

Possible Approaches for H1 Geography A-levels 2024 (Structured Questions)

Q1

(a)	With reference to Resource 1, suggest how the students could have obtained a more representative sample of the residents in Reading. [4] - The students could have obtained a more representative sample of the residents by carrying out they survey at different locations to reach a broader spectrum of residents. [1 mark] For example, they could conduct the survey at the train and bus station as it is likely to have high human traffic with a range of commuters since it is an interchange for the trains and buses. This will help them to achieve a more representative sample of residents of different age groups to facilitate the comparison that is necessary in their hypothesis. [1 additional mark] <u>or</u> They could also conduct the survey at the cinema complex where they can potentially reach more younger people. [1 mark] This will make the sample more representative since their hypothesis compares younger people with older people. [1 additional mark] - The candidates could adopt a stratified sampling method where the proportion of respondents in their sample mirrors the proportion of the major age groups in Reading. [1 mark] - The candidates could have extended the time allocated to include both weekdays and weekends, as well as increase the number of time slots when the survey was taken on each day. [1 mark] Examiner Comments: Weaker responses focused only on carrying out surveys at a range of different locations named on Resource 1, such as the park or cinema, linking the location to specific age groups. Stronger responses also suggested extending the time allocation, both in terms of days of the week and the time of day slot. In addition, stronger responses suggested a clear sampling strategy that would ensure a more representative sample, for example: <i>‘The candidates could adopt a stratified sampling strategy where they surveyed an equal number of people from each of their age groups.’</i>
(b)	With reference to Resource 2, suggest how the students could minimise potential risks in conducting the survey. [5] - They should be properly attired to avoid hypothermia. [1 mark] This will help to keep them warm and from falling sick since they are conducting the survey outdoors on a particularly cold and windy day (as stated in the preamble). [1 additional mark] - They should ensure that their valuables are properly secured. [1 mark] Since they are in a public space (as shown in Resource 2), they could become victims to pickpocketing and theft while they are conducting their survey. [1 additional mark] - They should not stand in the middle of the bridge (as shown in Resource 2) while conducting the survey [1 mark] so that they are not knocked down by cyclists, skateboardists or users of personal mobility devices. [1 additional mark] - <i>The candidates should avoid interviewing people outside the restaurants, shown in Resource 2, [1 mark] as this could annoy the diners who want to eat in peace, which could lead to confrontations. [1 additional mark]</i>

Examiner Comments:

Weaker responses focused on the clothing that the candidate should wear for the expected weather conditions. In some, this contradicted the information given in the preamble to this question, for example:

'The candidates should wear light clothing so they do not suffer from the heat, and take plenty of water to reduce the risk of dehydration.'

Weaker responses also tended to make weak links to Resource 2 and offered generic points, for example:

'The candidates should always have a charged mobile phone, so they can call for help if they need it.'

Stronger responses made clear links to the resource and tended to focus on issues of safe access to interviewing people, for example:

'The candidates should avoid interviewing people outside the restaurants, shown in Resource 2, as this could annoy the diners who want to eat in peace, which could lead to confrontations.'

(c)

With reference to Resource 3, explain the strengths and limitations of the questionnaire used in the investigation. [4]

Strengths

1. It collects the age of the respondent so they would be able to categorise the responses by age, which allows them to investigate their hypothesis. **[1 mark]**
2. Question 1, 2 and 4 have open-ended options. This allows for the collection of more accurate responses since respondents can respond with their actual thoughts, rather than force fit their responses into the categories provided. **[1 mark]**
3. The questionnaire uses mostly closed categories which allows for ease of analysis, as well as the computation of objective data. **[1 mark]**

Limitations

1. For Question 1, what is 'active' recycling for one person may not have the same meaning for another person answering the question. This would lead to inaccuracies in the data collected and cause the fieldwork to be unreliable. **[1 mark]**
2. Question 3 and 5 are simply close-ended yes/no responses, so they do not allow for the collection of the reasons behind the responses. **[1 mark]**
3. It is not clear how many responses a respondent can indicate for responses Question 1, 2 and 4. Therefore, respondents could select multiple options, which would then invalidate that questionnaire. **[1 mark]**
4. It is not clear if all respondents would know what garden waste disposal bins are. **[1 mark]**

Examiner's Comments:

Most candidates answered this question well. Responses tended to be more focused on the limitations rather than the strengths. Most candidates offered a range of limitations, with stronger responses demonstrating good understanding of fieldwork methods and techniques, for example:

'When people are asked questions such as 'do you actively recycle' they are faced with a

subjective question. What is active recycling for one person may not have the same meaning for another person answering the question.'

