country fell into famine. 80% of the country live on less than \$2 a day; it is classed as the poorest country in the western world. The country's agricultural sector mainly consists of subsistence farming; as a result, when imported rice was introduced in 1987, the population relied on it heavily. Basic food such as rice, beans, condensed milk and fruit have all risen by more than 50% in price. Haitians have a traditional remedy used to combat hunger pains, biscuits compacted with mud; however, even these are inaccessible as the price has gone up to \$5 for a pack of 100 biscuits. The hunger has been nicknamed the 'Clorax Hunger' by Haiti's population (10,604,000 in 2016) as Clorax is ~~their~~ their domestic chemical used daily, suggesting that the hunger feels like acid is eroding away at their stomachs. This highlights how one factor (socio-economic) can contribute to food inequality; however, due to

the riots and violence in Les Cayes and Port-au-Prince demonstrating against President Preval, it suggests that political factors are also a causal factor. This shows how complex the factors can be.

~~The~~ Officials have said that this food insecurity could potentially destabilise the country. Therefore, I have chosen this case study to highlight how two factors can overlap causing the causal factors to be complex; the case study also displays how it can occur on both a local scale and a national scale.

Source:

Evaluation:

source 1 - BBC News Articles	A substantial news website therefore facts are all correct, non biased information
source 2 - VAO News: Voice of America	Concentrated on key facts, so able to get a good understanding and back ground of Haiti's poverty.

### 3.2 - Obesity in Mexico:

'Globesity' is the term to describe the global epidemic of obesity. However in this case study, I will be looking at Mexico in particular; the fourteenth largest nation in the world. In Mexico they are experiencing a food surplus, therefore the opposite end ~~of~~ the nutrition

spectrum in comparison to the previous case study. There are 7 million people overweight and 5 million clinically obese in the country. Mexico City, the capital, has a population of around 21 million and 56% of the population are classed as overweight. If it carries on then health ministers have warned that life expectancy in Mexico will indefinitely decrease. The World Health Organisation commented that a high mass body index increases chances of having a non-communicable disease. This is a medical condition/disease that is non-infectious and non-transmissible, examples of this are: cancer, diabetes and organ failure. 10% of the country already have diabetes, with the figure set to rise. Obesity has already risen from 16% to 26% between 2000 and 2012. Mexico City is a hub of economic growth and therefore does not want to be hindered by low labour productivity and high economic losses. As a result, health is now at the focus of the city's development agenda.

This case study highlights a more in-depth ~~look~~ look into the consequences of food inequality. The causal factor for obesity within Mexico is an increasing consumption of food of a low nutritional value; therefore it is only being caused by factors within the socio-economic group instead of overlapping like the Haiti Food Riots. But this case study is important in

highlighting the complexities within the socio-economic group. As factors such as lifestyle, exercise and ~~and~~ food expenses can all contribute in causing this inequality in food supply.

Source:

Evaluation:

A2 Geography for Edexcel Book	used for teaching therefore has correct information, very valid point. Also lots of figures.
<del>Independent</del> World Food Programme	sufficient website dedicated to food security so not biased, very in depth knowledge to me.

### 3.3 - Syrian Conflict 2011

The Syrian Conflict in 2011 has had a devastating impact on the country's agricultural sector; it is estimated that over 8.7 million are food insecure in Syria, demonstrating severe famine. The country used to be the only nation in the region, with ~~and~~ <sup>fertile</sup> land and high crop yields attracting global markets. However with land degradation due to the conflict, the wheat stocks have diminished to less than three months worth; whereas they used to survive for longer than a year. Around 3.4 million tonnes of reserves were stored in an estimated 140 silos, but now

only ~~the~~ one third of these stiles are operating as a result of losing the others to the opposing forces. It is estimated that around \$86 million in aid is needed in order for Syria to recover from this food insecurity. However, officials from the Food and Agricultural Organisation of the United Nations (FAO) have suggested that food insecurity was made worse by environmental factors. The Fertile Crescent is a region in the Middle East that suffered a devastating drought from 2006 to 2009, as a result, north-eastern Syria's farming has collapsed. ~~This~~<sup>This</sup> has had a knock-on effect for the country and reduced its national production rate of crops. Ultimately suggesting that Syria has been hit with both political and environmental causes to create food inequalities.

This case study was selected due to its multiple causes that created vulnerability amongst the Syrian population, as it perfectly demonstrated that there are always complexities within food inequalities. The Syrian Conflict case study also demonstrates the reliance on the developed world ~~with~~ in the form of aid once food insecurity has hit; which I think is an important factor to think about in terms of future food insecurity.

Source:

Evaluation:

FAO - Food and Agriculture Organisation of UN	Specialised in agricultural sector so fits in with case study with valid points slightly westernised, could possibly be biased.
Guidebook to World Health Organisations, 2009	Important to use literary resources, got a good understanding around the topic. NOT outdated so information still reliable.

#### 4 - Conclusion:

Overall, all case studies fit with the ~~opinion~~<sup>thesis</sup> in suggesting that the causes of inequalities in food supply are always complex; however all display a different range of complexities, with <sup>some</sup> more severe than others. In terms of complexities, however, it would be adapted to fit into Malthus' theory on food supply; suggesting that these complexities in food inequalities could be a way of natural checks to the population. For example, the Haiti food Riots in 2008, would be a prime case study to correspond with Malthus' theory. The country is part of the developing world with little economic development but a rising population; consequently rising food prices could be a natural check to keep the population under control.

The Four Pillars of Food Security<sup>(figure 2)</sup> can also be ~~applied~~ applied when talking about complexities in food inequality causal factors. In ~~the~~ Case Study 3.1, both stability and access are compromised; in case study 3.2, use is compromised, and availability, access and stability are all compromised in case study 3.3. This demonstrates that if one of the four pillars is vulnerable then food insecurity will exist and will have a corresponding link to the complexities of factors.

In conclusion, causes of inequalities in food supply are always complex, with all three case studies demonstrating this. However the severity of the complexities can depend on the different causes and the background development of the country on how well ~~it~~ coped they are for food inequality supply.



### ResultsPlus Examiner Comments

Writing a good report is a skill that can be learnt – the most important trick is to bring the material that you have researched into the exam hall and then apply it to the hypothesis that is posed in the question which will often be contentious and allow both arguments and counter-arguments drawing on your understanding of the topic.



### ResultsPlus Examiner Tip

Use the sample report to improve your understanding of how to translate a general understanding of a topic into an answer to the question posed. You should evaluate the work in the following ways:

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Try to identify sections of the report that you regard as superfluous/unnecessary and suggest what could be added and where it should be placed.

## **Question 4**

With a small but very committed entry this question was answered very well in the main, with some of the strongest responses across the whole unit. Conceptually challenging although it might be, teachers and their candidates often develop a very impressive theoretical understanding of cultural landscapes which will help them out greatly later in the year as cultural geography has a much more central place in all the new specifications.

The hyperglobalist, transformationalist and sceptic structure worked very well. The strongest responses 'came to a view' with transformationalist arguments seeming to work best, although other approaches could be equally effective. Whatever the route taken it was the sophistication of the argument and the recognition of an inherent complexity that was so impressive.

