

**Teaching case studies**

Cambridge  
International  
AS & A Level

Cambridge International AS & A Level  
Geography

9696

**Cambridge Advanced**



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## Introduction

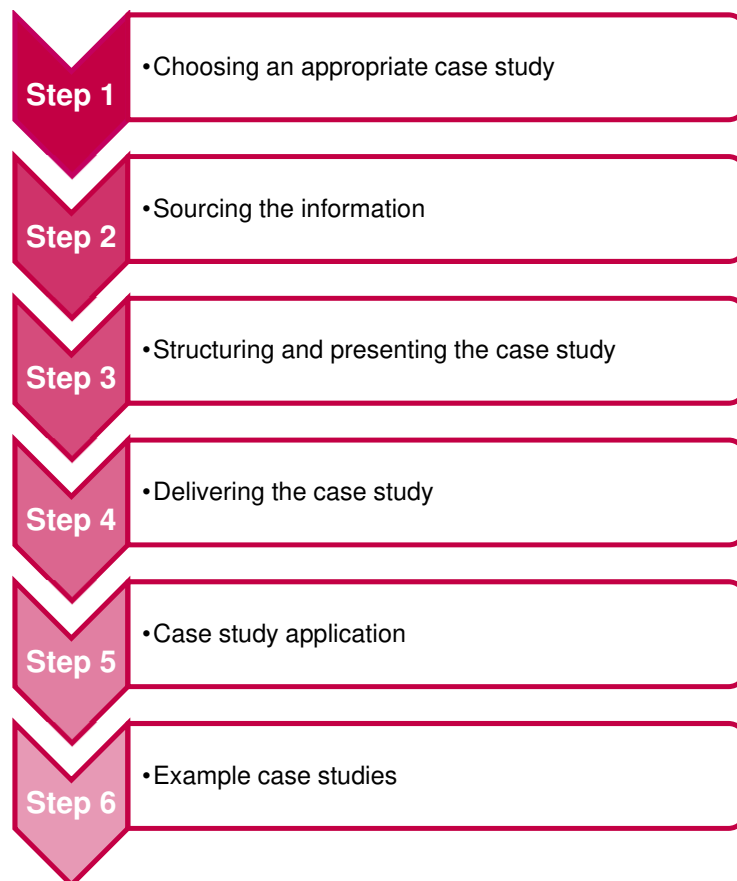
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The use of case studies is an important part of AS & A Level Geography. In all components, your learners will be expected to support their answers with reference to examples and case studies at different scales (local, regional, national and international) from a variety of places and countries at different levels of development.

The syllabus gives you the opportunity to select your own case studies to illustrate the content for your learners. Where possible, case studies should be dated no earlier than 1980.

Learners should be able to use these case studies to support their understanding and demonstrate their knowledge. Learning, applying and evaluating case study information is fundamental to the development of learners' geographical skills and teaches them to use a wide variety of resource materials.

This guide has broken down the process of developing and delivering case studies into the steps shown below:



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## Step 1

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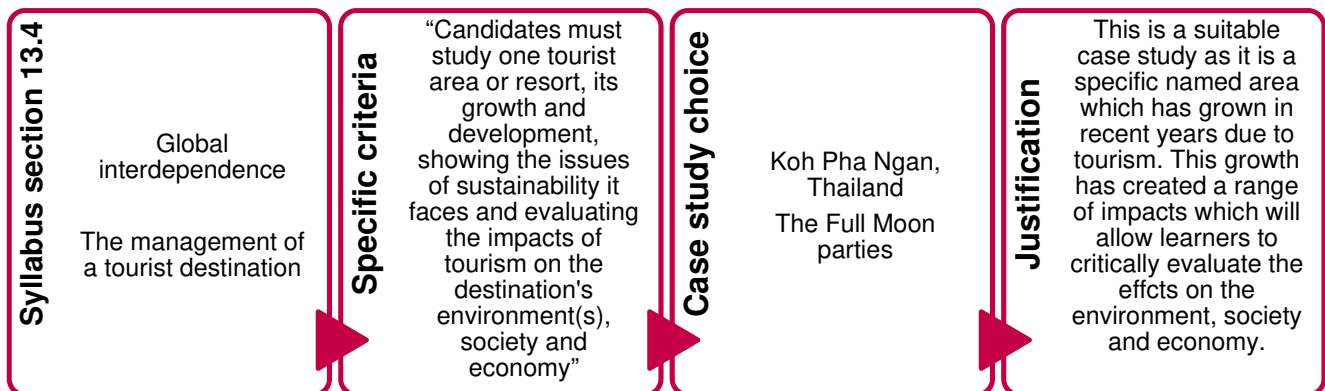
### Choosing an appropriate case study