Weaker responses tend to concentrate on strengths with limited reference to limitations, for example:

'One of the strengths of the questionnaire was its short length, so people would be willing to answer it, as it would not take up a lot of their time.'

(d) Compare the results for question 2 for the 15-25 age group with the 41-60 age group shown in Resource 4. [4]

	15-25 years (12)	41-60 years (15)
Paper	10 = 83%	8 = 53.3%
Aluminum and other metal cans	10 = 83%	8 = 53.3%
Plastic Bottles	2 = 16.7%	12 = 80%
Glass bottles and jars	4 = 30%	9 = 60%
Cardboard	3 = 25%	11 = 73.3%
Clothes	5 = 41.7%	4 = 26.7%

Similarities

- For both age groups, paper and 'aluminum and other metal cans' were recycled at the same rate (83% for 15-25 years old; 53.3% for 41-60 years old). **[1 mark]**
- 1.

Differences

- Most commonly recycled items: Paper, aluminum and other metal cans (15-25); plastic bottles (41-60) **[1 mark]**
- Least recycled items : plastic bottles (15-25 years old); clothes (41-60 years old) (recycling rate for clothes was 1.5x more) **[1 mark]**
- Average rate of recycling is higher amongst 41-60 years old (57.8%) as opposed to 15-25 years old (46.5%) **[1 mark]**

Examiner Comments:

Most candidates answered this question well.

Weaker responses made statements that were contradictory, for example:

'Both age groups have identical figures for recycling clothing. 15–25 year olds have 5 responses, and 41–60 have 4 responses.'

Some candidates gave a list for each of the age groups, which tended to limit the effectiveness of the comparison element of their responses.

(e)	With reference to Resources 4 and 5, explain why the data representation methods used are appropriate for the data collected.[3] Resource 4 is a table. This is appropriate because: - Clear comparison of different types of items that can be recycled in rows. [1 mark] - Columns show the tally of responses clearly too. [1 mark] Resource 5 is a comparative bar graph. This is appropriate because: - Shows clearly the differences for the two age groups using the same colors to differentiate the two age groups since the hypothesis seeks to find out about the rate of recycling between different age groups. [1 mark] - The bar graphs are discrete as the two age groups are discrete. [1 mark] Examiner's Comments: Most candidates answered this question well, with a clear appreciation that the two techniques allowed easy comparison of data. Stronger responses pointed out the extra level of data detail that could be shown in a table and the more visual nature of the bar chart, for example: <i>'Resource 5 is very effective at showing the differences between the two age groups as it uses colour, so the reader can tell easily the comparison.'</i>												
(f)	Evaluate the success of the investigation of recycling in Reading.[10] <table border="1" data-bbox="280 983 1439 1718"> <thead> <tr> <th>Strengths</th><th>Weaknesses</th></tr> </thead> <tbody> <tr> <td>Clear and testable hypothesis focusing on age-based recycling behaviour</td><td>Small and uneven sample (only 6 residents over 60 vs 17 aged 26–40) limits representativeness</td></tr> <tr> <td>Strategic location (The Oracle Shopping Centre) ensures footfall (Resource 1 & 2)</td><td>Site may over-represent younger age groups who frequent the mall</td></tr> <tr> <td>Questionnaire is structured with closed, scaled and open ended questions allowing investigators to collect representative data (Resource 3)</td><td>Questionnaire may include close-ended questions not age-relevant resulting in some invalid responses (e.g., garden waste bins)</td></tr> <tr> <td>Resource 4 provides numerical data for comparison across all age groups</td><td>Time of survey (weekday midday, bad weather) likely excluded older respondents</td></tr> <tr> <td>Question 4 and 5 (Resource 3) explores perceptions and challenges in recycling helping investigators to understand reasons behind recycling behaviors</td><td>Resource 5 only compares two age groups, missing middle-aged data</td></tr> </tbody> </table> The investigation benefited from a clearly defined hypothesis—"Younger residents are more likely to recycle solid waste than older residents"—which allowed for targeted data collection and age-based analysis. The location of data collection, The Oracle Shopping Centre (Resources 1 & 2), was a logical choice due to its high pedestrian traffic and central position within Reading. This increased the likelihood of gathering a reasonable number of responses in a short period. Furthermore, the questionnaire used (Resource 3) was well-structured, including questions that captured both recycling behaviour and attitudes. The inclusion of specific recyclable materials such as paper and plastic bottles in Question 2	Strengths	Weaknesses	Clear and testable hypothesis focusing on age-based recycling behaviour	Small and uneven sample (only 6 residents over 60 vs 17 aged 26–40) limits representativeness	Strategic location (The Oracle Shopping Centre) ensures footfall (Resource 1 & 2)	Site may over-represent younger age groups who frequent the mall	Questionnaire is structured with closed, scaled and open ended questions allowing investigators to collect representative data (Resource 3)	Questionnaire may include close-ended questions not age-relevant resulting in some invalid responses (e.g., garden waste bins)	Resource 4 provides numerical data for comparison across all age groups	Time of survey (weekday midday, bad weather) likely excluded older respondents	Question 4 and 5 (Resource 3) explores perceptions and challenges in recycling helping investigators to understand reasons behind recycling behaviors	Resource 5 only compares two age groups, missing middle-aged data
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facilitated detailed comparisons between age groups (Resource 4), supporting the investigation's aims.