Case study by case study approaches that had no theoretical consideration of global culture often made assertions that could not be supported.

Perhaps in preparation for next year there was some very effective use of fieldwork in a number of scripts. Candidates had visited contrasting locations and sought to measure the prevalence of a global culture. They used their findings and applied them to the question intelligently, which was possible to reward strongly in both R and A.

Weaker answers were, as is always the case with Question 4, characterised by too many vague assertions, based on vague and poorly illustrated case studies. This, needless to say, limits both R and A scores. This topic lends itself to the use of many mini-case studies, and the stronger answers included both contemporary facts and highly topical evidence. This suggests that candidates in some centres have clearly been encouraged to read up-to-date newspaper stories and articles whereas other centres appear to be using very dated case studies. Case-studies probably 'go off' quicker on this option than any of the others so references to pre-21<sup>st</sup> century 'global cultures' can only be meaningful if they are used to illustrate the rapidity of change.

The sample included here is a strong response towards the top end of the mark range (it was awarded a total mark of 64) but it has its own strengths and weaknesses. Analysing those strengths and weaknesses is a very useful exercise – initial preparation should involve discussing the pre-release steers and the question itself.



## 1. Introduction

According to Edexcel A2 Geography Textbook by Donn et al, Culture can be defined as a set of values, traditions, beliefs and social norms within a cohesive society. A transformational perspective argues that globalisation (processes which result in increased global connectedness and interdependence, Donn et al) leads to global ~~homogeni~~ homogenisation of culture (where everything becomes the same, Edexcel A2 textbook, Digby et al.) The view argues that this has led to the formation of a global culture which ~~can be~~ is defined by Oregon State University as where ~~earns~~ inhabitants lose their cultural diversity and one culture is shared by all. On the other end of the spectrum, Sceptics argue that there is not such a thing as a global culture as ~~some~~ there are lasting differences between cultures with some places switched off from globalisation leading to cultural heterogeneity (Digby et al) In between these two extremes there is the transformational

view that argues globalisation has not led to one global culture but instead has led to the exchange of cultures leading to hybridisation of cultures (the mixing of cultures resulting in unique outcomes, globalisation, a basic text Second edition, Ritzer and Dean.) These three views will be used to argue the extent to whether a global culture exists using the framework below.

1.1 Table 1: Framework

Section	Case studies	Explanation
Hyperglobalist view (Globalisation processes dominate, overwhelming local cultures and leading to one global culture)	McDonaldisation, Ritzer 1993	The idea that the 5 key principles of the fast food chain McDonalds <del>do</del> have become worldwide shared values suggests a global culture that is Americanized.
	Languages	Languages <del>are</del> is becoming increasingly homogeneous with the number of different languages <del>dominating</del> decreasing and the English language becoming

		increasingly dominant
Transformationalist view (globalisation leads to cultural hybridisation and glocalisation and not a global culture)	China	Traditional Chinese values and social norms have integrated with western culture
	Bhutan	The youth of Bhutan are increasingly influenced by the west yet traditional Bhutanese values are still present
Sceptical view (there is not a global culture as there are lasting differences in culture and some are switched off from globalisation)	North Korea	Strict government control has resulted in North Korea being switched off to globalisation and only

Possible global culture

Papua New Guinea Tribes

There are over 700 tribes in Papua New Guinea all of whom live lives free of globalization and any elements of what could be considered a global culture

## 2. Methodology

Type	Example of sources and how used	Evaluation
Books	<ul style="list-style-type: none"><li>- Edexcel A2 Geography</li><li>- Dunnet et al 2009</li><li>- used for information about globalisation in China</li></ul>	<ul style="list-style-type: none"><li>+ written by senior geographers and examiners and academic geographers</li><li>+ peer reviewed</li><li>+ aimed at students</li><li>- Brief and outdated, needs cross referencing</li></ul>
	<ul style="list-style-type: none"><li>• Globalisation, a basic text second edition, Ritzer and Dean 2013</li></ul>	<ul style="list-style-type: none"><li>+ Accurate detail about McDonaldisation as co-written by</li></ul>

- used for details  
about McDonaldisation

Creator of  
McDonaldisation  
theory

- May be bias  
towards extent to  
which McDonaldisation  
exists.

Reputable  
websites

• CIA World  
Factbook - used  
for facts about  
languages, China  
and North Korea

• UNESCO - <sup>Geography</sup> Languages Facts  
• National Geographic -  
Languages Facts and  
Popula New countries

+ Accurate and  
reliable as information  
comes from professional  
researchers hired by the  
US government +

Journals/  
Articles

• BBC website -  
used for <sup>information</sup> ~~consensus~~  
about North Korea  
and Bhutan.

• The Telegraph - used  
for censorship in  
North Korea, globalisation  
in China and Bhutan.

+ detailed  
+ written by educated  
journalists

- may have western  
bias as written by  
western journalists  
- may have been written  
under time pressure,  
could affect accuracy

Documentary

• Journey Man Pictures -  
GNH in Bhutan 1999

+ Detailed as shows what  
happened  
- outdated - possible  
bias

## BA Analysis

### 3. Hyperglobalist view

The hyperglobalist view argues there is a global culture as globalisation processes dominate, ~~over~~ overwhelming local cultures leading to cultural homogeneity. (Name (Source: Digby et al.))

#### 3.1 McDonaldisation, Ritzer 1993

In 1993, George Ritzer released a book called *The McDonaldisation of Society*. This put across an idea of a social phenomenon in which ~~the~~ five key principles of the fast food chain had become worldwide shared values. These 5 principles Ritzer explained were calculability, predictability, efficiency, control and irrationality of rationality. He claimed that all over the world these principles were valued by people suggesting that people's values had become globally homogeneous resulting in a global culture.

In 2015, Ritzer co-wrote a book called *The Globalisation, a basic text* second edition which explained these principles in further detail and how it is globalisation that has allowed them to spread and become global. He called McDonaldisation a global force of homogenisation further suggesting they have led to a global culture. Examples he

gave of the principles becoming world wide shared values were ~~predictable~~ shopping malls and high streets being the same worldwide (predictability) and the mechanisation of factories and manufacturing (control)

Overall Ritzer suggests that americanised values have spread through globalisation leading to a homogenising global force therefore indicating there is a global culture where everyone's values are the same.

### 3.2 Languages

According to UNESCO, there are 6000 different languages but half of them are in danger of extinction. Furthermore the National Geographic states that 1 language dies every 14 days and half will have disappeared by the next century. This indicates the amount of different languages which are considered a key element of culture, is decreasing rapidly indicating increasing homogeneity of culture.

Furthermore, the world factbook states that 1 in 7 of the world's population can speak English and it is becoming increasingly dominant further suggesting ~~evangelising~~ increased homogenisation of languages. ~~The~~ UNESCO also states that

80% of the internet is in English and 90% of languages aren't represented on the internet. This suggests homogenisation of the media with it being mostly in one language.

Overall these language facts suggest that language which is a key part of culture is becoming increasingly homogeneous with the diversity decreasing and one language dominating. This could indicate a global culture in which everyone's language becomes the same or similar.

