

GEOGRAPHY

Paper 9768/01
Geographical Issues

General comments

The majority of the candidates performed satisfactorily and excellent marks were achieved by a significant number. There was an impressive range of knowledge and understanding, coupled with the ability to present a cogent argument. Most candidates performed well on the interpretation of the resources showing a good ability to analyse often contrasting methods of displaying information. Good marks were usually achieved for these questions. Some Physical Geography and many Human Geography questions received excellent responses, but, as in previous years, there was a difference in the levels of knowledge and understanding between the two components. Answers to the Physical Geography questions were sometimes deficient in some respects, especially those referring to tectonic hazards. Knowledge and understanding was better with respect to Hazardous Weather. There was a slight indication of an increasing standard in the answers involving Hydrological Hazards. This discrepancy between Physical Geography and Human Geography may reflect the different nature of the questions and perhaps a lack of realisation of the precision needed when discussing physical topics. The deficiency often involved an understanding of basic concepts and physical processes. The interaction between physical processes and human activity was better understood. However, to evaluate this interaction, it is important to possess a thorough understanding of the operation of the physical processes. Some of these issues are taken up when specific questions are discussed. The answers to questions in **Section C** were often excellent and the breadth of knowledge and understanding shown by a significant number of candidates was remarkable. However, there were some instances where the full implication of the question was missed. This was especially prevalent in answers to **Question 9**. This issue will be discussed later.

Overall the paper was completed by most candidates, although there were occasional indications of time management issues. As noted previously, some candidates failed to match the marks available with the length of time required for sub-questions. This led to the answers to questions in **Section C** sometimes being rushed. However, the volume of information provided by many candidates was very impressive. As with last year, a significant number of candidates attempted **Section C** before answering the **Section A** and **Section B** questions. This can be an efficient strategy but, in a few cases, it was apparent that this led to the last question, usually in **Section B**, to be rushed and to be unfinished.

Comments on specific questions

Section A

Question 1

- (a) Very few candidates demonstrated good understanding as to how 'hot spots' differed from other volcanic phenomena
- (b) The map of volcanic hot spots appeared to be a relatively straightforward resource and there were many excellent answers. Most candidates identified the link or lack of it between hotspots and the nature of plate boundaries. The only variation was in the breadth of coverage of hot spot distribution.
- (c) This question posed more problems and was a good differentiator. It was clear that a knowledge and understanding of volcanic hot spots and the formation of the Hawaiian Islands was highly variable. Many candidates were unaware that the movement of the Pacific Plate and the stability of the hot spot were crucial in the formation and evolution of the Islands. Thus, many simply described what can be called a normal volcano.

- (d) Many answers to this question concentrated on prediction and planning before an eruption and failed to discuss, in any great detail, management aspects during and after an eruption. Candidates seemed unaware that some eruptions can be managed during the event with much depending on the nature of the eruption. However, some candidates did know the attempts on Mt Etna and the stopping of the lava flow on Heimay. Analysis of management after the event, such as rescue, evacuation and rehabilitation were often ignored. Many candidates seemed to be expecting a question on volcanic prediction and were determined to write about this irrespective of what the question demanded.

Question 2

- (a) This question posed few problems.
- (b) Most candidates were able to provide good analysis of the two figures.
- (c) All candidates realised the main element of the question. The variation in the answers depended on the depth of understanding concerning the conditions needed for a hurricane to develop. Some candidates were aware of the need for high water temperatures and depth of water but were unable to use this information to explain why these factors are important.
- (d) This question received a generally sound to good response. A limiting factor in many responses was the limited range of hazardous weather that was offered. Usually hurricanes were dealt with quite efficiently as well as tornadoes, However, apart from a few exceptions, other types of hazardous weather received less attention. Most answers concentrated on prediction, early warning and evacuation with Hurricane Katrina and Super Storm Sandy featuring prominently. These were often contrasted with tropical cyclones in Myanmar and Bangladesh. The level of detail concerning these was often impressive. Prediction techniques were discussed in detail, however aspects other than warning and evacuation, such as coastal protection, building design were often ignored.

