Effective selection and use of case studies

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OCR
Oxford Cambridge and RSA
The hardest part of Geography has to be figuring out what you actually need to know. Is it a case study? Do I need to know those figures? Which field work? I thought I’d been really organised....
#ocrgeography #GCSEgeography

Learning like 15 case studies for a maximum of 3 to come up tomorrow 😞😞 #ocrgeography

I'm fine

Case study related tweets
Less is MORE
If the examiner covered the space where you wrote the name of the case study, could they still read your answer and know where you were writing about?

That’s PLACE-SPECIFIC detail!
The interplay between the assessment objectives

OCR B mark scheme

Level 3 (5-6 marks)
An answer at this level demonstrates thorough knowledge of the management strategies used and a thorough understanding of how the management strategies have impacted the coastal landscape.

This will be shown by including well-developed ideas about the management strategies used and the impact on the coastal landscape.

The answer must also include place-specific details for the named UK coastal landscape.

OCR A mark scheme

Level 3 (6-8 marks)
An answer at this level demonstrates thorough knowledge of coastal management with reasonable understanding of how coastal management impacts on the coastal landscape. There is thorough evaluation of the impact of coastal management on the coastal landscape.

This will be shown by well-developed ideas about the impacts of coastal management on the coastal landscape.

The answer must also include place-specific details of the distinctive landscape. Amount of relevant place-specific detail determines credit within level.

AO1 Knowledge cannot stand alone – it should weave through the answers and be used to support and explore AO2 and/or AO3
Boscastle flood

Evaluate the responses to your chosen UK based natural weather hazard.

The responses to the Boscastle flood were very good. 21 out of 23 fire engine crews from Cornwall came to help. Also there were helicopters that came to pick people up off of the top of the buildings. The government then payed £10,000,000 to help stop this happening again. The money was spent on many things. One was making the bridges higher and wider and moving them. This is to stop debris getting caught up in the bridge which caused the water to be unable to run through.

In my opinion the response was very good.
Boscastle Floods

Evaluate the responses to your chosen UK based natural weather hazard.

In 2004, massive floods in the coastal town of Boscastle caused massive destruction after there was 2x the average rainfall and the main river banks burst.

The emergency services were the primary response and...

29/12, fire brigade teams from Cornwall arrived in Boscastle. 7 helicopters also arrived to air lift endangered residents to safety immediately. This was positive as it led to 0 deaths, but had no impact on protecting the high number of houses and businesses in the area. Secondary response included hard engineering to extend river capacity and raise bridge height, and soft engineering to rebuild homes and raise financial awareness of the event.

This was successful as it improved flood awareness and protected the town from future flooding more effectively. However, large amounts of money were lost on re-damaged buildings & infrastructure.

In conclusion the hard engineering response was the most effective as it limited changes of the banks bursting again and protected residents from future floods.
This level marked question is judged against two assessment objectives and it is important that candidates address both objectives if they want to secure more than 50% of the marks. In Q1(c) the marks are divided between AO1 (knowledge of the responses to the UK-based natural weather hazard) and AO3 (evaluation of the responses to this natural weather hazard). In the first response the candidate is able to achieve all the AO1 marks that are available. It is clear that they can write about the responses to the Boscastle flood and that the information that they provide is specific to the location that they have studied. The final statement suggests that they have made a brief evaluation, but the link to the evidence is inherent and not clearly linked.

In the second answer the candidate has connected their knowledge to their evaluation, so the place specific knowledge is directly linked to the response with a positive and negative aspect identified. To help candidates, centres can practice writing evaluations using a PEEL structure – making a point, using evidence, explaining the evaluation before linking to the question.

The underlying principles can be applied to Q3(d) and Q4(d), despite them having different assessment objectives.

Place specific detail needs to demonstrate that the information being used is linked to one location or event only and does not apply in a variety of situations. This varies depending on what is being written about and the demands of the question.