### 3.2 Sub-Evaluation

This section overall suggests that there is a global culture and Ritzer suggests this would be one where values are Americanised. Meanwhile language is becoming homogeneous with English the dominating factor of what could be the global culture. Criticisms of this view however could be that there is still diversity in that there are still 6000 different languages and not all places, for example tribes, do value the 5 key principles suggested by Ritzer.

### 4. ~~Transformationalist~~ Transformationalist View

The transformationalist view suggests that there is not a global culture and that globalisation



has instead led to hybridisation of cultures and glocalisation (integration of global and local - globalisation, abasiz text R. Taylor and Dean) It also argues there is no global culture as globalisation does change a lot but also also stay the same. (source: Digby et al)

#### 4.1 China

China can be used to show the transformationalist view and that there is no global culture as main Chinese culture is still prominent and different from western ~~culture~~ culture although some hybridisation and glocalisation has occurred.

According to the world factbook, in 1978 China opened its economy up to trade with foreign companies. This had led to western brands mixing and integrating with Chinese culture. For example in 2015 a McDonalds was opened in a Chinese heritage site in Hangzhou which shows this integration (source: controversy as McDonalds opens in heritage site, The Telegraph 2015) Further more 140 million units of Coca Cola are sold in China every day (source: BBC news) This shows how American and western culture has integrated into China.

Further more evidence of hybridisation is that China's culture has also been integrated into

Western culture. For example there are 35 cinemas in 19 countries in Europe and the USA (Dunn et al.) As well as this there are a growing number of Chinese diasporas (Chinese communities living outside of China - Dunn et al.)

~~Further evidence of~~ However traditional Chinese culture is still prominent and in China with daily mail reporting their consumption of snacks such as scorpions and dog liver. This, along with them being a communist state (world factbook) shows that although western culture has mixed with their Chinese culture, ~~they are~~ their values and social norms are still largely different from western ideas that could be considered to be becoming a global culture. ~~As~~ This therefore suggests there is no global culture as although China mixes with other cultures ~~as~~ they are still largely different from those they have integrated with.

#### 4.2 Bhutan

Multiple reports from the likes of the telegraph and BBC news write about how in Bhutan friendship groups can be seen where some wear western clothing such as baseball caps while their friends wear traditional Bhutanese clothing. The

reports also detail how in bars a mix of both western and traditional bhutanese music are played. This shows how in the nation of Bhutan, located in the Himalayas with a population of over 700,000 (World Factbook) western culture has affected their lives but has not dominated and has instead mixed with their traditional culture.

~~Further evidence of~~ Evidence that globalisation has only ~~influenced and~~ mixed with their culture and not dominated is that they measure development in gross national happiness (GNH) rather than the economic measure of gross national product (GNP) (source: Journey on Pictures as well as mature news articles) This shows that although western culture has mixed with Bhutanese ways of life, their core values have not been changed with them prioritising happiness over wealth unlike in the west.

Bhutan shows that there is not a global culture as not everywhere has the same values even if elements of western culture are mixed into their society.

### 4.3 Subevaluation

Overall the transformationalist was backed up by the two case studies suggests that there is

Not a global culture because although cultures can affect other cultures they are more likely to integrate rather than dominate. Furthermore it shows that while global cultures do mix with local culture, traditional values and social norms often remain the same. It therefore suggests cultures mix with each other rather than one single culture dominating all local other cultures.

## 5. Sceptical view

The Sceptical view argues that there are lasting differences between cultures and many areas are switched off from globalisation and so there is not a global culture.

(Source: Digby et al)

### 5.1 North Korea

North Korea's culture remains untouched by globalisation and elements of what could be considered a global culture therefore showing there is no global culture. This is because after failing in the Korean war they declared a policy of economic and political self reliance and independence as well as demonising the USA as the biggest threat to their society through state funded propaganda (word factories)

This has led them to where they are today with a rigid state controlled system resulting in them & their population being shut off from any outside influence (BBC North Korea Country profile) the North Korea's government carry out this rigid system mostly through censorship with citizens only having access to Kwangmyong, a small internal network controlled by the government (North Korea, everything you need to know, the telegraph 2017.) \* rather than the true world wide web. Furthermore all media including TV and radio is controlled by the government and anyone caught ~~using~~ accessing foreign broadcasts faces strict punishment (on the web in the world's most secretive nation, BBC 2013.)

Also in North Korea according to multiple reports there is often cases of torture and public executions. This along with their ~~government~~ strict controlling government is far from the democracy central to western values that some consider to be a global culture. This therefore shows there is no global culture as ~~there are~~ values can vary hugely and places such as North Korea are not influenced by any cultures due to the political system in place.

## 5.2 Papua New Guinea tribes

There are over ~~80~~ 700 different papuan and Melanision tribes in Papua New Guinea (National Geographic.) There are also over 800 different languages spoken in Papua New Guinea (World factbook) This shows that even within countries culture ~~is not~~ can be largely heterogeneous.

Furthermore 80% of people in Papua New Guinea choose to live rurally, free of modern technology and consumerism. This shows not only that many are switched off from globalisation but also that a gh westernised global culture is not existant as many choose not to share these values and ways of life.

## 5.3 Sub evaluation

Overall, this section shows that as put forward by sceptics, there are places switched off from globalisation. This leads to them not being affected by ~~global~~ other cultures ~~and~~ whether it is out of choice like in Papua New Guinea with the tribes or because of a political system like in North Korea. Being switched off from globalisation could also occur due to being isolated and not connected such as in Kiribati. Therefore

This shows there is not a global culture as not everywhere is connected and so do not share values and ways of life that are spread by globalisation. Critics may however argue that where areas are switched on to globalisation will dominate and lead to a global culture.

## 6. Conclusion

~~Overall in reality it is better there is no such thing as a global culture. This is because~~

In the first sub-section it was argued there is a global culture as values and language has become homogeneous therefore creating a global culture that has been spread by globalisation.

In the second sub-section it was argued that there is not a global culture and globalisation instead leads to cultures mixing and integrating through hybridisation and glocalisation.

In the third section it was argued that there is not a global culture as there are lasting differences between cultures and some areas are switched off from globalisation.

Overall, in reality there is no such thing as a global culture. This is because there is still a huge amount of cultural diversity from ~~developed~~ valuing happiness over wealth

in Bhutan to living life free of modern ways in Papua New Guinea tribes to a state controlled by the government in North Korea. This cultural diversity shows <sup>that</sup> culture is heterogeneous and there is not one global culture shared by all. The theory that is closest to reality is one of ~~not~~ a transformationalist view where cultures integrate ~~to~~ with others rather than become completely overwhelmed <sup>by one dominant culture</sup>. Furthermore a global culture is not ~~exists~~ but it could be argued by some that as more places become connected such as China opening up to foreign companies in 1978, globalisation will spread further and the likelihood of a global culture will increase. We can see that it is the more connected places that are more affected by globalisation ~~lead~~ and those that are switched off are less likely to hybridise <sup>or be dominated by</sup> ~~with~~ other cultures. Overall, there is not currently one global culture shared by all however the argument is complex and global culture could be defined in different ways. However, in the case where it was argued that if there is a global culture it is completely homogeneous and a westernised one shared by the whole world, this is far from the reality <sup>where</sup> culture is largely diverse and heterogeneous as shown by the transformationalist and sceptical views.





