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Introduction

Overall, candidates performed well on this paper. High-scoring candidates demonstrated not only in-depth knowledge and understanding of the topics being tested but also their ability to 'think like a geographer' while using a wide range of important geographical skills.

Over time, there has been noticeable improvement in the quality of the answers to the 8-mark 'assess' questions. A growing number of candidates have a clearer understanding of these tasks.

Other improvements include growing familiarity with the requirements of the 12-mark question. This final task uses the entire resource booklet as a basis for thinking critically about the important decisions that governments or other powerful players are sometimes required to take. Candidates are also expected to apply their own understanding to the task in ways that can strengthen their argument further. This year, many candidates attained a secure Level 3 mark by carefully referencing material drawn from throughout the resource booklet and combining this with their own knowledge to create a compelling argument.

Candidates scoring lower marks across the paper as a whole tended to give insufficient thought to the meaning and wording of many of the questions. It was typical to see lower-scoring candidates providing answers with insufficient focus on keywords and phrases such as ‘distribution’ in Q01(c) or ‘other countries’ in Q03(h).

Question 1 (a)(i)

Around 90% of candidates correctly identified the ecosystem as tundra.

Question 1 (a)(ii)

Around two-thirds of candidates correctly identified C and E as the two valid distributional statements.

Question 1 (b)

Nearly three quarters of candidates answered correctly. The most popular answer was tropical rainforest.

Question 1 (c)

Credit was available for candidates who correctly selected information from figures 1 and 2 that was relevant to the task. Credit was given for mention of two valid physical factors or influences. Typically, candidates identified the presence of volcanoes and the extreme cold associated with altitude, the presence of glaciers or Iceland's location close to the Arctic Circle. Candidates were additionally expected to apply their own knowledge and understanding to suggest how these physical factors have influenced the distribution of specific ecosystems and biomes – or of vegetation, flora or fauna in general.

The highest-scoring answers demonstrated appropriate understanding drawn from box 7.1 of the Specification. They showed understanding of ways in which climate or other local factors can affect the distribution of ecosystems and biomes. For example, candidates were able to explain how particular species are suited to temperatures or sunshine hours that are present or lacking in Iceland. Some candidates explained how extreme cold temperatures and ice become a limiting factor for ecosystems in general. Other candidates explained that these conditions were only suitable for certain species. Either approach was acceptable, provided the answer demonstrated appropriate understanding that the geography of ecosystems is shaped by the presence or absence of particular climatic conditions or other local factors.

Question 2 (a)(ii)

Credit was available in this question for the use of appropriate information drawn from figure 3. Candidates were expected to analyse the information to extract one human and one physical reason why little forest remains. Most candidates performed this task competently. Typically, candidates wrote about the arrival of the Vikings and the strong winds that have led to soil erosion. Candidates scoring 2 marks typically did not apply their own course knowledge to develop their explanation. Instead, they reproduced more material from the figure than was required at the expense of incorporating some understandings of their own. For example, there were opportunities for candidates to apply their knowledge of reasons why logging occurs, aside from the sheep grazing mentioned in figure 3.

High-scoring answers suggested ways in which wood might have been used as a resource by the Vikings or their descendants, including present-day Icelanders. High-scoring answers also developed their physical reason by applying understanding of ways in which plants and soils are interdependent. High-scoring answers typically explained that the loss of soils would result in insufficient nutrients for tree growth.

(ii) Using Figure 3 and your own knowledge, explain **one human** reason and **one physical** reason why very little of Iceland's forest remains.

(4)

Human reason

One human cause is logging. This means trees in Iceland were cut down for commercial use to make economic benefits.

Physical reason

One physical reason reason is due to strong winds. This is because soil erodes so taiga forest has dissapeared & the fertile soil is infertile and lacks nutrients.

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Both parts of the response are satisfactorily extended and developed using the candidate's own understanding. Deforestation by humans has been identified from the figure and developed through a mention of commercial logging – which is a valid response anchored more in the present day than the Viking era. Erosion of soil has been identified from the figure and developed using the candidate's own understanding of the importance of soil fertility for vegetation growth.

(ii) Using Figure 3 and your own knowledge, explain **one human** reason and **one physical** reason why very little of Iceland's forest remains.