Question 3

- (a) This question posed few problems with most candidates having some idea of the process; however the precision in the definitions varied
- (b) Good marks were obtained by the majority of the candidates for this question but the thoroughness with which the pattern of flooding was analysed was variable.
- (c) The quality of responses to this question was variable. Many candidates were unable to distinguish soft engineering techniques from hard engineering techniques. Most candidates emphasised the role of afforestation but focussed solely on planting these trees alongside rivers and on river banks. Wider catchment management was universally ignored. This was a point stressed in last year's report. There was an inability to relate flooding on the lower reaches of rivers with conditions in the upper catchment.
- (d) This question posed few problems and most candidates were able to provide a response to at least Level 2 standard. Exemplification was often excellent. Most candidates were able to differentiate short and long term impacts but, quite rightly, there was some variation in the interpretation of them.

Section C

Question 4

- (a) This caused few problems although there was a tendency to forget that a criminal act has to be involved.
- (b) Candidates had little trouble in analysing the patterns for the two types of oil spills. Good marks were obtained.
- (c) Most of the elements in the Mark Scheme were discussed but often with variable detail. Most candidates emphasised increasing population densities and overcrowding in urban areas, unemployment levels and the increasing levels of deprivation in some areas.

- (d) This was a wide-ranging question and candidates had to devise their own strategy to answer it. The response was encouraging with a range of physical and built environment factors discussed.

Question 5

The response to questions in this section was generally excellent and the topics seemed to have inspired many candidates.

- (a) Most candidates had sensible points to raise with respect to attack rate. The marking had to be flexible because of different interpretations of attack rate in the literature. Most references argue that the term rate, which implies time, is confusing. The general definition is the spread of a disease with respect to the number of individuals that are in a position to catch it.
- (b) There was good response to this question with most being able to describe and summarise the pattern shown on the map. The only variation was the detail and global coverage. Asia was often ignored.
- (c) The response to this question was excellent with good knowledge and understanding of a variety of diseases, although HIV/AIDS and malaria were the diseases most frequently discussed. Many answers were impressive.
- (d) Some of the responses were extremely impressive with an immense amount of detail. Although HIV/AIDS and malaria were most frequently used as examples, there was a wide range of diseases discussed with a good variety of countries involved, although, inevitably, there was a concentration on Sub-Saharan Africa.

Question 6

- (a) The question posed few problems as there are a variety of indicators that could have been suggested. The only issue was that some of the indicators were unduly vague such as simply mentioning education, employment etc.
- (b) The resource appeared to confuse some candidates but most were able to interpret the graphs in some detail. Some of the subtleties in the resource were quite challenging but most candidates demonstrated a good ability in analysing those subtleties.
- (c) This question presented a challenge because of the interpretation of political and regional scale. Some candidates wrote very generally about variations in levels of poverty with only a vague reference to political influences. The corruption of governments, Zimbabwe being a prominent example, was frequently discussed without actually demonstrating how this affected variations at a regional scale.
- (d) Some candidates failed to address the 'multiple' in multiple deprivation and discussed deprivation in general terms. Also, there was a tendency to ignore the local scale. However, there were good responses with East London and Glasgow being frequent examples discussed. The emergence aspect of the question was also sometimes ignored.

Section C

Question 7

This was not a particularly popular question. Responses, however, were usually well-informed. Most candidates concentrated on just one type of hazard, such as volcanoes or earthquakes, which was a little disappointing. A wider range of hazards would have enabled the discussion to have been more substantial. Many candidates in discussing volcanic hazards missed a good opportunity to stress that although volcanoes are relatively easy to identify as hazards, what is more difficult to identify is the specific nature of any future eruptions and the risks they pose such as comparing pyroclastic flows with lava, tephra etc. The contrast between effusive and explosive volcanic activity was little mentioned. Similar contrasts could have been analysed with respect to other types of hazards

Question 8

This was quite a popular question and generally received a good response. A great range of human activity was discussed but there tended to be a concentration on natural hazards and the impact that human activity can have. Not surprisingly, global warming was discussed by some candidates with an attempt to relate this to increased frequency of hurricanes and tropical storms, drought and rising sea levels. However, the detail in the argument linking global warming with a variety of geographical hazards was speculative and assertive rather than based on reasoned evidence. Some candidates lost sight of the dangerous aspect and while some candidates presented a balanced argument by arguing that human activity quite often makes the world less dangerous, some candidates produced an unbalanced discussion.,