## ResultsPlus

### Examiner Comments

Writing a good report is a skill that can be learnt – the most important trick is to bring the material that you have researched into the exam hall and then apply it to the hypothesis that is posed in the question which will often be contentious and allow both arguments and counter-arguments drawing on your understanding of the topic.



## ResultsPlus

### Examiner Tip

Use the sample report to improve your understanding of how to translate a general understanding of a topic into an answer to the question posed. You should evaluate the work in the following ways:

1. Is the question obvious in the introduction – do the keywords feature?
2. Is the methodology clear and coherent with case studies that will allow a thorough examination of the question?
3. Is the analysis focussed on the title or does it just offer a great deal of information – if it is applied where does this take place?
4. Is there a coherent conclusion in which the title of the question is paramount and an answer is delivered?

Try to identify sections of the report that you regard as superfluous/unnecessary and suggest what could be added and where it should be placed.

## **Question 5**

This is the third most popular option on the paper and in common with other 'minority' choices it includes a number of centres that are very committed to delivering it and who are, for the most part, very competent in its delivery. Obviously the key focus here was the role of pollution in health risk and the assertion that controlling pollution was the 'most important' strategy in reducing those health risks. The steers gave a clear indication of the broader focus on the relationship between pollution and health risk but not the contention in the question, as was the case in the other options.

For the most part definitions and models had been well prepared and, consequently, introductions were often strong. Case study choices were less impressive with too many of them knocking at the open door that pollution was indeed a factor in health risk but not really allowing much contextualisation in the narrower focus of the question posed.

Where research was sound and included a good range of health risks candidates achieved higher marks in the analysis component because they could access the focus of the question more effectively. Various models were used very effectively especially relating to development, the environment and lifestyle choices. Those who did not include health risks where pollution was clearly not the chief factor usually did not reach the higher levels for either analysis or conclusion. The commonest case-studies linked pollution to lifestyle e.g. skin cancer/ Australia and respiratory disease in the UK. Obesity was also a popular choice for those who saw the need for counter-argument, as was AIDS.

Some of the strongest responses offered thoughtful comparisons of the same pollutants at different scales and also at different levels of development showing that health risks are affected by a wide range of factors with pollution significant but not always dominant.

The sample included here is a strong response towards the top end of the mark range (it was awarded a total mark of 65) but it has its own strengths and weaknesses. Analysing those strengths and weaknesses is a very useful exercise – initial preparation should involve discussing the pre-release steers and the question itself.

Plan: Agree: with cancer. } both economically here,  
will be. } child 25% confidence  
to improve env.

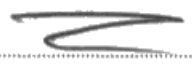
Disagree: Macroeconomic = central banks to  
reduce inflation,  
wage price, so easy  
to help vulnerable  
population.

Models:  
ETM.  
ETM.  
HRE.

Citrus River = education.

↳ like to eco. development  
↳ both agree = HIC.  
both disagree = 'MINT' country  
(development-focused)  
Macroeconomic, making LIC,  
national level =  
more power.

↳ like to willingness of gov,  
therefore will eco. dev.



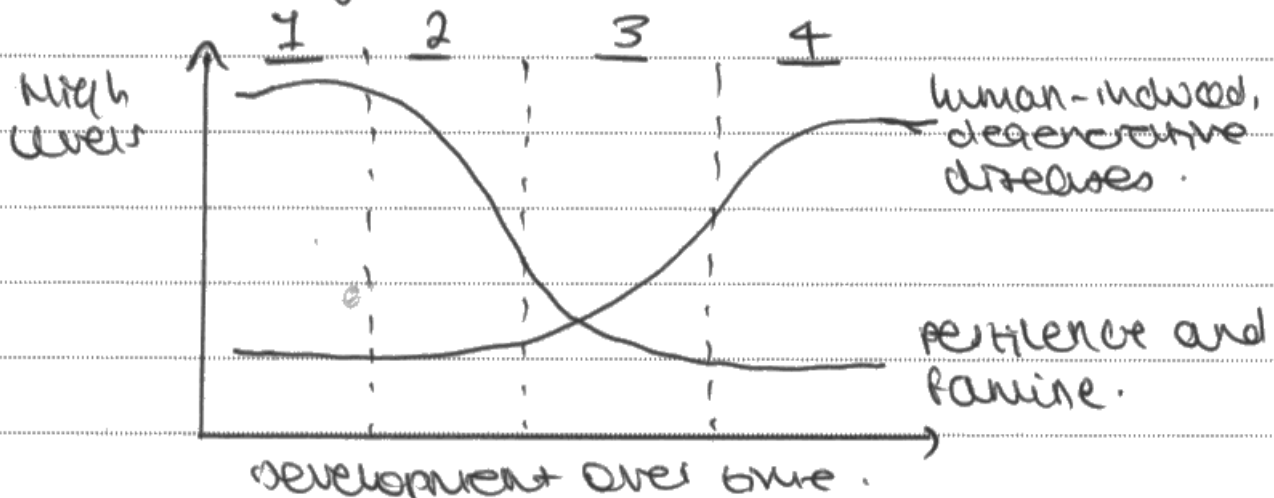
## 1.1 Introduction

Health, as defined by the World Health Organisation (WHO) is not merely being in the absence of disease or infirmity, but being in a state of complete physical, social and mental wellbeing. Pollution is the introduction of a substance, into the environment, which has harmful and toxic consequences. The WHO stated that in 2012, 7 million people died from air pollution alone, more than the number of casualties for malaria or HIV, not to mention the millions more dying from other sources of pollution, such as water or toxic. Pollution control, as defined by 'pollutionpollution.com' is the part each person plays in the mitigation of environmental degradation. Pollution control can be seen as the most important strategy to reduce health risks, when both high levels of economic development, and willingness of government combine, however ~~become~~ becomes increasingly important when a country's economic focus is to rapidly develop, rather than to control its emissions, or when the

Government is unwilling to engage in strategies to control pollution, so it is up to NGOs to educate people on how to avoid pollution-related health risks as being the most important strategy.

## 1.2 Models.

### Epidemiological Transition Model.



### Health Risk equation.

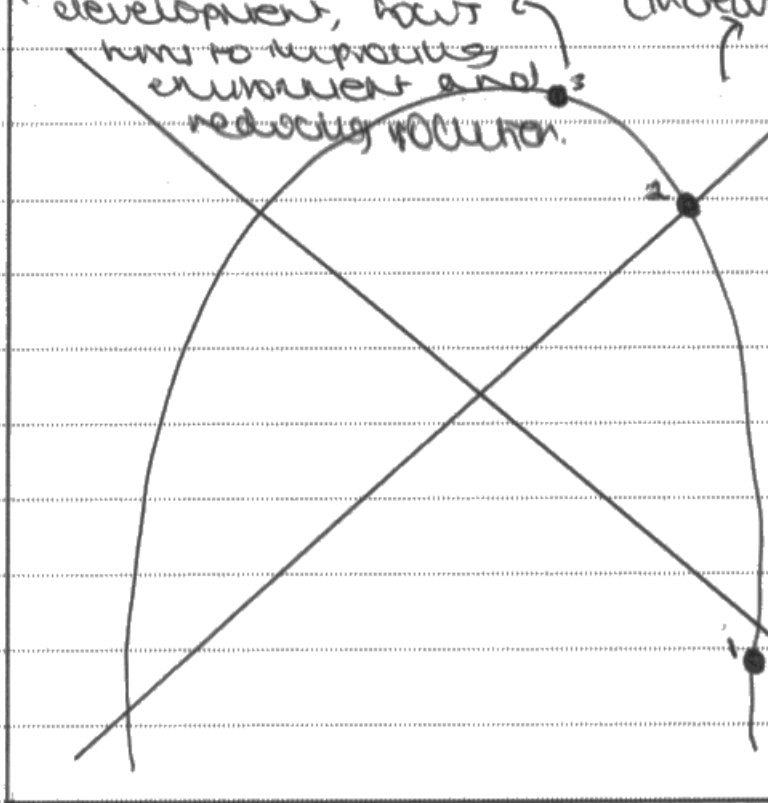
Health Risk = health hazard exposure and vulnerability - management.

