GEOGRAPHY

Paper 9768/01
Geographical Issues

General comments

The performance of the first cohort was firm to very strong indeed. It demonstrated that the syllabus content for this paper, in terms of physical hazards and socio-economic issues, was understood and that the spirit of the paper in terms of focus and synopticity was taken on board, with few exceptions.

In **Sections A** and **B** Examiners noted candidates' ability to produce responses of different lengths appropriate to the mark allocations, which ranged from 2 marks to 9 marks. This meant a sentence was appropriate for parts **(a)**, a paragraph for parts **(b)**, one long or two moderate paragraphs for parts **(c)** and a short piece of extended writing, of up to one side's length for part **(d)**. Most candidates managed their time well, although some omissions from later responses were seen. The quality of the extended writing in **Section C** was more variable, with higher level responses demonstrating skills in argument and assessment but also a Paper 1 distinctive, which was the ability to establish linkages and demonstrate interrelationships between different geographical issues in the chosen locational context(s).

In this first year of examination, being derived from one Centre, all candidates responded to the same two questions in **Sections A** and **B**. As such this report does not cover the two other Geographical Issues: Hydrological Hazards in **Section A** and The Geography of Crime in **Section B**. In **Section C**, all but one candidate chose **Question 7**, on which this report, therefore, concentrates.

Where extracts from candidates' responses are quoted below, the original spellings and punctuation are reproduced.

Teachers preparing candidates for future examinations should note CIE's commitment to using a variety of styles of resources, at different scales and from contexts which may be both familiar and unfamiliar, as exemplified in the Insert of this first paper.

Comments on specific questions

Section A

Tectonic Hazards

Question 1

Nearly all candidates answered this question first. Many responses achieved 16–17 marks out of 20.

(a) The term *focus* was explained effectively by most. Some candidates seemed to take the key to Fig. 1 as the prompt, rather than their conceptual understanding, 'the point at which the earthquake event takes place … below ground.'

(b) A full response was evaluative and had supporting evidence from Fig. 1 both of the overall pattern and of exceptions to it. The best evidence was located and expressed in language that was descriptive of pattern and spatial distribution. For example, in dealing with an exception to the pattern, 'there is a cluster of earthquakes at 0-69 km below sea level at 60-65 degrees West and 17-18 degrees South.'

(c) This part-question differentiated responses well on the basis of the quality of the explanation, with marks of 0–5 out of 5 awarded. Many candidates supported their answers with a diagram, which although not required, was effective in what could be conveyed economically. A full response explained both shallow and deep focus earthquakes accurately and in detail.

(d)   This was handled effectively by almost all candidates, with most achieving good Level 2 or Level 3 awards and some receiving full marks. Candidates structured their work in different ways, for example by using the generic 'prediction and prevention' and 'response', or 'MEDCs' and 'LEDCs' and named earthquake events, which naturally provided an evaluative basis.

Hazardous Weather

Question 2

(a)   Although there were many effective responses seen, which achieved both of the marks, about a quarter of the candidates wrote in such a way that the Principal Examiner annotated the script 'NAQ' (not answering question). Typically, this was because they had written about the formation of a tornado, rather than its features.

(b)   This part was one of the best answered of the examination, with candidates scoring 3–4 marks, economically and judiciously. Examiners commented on how well candidates interpreted Fig. 2 and handled the evidence.

(c)   Again, candidates interpreted Fig. 3 well; it tended to be either the lack of data support, or the explanatory element that was less effective in responses not achieving full marks. Many awards of 5/5 were made.

(d)   Awards were made in all three levels, with no candidate scoring less than 3/9 and several achieving 9/9, which was good to see. Lower-achieving responses tended to be generalised, or inaccurate, or to make sweeping judgements on the basis of only some evidence, for example that MEDCs are hard hit on the basis of the impact of Hurricane Katrina. The principal characteristic of Level 2 responses was a lack of evaluation and or/explanation, although some accounts lost 'level of economic development' as the clear focus. High-achieving responses impressed by what was covered in the time available, by the handling of examples and the manner that evidence was linked to the assessment proposed. To achieve 9/9, evidence from countries at both lower and higher levels of development was sought.