Question 9

The only issue with answers to this question was that the 'most' aspect in the question was ignored. Many candidates simply discussed situations where government action had been either lacking or good in managing the issues that an area possessed. Inevitably the discussion was conditioned by the area chosen and the issues discussed. Those issues tended to be narrower than issues that have been discussed in previous years in response to similar questions. There tended to be a concentration on physical hazards rather than issues of a more general kind such as health, overpopulation etc. In the past there have been excellent discussions of the problems of obesity and other issues where a personal responsibility exists. Thus, the fact that there are many issues where government action is inappropriate and personal responsibility is the key to managing these issues was rarely discussed. Much of the analysis depended on the contrasting roles of non-governmental organisations and government, which was very appropriate. As in previous years, discussion was sometimes speculative and conclusions were often assertive and not based on the provision of rational argument. However, there were some good, well-structured answers, with conclusions based on the discussion and the evidence provided. As stressed last year, it needs to be remembered that the overall structure of the answers is a significant criterion in awarding a mark. It is good to be able to report that in most cases the structure of the answers was good.

Concluding remarks

In conclusion, it is only necessary to reiterate comments made in previous years. The responses of most candidates were informative and wide-ranging. Many answers demonstrated detailed and accurate knowledge with clear, high order understanding of the subject content. Examples were sometimes partial and not relevant but in general they were used effectively and were relevant and detailed. Most questions were interpreted correctly apart from the occasional lapse. There were a few instances of time management issues with some unfinished answers. There is still a slight concern about the difference in standard between the Physical and Human Geography answers. The overall impression, on reading the answers, is that candidates had the syllabus stimulating with much good geography on display.

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Paper 9768/02
Global Environments

General Comments

There are four criteria which can be identified as key in terms of optimising performance in this examination. These criteria are knowledge and understanding of the subject matter, an appreciation of, and an addressing of responses to, the question set, application of relevant material and recognition of the command words in the question.

Throughout the responses to the questions attempted there was some sound, secure knowledge and understanding. However there continues to be less confidence displayed in some responses in applying the knowledge to the questions asked. For instance in one of the most popular options, Coastal Environments, candidates found the challenge of assessing the role of human influence in coastal processes more difficult not due to lack of knowledge but because they did not develop the 'other factors' referred to in the question in sufficient detail. Care also is required when including theories and concepts in essays that they are integrated into the argument. The same is true for diagrams which this year were not used in responses by many candidates across the paper. Even when they were a pre-requisite for questions such **Question 3**, they were often not well drawn and labelled.

Comments on Specific questions

Arid and Semi-Arid Environments

This is not a popular option and was chosen by only two centres.

Question 1

Candidates have knowledge of arid climates but find application of climate to the water circulating in the desert poses difficulty. This is because there seemed to be a lack of knowledge of the hydrology of deserts. Little about surface and sub-surface flows and stores was mentioned and the climatic contributors of convectional rainfall, flash floods, and stream and sheet floods mentioned in the syllabus rarely made an appearance.

Hydrology as a dynamic system which might have formed the underpinning of a higher level answer was mostly absent from responses.

On the whole it seemed that there was lack of understanding of the specific demands of this question

Question 2

This question was more popular than **Question 1**. Those who tackled it had some knowledge of the role of wind in the formation of desert landforms, could distinguish between arid and semi-arid landscapes and included sand dunes and erosional features like mushroom rocks. However, the level of analysis was often superficial and not comprehensive because water made less of an appearance as candidates forgot to consider past as well as present day processes or if they did again their knowledge was superficial and vague. No-one made the link between the large sand seas of today in which the dunes are found and the heritage of past processes.

Glacial and Periglacial Environments

Question 3

This was not a popular option.

The answers covered both fluvial and glacial processes and landforms but there were omissions in responses. For instance, sometimes kames and eskers were missing; glacial deposition did not always include moraines and/or drumlins. However, points of comparison were the principal problem. At this level it is expected that candidates should be able to recognise that fluvio-glacial landforms are sorted, stratified and rounded whereas glacial are unsorted, unstratified and angular. Composition should also be known. However few candidates could really compare and contrast nature and scale in detail.