## Environmental Transition Model.

Curve shows pollution becomes more severe to environment with increase in development. AFTER a certain level of development, how

ascending line shows how climate change increases severity with increase in development (increased car ownership, higher CO<sub>2</sub> emissions)

Severity of impact to the environment



descending line shows how domestic sanitation has less severe impact on environment with increase in development

Key:

Development over time.

- 1 = skin cancer, Australia.
- 2 = Air pollution, London, China.
- 3 = Citarum River, Indonesia.

## 4.3 Methodology:

sources of information	Application to case study	relevance / reliability
'children and health resource.org'	skin cancer, Australia.	high → extensive research behind statistics, found by American Medical Students' Association.

'greenforward news.com'	hr pollution, linken.	<u>Moderate</u> -> relevant statistics from credible sources, however one-sided article, stats. from 2012, is slightly outdated.
'rollback malaria.org'	malaria welt, global warming.	<u>Moderate</u> -> not as established an organization, such as 'Greenpeace', but relevant statistics and established its credibility.
'greenpeace. org'	Citrus River, Indonesia.	<u>Moderate</u> -> well-recognized NGO, extensive research, however one-sided, environmentalist point-of-view.

## 2 case studies:

### 2.1 skin cancer, Australia:

Australia experiences high levels of UV radiation, because of its location in ozone layer since the 1970s, particularly from excessive use of ozone-depleting substances, such as CFCs.

The 'climateandhealthwatch.org' claim that Australia has the highest rate of skin cancer in the world, because of this UV radiation.

They claim that two-thirds of Australians will have been diagnosed with some form of head cancer, by the age of 70.

Australia has adopted two strategies to reducing health risks. One is pollution control, through the Australian Government playing a key role in the Montreal Protocol, which sets mandatory targets for countries to limit the production and consumption of ozone-depleting substances, and supports developing nations in their efforts too. The Australian Government's 'Department of Environment' has also set industrial policies for industries to control the manufacture and exportation of ozone-depleting substances, to reduce ozone depletion. A second strategy to reduce the health risk of ozone depletion and skin cancer is Australia's 'slip slap slap' campaign, encouraging the use of sunscreen and seeking shade in hot weather, to reduce the health risk directly, until pollution control improves.

### Sub-conclusion

Controlling pollution can be seen to be the most important strategy in reducing health



now, as it is tackling the problem from its source, and they have a very nice clean global record of reducing the use of CFCs. However, the human's comparison can be seen to also be important at a smaller-scale, protecting the vulnerable public until the long-term effects of ozone depletion are solved, so can be seen to have equal importance. America sits at stage 4 of the ETM, and the roll-out of both of these approaches has only been possible through high levels of economic development, and willingness of the government to protect the vulnerable population.

## 2.2 Air Pollution, Witten, China

China is home to 16 out of the 20 most-polluted cities on earth, but Witten was once considered the most dangerous. It is a former-farming community, famed for its natural springs, but coal exploration to fuel China's economic growth has left the population suffering from chronic lung conditions and cancer. Breathing in the air of Witten <sup>was</sup> the equivalent of smoking three packs of cigarettes every day. Illegal mining and the basin-like topography of the area, near megacities

and is hard to shift.

As with Australia, there are two strategies in place, but both lead to pollution control. The Chinese Government's 'take off the black hat' campaign forced heavily-polluting factories to relocate or close down, and 12 power stations were closed. Illegal ~~mines~~ mines were slashed from 390 to 128, and villagers were encouraged to install solar panels on their roofs. Technology is the second strategy the Government have adopted to reduce health risks. Further dioxide emissions are closely monitored and reduced if necessary, and a small wind farm has been proposed for one of Wukou's neighbouring districts, shifting the production of energy onto renewables and away from burning fossil fuels, to clean-up the environment.

### sub-conclusion.

It is clear that pollution-control is the key and most important strategy in reducing pollution-related health risks in Wukou, particularly due to the severity of the situation originally. China is still rapidly developing,

but despite most rapidly developing countries heavily concentrating on industry and progression, the willingness of China's government has enabled campaigns and introduction of technology, such as there, to be extremely effective, hence China's position on the Environmental Transition Model, slightly over the tipping point of the curve, as China is becoming increasingly conscious of the environment, with this increase in development.

### 2.3 Malaria belt and Global Warming.

A rise in global temperatures, as a result of global warming, sees the shift of malaria polewards, with mosquitoes being able to survive in higher altitudes. In the tropics, where malaria is prevalent, millions of people live in high altitudes, as they are historically at a much lower risk of contracting vectored diseases, such as malaria. In Ethiopia, 45% of the population live over 1,600 m above sea level. In the Oromia region of Ethiopia, 3 million more children are said to be at risk of contracting malaria <sup>per year</sup> without a 1°C rise in global temperatures.

'Roll Back Malaria' are a global initiative, launched in Botswana, and have developed early warning systems, integrating regional rainfall forecasts with the population's health surveillance, enabling a reduction of up to 4 months in the time needed to respond to a malaria epidemic.

### Nb-conclusion:

Pollution control should be the most important strategy in reducing the spread of malaria from global warming, but it is not. Due to the ~~enormity~~ large scale of the issue, involving many countries, often developing nations, it is harder to manage. Developing world governments are more focused on establishing trade and investment to grow as a nation, rather than pollution control, so it is left to global initiatives, such as 'Roll Back Malaria' to establish these early warning systems, to reduce health risks this way. Therefore, pollution control is not the most important strategy here, due to the large scale and often unwillingness of governments to control

pollution, and without initiatives such as 'rou bale malang', people's health may be in jeopardy.

## 2.4 Citarum River, Indonesia.

The Citarum River is the most-polluted river on earth. It supplies Jakarta with 80% of its freshwater supply, for drinking, yet 90% of the factories along the river lack efficient waste water management systems, discharging 280 tonnes of waste into the river, every day. Mercury levels were found to be 4 times the recommended safe drinking level, leading to 700 people being infected with skin diseases, such as impetigo, in one suburban district.