(4)

Human reason

Early Settlers to iceland knew as Vikings removed much of Icelands forests to make room for sheep ~~goats~~ grazing, as a result by 1900s less than 1% of iceland was still forested

Physical reason

Strong winds have eroded icelands soil in places where trees has removed, as a result nothing will be able to grow there, this reduces the amount of forest in iceland.

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Although both answers look lengthy and substantial, this response only scored 2 marks. All of the material in the first half is copied directly from the figure with no additional understanding added. Compare this with the previous example. The second part of the answer adds no additional understanding to the initial point drawn from the figure which is that the soil is no longer present. We are not told why this means vegetation cannot grow. Compare this with the previous example answer.

Question 2 (b)

The majority of candidates provided an explanation focused on Iceland's economy, as asked for by the question. Responses that were awarded 2 marks typically used figure 4 to explain ways in which forest planting creates employment. They applied their own understanding to briefly outline the positive impact this could have on national economic growth. Responses that were awarded 1 mark usually stated that jobs will be created for people but omitted any link with the national economy. Responses that were awarded 0 marks usually lacked the required focus on Iceland's economy. Some candidates stated that flood risk would be reduced but did not develop the point in a way that explained how this would impact on Iceland's economy.

(b) Study Figure 4.

Using Figure 4 and your own knowledge, explain **one** possible impact of replanting forests on Iceland's economy.

(2)

Replanting forests creates jobs for foresters. A higher amount of available jobs will be good for the economy as people have more disposable income to spend in shops, which contributes to the economy.

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This response meets the assessment objectives securely and gains both marks. The candidate has analysed the figure and selectively used relevant information about new employment in forestry. They have then developed the explanation further using their own understanding by outlining how greater disposable income and spending can contribute to the national economy.

Question 2 (c)

This question required candidates to use their own knowledge without any reference to the resource booklet. To judge by the evidence, this part of the Specification's content is very familiar to candidates. The majority correctly identified a valid characteristic of the trees. Many were able to provide a brief explanation linking the chosen characteristic with climate. Typically, candidates explained how sloping branches allow snow to slide off or explained how needle leaves help to reduce energy or water loss.

(c) Using your own knowledge, explain **one** way in which trees in the taiga biome are adapted to the climate.

(2)

Taiga trees are adapted to the climate by growing in cold temperatures.

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No marks are awarded for this response. There is no specific adaptation either described or explained.

(c) Using your own knowledge, explain **one** way in which trees in the taiga biome are adapted to the climate.

(2)

In the taiga, trees have branches that slope down so that snow falls off of them. This is good as it means the heavy snow can't accumulate and snap the trees branches.

(Total for Question 2 = 9 marks)

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In this response a valid adaptation is explained with clarity and is fully deserving of the award of 2 marks.

Question 3 (a)(i)

Around 90% of candidates correctly identified tourism.

Question 3 (a)(ii)

Just over 80% of candidates correctly identified fishing and food.

Question 3 (b)(ii)

A simple statement such as 'war' was sufficient for the award of 1 mark. The command 'state' gave a clear signal that a lengthy description was **not** required. Some candidates wrote several lines providing details of the invasion of Ukraine by Russia. This was not necessary and hopefully did not jeopardise their performance in other questions on the paper due to lack of remaining time.

Question 3 (c)

Candidates were given the instruction to use evidence from two different figures. No instruction was given to additionally use their own knowledge. The award of marks therefore hinged upon their ability to synthesise information by **linking and connecting together** information from figure 5 **and** figure 6 in order to create a brief explanatory narrative. At the top end of the mark range, candidates provided two clear reasons why Iceland needs a range of different energy sources. Typically, candidates explained that (1) fossil fuel must stay part of the mix because of its importance for the fishing industry and aeroplanes, while (2) heating for homes now draws energy from a different source, geothermal energy, in order to reduce costs or limit dependency on imports. Students who answered in this way usually gained all 4 marks. They communicated to the reader a clear rationale for Iceland's diverse energy mix using information from both figures 5 and 6.