Question 4

The constraints and opportunities associated with periglacial environments indicated a wide coverage of the subject but often the level of detail shown in responses was lacking. For instance, in discussion of mining in the northern part of Canada the specific minerals, the reasons for the difficulties of exploitation and the transportation of the mineral were missing. Also the role of conservation and nature reserves did not appear in the majority of responses and these responses would have benefitted from reference to these. A broad approach underpinned by detail was needed; some candidates were detailed on some aspects but not throughout the answer.

Coastal environments

Together with the Atmosphere this is the most frequently answered option.

Question 5

Waves and tides are known by candidates but currents are less familiar and indeed some candidates omitted to mention these. If they did they usually discussed large-scale ocean currents rather than small scale currents e.g. rip currents typical of a sediment cell. Cells could have been used as a useful framework for answers but few candidates used this approach. The other major omission from the majority of responses was the lack of application to the coastal environment. Few responses considered more than tidal ranges and destructive and constructive waves but might have considered a range of landforms and the impact on the human use of the coastline. Some did cover these aspects but case study material to reinforce the argument did not always appear.

Question 6

This question was far more popular than **Question 5** but the evaluative aspect was demanding and not always particularly well done because the other factors such as erosion deposition, geology and relief were not comprehensively covered. Holderness was used extensively as a case study but often responses did not go on to explain the implications of both human and physical factors for Spurn Head. Often these case studies only mentioned Mablethorpe and Easington with a few references to the Humber estuary but none of Spurn Head.

Tropical Environments

Question 7

This question was attempted by very few candidates. Responses seen displayed some knowledge of the location of biodiversity in the canopy, made mention of monkeys and a few adaptations but that that was the extent of the knowledge exemplified.

Question 8

This question was more popular. It would help responses to a question like this to start by defining unsustainability at the outset. Also the consequences of shifting cultivation as opposed to large scale plantation agriculture did not appear to be well known. The meaning of degradation was not made clear in some responses and thus these answers were partial. Also general leaching and soil erosion were mentioned in many responses but not explained in relation to soil fertility and depth and longevity. No responses to this question considered that there might be any positive effects of unsustainable use of the forest.

Temperate Grassland and Forest Environments

Not a very popular option.

Most answers in this section were dominated by theory and concept which were applied appropriately but at the cost of an appreciation of a basic understanding of the terms used in the question. This was especially true of **Question 10**.

Question 9.

Not a popular question but some candidates struggled to define 'environmental degradation' viewing it only as removal of vegetation and soil. The finer points of soil fertility were missing in relation to forests which were the more popular choice of biome. A broad interpretation and geographical area was used so that temperate forests in Britain tended to be the context. There was no detailed smaller scale case studies used.

Question 10.

With this question it was necessary to define 'plagioclimax' at the outset to establish the premise underlying both question and response. The concept of plagioclimax is one which reaches its ultimate development in relation to human activity as the latter is constantly changing.

The Atmospheric Environment

Question 11 was less popular than **Question 12** on the whole but here was a fair balance in this option. Again as in **Question 10**, candidates failed to define the terms used in the question therefore their arguments were not underpinned by certain knowledge and clear understanding. The weather is generally accepted to be the day to day changes in the atmosphere and these changes produce different atmospheric conditions which translate to the weather we experience on a daily basis. Of course, sometimes these conditions may last for several days, in the case of both winter and summer anticyclones. This point was rarely made. The syllabus makes it clear that the human activities impacted upon by these changes are: agriculture, commercial spending patterns, tourism, the construction industry, sporting events, water supply issues, flooding and insurance. Ironically these were not the content of many responses. Often seasonal activities such as skiing formed the bulk of the answers as well as climate rather than the weather. The answers were not those expected, but the challenge was that most answers were not underpinned by the correct approach to the 'weather.' Air masses were invoked and the consequent winter and summer extremes such as heat waves and floods were relevant but few mentioned the list indicated in the syllabus..