Hydrological Hazards

Question 3

This Issue was not chosen by the Centre.

Section B

Marks for this section were similar to those for **Section A**, although some candidates appeared to have a preference for, or to be better prepared for the hazards found there.

The Geography of Crime

Question 4

This Issue was not chosen by the Centre.

Health and Disease

Question 5

Most candidates' marks for this question were commensurate with those achieved on previous questions.

(a)   The definition of life expectancy was well known, but not all candidates included the element 'from birth,' so as to gain the second mark.

(b)   This part was answered well, with many candidates achieving 4/4 by careful reading and interpretation of Fig. 7 and by an appropriate assessment with supporting evidence. The most common omission was that of a clear comparative element, such as the greater decline of coronary heart disease (CHD) over time, compared to cancers and stroke, which resulted in not gaining the 1 mark reserved.

(c) A range of marks was seen from 1/5 to 5/5. Some candidates made the link between disease and deprivation in reading Fig. 8, but then did not provide any valid explanation. This limited the outcome to Level 1 (0–1 mark). The majority achieved Level 2 awards. The few high-scoring responses suggested a number of reasons and made linkages clear. For example, 'These areas may be suffering from social exclusion, meaning that access to hospitals and medical treatments may be restricted because of financial or infrastructure arrangements.' Other components of deprivation explained and applied included education level and high incidence of smoking.

(d) This was not answered as effectively or relevantly as the other parts **(d)** and few candidates seemed to know and understand degenerative disease well, even with the guidance about the meaning of the term that could be taken from Figs. 7 and 8. Responses which received Level 1 awards tended to make basic points, such as about anti-smoking initiatives or campaigns to promote exercise, but lacked specific examples or detailed attempts. Others appeared not to recognise the meaning of the term 'degenerative diseases' correctly and wrote about infectious diseases, such as HIV, malaria and influenza, which limited the outcome. Within Level 2 it was, again, the element of evaluation which distinguished the better quality examinations, especially when well-supported with evidence of impacts. One impressive response, which achieved full marks, was framed in terms of 'preventative/curative' and 'successful/unsuccessful', showing an analytical approach, specific knowledge, for example of statins to address CHD, and high level insight: 'Breast cancer screening has been hugely successful … because it is free, well publicised and does not have to compete with addiction to get results, unlike smoking campaigns.'

Spatial Inequality and Poverty

Question 6

Many candidates attempted this question last, having responded to **Section C**, part way through the examination. It is therefore unsurprising that there were some lower marks and a few signs of time pressure, such as brevity, or bullet points in part **(d)** rather than continuous writing.

(a) Poverty was defined effectively and concisely by most, usually in relation to the UN measure of US$1/day.

(b) Most candidates scored 3/4, either through a lack of evidence from Fig. 9 or because the necessary evaluative comment was omitted.

(c) Most candidates received awards within Level 2 (2–3 marks), which may be more the consequence of tiring or lacking time towards the conclusion of the examination than of their being unable to meet the demand or comprehend Fig. 9. For example, some produced two separate descriptions and did not compare, or only suggested a single reason.

(d) This question moved away from the preceding content and opened up, enabling candidates to develop their own assessment in the manner they chose. A range of answer quality was seen, from 3–8/9. Some lower-achieving responses tended to develop tangentially to the actual question set, for example offering a critique of Rostow's model, rather than of its effectiveness as an explanatory framework. Others identified one of its uses, such as 'one can pin-point the stage certain countries are at' or one or more simple shortcomings. High-achieving evaluations were balanced, supported by evidence from different countries and insightful. To quote briefly from one such response, 'Rostow's model is not wholly effective. For one, it is based on the traditional European way of development. It leaves no space for alternative Marxist theories or, indeed, for the changed international climate of today where there is globalization.' This is a good example of the kind of writing that, when combined with exemplar support, met the descriptors for Level 3.

Section C

All but one candidate selected **Question 7**, so those responses are reported on in detail.