- Both AO1 and AO2 or AO3 must be address to secure more than 50% of the marks
- Place specific knowledge should be directly linked to the point - PEEL structure can help.
- Place specific knowledge needs to be linked to one location or event (avoid generic points)
Exemplar 1 shows part of a candidate response, this demonstrates thorough knowledge of the drought using statistics such as over 20 million and 1.7 billion litres per day, but it is the thorough level of evaluation which means that this is a Level 3 answer. Each idea is considered and evidence provided to suggest whether a strategy was or wasn’t successful.
The best answers showed detailed knowledge of a UK-based natural weather hazard and applied this knowledge and understanding to the question being asked. It is not enough for the candidate to write everything they know about the Boscastle flood or the 2012 drought but they need to tailor their answers to the question. The successful candidates did not write in detail about the causes of the hazard and may only briefly touch on the impacts, using them as a way to explore the management of the hazard and then spending an equal amount of time evaluating the impact of the response. This could be done by using place specific detail to make an overall evaluation of the response. However, is a word that was used in some of the best answers as it allowed candidates to consider both the positive and negatives of a single response and indicated they were evaluating, as the command term suggested.

From the examiner’s report...
• Best answers identified the command words in the questions, such as assess and evaluate and then linked their answers to those.
• For Level 3, it is best to take one idea and develop it fully rather than try to explain 3-4 ideas in a basic way, ending up with a list like answer.
Assess whether the social impacts of climate change experienced in the UK in the 21st century are greater than the environmental impacts [8 marks]

Climate change in the UK will have many impacts. On average the temperature will be hotter, meaning there will be more droughts in the south east regions. During the winter there will be more rain meaning east coastal lowland is at risk of flooding along with the Teeside industries. Floods will also be more frequent and severe in places like Somerset. For crops, a hotter summer will mean new crops like peaches and oranges and an increased yield on crops like sugar beet and wheat. They will also begin to move further north.

Socially, a hotter summer means increased tourism in the Lake District but the Cairngorm ski resorts will close due to lack of snow. The elderly will be at less risk of illnesses like flu during the winter but more at risk to heatwave related illness like heatstroke.

Overall, I think it will have a greater impact environmentally as the natural disasters will increase as will bird migration patterns and the flowering of crops which will affect the country much more than tourism fluctuations.
AO1 KNOWLEDGE

Students could lead with their place-specific AO1 point and then develop it to explain (AO2) why it is relevant to the argument. ‘This suggests that...’

AO2 UNDERSTANDING/ AO3 EVALUATION

Students could lead with an argument which they then use their AO1 place-specific point to justify/explain. ‘This is evidence by...’
Effective case study selection

The world is your oyster. It's up to you to find the pearls.

Chris Gardner
Selection, construction and teaching strategy

“Given the almost finite diversity of the world, curriculum construction in geography has always involved some degree of selection...The selection, construction and teaching of case studies is not easy to do well and there are no off-the-shelf solutions.”

What factors affect our selection of case studies?
Developing your ‘professional compass’

‘A ‘professional compass’ is a term that describes an ethical perspective on professional practice which stems from a teacher’s disciplinary background and knowledge.’

‘...geography teachers used their subject identity to help them navigate through complex and sometimes contradictory contexts.’

Each teacher expressed their subject identity through a specific and unique subject story including why they prioritised some aspects over others when making decisions about their professional practice.

Brooks (2017) Pedagogy and identity in initial teacher education: developing a ‘professional compass’
How old is too old?

The necessity of situating any case study within its spatial and temporal context.

It is worth noting that page 5 of the specification states that ‘case studies should be chosen from the 21st century.’ Although it is recognised that teaching such case studies will require some historical context, long accounts of the 19th and early 20th century growth of dockland areas in response to questions such as this are unsuitable. On the other hand, it is recognised that late 20th century growth/decline often continued into the 21st century.
The challenges of using case studies at GCSE

There is a danger that, by prioritising themes and issues, places are selected mainly to illustrate these and so they are experienced largely as bite-sized chunks with little opportunity for students to spend time learning about places in their own right. Places may also become defined by the issue they illustrate and can become predictable, unchanging and even out of date.