Question 12 The enhanced greenhouse effect attracted the majority of candidates. However, only one candidate appreciated that the greenhouse effect is a natural process without which the atmosphere would make life impossible as it would be too cold. The enhanced greenhouse effect is, in fact, a modification of the natural as a result of human activities which produce increased CO₂ emissions and the other important greenhouse gases such as methane water vapour, so₂ etc. most of which did not feature. Some candidates wrote only about CO₂ emissions surprisingly. Several candidates mentioned natural causes in a very cursory way suggesting they may be responsible for the enhanced effect. In fact they are the cause of the natural greenhouse effect and the natural temporal and spatial variations in short wave solar radiation. The other area of uncertainty lies in the ability to EXPLAIN the process which produces the greenhouse effect. There were some relatively poor attempts and a few poorly drawn labelled diagrams. These responses were disappointing given the popularity of the question.

Conclusion

Clear definitions of the terms used in the question in the introduction helps to reinforce the underpinning of the answer, recognition and application of the command words, the subject and object of questions, i.e. deconstruction of questions will facilitate more detailed accurate appropriate answers in the future. Careful learning and application of theory, case studies and practice of questions such as those found on this year's paper will help future candidates to achieve higher level answers consistently. Reading round the subject area, can also help to write more than the expected answer. Finally, candidates should be aware that conclusions are important. They should finish their argument in time to complete the response with a conclusion which attempts to take the argument forward rather than a summary of what has already been stated.

GEOGRAPHY

Paper 9768/03
Global Themes

Key Messages

- Knowing the content of the Generic Mark Scheme (GMS) and understanding its application is fundamental to success. All pieces of extended writing for Paper 3 are assessed using this framework.
- The skills of deconstructing the question set and planning to address all its elements are highly valuable.
- As extended writing, Paper 3 essays need to be of appropriate length in order to develop in both depth and detail. Short pieces of work (in most candidates' handwriting, two sides of an Answer Booklet or less) are unlikely to achieve high Level awards. The vast majority of essays this year were of an appropriate length, including some very long pieces, although these frequently do not achieve high marks, often being too descriptive.

General Comments

This fifth examination of Cambridge Pre-U Geography saw a slight decrease in candidates from 2013, and the cohort remained relatively small. Coverage of the syllabus is uneven in terms of choices, with no essays on one Theme, **The World of Work** and only one Centre preparing candidates to answer questions on **Trade, Debt and Aid** and **Energy and Mineral Resources**.

Knowing and understanding the GMS is foundational to achievement on Paper 3. Teachers are encouraged to use the GMS with candidates throughout the teaching programme, both as a measure of achievement for a piece of work and as a means of demonstrating areas for improvement.

The majority of the questions on Paper 3 were one sentence essay titles. One way to enhance performance is to develop the skills of deconstructing the chosen title into its constituent elements, e.g. command word to follow, subject area, key idea(s). Then a candidate can plan to answer the actual question set, and to cover all aspects of the question. This both assures success with the bulleted descriptor in the GMS concerning focus and keeps the response away from irrelevance or the tendency to go off into straight recall of learned material.

Rewards to individual essays were made using all 5 Levels of the GMS, with Levels 2–4, as expected, being used the most intensively. At this Level, there was some very impressive quoting of relevant texts, recent articles and often a clear account of the relevant theories. Several essays were awarded marks in Level 1 usually for failing to follow the advice in the previous paragraph.

In assessing responses, the GMS is used along with indicative content for each question. This indicative content is prepared from the syllabus content and from contemporary geographical thought, research and publications. Whilst the GMS captures the essential qualities of responses in 5 mark bands, the indicative content is what the name implies: some indication of the probable content or possible approaches to the questions and titles set. Examiners do not expect to find all the indicative content in any one response and candidates are free to develop their own approaches in their essays.

The quality of written communication was satisfactory to excellent, with outstanding work being seen in the vocabulary for and expression of analysis, evaluation and argument in particular. Time management is clearly crucial in this exam, but very few examples of extreme mismanagement were seen.

Organisation is one of the assessment criteria for extended writing in Pre-U Geography. Well-structured responses tended to have a discernible beginning (introduction), middle (evidence, analysis and argument) and an end (conclusion). As last year, the quality of introductions proved a good discriminator. A purposeful targeted start, which defined key terms in the question generally led to a well-structured, focused essay. Many effective conclusions were seen, that drove home the candidate's position and did far more than

simply recap the key points of the essay. All essays need a conclusion (the seventh bullet point in the GMS) and those that lacked one could not be credited for this part of the GMS.