It is important when you select case studies that you base your choice on the specific guidance provided by the syllabus. The case studies should enable your learners to meet the syllabus and exam criteria and where possible also reinforce the key concepts.

The case studies should be real, rather than theoretical, and where at all possible local. Your learners should be able to examine conflicts of interest and the viewpoints of different groups affected by the geographical environment, initiative or hazard being studied.

The case study should be dated no earlier than 1980. Events, situations or initiatives that occurred recently are more relevant and learners are more likely to be engaged as they may have personal recollection of these events or situations. Across the syllabus, case studies need to be drawn from different scales (local, regional, national and international) and from a variety of places. This does not mean that each individual topic needs a range of scales and locations. Learners should be taught to assess the relative success or failure of initiatives.

The flow diagram below shows the steps you might think about when selecting a case study for your learners. Each part of the process is illustrated with an example.



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## Step 2

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### Sourcing the information

Geographers regularly find conflicting statistical data for case studies.

This is due to a number of reasons including:

- source reliability
- date of publication
- difficulty of accurate data collection in some areas of the world (and with certain events)
- the changing nature of information available directly after an event (for example, economic statistics linked to an event will change as the full effect is calculated over time)
- what information is produced in the longer term (for example loss of life in the days immediately after an event may be different to those produced a month afterwards).

It is important not to confuse your learners with multiple or contradictory data. Where possible, you should choose one source of reliable, recent information.

Learners may struggle to understand the context of information. For example, a death toll in a high income country may be considered high for that country, despite being comparatively much lower than in a low income country after a similar event. The cost of damage might be lower in a low income country but its impact on the local population might be higher. It is important to address this with learners and to encourage them to analyse the context and setting of each case study.

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## Useful sources

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The scheme of work identifies a number of sources of information for each unit of the syllabus. Many of these would be useful for case study development:

International hydrology information is available from:

[www.hydrology.org.uk/Data\\_source\\_s.php](http://www.hydrology.org.uk/Data_source_s.php)

The World Bank website offers a range of development data for most countries:

<http://data.worldbank.org>

For global population statistics visit Geohive:

[www.geohive.com](http://www.geohive.com)

This site provides useful climate information:

[www.worldclimate.com](http://www.worldclimate.com)

The USGS has excellent information on different hazards:

[www2.usgs.gov/natural\\_hazards](http://www2.usgs.gov/natural_hazards)

The UN provides information on industrial projects that aim to promote development:

[www.unido.org/resources/publications/publications-by-type/policy-advice/industrial-policies-and-strategies.html](http://www.unido.org/resources/publications/publications-by-type/policy-advice/industrial-policies-and-strategies.html)

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## Step 3

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### Structuring and presenting the case study

The structure and presentation of case studies should be clear and accessible to learners of all abilities. Standardising the format across all of the chosen case studies allows learners to access the information more readily. A single format can help learners compare different areas of the syllabus and different scales and places. Case studies are time sensitive, so a clear date should always be present. There are examples of how you might set out a case study at the end of this booklet.

A good case study is clearly divided using sub-headings. These headings should reflect the requirements of the syllabus. It is a good idea to have an initial introduction section where the location and context of the case study is shown. A final evaluation section should help to support your learners to assess the relative successes or failures of initiatives.