However, the success of the investigation is undermined by several weaknesses, especially in sampling. The choice to conduct surveys on a Monday between 11 am and 1 pm likely excluded many working-age adults and potentially older residents less likely to be out in cold, windy weather. This is reflected in the age distribution: only 6 respondents were over 60, whereas 17 were aged 26–40, skewing the sample away from a balanced age representation. This raises concerns about the reliability of conclusions drawn about older residents' recycling habits. Although The Oracle is a well-visited location, its demographic may attract younger consumers, again biasing results toward the younger population.

Another significant issue lies in the way data was analysed and presented. Resource 4 shows data across all age groups for types of materials recycled, which is a strength. However, Resource 5 only compares responses to Question 4 between the 15–25 and over 60 age groups, omitting the two intermediate groups. This undermines the investigation's ability to fully assess the trend across the age spectrum, especially since the 26–40 group had the most respondents. Moreover, the over-60 group had very low participation, so findings such as only 1 respondent recycling clothes (Resource 4) or fewer citing time as a barrier (Resource 5) lack statistical robustness. The small sample weakens the reliability of comparisons, particularly when the hypothesis is directly concerned with age-related patterns.

In conclusion, the investigation had several methodological strengths, including a targeted location, a structured questionnaire, and focused research aim. However, these were offset by significant weaknesses in sampling, timing, and data representation. While some meaningful patterns emerged from Resources 4 and 5, the lack of intermediate age group comparison and the small sample size limit the validity of conclusions. Therefore, the investigation showed only partial success in addressing the hypothesis.

Examiner's Comments:

Most candidates answered this question well. Responses demonstrated good knowledge and understanding of fieldwork methods and techniques, and they applied these to this investigation. Some candidates wrote an excessive amount, which appeared to have implications on their overall timing of the examination. Overall, all candidates recognised that there were both strengths and limitations for the investigation.

(a)	Describe the population structure of Cairo in 2020 shown in Resource 6A. [4] • In general, Cairo's population in 2020 was dominated by younger age groups as seen from the fact that the bottom-most bars constitute about 11.6% of the total population while the top-most bars constitute only 2.5% of the population, about 5 times fewer. [1 mark] • There is a greater proportion of males than females at all age ranges [1 mark], except for those older than 75 years old, where there are more females. [1 additional mark] • In particular, the 85+ bars show the greatest difference with almost double the proportion of females. [1 mark] • <i>The 25–29 age group seems an anomaly, as it is higher in number (8.5 per cent of the total) than the age group below it (8 per cent).</i> [1 mark] Examiner's Comments: Weaker responses tended to give unbalanced descriptions that over-focused on the age structure of the population, rather than covering both age and sex aspects of the population structure. Weaker responses saw this as a youthful population with a balanced sex ratio. Stronger responses identified more detailed points, for example: <i>'The 25–29 age group seems an anomaly, as it is higher in number (8.5 per cent of the total) than the age group below it (8 per cent).'</i>
(b)	Using Resources 6A and 6B, compare the projected population structure of Cairo in 2100 with its population structure in 2020.[4] • [Similarity] The bottom-most bars are the longest and the top-most bars are the narrowest in both 2100 and 2020, indicating that in both years, there are larger numbers of the young. [1 mark] • [Difference] The population structure of Cairo in 2100 is more asymmetrical than the population structure in 2020, indicating that there is greater gender imbalance. [1 mark] Specifically, there seem to be more males than females for age ranges between 45 in 2100, while there are more females than males for age ranges above 45. [1 mark] • [Difference] The more asymmetrical sides in 2100 also mean that the death rates at each age range are different in comparison to the more symmetrical sides in 2100, which indicate that the death rate at each age range is almost constant. [1 mark] • [Difference] <i>In 2020, Cairo had nearly 12 per cent of its population between 0–4 years, but in 2100 this age group is projected to be just under 9 per cent.</i> [1 mark] Examiner's Comments: Those candidates who focused on age in part (a) also did so in this question: they focused too much on a range of figures, rather than changes in the balance between the two sexes. Stronger responses recognised that the population is projected to be an aging population by 2100. Weaker responses offered very basic observations, for example: <i>'By 2100, there are fewer population in the very young groups and more older people.'</i> Stronger responses gave more details, for example:

	<i>'In 2020, Cairo had nearly 12 per cent of its population between 0–4 years, but in 2100 this age group is projected to be just under 9 per cent.'</i>
(c)	Suggest two reasons for the projected change in Cairo's population structure.[4] Firstly, there could have been a decline in fertility rates [1 mark], where couples have fewer children due to increasing costs of child-rearing or higher rates of late marriages as women focus on their careers. [1 additional mark] Secondly, improvements in healthcare could have resulted in greater proportion of elderly. [1 mark] Medical technology to help people to better manage chronic illnesses like diabetes and high blood pressure reduce mortality from such illnesses. [1 additional mark] Examiner's Comments: Candidates tended to explain that there was a higher elderly population because death rates and birth dates had fallen, for example: <i>'Birth rates are falling as more women are being educated and so having careers which makes them reluctant to have children, especially as they cost so much. Death rates are falling because of improvements in health care.'</i> Weaker responses tended to be confused, especially when trying to consider the impact of migration, for example: <i>'The lack of younger people suggests that they have left the crowded city and gone to look for employment elsewhere.'</i> This is contradicted by Resource 6B which suggests that the young working groups were moving into Cairo. Some candidates gave more than two reasons, which was not required by the question.
(d)	Describe the changes in age structure with distance from the city centre shown in Resource 7. [4] With increasing distance from the city centre, there was an increasing proportion of those over 65 and a lower proportion of those under 20. [1 mark] In the central city, the under 20s accounts for 55% of the population, as opposed to the over 65, who accounted for about 15% of the population, which was more than 3 times less than under 20s. [1 mark] The pattern was reversed in the rural-urban fringe (which is further away from the city), where under 20s accounted for 20% of the population and over 65s accounted for 27.5%, a difference of a mere 25%. [1 mark] The inner city was an anomaly for both groups as the proportion of both groups was the lowest; only 15% of the population was made up of under 20s and 7.5% of the population was made up of over 65s. [1 mark] Examiner's Comments:

	Most candidates stated that both age groups increased with distance from the central city and supported this statement with data from the resource. Stronger responses recognised that the younger age group preferred the central city and both groups avoided the inner city. Weaker responses attempted to explain the changes in the age structure, for example: <i>‘The under-twenties concentrate in the central city, as they are probably at university there, or seeking the bright lights and entertainment offered in the city centre.’</i>
(e)	Explain the issues faced by the elderly living in cities. [6] • As a result of the declining physiological capacity and perceptions of the elderly, the elderly often find it harder to find employment at older ages, resulting in them facing challenges in sustaining their economic well-being. [1 mark] • The elderly may also experience social isolation due to discrimination and/or lack of mobility. [1 mark] • As a result of social isolation, lack of economic well-being and loss of close family members and/or spouse at old age, the elderly may face psychological issues as well. [1 mark] This is made worse by the fact that it remains a taboo amongst the elderly to discuss mental health. [1 additional mark] • The issues faced by the elderly may differ from city to city as well. For example, cities in more developed settings have more developed pension schemes to provide for the elderly while cities in less developed settings struggle with ensuring that the elderly have sufficient income in their old age. [1 mark] • The issues face by the elderly also differ amongst different groups of elderly. For example, while the young-old may not face much mobility issues, the old-old may experience worsening challenges to social, economic and psychological well-being due to declining mobility. [1 mark] • The elderly may be disproportionately affected by increased temperatures from global warming due to contemporary climate change due to their declining constitution. Their financial situation may prevent them from adapting to contemporary climate change through the use of air-conditioning. [1 mark] Examiner’s Comments: This question was well answered. Most candidates gave comprehensive and wide-ranging issues covering finance, employment, health, mobility and personal well-being, for example: <i>‘Many old people live on their own and often rarely go out as they fear suffering from crime or violence. This tends to reinforce their loneliness and many suffer from psychological problems.’</i>