All pieces of extended writing are assessed using indicative content and the published Generic Mark Scheme (GMS), taking a holistic approach and applying the principle of 'best fit'.

Question 7

The question is deconstructed into its constituent elements in a similar manner to that which Examiners recommend and would encourage candidates to do in planning their essays.

- 'With reference to an area you have studied'

All candidates chose an appropriate area, identifying and locating each suitably. Most candidates chose Haiti, but there was one good quality response on the state of California and two of middle quality on China. Candidates introduced the chosen case swiftly and succinctly, using phrases such as 'the Caribbean island of Haiti' or the more targeted 'one of the poorest countries in the world, ranking 112th … in the UN HDI rankings,' before moving straight on to the location and the geographical issues. Some began with a list of issues, which demonstrated the suitability of the place, but this was less effective where there were notable omissions, such as of poverty. Credit for the area studied is located largely within the first and second bullets of the GMS: for knowledge and understanding and for exemplification.

- 'assess the extent to which'

Assessment is a high order skill, embedded in **AO3** of the Pre-U syllabus. It requires an analytical approach to factual content and case studies, rather than simply a descriptive or explanatory one, and vocabulary for and skills in making an evaluative response. Assessment is found in the GMS within the sixth bullet and is a key differentiator of performance. Compare, for example, the following two extracts, one at low Level (P), following a factual but mainly narrative response and one at high Level (D):

> 'All though Haiti is unlucky in geographically location due to fault + hurricanes it's geographical issues are inter-related making them worse.' (level awarded = L2)

> 'All of this provides significant evidence that almost all the geographical issues that Haiti faces are inter-linked to a large extent as they all either are a cause of one problem or are the consequence of another issue.
>
> However, one could argue that inequality is separate from the other issues that Haiti faces – the earthquake from earlier this year was both strong and relatively shallow … meaning it was incredibly effective – a high level of development would still have meant a lot of damage done and lives lost, even if the numbers were reduced. Having said that, this argument is slightly weaker as because of the inequality that does exist in the country, so many more people are at risk from a larger disaster, meaning that the issues are still inter-related.
>
> Likewise, one could argue that the health and disease problems that Haiti faces are not linked with the hazardous weather they face. This is a stronger argument as it is very difficult to conclude that the hazardous weather directly causes disease …' (level awarded = L5)
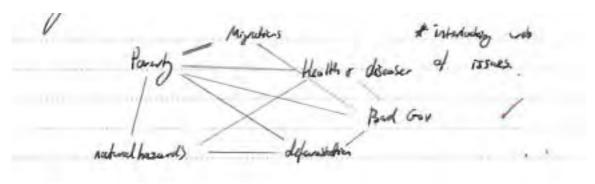
- 'the geographical issues it faces'

Candidates identified a variety of geographical issues of different types (environmental/physical, socio-economic and some political), at different scales and at different times. Many candidates placed Haiti in an historical context with ease and brought their work up to date with the hurricane season of 2008 and the aftermath of the severe earthquake which occurred in January 2010. These attributes – dimensionality, spatial scale and timescale – are part of the essence of Pre-U Geography and the coverage was commendable by all candidates irrespective of overall outcome.

- 'are inter-related.'

This was a key diagnostic element in assessing the quality of responses. The Principal Examiner contrasted the work of candidates who were able to catalogue and explore geographical issues one by one, with those who, from the beginning, set out to establish the links and interconnections. At best the consequences and impacts of an issue on one or more others, both directly and indirectly were brought out. To quote one tightly-written passage,

> 'The government and people's poverty [in Haiti] has led to lack of funding for healthcare and for education, which is why the seroprevalence of HIV is currently at 3.8% and it is still rising every year. the lack of healthcare feeds back into the poverty issue, with more people getting ill every year they cannot work and earn money so become even more dependent on American aid to survive. The lack of money in Haiti has led to a huge increase in the levels of crime, with people stealing just to survive. The earthquakes and Hurricanes that hit Haiti continue to stretch any and all Haitian resources to their limit …'

Some candidates used terminology such as 'negative feedback loops' or 'vicious circle' effectively. Several included skeleton diagrams on linkages, such as the one reproduced below, although Examiners felt that more effective use could have been made of them by further annotation.