Using tables, figures and images is an effective way of presenting information for your learners. For example, tables can be used to clearly show key facts or to compare positive and negative impacts on local people. Figures such as maps, sketches and graphs also add extra information to the case study. Images are often a useful way to give a visual reminder of the key points. This is particularly useful when learners do not have first-hand experience of the location, situation or event. Images make the example or case study more real and support recall for some learners.

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## Case study sections

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### Location

This may include maps or photos to help learners visualise the information.

### Causes

These should be broken down into human and physical (if appropriate to the case study).

### Impacts on people

This is likely to include population statistics to support key learning points.

### Impacts on the environment

This section could be supported with images and diagrams to show how these impacts have occurred.

### Evaluation

Learners have to be able to assess the effectiveness of attempts to manage the effects of the event or initiative being studied. Being able to evaluate effectively is a higher order skill.

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## Step 4

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### Delivering the case study

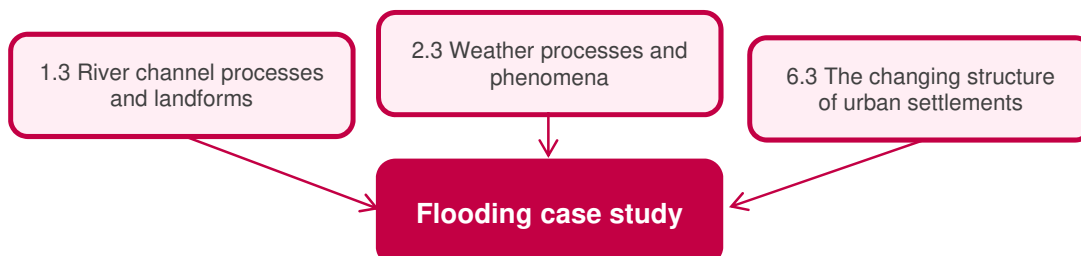
It is often beneficial to start teaching an example or a case study with locational details such as maps on different scales so that your learners can judge the scope and identify the location of the area or topic being investigated. Relevant video clips help to support visual learning and recall.

Case study knowledge can be delivered in a number of different ways, depending on the learning intention.

1. You might choose to present a prepared and completed case study to your learners to support the theory being taught in the lesson. In this situation, the case study is used to support and illustrate the course content so that learners have information to improve their understanding which they can then use in their exam to demonstrate their knowledge. The challenge is to actively engage your learners and get them working with the material so that they develop a deep understanding of the situation. Activities based on the prepared case study can be created for learners to complete in class or as homework. An example of this is shown on the next page.
2. An alternative approach is to model best practice for your learners by presenting them with a partly completed case study, a case study outline or set of research questions linked to the syllabus. Learners may need to be directed to relevant and reliable resources including reference books, text books, articles and websites. The focus in this case is teaching learners how to research their case study. This should include considering the reliability of sources, understanding the context of data and how bias can be avoided. This approach ensures that the case study is an integral part of the lesson rather than a separate activity.



3. Case studies provide valuable resources for revision. Some revision activities can be based around helping learners to recall case study information accurately. These sorts of activities might include producing summaries on index cards or making mind maps of key points. To support your learners to make good comparisons and links between case studies, you could provide completed case studies for learners to annotate, for example making notes on key case study facts and how these link learning points in the syllabus. This encourages the application of knowledge and encourages synoptic thinking.







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## Step 5

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### Case study application

Learners need to have an overview of all of their case studies and be secure in their knowledge of which case study supports which element of the syllabus. It is often surprising how easily this can be confused.

Learners could create a table identifying all of their case studies, sorted according to the topic. There is an example of this sort of table at the end of this booklet. To help learners to decide which case studies to use, they could look at past exam papers and identify which questions require case study application and then which case study would be most appropriate.