In the middle of the marking range, candidates typically explained reasons why Iceland's government has made particular decisions about energy use, for example by trying to use less oil. However, the answer as a whole did not convey to the reader any clear idea of why Iceland is using a range of **different** energy sources.

(c) A country's 'energy mix' is the range of different energy sources used by its people and industries.

Using evidence from Figures 5 and 6, explain **two** reasons why the people of Iceland need a diverse energy mix.

(4)

1 Iceland needs energy to heat homes, where it can be provided cheaply by geothermal energy, as it is very easily accessible due to its situation on ~~near~~ plate boundaries so there is more volcanic activity

2 Geothermal energy cannot supply for everything (e.g. transport) so the people of Iceland need to use fossil fuels for shipping, planes & vehicles as ~~so~~ they constantly move around

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The two parts of this candidate answer combine to provide a full and clear explanation of why Iceland has a diverse energy mix. Proximity to plate boundaries allows Icelanders to utilise cheap geothermal energy where they can. However, because this cannot be used for everything, fossil fuels continue to be part of the mix in order to meet the needs of the transport sector. This is a well structured response that synthesises information drawn from both of the relevant figures.

(c) A country's 'energy mix' is the range of different energy sources used by its people and industries.

Using evidence from Figures 5 and 6, explain **two** reasons why the people of Iceland need a diverse energy mix.

(4)

1 people in iceland need a diverse energy mix as it works out cheaper

2 Also they have wind and volcanoes making other energy accessible

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In this low scoring response, the candidate has not engaged with the relevant figures at all adequately. Such information as has been extracted has not been framed in a way that directly answers the question. One mark has been awarded for a partial explanation that invokes cost as a reason why certain energy choices have been made the second part of the answer gained no credit at all.

Question 3 (e)

This question required candidates to answer using their understanding of taught elements of the course rather than material contained in the resource booklet. At the upper end of the marking range, candidates demonstrated clear understanding of what is meant by a 'physical' or 'political' reason in geography. Their answers were more detailed and developed. For example, they explained that countries receiving relatively low levels of sunlight either throughout the year or at a particular time of year might struggle to develop solar power. They further explained that some governments might choose not to support innovation and infrastructure for renewable energy because they either have plentiful fossil fuels of their own or have made political choices to fund other services.

Candidates in the middle of the mark range usually provided insufficient physical detail, for example they stated that some countries might not have the 'right climate' for renewable energy. The same candidates were sometimes unable to provide a clear political reason why some countries produce little renewable energy. Typically, they stated that renewable energy was 'too expensive'. However, it was unclear how this fact might impact on political decision-making.

(e) Using your own knowledge, explain **one physical** and **one political** reason why some countries produce little renewable energy.

(4)

Physical reason

One reason is their location may not allow it, for example they may not be in a particularly sunny area which means solar energy would not be reliable enough.

Political reason

One reason is in order to boost the economy governments allow TNC's and power plants to burn fossil fuels which in turn provides energy security as well as money for the economy.

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Both parts of the answer engage satisfactorily with the question focus and provide explanations that contain sufficient development for the award of full marks. They clearly identify that renewable solar energy requires a physical input of sunlight and that this may be variable between countries. The second part of the response is also a reasonable answer given that there is a clear focus on the hand of government and regulation. A government allows its companies and power plants to utilise fossil fuels because that makes sense for the national economy. This is a logical and clear answer for a GCSE-level candidate to be providing.

(e) Using your own knowledge, explain **one physical** and **one political** reason why some countries produce little renewable energy.

(4)

Physical reason

~~because they don't have the geology of a country as they are~~ because they may have a ~~flat~~ hilly topography where the are hard to build on

Political reason

because they may not have the technology to extract a lot

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The first part of the answer makes admirable use of the word topography but unfortunately does not provide sufficient explanation of how this might result in little renewable energy being produced. The reader is left to reason why this is a barrier to renewable energy or which type of renewable energy the candidate is referring to. The second part of the answer provides neither an explicit nor implied link with political decision making. The candidate has not linked the lack of technology to any political understanding. For example, they might have told us that a government had not invested sufficient money in technology.