Bangladesh, for example, is often used to illustrate the causes and impacts of large-scale flooding, yet students may learn little about other aspects of the country’s geography. To a great extent, Bangladesh has become defined by flooding; it has become a ‘single story’ for learners (Biddulph, 2011).

‘All but the best students interviewed were spatially naïve. The mental images they held of the world were often confused and they were not able to locate countries, key mountain ranges or other features with any degree of confidence. For example, they understood about development issues in Kenya, but had little or no idea of where Kenya was in Africa ... Their study of geography was isolated and not set within a context that they could identify with’ (Ofsted, 2011, p. 22).

Lessons from the exam season – conquering the case study...

For example, with OCR B you could identify a need for 12 separate named examples from the specification. But think carefully and whittle this down- you’ll need:

- One LIDC country study
- One LIDC city study
- One attempt at food security
- = Use Ethiopia!

- This covers three potential case studies in one named place-specific focus. With infrastructure construction being developed by Chinese TNCs, with Addis Ababa constantly evolving through internal rural-urban migration and international migration, and with both top-down and bottom-up examples of aid strategies focusing on food security. Ethiopia ticks the boxes, in just one specific location. This way, you can have an in-depth country study, thus also considering factors such as climate, relief, hazards, population, urban change, etc. and students can then have the full context and build themselves better quality answers to extended questions on a range of topics.

- When it comes to the assessment itself students do not need to feel overwhelmed. The skill of the extended answer is not memorising every fact – it was never intended to be. Marks are not allocated for pure recall. Student’s (and teacher’s) lives can be made easier by modelling the case study skill – that it is about making links, developing points fully, analysing the facts, and evaluating knowledge. You can easily get away with just three case study facts, provided these are well developed and used appropriately. Students need to infer from the facts that they have, to expound, to compare and contrast, to draw conclusions, to evaluate. And to do all this through quality literacy using appropriate key terms and connectives like ‘therefore’, ‘on the other hand’, ‘whereas’, etc. The case study is not a memory recall exercise, it is an application of knowledge.

https://www.discover-the-world.com/study-trips/blog/conquering-the-case-study/
Combine **case study** selection with your **fieldwork** experience locations

- Urban Futures
  - AC city case study
  - Human fieldwork experience

- Distinctive Landscapes
  - UK coastal landscape
  - Physical fieldwork experience

= PLYMOUTH

= DAWLISH WARREN
Costa Rica registers increase in tourist visits in 2019

Monteverde plans to grow with focus on sustainable tourism

Costa Rica unveils plan to achieve zero emissions by 2050 in climate change fight

Environment minister says under plan, his grandchildren in 2035 will have the same carbon footprint as his grandparents did in the 1940s - and by 2050 none at all

Keep it topical!

All that glitters is not green: Costa Rica's renewables conceal dependence on oil

Costa Rica produced 98% of its electricity last year without fossil fuels but the sustainable success story unravels with the rising demand for gasoline and cars

Costa Rica produces 98.84% of its power from renewables in 2019

President Carlos Alvarado of Costa Rica said: 'We can be that example - we have to inspire people.' Photograph: Christian Sinibaldi/The Guardian
Approaches to place study...

A focus on places (salient characteristics of each distinct place)

Illuminating place as a way of being-in-the-world (an essential part of being human)

A focus on processes (social, economic and political)

6.2. Are LIDCs likely to stay poor?
This enquiry question is studied through one case study of an LIDC to answer sub-questions a, b and c.