Each case study should be designed to meet the criteria required by the syllabus. However, one of the most important skills learners need to be taught is to choose only the key information to meet the demands of an exam question. Learners often tend to 'retell the story' of a case study rather than extracting only the specific points that support the response argument that is being developed.

Learners need to practise so that they are able to use their case study knowledge to support their exam answers. The case study information needs to be integrated into their response rather than added on as a separate section at the end of an exam question. An example of this is shown on the next page.

Learners need to know their case studies in detail. Through their answers they should make it clear to the examiner that they have specific case study knowledge to support their answer.

Through the use of case studies, learners should be able to show that their knowledge of geography is integrated and synoptic.

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## Mark schemes

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Sharing mark schemes with learners is an excellent way to help them understand how their case study knowledge must be used to access the higher mark bands. Note the importance of the statement at the end of the Level 2 descriptor:

### Question:

With the aid of one or more examples of a Central Business District (CBD), assess the extent to which increasing cost of land is the main cause of change. [15]

### Mark scheme extract:

Level 2 (4–7 marks)

Response shows general knowledge and understanding of changes in CBDs and includes a limited discussion of land cost. Little or no discussion of other factors. Response is mainly descriptive or explanatory with limited use of examples and understanding of the topic may be partial or inaccurate. Some concluding remarks.

**General responses without the use of example(s) will not get above the middle of Level 2 (6 marks).**

Without good case study knowledge, it is clear a learner attempting this question and others like it would be limited to achieving only a small number of the available marks.

## Step 5

## Comments

### An example of case study application

The response below shows how case study information can be effectively included as part of an answer.

With the aid of examples, discuss the view that river floods cannot be prevented but their effects can be reduced. [15]

The fact that river floods are still one of the most common of all environmental hazards supports the view that they cannot be prevented. Having said this, most urban areas in HICs are now able to manage and control small-scale regular flooding. However, they are still ill-equipped to deal with the low-frequency but high-magnitude events that occur. The idea of whether floods can be completely prevented is a complex one, particularly when the cost of management versus frequency of events plays such an important role in deciding which flood amelioration techniques are used. In Brisbane, Australia in the 1980s the Wivenhoe dam (a form of hard engineering) was built in response to a devastating flooding in 1974. This dam was effective in ameliorating flooding over the following 30 years but in 2011, poor management of water release following prolonged heavy rainfall led to a more serious flood event. This supports the idea that flooding cannot be fully prevented and that human interference can make flooding more extreme. Soft engineering techniques such as the Kissimmee River restoration scheme in Florida is an example of how the damaging impacts of hard engineering strategies like channelisation (which in this case exacerbated large scale flooding and had significant environmental impacts) can be reversed. The restoration has restored the natural environment and has allowed for controlled flooding in managed areas but has not prevented it fully. Land-use zoning can arguably be the most effective method of preventing damage from flooding by not allowing new development within one in 100 year flood areas. This significantly reduces the socio-economic cost of most flood events and is a practice used effectively in America. Again, this technique does not prevent flooding and instead ameliorates the effects, suggesting that river floods cannot be completely prevented although their effects can be greatly reduced depending on the types of engineering put in place.

The introduction shows that this candidate has a good knowledge about the complex nature of why rivers flood.

The use of a case study to support a point raised in the answer is an excellent way to demonstrate the candidate's ability to apply their knowledge of a topic.

What candidates must be able to do is to select the relevant aspects from their chosen case study to illuminate the point they have raised.

Here the candidate has used a case study as a counter-point in their argument.