Question 3 (f)

Most candidates were able to gain some credit using information selected from figure 8, which showed a range of environmental issues and linked social impacts associated with renewable energy use in Iceland. At the lower end of the marking range, candidates were able to analyse the figure and reproduce relevant details in the answer space. Typically, candidates scoring 3 marks described issues associated with reservoir construction and gas leakages. They were unlikely to offer any assessment of the impacts.

In the middle of the marking range, candidates described the issues and additionally offered a clear if basic assessment of the severity of the impacts described. Typically, a candidate scoring 5 marks judged that the loss of species is particularly worrying, or that gas emissions are especially concerning because they affect humans too. Such answers often ended with a short conclusion informing the reader that Iceland has experienced 'many severe negative impacts'.

Answers at the top of the mark range either provided a more detailed and thoughtful assessment of the impacts or weighed up the issues in a relatively complex way, for example by noting that the loss of one key species might in turn lead to the loss of others. Typically, high-scoring candidates weighed up the impact of renewable energy using the geographical concept of scale. They acknowledged that while renewable energy can make a positive global environmental contribution there have been significant local negative costs for Iceland.

This is a strong level two response. The candidate has extracted a large amount of relevant information from the resource and used it selectively while answering the question (AO4). There is an attempt to weigh up or assess the impacts (AO3) but this is neither sustained nor very insightful. We are told that the problems are long term; this assertion is repeated again in the conclusion. For a top level mark, examiners expect a more sustained or detailed assessment of the impacts that have been described.

(f) Study Figure 8.

regional.

Using evidence from Figure 8, assess the **environmental** impacts of renewable energy use in Iceland.

(8)

Renewable energy use in Iceland has ~~caused a lot~~ had a big impact on the environment. In order to retract hydroelectric power, stations have been put in place. ~~This~~ The major station in Iceland is known as HHEPS. This causes harm to the environment due to the fact that over a large area of land was flooded to create the reservoir. As a result Iceland's wild reindeer and geese lost their breeding grounds, and some river ~~as~~ fish species died out. Therefore use of renewable energy in Iceland cause a loss in biodiversity. This causes long term problems for the environment due to the fact that it may take ~~This~~ a long time in order for those species harmed by the stations to reproduce again.

Another environmental impact of renewable energy used in Iceland is it creates air pollution. Extracting HGP a form of renewable energy includs hot water being drawn to the surface, bringing sulphur and nitrogen ~~causes~~ which causes soil and air pollution. This ~~impacts~~ ~~the~~ has a long term impact on the environment due to the fact that the soil's Ph could have changed resulting in trees and plants dying and being

produced less, causing a loss in medicines as there are less plants as well as a loss in the Icelandic forest. ~~In conclusion renewable energy use in Iceland has~~

In conclusion, renewable energy use in Iceland causes a long term impact to the environment as it causes a loss of biodiversity, ~~and harm pollution and~~ land pollution causing the environment to be at harm.

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See remarks above.

(f) Study Figure 8.

: less impact → significance
: less

Using evidence from Figure 8, assess the **environmental** impacts of renewable energy use in Iceland.

(8)

On the one hand, using renewable energy in Iceland has a significant negative environmental impact. This is because a "large area of land was flooded to create the reservoir at KHEPS". This means that sediment may rise to the top of the reservoir and block light reaching plants. Plants in the reservoir won't be able to photosynthesise. This results in eutrophication, dead organic matter will build up in the reservoir as biodiversity is reduced. ~~On the other hand~~, For example, some river fish species died out. On the other hand, using renewable energies will have a ~~big~~ significant positive environmental impact. For example, the renewable energy produced would result in a decreased reliance on fossil fuels (which burning them ~~harms~~ harms the environment). Furthermore, as KHEPS is a HEP plant, it would result in zero carbon emissions. This positively impacts the environment. However, the significance of this may be reduced as the energy produced may be used for process such as processing bauxite which contributes to emissions, and so global warming.

On the one hand, HGP in south Iceland has many environmental disadvantages. For example, it draw up sulphur and nitrogen gases. These can cause soil and air pollution. This means that trees, but also even humans and animals near the plant may be affected. On the other hand, HGP is a geothermal

plant. This means that clean energy is produced very easily and cheaply. This could mean that the money saved on this rather than using fossil fuels could be invested into reforestation schemes in Iceland. Therefore, this is a clear, significant positive impact.