<table>
<thead>
<tr>
<th>Sub-question</th>
<th>g, r, n</th>
<th>N</th>
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</thead>
<tbody>
<tr>
<td>a. How has an LIDC developed so far?</td>
<td></td>
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<tr>
<td>• Overview of the economic development of an LIDC, including influences of population, society, technology and politics, particularly in the past 50 years, or post-independence.</td>
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<tr>
<td>• Explore whether Rostow’s model can help determine the country’s path of economic development.</td>
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<tr>
<td>• The extent to which the relevant Millennium Development Goals have been achieved for this LIDC.</td>
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<tr>
<td>• Investigate how the LIDC’s wider political, social and environmental context has affected its development.</td>
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<tr>
<td>b. What global connections influence its development?</td>
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<tr>
<td>• The country’s international trade, such as potential reliance on a single, or few, commodities and how this influences development.</td>
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<tr>
<td>• The benefits and problems of trade and Trans National Company (TNC) investment for development.</td>
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<tr>
<td>• The advantages and disadvantages of international aid or debt relief for its development.</td>
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<tr>
<td>c. What development strategy is most appropriate?</td>
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<tr>
<td>• Compare the advantages and disadvantages of one top-down and one bottom-up strategy in the country.</td>
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</tbody>
</table>

Massey (2005) argued that the uniqueness of one place results from its contemporary and historical links with other places.
Strategies to support students with developing their AO1 knowledge
Use the specification as a resource when consolidating knowledge.

@butler_lizzie
The Royal Geographical Society share this photo on Twitter. There are five categories in the #EarthPhoto competition, including 'People'. This pic was taken by Mark Phoenix and shortlisted in 2019. Taken in Cambodia, it shows the everyday realities of life in Kompong Phluk Floating Village.
Which case study? #geographyteacher
**Importance of Rio de Janeiro**
- Rio de Janeiro is located on the east coast of Brazil, South America. It has a population of approximately 6.7 million.
- It has lots of factories that make chemicals, medicines, clothing and furniture—this is sold all over the world.
- Many headquarters of businesses are there.
- It has 5 shipping ports.
- 3 airports.
- Rio was the capital of Brazil until 1960.

**What impact has migration had on Rio?**
- Natural increase is one cause of increased population, but migration is the major factor.
- Sixty five percent of urban growth is a result of migration.
- Millions of people have migrated from Brazil's rural areas to the city.

**What has been the impact of migration on Rio's culture?**
- As Rio has developed it has attracted migrants from within Brazil and from abroad.
- One of the largest groups of migrants is Portuguese people.
- Rio has a very wide and diverse culture, but this is heavily influenced by the Portuguese.
- The official language is Portuguese, food, music and housing have very heavy Portuguese influences.

**How has migration influenced the character of Rio?**
- Migration has hugely altered the characteristics of Rio.
- It has created squatter camps.
- Over 22% of Rio's population live in informal settlements which have sprung up all around the city.

**Squatter camps**
- New arrivals to the city build their own houses out of basic materials such as tarpaulin, scrap wood and corrugated iron.
- Squatter camps are located on areas of land which the population neither own nor rent.
- These squatter camps change the characteristics of the city, as these houses are usually very short term. They are unsightly and certainly do not blend in with the rest of the character of the city.

**High-class residential districts**
- Apartments are very exclusive and cater for the wealthy workers of the CBD.
- Many of these high rise apartments have 24 hour security and armed guards.
- Residents are fearful of the risk of violence, theft, mugging, abductions and vandalism due to the high levels of unemployment and poverty in the city.

**So what contemporary challenge does Rio face?**
Contemporary challenges are modern ones. Just like Leeds, you must know about the challenges of waste transport provision and housing provision.

**The challenge of housing provision**
- In Rio de Janeiro alone 1.4 million people are living in slums (informal settlements).
- They are built on poor quality land. In Rio this is usually hillsides which leads to the risk of landslides, particularly after heavy rain.
- Disease is also rampant within the slums, as there is no standard for sanitation. Health risks may stem from overcrowding, pollution and a lack of waste disposal systems. Life expectancy within the slums is approximately 45 years, while the national average is 68.
- Electricity supplies to the slums are dangerous and unreliable.
So what contemporary challenge does Rio face?

Contemporary challenges are modern ones. Just like Leeds, you must know about the challenges of waste transport provision and housing provision.

The challenge of waste disposal
- In Rio de Janeiro, that waste often ends up in official landfills or floating in places like Guanabara Bay, which is heavily polluted.
- Rio’s waste production has grown by 29% in the last 11 years. This amount of waste is very difficult to manage.
- Over 65% of all waste collected by the authorities ends up in landfill. This waste decays and adds to global warming.
- Increasing the amount of waste causes problems such as waste, disease and pests.