Comments on Specific Questions

Section A

Migration and Urban Change

Question 1

For a question set from a specific line in the syllabus, responses were largely disappointing. Many candidates revealed a lack of understanding of key terms, particularly urbanisation and natural increase, which often led to increasingly inaccurate answers as such misunderstandings were pursued. Responses were particularly poor with regard to natural increase, with few detailed responses backed up by statistical evidence. A discussion of migration dominated many responses.

Question 2

Once again, for a question set from a specific line in the syllabus, responses were largely disappointing. Many candidates revealed a lack of understanding of the key term of remittances. This led to many responses lacking depth and detail. Several responses disregarded the term remittances and gave a 'standard' response about the pros and cons of international migration. These received very little credit. Remittances are a hugely significant aspect of contemporary migration and greater emphasis should be given to them in teaching for this topic.

Trade, Debt and Aid

Question 3

This was the less popular choice, but some answers were amongst the best on this topic with detailed and relevant examples of fair trade and a good attempt to evaluate the statement. Weaker answers used very generalised examples (e.g. "like Africa") and failed to review issues of global trade or have a firm understanding of what fair trade involved.

Question 4

The best answers to this question gave a clear definition of FDI (and not just an account of the role of TNCs) and used data to illustrate the increase in and location of such investment. Examples were generally relevant and well worked (e.g. documenting Chinese involvement in specific African countries) although, again, weaker candidates would refer to "China's investment in Africa". Most answers covered positive and negative impacts and the best ones often had an historical review as well as detailed contemporary examples to highlight, for example, the issue of neo-colonialism. The impacts reviewed were mainly economic but more discerning candidates also discussed social and environmental impacts to give a thorough and balanced answer. Several candidates used Sony and LG's investment in S Wales as an example and not always with dates. Weaker candidates assumed such companies were still operating or at least were very recent whereas the more able candidate used this example to illustrate the negative impacts of when the FDI is removed. The historical perspective is very valuable in answers like these but accurate dates should be used.

The World of Work

No responses were received on this topic

Section B

Energy and Mineral Resources

Question 7

Some very good, detailed, contemporary responses were seen to this question. As expected, energy resources dominated but candidates generally did attempt to include a discussion of mineral resources. One key to success was focussing on supply rather than demand.

Question 8

Very few responses were seen to this question. Responses were reasonable, but mostly lacked the detail necessary. There are many relevant contemporary examples, e.g. North America (Deepwater Horizon, Alaska, tanker accidents, tar sands), Russia and the recent political issues with Ukraine, continued unrest in Iraq, Central Asian Republics (transnational pipeline plans) and Chinese energy demand.

The Provision of Food

Question 9

Some candidates were confused or felt limited by the term 'food consumption' and included food production in their answers. Weaker candidates were also rather vague on 'social' causes and consequences and missed obvious facts such as an increasing population and its impact on food consumption. There were some excellent answers, however, where candidates were able to balance the social causes and consequences with 'other' factors such as political, economic and physical and were thus able to evaluate the 'extent' part of the question. Answers generally covered aspects of health and diet very well especially the causes and consequences of the westernisation of food and its impacts. The question was not straightforward and required thought and evaluation rather than a descriptive account. Examples were, on the whole, thorough, well learned and appropriate but the better candidates tied these closely with consistent reference back to the question.

Question 10

Not all candidates gave a clear definition of subsistence and commercial agriculture. They should aim to define the terms clearly in their introduction. At least two candidates thought that current organic farming in the UK was an example of subsistence, although small-scale extensive farming techniques could be profitably included. Several candidates also included commercial fishing in their answers which was not appropriate in this question. Some also thought that commercial farming began when the UK joined the EU and this limited the examples they used and assumed that agriculture before such a date was subsistence in the UK. The median mark here was a level 3 with some well worked examples but the really good responses covered the social, economic and environmental implications equally and often linked them to a time scale. There were several excellent reviews of the impact of the Green Revolution related to changes from subsistence to a more commercial form of agriculture with thoughtful commentary on the social, economic and environmental impacts in the areas concerned. Most candidates offered an opinion in their conclusions. Again the most able were discerning in their comments. The question was not straightforward and required thought and evaluation rather than a descriptive account. Examples were, on the whole, thorough, well learned and appropriate but the better responses tied these closely with consistent reference back to the question.