Overall, it seems that there are both positive and negative environmental impacts as a result of the use of renewables in Iceland. These are significant on balance.

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This candidate has provided a high quality assessment. Relevant information is carefully weighed up in a sustained way throughout the entire response. Rather than categorising impacts as being purely positive or negative, this candidate offers a far more nuanced weighing-up of each impact that explores different perspectives. Renewable energy can be seen both as positive and negative, we are told. Furthermore there is potential to mitigate the negative impacts. All of this understanding is shown in the candidate's response.

Candidates who gain a middle level mark tend to categorise information in relatively simple terms as being purely positive or negative. By doing so, they meet the requirements of the 'assess' command, because they have framed the information in a discursive way. In contrast, this example of candidate work shows what a top-level answer looks like. This candidate is working far harder to weigh up impacts in a stepped or sequential way, using connective language that clearly signals the depth of thought that is being put into the work.

Question 3 (g)(i)

Around two thirds of candidates correctly identified the year 2014.

Question 3 (g)(ii)

Almost two-thirds of candidates correctly identified changes in ocean temperatures.

Question 3 (h)

Most candidates were able to gain some credit from this question by analysing figure 10 and extracting relevant information as part of their answer. Answers at the bottom of the mark range tended to omit the instruction to think about 'other countries' and instead stated that elements of Iceland's plan were very good. In other words, they outlined Iceland's efforts to replant trees and reduce carbon emissions but did not begin to weigh up how far other countries might adopt the same approach.

Answers in the middle of the mark range weighed up the information from the point of view of other countries. At this level, observations tended to be relatively undeveloped. Typically, candidates scoring around 5 marks wrote that other countries might not be able to afford to introduce the changes or might not have 'enough space' to grow much forest.

At the top of the mark range, candidates provided a sustained evaluation of different elements of Iceland's plan. Rather than simply dismissing any of the elements, they weighed each one in a thoughtful manner. Typically, answers in the top mark band acknowledged that not all countries have conditions suited to coniferous forest. However, they proceeded to argue that it might be possible to plant other types of more suitable vegetation according to each country's climate and other local conditions. Similarly, these more fully developed answers argued that while some countries might lack the capital needed to invest in renewable energy, greater global cooperation might allow for the sharing of technology, meaning that more countries would then be able to adopt Iceland's plan.

(h) Study Figure 10.

Assess the value of Iceland's Climate Action Plan as a strategy that other countries could also use.

(8)

Iceland have joined global efforts to reduce aircraft emissions which can make travelling and importing and exporting goods easier and more environmentally friendly. By joining the global effort they have other countries support in developing new technology which could speed up the whole process. This means that clean travelling can happen faster.

Iceland are also replanting enough new taiga trees to increase the carbon storage by 500%. This takes carbon out of the atmosphere and also releases more oxygen back into the atmosphere. This can lead to reduced climate change and a healthier environment. Other countries can easily do this strategy as it will increase their air quality. However, this project may be very expensive ~~stuck~~ and could take a long time to plant all of these trees. This expensive project however could increase eco-tourism to bring in more tourists and money into the country.

Overall, Icelands strategies are good for helping their atmosphere which could be used by other countries to help theirs but the projects can be quite expensive.

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This is a secure level 2 answer. The candidate has demonstrated an ability to selectively use and analyse key information from figure 10. They have also framed their answer in an evaluative way that begins to assess the value of the strategy for other countries. A few clear points are made though they are not strongly developed. Planting trees is good for the atmosphere, can be expensive and might attract tourists. The latter point is a slightly dubious one given the focus is coniferous forest in northern Europe. A more developed answer might have recognised that other countries with different climates might have to plant different types of vegetation some of which could be conducive to ecotourism.

(h) Study Figure 10.

Assess the value of Iceland's Climate Action Plan as a strategy that **other countries** could also use.

(8)

Overall the Climate Action Plan can be closely followed by other Countries, however there are areas in which they cannot. All countries can follow and use the "Roads and shipping" Category given in Figure 10 as it would very easily be done as car Manufacturers create more and better electric cars that are available worldwide. This is the Same for the Aircraft and industry Category. Countries can easily reduce aircraft emissions through Biofuel use or less flights altogether. Additionally the reducing of emissions to match the European Union is also very achievable with todays technology.