Due to the lack of pollution control, 'Greenpeace' call out to industries to prevent them from polluting the river, and they pressure the Indonesian Government to enforce stricter regulations and harsher penalties for industries who pollute. The most effective strategy for managing health risk has been education. 'Greenpeace' have been educating local people on the types of pollution in the water, what to avoid, and alternative sources of

water available, in the hope that this will prevent health risks becoming exemplified

### sub-conclusion.

Pollution control is clearly not the most important strategy in reducing health risks along the Citarum River. Indonesia is classified as a 'NINT' nation, a rapidly ~~industrialising~~ industrialising nation, with rapidly increasing development, incomes and quality of life. Therefore, the economic development in Indonesia restricts pollution control, as the focus is wholly economic development, not sustainability. Education has been paramount at reducing local people's health risks as they have been left with no other option, as unwillingness of the Government to protect the river is only increasing the severity of the problem.

### 3. Evaluation and Conclusion.

It is clear that economic development is a large influence in the importance of pollution control for managing health risks. For countries with high levels of development, and a conscience by the Government to

manage their emissions, pollution control is the most important strategy. It tackles the health risks at their source and provides sustainable, long-term improvements, indefinitely ~~improving~~ eliminating health risks. In the case of the Citarum River, Indonesia, their position on the Environmental Transition Model is useful in explaining why pollution control is less important. Marked by the number three on the model, it still possesses high levels of domestic of severity of domestic waste, because of the lack of infrastructure in place, which will eventually health risks, and shows that severity pollution has on the environment has reached a peak. It is not until Indonesia achieves a more sustained economic growth, which will lead to a more environmentally-concerned government, as in China, that pollution control will be more important than smaller-scale, NGO bottom-up approaches to reducing health risks.

Finally, in the case of the Maldives best shift from global warming, due to the severity of the problem, and the scale,

pollution control lacks importance. There are many nations involved in the issue, all with conflicting views on how to manage health risks. It is primarily the least-developed nations that fail to participate in pollution control, due to their different economic priorities, that prevent pollution control possessing <sup>the</sup> importance of reducing health risks, so rely on shorter-term control systems, by ~~using~~ global initiatives, to protect the most vulnerable of the population from these health risks.



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## **Question 6**

The leisure and tourism option is the least popular option on this paper but the centres that opt for it are committed and prepare candidates with care. However, there are two salient issues that are sometimes unhelpful. The first is a tendency to ignore leisure and conflate it with tourism in a much more generic sense which does rather limit the analysis, especially the impact on rural landscapes which is, after all, the focus of the option. The second weakness is not unique to this option but may be more significant here, and that is a tendency to struggle with the idea that there are obviously social, economic and environmental impacts on the rural landscape and that they need to be differentiated.

Many of the answers included good references to a range of models - the rural-urban continuum, Doxy's Irritation, Wilderness Continuum, Pleasure Periphery and the Butler Model. Around half of the candidates just plonked these models into their essays and failed to make use of them meaningfully which was unhelpful whilst the best answers used the models to structure their essay or to make use of a range of case studies across a model (for example the wilderness or Butler model) to allow for meaningful comparison, albeit not always incorporating leisure activities.

Many answers were very similar, it was clear that these have been practiced to a formulated title, some of which obviously missed focus in the analysis with 'always' often ignored completely. Some candidates seem to have memorised essays for a different title.

It was good to see a positive use of fieldwork and primary research in many answers, mainly the Lake District, Formby and the South Coast of the UK. Many candidates used a good range of places to illustrate their ideas, Machu Picchu, the Lake District, Antarctica and Yellowstone featured most often, with the most successful candidates recognising that the impacts would vary depending on the location and the development level, management level and type of tourist at each different site.

However, referencing of sources was an issue on this option with too many candidates failing to develop a proper system for referencing which did affect their overall performance.

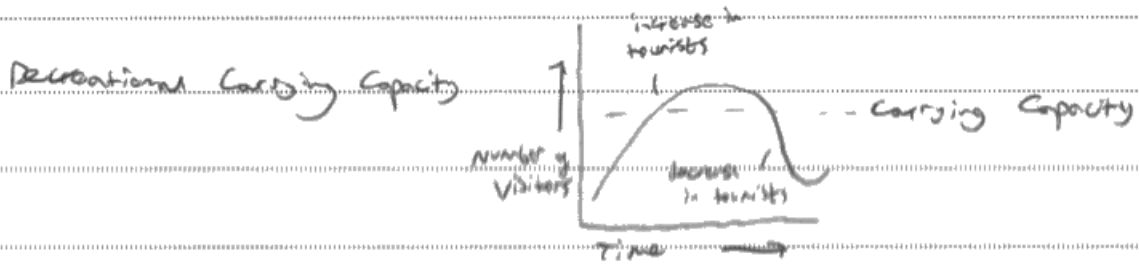
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## Introduction

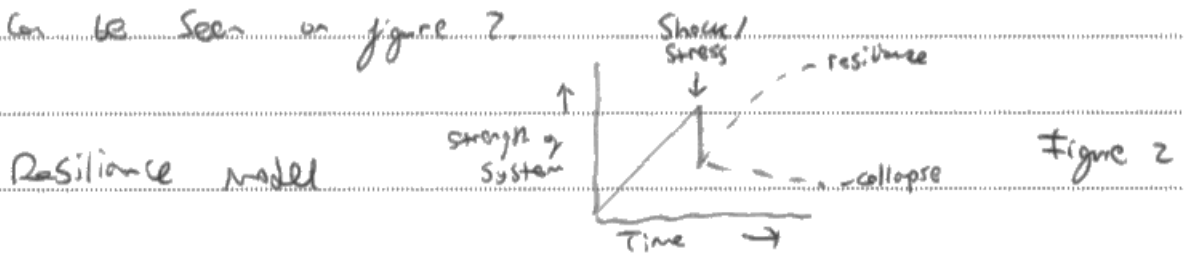
In 2011, the World Travel and Tourism Council estimated that leisure and tourism contributed to \$2 trillion of the world's GDP and accounted for ~~9%~~ over 98 million jobs. Leisure is defined as being "all activities carried out in non-working time; this includes sport and tourism" (Byrne 2009). Tourism is believed to be "travel away from home, normally, at least for one night" (Byrne 2009). Both leisure and tourism combined form the world's largest industry. There has been an exponential increase in the number of tourists since the 1960s, leading to many positive and, certainly, negative impacts.

This paper aims to investigate <sup>whether</sup> "the factors which influence the impacts of leisure and tourism <sup>in rural areas</sup> cause negative impacts. The factors include: the size of the area, the proximity of the area, the type of activities, the number of tourists, the level of development, the time of year, the type of tourism, and accessibility of the area.

The recreational carrying capacity is the "maximum number of tourists an area can sustain before negative impacts arise" (Dunn 2009). This can be used in order to assess whether the impacts in rural areas are mainly negative. This can be shown on figure 1, and the recreational carrying capacity can be both psychological and physical.

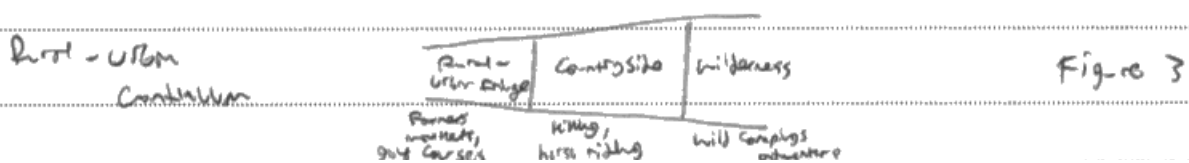


Fragility of a landscape varies according to the nature and presence of human activities. A large number of tourists can especially, when an area which is exacerbated by fragility. An area can be so popular that it is "loved to death" (Adams 2008). This can be seen on the fragility model. Resilience is the "ability for an ecosystem or a physical area to return to its original state after a disruption or disturbance" (Dun 2009). This can be seen on figure 2.