The Generic Mark Scheme has, as the final bullet point, the element of a conclusion. It was pleasing to see that almost all candidates attempted a conclusion. These ranged in quality from the very brief, 'Everything is interlinked' to high level work, which both summarised and advanced the assessment made, maybe offering a predictive element or a global perspective in the 21st century.

In addition to the characteristics already identified, Examiners noted that outcomes could be enhanced by further development of argument and analysis, and less reliance on repeating factual content and in some cases by attention to organisation, especially in the use of paragraphs to structure the response.

Question 8

This comparative question, requiring candidates to consider the geographical hazards from *Section A* against the socio-economic issues from *Section B*, was not attempted.

Question 9

One candidate attempted this essay about timescale and did so quite effectively. The response was, however, unbalanced, with greater coverage of short-term impacts than of long-term consequences, which made the evaluation largely assertive. Good use was made of a number of examples of hazardous incidents, such as Hurricane Mitch and the eruption of Mt. Pinatubo. The inclusion of a comparison between the experiences of countries at different levels of development was well-judged and well-rewarded.

GEOGRAPHY

> **Paper 9768/02**
>
> **Global Environments**

General comments

The format and essay writing demands of Pre-U Geography Paper 9768/02 are very similar to that of 9768/03. The General comments made in the Principal Examiner report for Teachers for 9768/03 are also very relevant in terms of enhancing candidates' responses to 9768 Paper 2.

Comments on specific questions

Question 1

Not attempted.

Question 2

Not attempted.

Question 3

Some difficulties here centred on the interpretation of 'forms of ice movement'. There was a tendency to discuss rates of ablation and the direction of movement rather than the actual methods of motion. When forms of movement were discussed they were often not detailed in their understanding and lacked comparative analysis with basal sliding and other forms of movement, by way of their relative significance. Thus the evaluative component of this question was somewhat lacking.

Question 4

Periglacial environments were mostly well understood in terms of location but there was a tendency not to focus on management techniques. In particular, candidates relied on impact and abuse rather than evaluating the actual management strategies put in place to limit and control this abuse. Where candidates did discuss management techniques these were often not evaluated to the full and thus the central tenet of the question was often avoided. In essence, the extent of management success and the possibility for this success was often not a focus in answers.

Question 5

Some good responses but many candidates relied on knowledge of coastal defence and protection, which was not worthy of credit unless clearly linked to economic development. In some cases candidates did tease out a link but often it stood in isolation. Economic development was often not at the forefront of this question and where economic development was mentioned (e.g. tourism developments), the benefits and problems were often loosely treated and in a rather generic fashion. Clear emphasis on the central thrust of the question was needed with specific evaluation of economic developments on the coastal environment.

Question 6

Some very good answers on this question with extremely good knowledge of processes. Diagrams would have helped support all answers and that where diagrams were used they could have been more fully annotated in their explanation. Other answers lacked detailed appreciation of sequence and within that framework some answers lacked detailed understanding of processes. Whilst many answers did include real world examples, there were other responses that would have benefited from that approach.

Question 7

Not attempted.

Question 8

Not attempted.

Question 9

Whilst some responses were confused in their interpretation of grassland environments and focused, wrongly, on different biomes, most candidates showed a good grasp of the various grassland landscapes. It was thought, however, that a useful introduction would have included a description of the current distribution of such environments. There were some excellent responses to this question with candidates showing a particularly high level of understanding concerning the processes influencing grassland distribution. Where some candidates scored less highly than others, evaluation of 'relative importance' was not always clear and ongoing. Equally, higher scoring candidates often brought in some very interesting and detailed examples to support their evaluation.

Question 10

Mostly well attempted, candidates had a good understanding of the economic motivations for woodland clearance. Higher level responses showed greater exemplification with detailed examples supporting the motivation behind deforestation. In particular, the Examiner was looking for detailed evaluation of the different pressures with evaluation ongoing and making judgements that were both place and time specific.