Every country worldwide can "Promote and support renewable energy" and encourage citizens to conserve energy. However in some countries the actual production of renewable energy sources may be difficult because for example. the countries topography may mean there isn't space for energy plants. However. Most countries cannot follow the Forestry and land use Category because, for exmple Egypt, which is mostly dessert, can plant new taiga trees however they will not be able to survive. Rather countrys must take a similar method but plant their own native trees that will survive.

In conclusion, the majority of the Climate Action Plan can be a strategy used by other countries however they must adapt it slightly to fit their own country. e.g replace taiga trees with their own native Trees.

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This answer gains full marks despite only being one page long. As such, it is an inspiring example of student work for future candidates to inspect because it demonstrates the award of high marks does not hinge on the amount of material that is written but rather its quality. This is a very clear response that thoughtfully assesses different strands of the plan. While level 2 responses tend to categorise particular strands in entirely positive or negative terms, this candidate works much harder at weighing up some of the strands of the plan. There is recognition that geographical contexts vary so greatly that some parts of the plan are simply not transferable to all countries. The point about Egypt is excellent for example. In the conclusion, the candidate really is thinking like a geographer and is thinking about place and scale while carrying out a critical and constructive assessment.

Question 4

At the upper end of the marking range, candidates were able to provide a sound rationale for their chosen option while also explaining why they had rejected the alternatives. High-scoring answers often showed strong awareness of the issues of time and geographical scale. They recognised that the planting of trees is a long-term goal that will take many years to come to fruition yet has an important role to play at both local and global scales. High-scoring answers tended to offer more developed insights into the reasons why other options should be rejected. Thus, a high scoring answer favouring Option 2 might note that Option 3 should not be a priority because the evidence shows that fossil fuel is **already** a very small part of Iceland's energy mix, with great progress already made (as figure 6 shows). In contrast, lower-scoring answers typically dismissed Option 3 with a more basic argument that fossil fuel cannot be reduced 'because vehicles need it'.

High-scoring candidates typically had good awareness of the assessment objective (AO) weighting of this task. Answers in the highest mark band often referenced information carefully, with candidates noting in brackets which particular figure they had drawn information from to support their case. The same answers made clear use of supporting knowledge drawn from taught elements of the course, including subject-specific terminology and named theories.

Answers in the middle of the marking range typically provided a sustained argument in favour of a chosen option. For example, many candidates were able to write in some depth about the importance of planting forest as a climate change action. These answers tended to lack either range or depth of argument, however. They dismissed alternative options in more out-of-hand ways, for instance by arguing that Option 1 was not feasible because Iceland's economy still requires aluminium production. Answers in the middle of the marking range were far less specific in their use of supporting information from the resource booklet. They tended not to reference data by referring to named figures and usually contained very little additional understanding drawn from taught elements of the course. Nonetheless, a clear and coherent answer of this calibre would usually have been awarded 7 or 8 marks.

Answers near the bottom of the marking range tend to be very short. Typically, a candidate scoring just 3 or 4 marks asserted that tree planting is a good way to help Earth's climate while also providing jobs for local people. Answers such as these typically made little or no reference to the alternative options and tended to make only partial use of the resource booklet.

4 Study the three options below for Iceland's government to manage the country's natural environment and resources more sustainably.

Option 1: Make new laws to limit the harm done by aluminium production.

Option 2: Increased planting of new trees to replace Iceland's lost taiga forest.

Option 3: Take action to reduce fossil fuel use by transport in Iceland.

Select the option you think Iceland's government ought to focus on **first**.

Justify your choice.

Use information from the Resource Booklet and knowledge and understanding from the rest of your geography course to support your answer.