The challenge of transport provision
- Rio de Janeiro is the most congested (busy with cars and people) city in South America, Brazil.
- There are up to 74 miles worth of traffic jams at any one time during rush hour.
- A recent study showed that an average drive through Rio will take fifty per cent longer at peak times, compared to off peak times.
- 40% increase of car use in last 10 years.
- There is also an issue with smog in Rio. This is caused by car exhaust fumes. It can cause disease such as respiratory illness.

How has the challenges been managed?

Favela Bairro Project 1995-2008

The authorities in Rio have been said to have improved 73 favelas (including Complexo do Alemão) and helped 253,000 people by:
- Paving and naming roads
- Access to a water supply and drainage system for improved sanitation
- Hillysides secured to prevent landslides
- Building of new health, education and leisure centres
- Installation of a cable car system- residents given one free return ticket per day
- Access to credit for residents to buy materials to improve their homes
- 100% mortgages available so people can buy their own homes
- Police unit set up to patrol the area and help to reduce crime.

Success or Failure?

- The quality of life, mobility and employment prospects of the residents have been improved due to the development of the favela.
- It has been recognised by the UN as a useful model.

However, it has not been a complete success because there are still problems:
- The newly built infrastructure is not being maintained
- The quality of work and materials used has been questioned- one home in Acari has received new concrete walls on 4 occasions
- Residents lack skills and resources to make repairs
- More training is needed to improve literacy and employment
- Rents rise in improved favelas, leaving the poorest people worse off
- Total cost over the two phases of R$1.2 billion.
Sustainable Living

Wealth Gap

Bakeries

Sustainable

Community

USE of Space

Education

No Crime

Safe

RooDs

85% Employed

1 Roon

Seiates

Illegal Manufacturing

Cheap labour

No taxes

$1 Billion

Slumming it

1 Room

15, 000

Child Labour

Poor Working

Conditions

Privacy

Sickness

Human Waste

Chemical Waste

Toxic Waste

Redevelopment

Slum Clearance

1 Mile = 1 Million $

1 500 People
Construct an argument (AO3)

‘The short-term response to the flood was a success’ – What’s the evidence?

‘The economic impacts were worse than the social impacts’ – What’s the evidence?
Channel was widened and deepened.

120 people were winched to safety and nobody died.

At the confluence of the rivers Jordan and Valency

This means that the river’s capacity has been increased so that it can carry more water, reducing the risk of flooding.

This shows that the short-term response by the RAF and Navy helicopters was quick and effective.

This meant that a large volume of water came from two directions to meet at Boscastle, increasing the risk of flooding.
<table>
<thead>
<tr>
<th>Developed Earthquake: Japan, 2011</th>
<th>Developing Earthquake: Haiti, 2010</th>
<th>Developed Cyclone: Hurricane Katrina, 2005 (USA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.0 magnitude</td>
<td>7.0 magnitude</td>
<td>1833 deaths</td>
</tr>
<tr>
<td>$235bn damages</td>
<td>$4bn damages</td>
<td>Damage cost $108bn</td>
</tr>
<tr>
<td>15,900 deaths</td>
<td>36,000 deaths</td>
<td>80% NOLA evacuated</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Developing Cyclone: Cyclone Aila, 2009 (Bangladesh)</th>
<th>Dev CS: Significance: India</th>
<th>Dev CS: Regional Inequality: India (Maharashtra/Bihar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak wind of 360km/hr</td>
<td>Population 1.3bn</td>
<td>M GDP per capita 10k rupees</td>
</tr>
<tr>
<td>91 deaths</td>
<td>672m registered to vote</td>
<td>B: GDP per capita 27k rupees</td>
</tr>
<tr>
<td>750,000 homeless</td>
<td>3.3m sq. km in size (13x UK)</td>
<td>B: 47% literacy rate</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>Strategic partner with EU 2004</td>
<td>3.5bn L. drinking water daily</td>
<td>4m biogas plants by 2010</td>
</tr>
<tr>
<td>Member of G20/UN tech superpower</td>
<td>234 villages flooded</td>
<td>Provided 200,000 jobs</td>
</tr>
<tr>
<td></td>
<td>320,000 displaced from flooding</td>
<td>Lights streets at night</td>
</tr>
</tbody>
</table>