Question 11

Not attempted.

Question 12

Not attempted.

GEOGRAPHY

| Paper 9768/03 |
| Global Themes |

General comments

In this first examination of Pre-U Geography, there were a number of elements to commend in the responses of this first cohort. The candidates were notably strong in deploying developed and detailed examples in the essays especially for **Question 1** and in providing a conclusion. Both these elements are amongst the seven bulleted descriptors of the Generic Mark Scheme (GMS). Many responses also displayed skills of analysis and evaluation and some the 'big picture' perspective, or overview, characteristic of high level responses. It was good to see diagrams integrated into many of the responses.

Examiners noted four features of some of the responses which may help teachers enhance candidate performance in future examinations:

(i)   Paying close attention to the question set

Several candidates appeared not to have taken sufficiently careful note of the wording of the question and may have been triggered by certain words or ideas, without registering the full context of the demand. For example, in **Question 12**, the question was not "Assess the positive impacts of tourism", but rather, "Assess the positive impacts of tourism on the societies and cultures of tourist destinations." As such, positive economic and positive environmental impacts, unless very carefully applied to society and/or culture, were not creditable.

(ii)   Developing an argument

Some of the essays had a high level of factual content, with several developed and detailed examples, but little thread, argument or development of the key idea or position being taken. At this level, candidates are expected to establish and pursue a discussion, examination or evaluation explicitly. Some responses sandwiched two or more developed examples between an introduction and a conclusion, with few linking sentences or comments.

(iii)   Maintaining relevance

Many of the pieces of writing included irrelevant material. As part of one of the descriptors in Level 1 is "response may also contain unconnected material" and in Level 2 "Exemplification may … not be fully appropriate", candidates should be encouraged only to use relevant material, even where information has been learned but cannot be used. Sorting and selecting known material in terms of relevance for the actual question is both a skill and a discipline.

(iv)   Integrating diagrams more fully

Diagrams not only support and advance arguments, but may save the candidate time, rather than, for example, seeking to describe and explain a model or theory without drawing it. Of the work seen, some diagrams, such as that of chain migration, would have been improved either by fuller labelling and annotation linking them to the actual question in an explicit way, or by this being done clearly in the text.

(v)   Producing a response of suitable length

A few essays attempted second, were short in length (two sides) compared to others and to work received at this level. Although assessed by descriptor, using the Generic Mark Scheme (GMS) short pieces of work do not allow much development of an argument or an evaluation and may not provide enough support for the position taken by the candidate. It is important that candidates seek to spend approximately half their time on each of the questions selected.

In concluding these general comments, standards of language and expression were satisfactory to very good indeed. Examiners noted the effective use of geographical terms and vocabulary in almost all responses and mostly accurate responses to models and theories, for example in relation to migration. Spelling of terms, place names and other words was, however, not of the same quality.

Comments on specific questions

Section A

Migration and Urban Change

Almost all candidates chose **Question 1**.

Question 1

Candidates were well prepared for this question and response quality ranged from Level 2 to Level 5, with no responses of below pass (P3) standard seen. Candidates scored highly on organisation and language and on focus. All had a variety of examples on which to draw, with the movement of Poles to (and from) UK and the Haitian diaspora being used well by many in terms of the role of factual information. High level responses were distinguished by the selection, application and direction of detailed information from these examples to serve and support the assessment being made and by the ability to counter-argue. Middle level responses showed some elements of application. Lower level responses tended to reproduce examples and only offer simple observations about how they did or did not apply. Many responses integrated migration theories and/or models and recognised how appropriate chain migration was to this question, one writing that it "puts information at the centre of its hypothesis". Much satisfactory work was done considering how factual information relates to migration decision-making dominated by pull factors (voluntary) and push factors (forced), although some essays started to read as if pull and push factors were, instead, the subject under consideration. There was some good consideration of perception and the triumph of hope of betterment over reported experiences.