(12)

Chosen option

Option 3

I believe option 3 should be the Icelandic government's main priority. This is because the release of carbon from fossil fuels in Iceland is a major issue, as the average carbon footprint of a citizen in Iceland is almost double that of a UK citizen (Figure 10) and tourism, one of Iceland's largest economic sectors, brings many people to Iceland by plane (Figure 5) which are powered by oil (Figure 6), a fossil fuel. As well as this, fishing boats from another of Iceland's large economic sectors

(Figure 5) release large amounts of CO_2 into the atmosphere (Introduction). Overall, these large concentrations of carbon contribute to global warming and climate change, which not only largely affect the world, but also have direct, severe impacts on Iceland itself, with its fragile and already damaged and vulnerable environment (Figure 9).

Option 1 is a valid focus as aluminium production uses large amounts (3/4) of all Iceland's electricity (Figure 8) and also necessitates deforestation to clear land for bauxite mining. This will cause habitat loss, landscape scarring, and reduction of a valuable carbon sink. I do not believe that this option is feasable for immediate focus, however, as the manufacture and export of aluminium is the largest of Iceland's economic sectors, contributing 36% of Iceland's earnings (Figure 5) and proving to be their most valuable export (Figure 8). Reducing aluminium production or implementing laws to make it more difficult to do so may deter many of the TNCs that provide their funding and are attracted by Iceland's low taxes and low energy prices (Figure 8), which would reduce their income. This may make it more difficult for Iceland to continue on their journey to sustainability as they would lack the funds to invest in the rather expensive endeavour.

Option 2 is also viable for consideration as trees are valuable carbon sinks, meaning they reduce the amount of carbon in the air by intaking carbon dioxide for photosynthesis and storing it in their biomass, consequently reducing the greenhouse effect and slowing the effects of global warming and climate change, large threats to Iceland's environment (Figure 9). It would also bring economic and social benefits such as forestry jobs, wood production, and recreational opportunities (Figure 4). However, trees take a long time to grow and the amount of carbon taken in by trees is miniscule compared to the amount of carbon released by humans fossil fuel usage. This means that without first reducing carbon emissions, the replanting of the forest is unlikely to make much of an impact.

Overall, Option 3, after weighing the positives and negatives of each option, appears to be the most economically achievable, fast acting, and sufficiently impactful option to manage the country's natural environment and sustainable use of energy resources.

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Examiner Comments

This response meets all the assessment criteria extremely well. The use of evidence is impeccable. The candidate has drawn across the entire resource booklet and has diligently referenced the information used (AO4). They have also clearly applied their own knowledge and understanding to the task, for example by using terminology such as 'carbon sink' (AO2). Finally the quality of the evaluation is excellent (AO3). The final paragraph not only concludes that Option 3 is the best but justifies this viewpoint from multiple perspectives of cost, time, impact and sustainability. At GCSE level it is an extremely sophisticated judgement to have arrived at.

One possible weakness with the work is that the candidate argues in favour of Option 3 without any acknowledgement of how fossil fuel reduction might actually be achieved without harming the sectors dependent on it. However this is not an essential part of the task set. Candidates are not being examined on their knowledge of possible ways to decarbonise the transport sector. The question has asked them which of the three options the government should make its priority for action – and to argue **why** this should be the main target. It would be not in keeping with the assessment objectives to withhold marks from an otherwise excellent answer because no technical details have been provided of how Option 3 might in practice be achieved. In every other respect this is an exemplary answer. It is also relatively concise compared to many longer answers that scored fewer marks.

Paper Summary

Based on their performance in this paper, candidates are offered the following advice:

- Typically, a 2 – or 4-mark 'explain' or 'suggest' question focused on a figure will require candidates to create a 'blended' answer which makes use of supporting information from the figure *and also* the candidate's own knowledge and understanding (AO2) of geographical concepts, ideas or issues. In particular, candidates are encouraged to make greater use of subject-specific terminology.
- In 8-mark questions, candidates will not gain a top-level mark by only describing the issues, no matter how detailed their points are. Proper assessment – or 'weighing-up – of the issues or impacts is essential.
- In the 12-mark essay, candidates will sometimes argue strongly why one option is better than the others while neglecting to use much in the way of supporting evidence or their own knowledge and understanding. Candidates need clear guidance that there should be *sustained* use of supporting evidence and ideas throughout their final answer.

Grade boundaries

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

https://qualifications.pearson.com/en/support/support-topics/results-certification/grade-boundaries.html

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