Mark = 13 out of 15

## Example case study summary table

The table below shows how learners could summarise the case studies for each topic

Topic 9 – Hazardous environments		
9.1 Earthquakes and resulting hazards	Kobe, Japan 2004 HIC	Excellent example of the hazards resulting from an earthquake, including: <ul style="list-style-type: none"> <li>• Building collapse</li> <li>• Fires</li> <li>• Liquefaction</li> <li>• Economic issues</li> </ul>
	Port-Au-Prince, Haiti 2010 LIC	Good example of how an earthquake causes more significant effects in an LIC: <ul style="list-style-type: none"> <li>• Lack of facility to prepare for, or prevent earthquake hazards</li> <li>• Lack of infrastructure to cope when an earthquake occurs</li> <li>• Long term effects of an earthquake</li> </ul>
	Fukushima, Japan 2011 HIC	This earthquake shows the effects of a tsunami. It also shows how damaging an earthquake can be in an HIC despite a significant investment in planning and preparing for a hazard.
9.1 Volcanoes and resulting hazards	Eyjafjallajokul, Iceland 2010 HIC	Excellent case study for the effects of ash fallout and the economic impacts of an eruption
	Chances Peak, Montserrat 1995–97 LIC	Good example of effects of pyroclastic flows, ash fall and lahars. Demonstrates the effectiveness of the monitoring and evacuation processes. Significant economic impacts (short term negative due to loss of income from tourism, but long term positive due to visits because of the volcano).
	Mount Merapi, Java 2010 LIC	Good case study of the effects of lava flows, ash fall, lahars and pyroclastic flows. Good evacuation procedures, but not everyone follows these. Poor conditions reported in the emergency evacuation shelters could increase the problems with this. Closure of airports meant large money losses.

# Example case study 1

## Sustainable management of coasts: The Yorkshire coastline, UK (Current)

### 8. Coastal environments

#### 8.4 Sustainable managements of coasts

“Candidates must study some of the problems of sustainably managing a stretch or stretches of coastline, and evaluate attempted solutions (including hard engineering and soft engineering).”

#### Location:

The Holderness in Yorkshire is a 61km stretch of coastline on the east coast of Britain. It is one of the fastest eroding coastlines in Britain, with an average rate of erosion of about 1.8m per year. The fastest eroding part of this coastline occurs at Cowden where erosion has been as much as 10m in some years. There is clear evidence of erosion all the way from Spurn Head Point in the south to Flamborough Head in the north. Over 30 villages have been lost since Roman times and as development continues on the cliffs in this area, the implementation and maintenance of coastal defences is crucial.



#### Problems of sustainable management of this coastline:

The difficulties with sustainable management of this part of the coast are caused in part by the composition of the cliffs. They are made up of soft boulder clay (till) which is easily eroded and also prone to slumping when wet. The beaches in this area are narrow and the waves are powerful because of their extended fetch (they develop and travel from the Arctic Ocean) as well as the strong and constant prevailing winds from the north east. These factors allow for rapid erosion which makes sustainable management of this part of the coastline particularly difficult and ineffective.

The Shoreline Management Plan for this region recommends ‘holding the line’ at key settlements such as Bridlington, Mablethorpe, Hornsea and Withernsea. To do this, a combination of hard engineering techniques have been created which, while effective at reducing the rate of erosion, cannot be considered sustainable. In some areas, ‘doing nothing’ is recommended and in others coastal realignment has been suggested but has created issues with regard to relocation compensation.

### **Evaluation of attempted solutions:**

#### Hard engineering

This coastal area has been protected by a number of hard engineering techniques such as the 4.7km long concrete sea wall at Bridlington; two rock groynes and a 500m revetment at Mablethorpe; groynes and a sea wall fronted by rip rap at Withernsea and a concrete sea wall, timber groynes and rip rap at Hornsea. While these hard engineering techniques are fairly effective in reducing coastal erosion in this area, they are also expensive to establish and need regular maintenance. Hard engineering techniques affect the appearance of the coastline, interrupt habitats and cannot be considered sustainable.

#### Soft engineering

Soft engineering has occurred in the form of beach nourishment at Hornsea. Sediment has been dredged directly off shore and pumped onto the beach to widen the beach to protect it and to add sediment to the coastal system to benefit the areas downdrift. Although the process of beach nourishment is, in theory, sustainable and supports wildlife habitats, the ease with which this sediment is removed during storms means that it is not a particularly effective method of protection. From an environmental point of view this can be considered sustainable, but not from a cost point of view.