Several responses would have benefited from some consideration of the different ways that factual information may be obtained by potential migrants, such as via friends and family members, the media, government promotion or propaganda, the Internet, etc. and the roles of each. Whilst almost all candidates rightly observed that the role of factual information varies in migration decision-making, one distinctive of high quality writing was a true examination of the complexities of this decision-making. One Level 5 response concluded thus, "The truth is more likely between the two extremes [hard facts and perception/dreams] – certain snippets of concrete information about the host country, inflated or reinforced by perception and rumour. This fits in well with the nature of humans as rational beings for the most part, but also from time to time legitimately swayed by their passions."

Question 2

Response to this question was limited by the term *counterurbanisation* not being satisfactorily defined and the appearance that centrifugal movements more generally may have been its basis. The work was suitably analytical and made some attempt both to consider the urban lifestyle in a rural setting and other possible reasons for counterurbanisation, such as "to change the lifestyle altogether … due to the starting of a family" or urban degeneration. It was disappointing that a firm argument was not better supported by examples of actual counterurbanisation movements.

Trade, Debt and Aid and **The World of Work**

No candidate selected these topics,.

Section B

Energy and Mineral Resources

No candidate selected these topics,.

The Provision of Food

Question 9

This question was selected by few candidates and a range of quality was seen from Level 1 to Level 4. Some candidates had difficulty interpreting the term *consumer pressure* appropriately and so their responses were limited as a consequence. Others either simply took it to mean "level of demand" and so addressed issues of food quantity or focused on the consumer without considering the ethical and environmental issues of the syllabus content. One essay started well with the sentence, "As a country develops and reaches higher levels of development, consumer pressure focuses on quality rather than quantity of food, as it is also a thing of enjoyment as well as a basic survival need." It ended equally well, showing an appreciation of the complex relationships between producers, retailers and purchasers of food; "that only what is wanted is bought in HIC's suggests that the greatest influence is from the pressure created by the consumer for the provision of food."

Question 10

Candidates recognised that, as one wrote, the "great achievement of the Green Revolution is that it averted a looming Malthusian crisis", at some cost in terms of sustainability. The highest-scoring response developed the aspects of problem-solving and problem creation, supported by material from India and Mexico. There was recognition of other dimensions of problems, such as unemployment and pollution resulting from mechanisation. All responses contained varying amounts of unconnected material (a Level 1 descriptor) as the Green Revolution was interpreted overly broadly to encompass improvements in food production, ranging from overcoming diseases in bananas to meat and milk within the CAP. This moved away from a distinctive emphasis on the tropics and the grain crops rice and wheat. Other problems created by the Green Revolution which were anticipated in the indicative content but not seen in these responses included increasing inequalities, indebtedness, changes in diet, the loss of tradition in rural communities and diminishing returns.

Tourism Spaces

Question 11

Candidates who selected this question interpreted the question about unforeseen events correctly. One candidate presented, unexpectedly but admissibly, a counter-example where an unforeseen event, a hard winter and prolonged snow, impacted skiing resorts positively, increasing tourist arrivals and benefiting the local economy. Terrorism acts and threats, natural disasters, political problems and health scares were the solid foundation of responses and there was welcome evidence of up-to-date material both from Thailand and the recent travel disruption caused by the volcanic eruption in Iceland. Limitations on overall achievement stemmed from inattention to "the local economy", as opposed to the global one, and to a general lack of development of the work offered.

Question 12

The main differentiator between the responses to this question was candidates' ability to select, direct and apply material about impacts on "societies and cultures of tourist destinations" from what they knew generally and more widely about the impacts of tourism. It was rare for candidates to grasp the key importance and specific meaning of the terms 'social' and 'cultural' in selecting content for their answer. At the lower end, below the pass (P3) threshold, material was unsorted and largely economic rather than socio-cultural. One candidate used the phrase "the economy of the society" and others appeared to rewrite the question to "the impacts of tourism" in general, both of which limited the outcomes. Most candidates attempted to apply their material to the question, but it was rare to try to differentiate society from culture. Many of the observations were general, about improving "infrastructure" or "standard of living" without saying what or how. Much of the content was not located or specific. For example in writing about ecotourism, named places or named initiatives are preferable, rather than a country name at this level. One candidate made vague and unsatisfactory reference to "African tribes". As anticipated in the indicative content, consideration of the negative impacts of tourism on societies and cultures was creditable, but it was "anticipated that any discussion of the negatives … be subsidiary to the question set", so that answers that focused wholly on the negative could not score top marks.