From @missgeog92 (different specification)
<table>
<thead>
<tr>
<th>Cause - C</th>
<th>Impact - I</th>
<th>Response - R</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global Hazards Case Studies</strong></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>75 cars and 6 buildings</strong></th>
<th><strong>Constructive Strato volcano</strong></th>
<th><strong>Frequent high pressure</strong></th>
<th><strong>Confluence Valency Jordan paradise rivers</strong></th>
<th><strong>Loss of biodiversity</strong></th>
<th><strong>£10 million flood defences</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Over-abstraction C</td>
<td>Toxic algae</td>
<td>120 people rushed to safety</td>
<td>Flooding due to meltwater jekulhaups</td>
<td>16th August 2004</td>
<td>Increase in tourism</td>
</tr>
<tr>
<td>800 people evacuated from farm/villages</td>
<td>Lost trade for Kenya</td>
<td>Fluoride contamination</td>
<td>Thermal cameras and seismometers</td>
<td>Rural suicide</td>
<td></td>
</tr>
<tr>
<td>March/April 2010 1 in 400-year event</td>
<td>200mm in 24 hours rainfall (Boscastle)</td>
<td>Desalination plants</td>
<td>Mid-Atlantic Ridge North American Eurasian plate</td>
<td>4 minutes showers - limit time.</td>
<td></td>
</tr>
<tr>
<td>No deaths</td>
<td>Trees planted to scale up moisture</td>
<td>Damage to infrastructure, loss to Agro companies</td>
<td>El Nino</td>
<td>25,000 flights cancelled</td>
<td></td>
</tr>
<tr>
<td>Crops failure and livestock deaths</td>
<td>Text message warning system</td>
<td>Impermeable rock and thin soil</td>
<td>Rose 20% in 2008 water bills</td>
<td>Narrow steep-sided valley</td>
<td></td>
</tr>
<tr>
<td>30,000 feet tephra (ash) cloud</td>
<td>200-metre-thick glacier ice</td>
<td>90% of the economy tourism</td>
<td>Four bridges</td>
<td>Decrease in tourism</td>
<td></td>
</tr>
</tbody>
</table>

**TASK 1:** Categorise the knowledge above into the three different case studies

**TASK 2:** Use the textbook, and your own knowledge, to work out what the numbers/facts mean

**TASK 3:** Add a 'C' for cause, 'I' for impact (consequence) or 'R' for response to each box

**TASK 4:** Use ONE of the case studies to answer the following question: **Assess** the consequences of the hazard event for people and the economy (6 marks)
## Global Hazards Case Studies

<table>
<thead>
<tr>
<th>Event</th>
<th>Cause</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volcano eruption</td>
<td>Strato volcano</td>
<td>Constructive</td>
</tr>
<tr>
<td>Sea level rise</td>
<td>Frequent high pressure</td>
<td>Confluence</td>
</tr>
<tr>
<td>Drought</td>
<td>Over-abstraction</td>
<td>Toxic algae</td>
</tr>
<tr>
<td>Flood</td>
<td>120 people</td>
<td>House flooded to safety</td>
</tr>
<tr>
<td>Earthquake</td>
<td>800 people</td>
<td>Evacuated from home</td>
</tr>
<tr>
<td>Tsunami</td>
<td>3.5 million</td>
<td>Cancelled flight</td>
</tr>
<tr>
<td>Hurricane</td>
<td>March/April 2010</td>
<td>1 in 400-year event</td>
</tr>
<tr>
<td>Drought</td>
<td>No deaths</td>
<td>Trees planted</td>
</tr>
<tr>
<td>Drought</td>
<td>Crops failure and livestock deaths</td>
<td>Text message warning system</td>
</tr>
<tr>
<td>Volcano</td>
<td>200,000 feet</td>
<td>Ice melted</td>
</tr>
<tr>
<td>Eruption</td>
<td>90% of the economy</td>
<td>Relies on tourism</td>
</tr>
</tbody>
</table>