The level degree of management is a very important factor for minimizing the negative impacts on a rural area. There tends to be more management in developed countries. It also depends on the need for certain improvements and management. This can be categorised into land and site management as well as direct and indirect management.

The rural-urban continuum, in figure 3, indicates that activities change from the rural-urban fringe outwards towards the wilderness. Negative impacts usually increase towards the wilderness where the area is more inaccessible.



Formerly NNR in Merseyside has a small and fragile area but has effective management to minimise the <sup>negative</sup> impacts of leisure, due to being in a developed country.

Nepal Costa Rica, despite being an LDC, has a focus on conservation due to have ecotourism primarily as their tourist industry.

Nepal is an LDC with a fragile Himalayan environment but a lack of management to reduce the negative impacts of trekking and mountaineering.

Mount Picchu has increasingly more tourists each year exceeding the carrying capacity, which is difficult to manage in an LDC.

### Research methods

Research source/method

Examples

Reliability

Geog's  
Geogret sheet  
National Geographic

Mount Picchu - Adams 2002  
Room  
Nepal - (Nash + Byrne) Number 93  
Costa Rica - Putter (2009) Number 306

Very reliable as they are written by academics and used for statistics  
Relative to the case study as well as reliable references.

Websites / internet

Mount Picchu - 'UNESCO.org'  
'geographyfieldwork.com'  
Nepal - 'A Case Study on Nepal by Mindglobe'  
Costa Rica - 'ecotourism.com'  
'tourism - Costa Rica.com'

Not reliable as they contain obscure and specific detail on individual areas of the case studies.

Research Source/Method	Examples	Reliability/Use
Textbooks/Journals	Byrne + Dunn (2003) Nepal - Trichhuvan University	For legitimising primary, Written by academics, purposely for (w)science on feminism. Very reliable Sources written by academics.
Primary research	Formby NNR - Environmental quality surveys Activity Surveys	Very reliable - using observations for how area is used and the type of negative impacts. Use of reported sampling so very accurate research.

## Analysis

### Formby NNR

Formby is a coastal town north of Liverpool in Merseyside. It consists of a <sup>small-scale</sup> National Nature Reserve (NNR) to conserve the sand dunes and the pine forests. It is protected by English Nature as well as the National Trust.

A key impact of leisure and tourism which could be seen as negative is the level of <sup>ecological</sup> fragility ~~of~~ <sup>of</sup> leisure seekers, primarily, come to Formby NNR and cause wildlife disruption and disturbance. This affects the local biodiversity of species such as the Red Squirrels and Natterjack toads. Also, although it is the largest sand dune ecosystem

In the UK, there could be a 'Loastre blowout'. This is because increasing numbers of tourists cause footpath erosion and trampling of the fragile narrow grass, which anchors its roots to compact the sand dunes. Furthermore the area is small scale, so there will be more negative impacts as many tourists are concentrated in one area.

Another key factor is the number of visitors and seasonality. The negative impacts usually increase during the summer months, from May to September, for days out. Also, 1 million people live within 1 hour's drive of Formby NNR which increases the impacts of the area. It is on the rural-urban fringe so it could cause a lot of traffic congestion as well as having various different users. There could be conflict between users from various people such as: conservationists, joggers, the surfers, mountain bikers etc.

However, the negative impacts can be reduced by the use of management. These strategies are easier to implement in a developed country. 80% of the National Trust's income goes towards education of old people as well as highlighting the importance of conservation - such as with information <sup>signs</sup> boards and notice boards. visitors can then act as 'ambassadors' of the area. There are pathways which reduce the distribution of users such as the 'asparagus trail' which has grass-turf paths to reduce the effects of footpath erosion. Also, the 'Squirrel trail', where 80-90% of the visitors go, re-distributes users. Moreover, the car park is restricted in size and there is a charge

of \$5 million encourages people to use public transport - reducing congestion.

### Sub-Conclusion

The negative impacts at ~~Formby~~ are reduced by <sup>effective</sup> management strategies due to large numbers of tourists and a small, ~~poor~~ <sup>poor</sup> area.

### Costa Rica - Ecotourism

Costa Rica is a small democratic country in Central America, located between Nicaragua and Panama. The tourist industry is primarily ecotourism, due to its rich biodiversity. Since the 1970s, there has been an increase in the number of visitors, to whom it is prohibitively expensive to visit and there is a greater knowledge of the world.

A key factor which reduces the negative impacts of tourism and leisure in Costa Rica is the degree of management. There are 25 national parks and 30% of the territory is protected in Costa Rica. The money provided by the ecotourism can be reinvested into improving its infrastructure as well as education facilities and healthcare. Furthermore, it brings human employment within the LEDC. The Monteverde Forest, for example, is much more steadily than being cut down.

The type of tourism, which is ecotourism, is significant for reducing the negative impacts. It has allowed 3% of the population to

Come out of poverty (Weaver 2011) and contributes to 17% of the country's GDP (Aster). The activities remain fairly localised such as jungle hikes, wildlife watching, horse riding and scuba diving, and have minimal impact on the environment. Effective conservation brings economic benefits through tourism; this gives local people the incentive to show more 'care' towards the environment.

On the other hand, seasonality and the growing number of tourists are impacts which can be seen as being negative. These jobs are low paid and seasonal, as most tourists arrive in summer months. Moreover, the local people are often exploited and there is little alternative employment in Costa Rica. The increasing demand of tourists could <sup>not only</sup> take numbers beyond the country's carrying capacity, but lead to unrestricted development in jungle areas such as on the Pacific coastline. Also, even though the maximum number of people in the Manuel Antonio National Park is 800, there is still an average of 1000 visitors a day, causing strain on the environment (ecocrib.com).

### Sub-conclusion

Costa Rica is an LEDC which needs to balance the needs of tourists with conservation as well as economic stability. Although there are negative impacts from increasing tourists numbers, they are minimised/reduced by ecotourism and management in the country.



## Nepal - tourism in an LEDC

Nepal is a small country in the Himalayan mountain range in Asia. The UN suggested that Nepal is one of the five most underdeveloped countries in the world (Nash and Byrne). The tourist industry brings economic positives and there <sup>are</sup> ~~through~~ few employment opportunities aside from agriculture.

The type of activity allows there to be positive impacts from tourism in Nepal. The activities are trekking and mountaineering primarily, in regions such as the Annapurna Conservation area as well as the Sagarmatha National Park. Trekking alone accounts for 25% of all tourist income. This has ~~also~~ provided over 100,000 jobs to local people and in the trekking and mountaineering parties can earn up to ten times ~~as much~~ <sup>more than</sup> they can from agriculture. However, there is a 'leakage' of profits, as 50% of the potential tourist income goes to tour operators in more developed countries. ~~The~~ overall, tourism is key for Nepal as an LEDC.