GEOGRAPHY

| Paper 9768/04 |
| Research Topic |

General

It was encouraging to see candidates in this new style of examination coping well with the demands of the paper. It was both interesting and a pleasure to read in candidates' responses about the individual research topics chosen. Their interest and enthusiasm for their chosen topic was certainly evident in their answers.

Question 1

(a) This posed few problems with most candidates realising the type of channel was straight.

(b) This also presented few problems, with good candidates accurately reading figures off the triangular graph. However, phrases such as "about 5%" or "just under 40%" gain little credit at this level. Candidates should be encouraged to take out a ruler and accurately measure from the diagram.

(c) All candidates were able to produce a labelled sketch map, with many identifying a good range of fluvial landforms clearly. The question required a sketch of the course of the river shown on the photograph. A significant few lost marks by drawing the course shown on the map.

(d) Good responses here pointed out the advantages and the limitations of each of the 3 resources and then went on to evaluate their usefulness to decision makers. A few candidates lost marks by discussing only the map and the photograph, totally ignoring Fig. 1.

Question 2

(a) This question served as a useful discriminator. Good candidates coped well with the demands of a resource which seemed to convey conflicting messages by providing a balanced evaluation supported with data from the graph. Weaker candidates found it difficult to come up with an approach which required a "in these respects it supports the statement, while in those respects it does not" type of answer.

(b) The best responses to this question discussed both the benefits and problems of one or more schemes and were able to provide some judgment about the statement in the question. Weaker answers failed to use exemplar support or simply provided a list of pros and cons of unspecified schemes without attempting any evaluation.

Questions 3, 7 and 11

Candidates who chose these questions on the whole did well. Candidates were aware of scale in a number of dimensions, including temporal issues, spatial issues and the representativeness of their sample. The best answers went beyond a simple listing of the benefits and limitations of the scale of their study to focus on the impact scale had on the conclusions they were able to make as well as the extent to which their conclusions could be extended to larger scales.

Questions 4, 8 and 12

These questions proved to be the more popular of the either/or questions. The best answers described how methods had been tried out initially and their limitations discovered. These responses then went into detail about how they had modified those methods and justified the modifications in terms of improving precision, accuracy, reliability or the representativeness of their investigation. Weaker responses simply described improvements without justifying them or described them in only a superficial fashion.

Question 5

(a) Although the resource required the ability to visualise in 3 dimensions the question posed few problems and candidates were able to state that groundwater flow was down the water table and in a NW direction.

(b) Candidates scored well on this section. Good answers expressed a level of agreement with the statement and then supported their judgment with evidence from the resource.

(c) This also provided few problems. Those who described 3 elements of the pattern and supported their comments with evidence from the resource gained access to the top band of the mark scheme.

(d) Those who expressed understanding of the complex nature of air quality management and then evaluated the advantages and limitations of the resources against this background scored highly here. There were some valid comments about other resources which would be of use (for example, data about prevailing winds or information about sources of air pollution).

Question 6

(a) Identifying a pattern proved quite challenging for a minority of candidates. The best answers identified a pattern and supported their description with map evidence. The highest marks were awarded to those who pointed out the anomalies to the general pattern they had discussed.

(b) A minority found this question quite challenging and were unable to give much more than a fairly generalised description of one or two mining/quarrying operations. These candidates gave the impression that, although they had completed an individual research investigation, they had not carried out much secondary research to make a wider study of their chosen topic (as required by the syllabus).

The best answers focused on the evaluation of the statement required by the question and supported their judgment with firm reference to actual mining operations they had studied as part of their wider studies on this topic.

Questions 9 and 10

There were too few responses to make any meaningful comment.