(a)	Using Resource 8, describe the global rise in sea level between 1880 and 2020. [4] • Generally, there is an increase in global sea level from 1880 to 2020, from an increase of 15mm in 1880 to approximately an increase of 260mm in 2020. [1 mark] • However, changes in global sea level show high levels of fluctuations. [1 mark] • In 1884, global sea level fell by around 8mm, and this was the only year where global sea level fell. In comparison, in 1915, there was a sudden spike in the increase of global sea level. Global sea level increased to 90mm, before falling back down to an increase in 70mm in 1916. [1 mark] • The level of fluctuations was greater pre-1920 and less after 1970. [1 mark] Examiner's Comments: All candidates recognised there had been a steady rise in global sea level. Many weaker responses saw the data as sea level itself, rather than the rate of sea level change, for example: <i>'In 1882, the sea level fell below 0.'</i> The distinguishing characteristic between the responses tended to be the detail about the fluctuations in the overall rise. Stronger responses pointed out that the level of fluctuations was greater pre-1920 and less after 1970.
(b)	Explain why global sea levels are rising.[5] One major cause of sea level rise is the melting of ice caps and glaciers, especially from land-based ice in Greenland, Antarctica, and mountainous regions. [1 mark] As global temperatures rise, more ice melts and flows into the oceans, directly increasing the volume of seawater. [1 additional mark] Another key reason is the thermal expansion of seawater. When ocean water warms, it expands because the water molecules move apart. This process increases the volume of the oceans even without adding new water and has been a significant contributor to sea level rise over the past century. [1 mark] Finally, positive feedback loops are accelerating these processes. [1 mark] For example, when reflective ice surfaces melt, they reveal darker land or ocean beneath, which absorbs more heat and causes further melting — a mechanism known as the albedo effect. Other feedback processes, such as the release of greenhouse gases from thawing permafrost or the collapse of ice shelves that hold back glaciers, also intensify warming and sea level rise. [1 additional mark] Examiner's Comments: Most candidates recognised the link between global warming and sea level rise. Weaker responses focused too much on explaining why global warming was occurring, for example: <i>'Deforestation further increases global warming as it removes carbon sinks and, as most is cleared by burning, actually adds to atmospheric carbon, so increasing the enhanced global warming.'</i> Stronger responses offered more than ice caps melting, referring to the expansion of sea

	water as it warms and/or the role of feedback loops, for example: <i>‘As the ice melts, the highly reflective snow vanishes and is replaced by bare earth that being darker absorbs more of the sun’s rays, which increases the surface temperature and speeds up the melting.’</i>
(c)	With reference to Resource 9, explain how climate change could affect people living in large cities. [4] The figure shows the world’s seven most rapidly sinking cities, with Jakarta, Indonesia sinking the fastest at 34 mm/year. Climate change causes global sea levels to rise due to melting ice caps and thermal expansion. When combined with land subsidence, cities like Jakarta face a double threat—land going down while seas rise up—which increases the risk of flooding. [1 mark] The cities listed are densely populated: ○ Shanghai: 24.1 million ○ Jakarta: 11.0 million ○ Ho Chi Minh City: 8.8 million Climate change impacts (like flooding, saltwater intrusion, or storm surges) would affect millions of people, damaging homes, infrastructure, and livelihoods. [1 mark] These cities are economic hubs e.g. Shanghai is a financial hub. Flooding can disrupt transport, trade, and business, leading to economic losses both locally and globally. [1 mark] Increased flooding could lead to forced migration, especially in poorer areas like Chittagong, Bangladesh. [1 mark] It may also lead to health issues from waterborne diseases, poor sanitation, and overcrowded temporary shelters. [1 mark] People may have to adapt and change their way of life to cope with climate change such as: ○ Improved drainage and flood defenses ○ Controlled urban development ○ Policies to manage groundwater extraction (a major cause of sinking) [1 mark] Examiner’s Comments: Weaker responses tended to focus on the impact of climate change causing flooding, especially in coastal areas and the need for the population to move inland. Stronger responses saw this as the opportunity to explain the impact on the people living in such sinking cities and considered elements such as the impact on food, transport and energy, linking them into different aspects of climate change, for example: <i>‘With a rising sea level, the water supply for the city could be compromised, as salt water could penetrate the groundwater table, putting drinking water at risk.’</i>
(d)	Using Resources 10A and 10B, describe how the major islands in the Maldives have changed between 1997 and 2020.[4] Between 1997 and 2020, the major islands in the Maldives experienced several noticeable