### Case Studies

**Boscastle flood**
- **Cause**: 75 cars and 6 buildings
- **Impacts**: Flooding due to meltwater, lowlying bridges
- **Date**: 16th August 2004
- **Response**: Economic impact, increase in tourism

**Australia drought**
- **Cause**: Desalination plants, ENSO
- **Impacts**: Thermal cameras and seismometers
- **Date**: 2002 to 2009
- **Response**: Rural suicide

**Eyjafjallajökull eruption**
- **Cause**: 3.5 million | £2 billion
- **Impacts**: £10 million, new flood defence scheme
- **Date**: 2010
- **Response**: No damage, flights cancelled

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**Tasks**

1. **Task 1**: Categorise the knowledge above into the three different case studies
2. **Task 2**: Use the textbook, and your own knowledge, to work out what the numbers/facts mean
3. **Task 4**: Add a ‘C’ for cause, ‘I’ for impact (consequence) or ‘R’ for response to each box
4. **Task 4**: Use ONE of the case studies to answer the following question: Assess the consequences of the hazard event for people and the economy (6 marks)
A case study to examine one small-scale example of sustainable management in the Antarctic

**Independent research links**
- ALE Union Glacier Camp
- Ice-Trek Union Glacier Camp

**Video links**
- Welcome to Union Glacier
  - [https://vimeo.com/107211188](https://vimeo.com/107211188)
- Arrival in Union Glacier camp

Describe the location of Union Glacier (mountain range, scale, compass directions)

Watch the first video for approximately nine minutes and read the ALE information about Union Glacier camp. Write down the sustainable and unsustainable features of this case study.

Sustainable means causing little or no damage to the environment (or economy/people) and therefore able to continue for a long time.

<table>
<thead>
<tr>
<th>Sustainable</th>
<th>Unsustainable</th>
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Place a cross on the continuum below to indicate the extent to which you think Union Glacier Camp is more sustainable or more unsustainable. Add an annotation to justify your decision.

Imagine that you had the responsibility of allowing or rejecting applications for an activity in Antarctica. Using your knowledge of the Treaty, which of these would be allow or rejected - why?

### Application | Allow or reject? | Your reason
---|---|---
Scientists have collected a rock containing platinum group elements. They want to take samples away to conduct experiments. | Allow | \nScientists want to catch up to 600 Minke whales a year in Antarctic waters for scientific research. | Reject | \nNuclear energy is growing as a way of reducing CO2 emissions. There is a proposal to dispose of nuclear waste in remote parts of the Antarctic ice sheet. | Allow | \nTuvalu, a small country in the south Pacific, wants to sign the Treaty. Their scientists was to take part in climate change research as the country is only 4 metres above sea level. | Reject |

Research the challenges for the Antarctic Treaty. What might threaten its success in the future?

The Antarctic Treaty was signed in 1959 by 12 countries. Through the agreement, the countries consult on the uses of the whole continent. Since entering into force in 1961, the Treaty has been recognised as one of the most successful international agreements.

Use the links above to create a small mind map of the rules of the Antarctic Treaty.

Rules of the Antarctic Treaty

Boscastle flood (2004) replaced with Storm Desmond (2015) following feedback from teachers on the OCR B Facebook group
In summary...

• Less is more – a few well selected AO1 facts used to support points are better than the scattergun approach of included lots of them!

• Make AO1 knowledge/place-specific detail manageable and meaningful to avoid generic answers

• AO1 should be used to support AO2 – ‘weave’ place-specific detail into answers in a way that explores and supports answers

• Create a stronger ‘sense of place’ through extended writing

• Use of photographs to create for sensing and being creative about ‘place’ – a way of ‘being-in-the-world’

• Use the examiner’s reports and student exemplars – great CPD.