The seasonality and the number of tourists can bring negative impacts. This links to the level of development. There are a lack of programs to inspire tourists to stay longer than an average of 10 days, visit and have a higher expenditure. In addition, the fact that there is conflict and a lack of development prevents tourist numbers from reaching beyond half a million each year. This also links to natural phenomena, as the number of tourists reduced by 50% in 2015, as a result of the large earthquake near Kathmandu. This could show that Nepal are over-reliant on tourism.

11 The fragility of the extreme wilderness of the Himalayas causes negative impacts. There are a lack of areas to dispose of waste, leading to many litter and pollution problems in the wilderness. Water pollution has been caused by plastic toilets over or too close to streams. However, all waste must be carried from the Everest Base Camp for disposal. Plus, tourist demands have led to degradation, which have resulted in unstable hillslopes. The nature of the negative impacts increase from October to March.

### Sub-conclusion

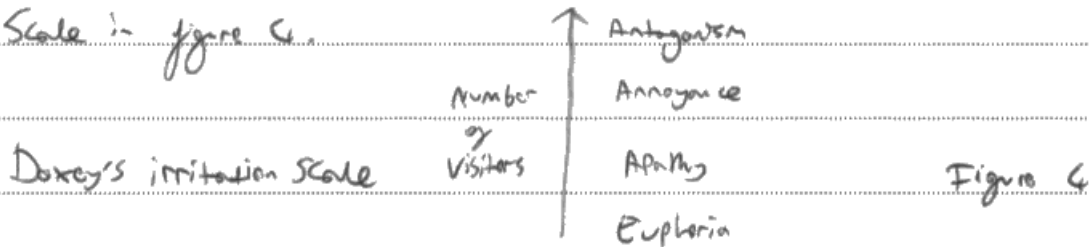
The fragile environment of Nepal enhances the negative impacts and as a LEDC they are somewhat over-reliant on tourism. However, tourism can provide Nepal with employment and income. There are, furthermore, a lack of management strategies to reduce negative tourist impacts.

### Machu Picchu - Mass Tourism

Machu Picchu is a 15<sup>th</sup> Century Inca Empire site on the Eastern slope of the Andes in Peru. It became a historical Sanctuary in 1981 and a UNESCO world heritage site in 1983.<sup>1</sup> The tourist numbers have increase from 100,000 in 1980 to 1.2 million in 2013 (geographyfieldwork.com).

The number of tourists at Machu Picchu can cause huge negative impacts. The numbers are increasing at a rate of 6% a year and cause pollution erosion and litter. Overcrowding has entailed Machu Picchu

Tourist numbers to grow beyond the Carrying Capacity. This causes direct conflict with archaeologists who use the area. There has also been a loss of traditional values and culture, with many local people imitating tourist behaviour, which can be shown on Dorey's Irritation Scale in figure 4.



The level of development is an important factor for the positive impacts of leisure and tourism at Machu Picchu. Most tourists now have to pay \$20 to enter Machu Picchu (increasing from \$10) and the Machu Picchu generates \$6 million a year and the Inca trail generates \$3 million a year from tourism. This has led to a positive multiplier effect in the area. Money goes straight to local economies and helps in LEDC <sup>via</sup> ~~business~~ <sup>tourism</sup> ~~parts~~. However, there is a 'leakage' of profits due to much ~~higher~~ income going towards tourist imports.

There is some management to an extent, reducing negative impacts. However it is more difficult to implement management strategies in an LEDC. The 'Programa Machu Picchu' focuses on conservation of the fragile environment as well as helping the economy of the local town of Aguas Calientes (geographyfieldwork.com). Furthermore, there are a limited number of people allowed in a group on the Inca trail, which is 15, and a maximum of 500 people on the trail a day. It also closes for 1 month a year for maintenance.

The inaccessibility of Machu Picchu increases the negative impacts as more 'effort' is made to commute here. Due to its remote location, helicopter tours occur - ruining the natural, peaceful quality of the landscape.

### Sub-conclusion

The number of visitors increases negative impacts and links to the concept of being 'loved to death' (Adams 2008). Machu Picchu is important to the Peruvian economy & and there is some management to reduce the effects of tourism. However, Machu Picchu is *veloz pagoda* as inaccessible.

### Conclusion

The factors which influence the nature of the negative impacts is a complex issue. As the case studies show, the main factors are the level of development (links to degree of management) and type of activity.

Formby NNR is a fragile and small scale environment. The number of tourists and seasonality increase the negative impacts; however there is effective direct and indirect management to reduce these impacts. As it is an accessible area on the rural-urban fringe, the impacts are reduced also due to the infrastructure and less 'effort' to reach there. As it is in an MEDC, the management limits the negative impacts of leisure primarily.

"Costa Rica is an LEDC where tourism is very important to its economy. Ecotourism, the type of tourism, offers management which reduces the negative impacts from tourists. However, the jobs are low paid and seasonal and the tourist numbers are soaring beyond the small country's carrying capacity.

Nepal is over-reliant on the tourist industry, from activities such as trekking and mountaineering. As it is a fragile environment and very vulnerable, the impacts negative impacts of tourism increases. There is also a lack of management to reduce the negative impacts. However, it brings highly sought-after jobs and income for the LEDC.

The tourist numbers at Machu Picchu are increasingly beyond the country's area's carrying capacity. It brings a positive multiplier effect in the LEDC but is ~~very~~ difficult to get to without causing negative impacts. However there are some management strategies to reduce the effects of leisure and tourism but it is difficult to implement them in a developing country, and prevent negative impacts from mass tourism.

In general, the negative impacts of leisure and tourism depend on the level of development of a country. In an MEDC it is easier to adopt more effective management. The exception is the type of tourist, owing to the type of tourism. For example, with ecotourism, there is more likely to be more respect and 'care' for the environment. It is believed that "the best policeman for the environment is the educated traveller" (Laurin 2000).



## ResultsPlus

### Examiner Comments

Writing a good report is a skill that can be learnt – the most important trick is to bring the material that you have researched into the exam hall and then apply it to the hypothesis that is posed in the question which will often be contentious and allow both arguments and counter-arguments drawing on your understanding of the topic.



## ResultsPlus

### Examiner Tip

Use the sample report to improve your understanding of how to translate a general understanding of a topic into an answer to the question posed. You should evaluate the work in the following ways:

1. Is the question obvious in the introduction – do the keywords feature?
2. Is the methodology clear and coherent with case studies that will allow a thorough examination of the question?
3. Is the analysis focussed on the title or does it just offer a great deal of information – if it is applied where does this take place?
4. Is there a coherent conclusion in which the title of the question is paramount and an answer is delivered?

Try to identify sections of the report that you regard as superfluous/unnecessary and suggest what could be added and where it should be placed.

## **Paper Summary**

Many of the strengths and weaknesses addressed here are repetitive but it is encouraging to note that the standard has been edging upwards over the lifetime of this unit. Moving forward into the world of new specifications the skills of critical analysis and informed investigative skills will become central to success, not least in the preparation of fieldwork-based research.

## **Grade Boundaries**

Grade boundaries for this, and all other papers, can be found on the website on this link:

<http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx>





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