## Example case study 2

### The management of a tourist destination: Ko Pha Ngan, Thailand (2000's)

#### 13. Global interdependence

##### 13.4 The management of a tourist destination

"Candidates must study one tourist area or resort, its growth and development, showing the issues of sustainability it faces and evaluating the impacts of tourism on the destination's environment(s), society and economy".

#### Location:

Ko Pha Ngan is a small island, with an area of about 125km<sup>2</sup>. It is located off the east coast of Thailand in the Gulf of Thailand. It is part of the Surat Thani province in southern Thailand. Ko Pha Ngan is accessible by flying to Ko Samui, Bangkok or Phuket and then by ferry to the island.

#### Population:

13,700 (2012)



#### Growth and development:

Prior to 1985, Ko Pha Ngan was a quiet island visited by small numbers of tourists who enjoyed the relaxed atmosphere. Ko Pha Ngan became famous because of the Full Moon Parties held on Haad Rin Beach, which began in 1985 as small gatherings of about 20–30 people to celebrate the full moon. The Full Moon Parties have become more and more popular, now attracting between 5,000 and 30,000 people. The arrival of more than twice the island's population on one beach one night every month has had a considerable impact on the local environment and the resident population of the island.

There has been some discussion about stopping the Full Moon Parties completely. Recent attempts have been made to make Ko Pha Ngan a more family-friendly tourist destination, promoting the island's natural attractions and idyllic setting. The Ko Pha Ngan tourist board promotes alternative activities to attract tourists including rock climbing, snorkelling, sea kayaking, eco-safaris and scuba diving.



### **Issues of sustainability:**

The island of Ko Pha Ngan is a designated eco-tourist area that has managed to retain 90% of its original rainforest by establishing zoning policies to protect the environment. This became a priority because of issues that arose and by mistakes that were made on the neighbouring island of Ko Samui. Until the Full Moon Party was established, the island was quiet and relaxed, consisting of a few simple bungalows catering to low key backpackers.

The establishment of the Full Moon Party has resulted in almost three times the island's entire population visiting on one night a month with tourists focused on the party with little regard to the difficulties caused by the presence of such large numbers of tourists or by the impact that they have on the lives of local people and on the environment. The Full Moon Party in itself is not sustainable, nor can it be considered responsible tourism. Due to the popularity and demand as well as the economic success of the Full Moon Party, Half Moon Parties and even Quarter Moon Parties have been established and are even more unsustainable, placing the environment, the infrastructure and the lives of local people under even more pressure.

### **Evaluation of the impacts of tourism on the environment, society and economy:**

#### Environment

The Full Moon Party contributes on a small scale to increased greenhouse emissions as a result of the pollution caused by planes, ferries, busses and other types of transport required to access the island for the Full Moon Party. The actual event results in large amounts of litter, broken glass etc. being left on the beach after the party which then needs to be cleaned up by local volunteers. Noise pollution during the event is also of concern.

#### Society

Conflict occurs between partygoers and local people due to different cultural beliefs and ideologies. Many Thai are Buddhists, who hold strong religious and moral beliefs and are offended by the excessive use of alcohol and promiscuous behaviour of the tourists. Drugs are illegal and the police patrol parties try to enforce this, but drug taking still occurs, putting tourists in conflict with the law. More recently, there has been an increase in the number of assaults and robberies at parties, causing conflict and putting additional pressure on an already stretched local police force. Partygoers are sometimes injured or taken ill and this puts additional pressure on local health services.

#### Economy

Revenue created by the Full Moon Party has been estimated at 10 billion baht (almost US\$300 million). This income is invaluable to local people who make money from supporting the Full Moon Parties by providing transport and local accommodation, selling alcohol and providing other services in preparing for, running and clearing up after the event. Money circulates through the local economy in a multiplier effect and supports the wider economy through tax revenues.





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