	changes, as shown in the two satellite images: 1. Land Area Expansion [1 mark for either point below] - Hulhumalé, in particular, shows a significant increase in land area eastwards and northwards. In 1997, it was much smaller, but by 2020 it had almost doubled in size. - Male, the capital island, appears to have expanded as well. 2. Development of Infrastructure [1 mark for either point below] - The connectivity between islands has improved. In the 2020 image, you can observe more land bridges (e.g., between Hulhumalé and Male). - More urban infrastructure appears visible, especially in the Hulhumalé and Male areas,. 3. Change in Reefs and Lagoons [1 mark for either point below] - Some shallow lagoons and reefs have reduced in size, particularly near urban expansion zones like Hulhumalé. - Conversely, certain reef shapes may appear more defined or have slightly shifted. 4. General Urbanization [1 mark] - The 2020 image shows a marked increase in built-up areas, suggesting more urbanization and potentially higher population density. Examiner's Comments: Most candidates recognised that the major islands had become more urbanised. Stronger responses identified the other changes, for example: <i>'Hulhumale, the largest island, has lost its reef to the east, which is now built up with settlement, and the once narrow lagoon has been enlarged.'</i> Weaker responses tried to explain the changes, which was not the focus of the question.
(e)	Describe the impact of climate change on the aquatic and terrestrial ecosystems. [5] [Aquatic Ecosystems] In aquatic environments, rising water temperatures have placed considerable stress on marine organisms. [1 mark] For instance, warmer oceans have led to widespread coral bleaching, weakening reef systems that support a vast array of marine life. [1 additional mark] At the same time, ocean acidification—caused by the absorption of excess atmospheric carbon dioxide—has made it more difficult for shell-forming organisms like corals, mollusks, and plankton to build their skeletons and shells. This disrupts marine food chains. [1 mark] Freshwater ecosystems have also been affected. Changing rainfall patterns and increasing evaporation due to higher temperatures have altered river flows and reduced the availability of water in lakes and wetlands. This not only impacts aquatic species such as fish, which rely on seasonal flows for spawning, but also affects the surrounding habitats. [1 mark] In coastal zones, rising sea levels have led to the intrusion of saltwater into freshwater systems, making these environments less suitable for many freshwater species. Mangroves and salt marshes, which buffer coastlines and support biodiversity, are increasingly at risk of

submergence or degradation. **[1 mark]**

[Terrestrial Ecosystems]

Terrestrial ecosystems face similarly profound challenges. As temperatures rise, many plant and animal species have been forced to shift their ranges poleward or to higher elevations in search of cooler conditions. **[1 mark]** However, not all species can migrate or adapt quickly enough, especially those in fragmented or isolated habitats, leading to increased extinction risk. **[1 additional mark]** The timing of seasonal biological events, such as flowering, breeding, or migration, is also changing. These phenological shifts can create mismatches—for example, when plants flower before their pollinators emerge—disrupting ecological relationships that species depend on for survival. **[1 mark]**

Moreover, the increased frequency and intensity of extreme weather events, such as droughts and wildfires, have reshaped terrestrial landscapes. Forests and grasslands are particularly vulnerable to prolonged dry periods, which not only reduce plant growth but also increase the risk of fires that can devastate large areas. **[1 mark]** Climate change also favours the spread of invasive species and pests, which can outcompete native organisms and further disturb ecosystems already under stress. **[1 mark]**

Examiner's Comments:

Candidates showed more knowledge about the impact on aquatic ecosystems than on terrestrial ecosystems, offering descriptions of coral bleaching, acidification of sea water and the resulting impact on the food chains. Some candidates ignored the terrestrial ecosystem aspect or offered relatively narrow aspects, for example:

'Climate change results in longer droughts and heatwaves, which often result in forest fires. Not only do these destroy carbon sinks, but they also devastate the ecosystem with many species unable to escape the fires.'