Tourism Spaces

Question 11

The question was not straightforward and required thought and evaluation rather than a descriptive account. Several candidates did try very hard to apply their knowledge to the question set. Other responses disregarded the slogan in the question and gave a 'standard' response about the pros and cons of tourism as a route to economic development. These received little credit. It was disappointing to see some irrelevant discussions of the Butler Model.

Question 12

A more straightforward question covering a large portion of a section of the syllabus, but the command term 'discuss' was a good discriminator and was largely ignored by weaker candidates, who produced descriptive answers about impacts and little explicit discussion of factors. As in previous years many responses lacked in-depth examples (and data).

GEOGRAPHY

Paper 9768/04
Research Topic

Key Messages

Candidates should tailor length of responses to each question to the number of marks allocated to it. In a paper such as these candidates may run out of time if they write lengthy responses for questions worth relatively few marks.

It is advisable for candidates to check the appropriateness and suitability of their chosen hypotheses/question used against the syllabus advice.

General Comments

There was little evidence that candidates ran out of time, but some are still not making the best use of the mark allocation shown on the question paper. Candidates who write a whole side for a 4 mark question are not making the best use of their time, particularly when later they write only three quarters of a side for a 10 mark question.

For the 10 mark **Question (2b, 6b and 10b)** candidates have just less than 20 minutes to answer. An all-embracing response is not expected. It is important that candidates focus on the key point of the question, express a judgement and support this judgement with examples or case studies which, although necessarily brief, go beyond simple name-dropping.

The 15 mark questions require an evaluative judgement to be made. A number of candidates simply described what they did during the investigation without using the material they have in a way relevant to the question.

The syllabus suggests that questions/hypotheses should be at a suitable scale, be capable of research, be clearly defined with a named location(s) and be based on wider geographical theories or concepts. It is good practice for candidates to check their chosen hypotheses/question against this advice before embarking on what might be an inappropriate investigation.

A further point relates to the use of questionnaires to determine the views of people. In this case the hypothesis/question should be worded to indicate that it is the perception of shoppers/residents etc. under investigated

Comments on Specific Questions

Section A - Small Scale Ecosystems

Question 1

- (a) Almost all candidates scored full marks, correctly stating 2.8 m above sea level.
- (b) Most candidates handled this comfortably, making a judgement and then supporting this with evidence from the graph. The highest marks went to those who were precise in quoting evidence from the graph e.g. "between 2.5 (not 2.4) and 3.6 m above sea level".
- (c) Many candidates coped well with the demands of this question, handling the diagram with some confidence. Weaker answers tended to simply describe what was shown on the graph. These could have been improved if candidates had attempted to address the evaluative aspect of the question, pointing out agreement at a general level but also the difficulties – such as the overlap of

zones and the overlap of species (less of an issue when considering the thicker parts of the line where species are most frequent). Sea milkwort, for example, occurs in all four zones but is most frequent in only two zones. The best answers provided accurate support from the diagram.

- (d) Good responses to this question discussed the advantages and limitations of each resource, then went on to suggest other information which might be of use to those responsible for managing small scale ecosystems, along with a concluding final paragraph addressing the evaluative part of the question. Fig. 1 shows a good visual impression of the data and the differences between trampled and untrampled areas. However, the time scale lacks specifics, exact locations are not given and what exactly constitutes trampled and untrampled? Additionally, species diversity is not the same as the number of plants. Fig. 2 also gives a good visual impression and might allow management strategies to be targeted at specific zones. The question is very open, about small scale ecosystems in general, so a wide range of other data might be relevant, perhaps the most obvious being seasonal variations and the exact number of visitors. Reasonable suggestions were credited here. There was a tendency among weaker candidates to simply describe the data in the diagrams. Such answers could have been improved by focusing on the value of the resources.

Question 2

- (a) Good answers were produced by those who concentrated on the relationship between the two lines, rather than focusing on the two lines separately. From 0 to 4 years the number of species increases rapidly whilst growth of the biomass is very slow. From 4 years onwards there is a clear inverse relationship between the number of species and the biomass. Many identified the anomaly from 20 years to 50 years, spanning the late shrub and early tree stages. The best answers supported their observations with precise data from the graph.
- (b) An opportunity for candidates to use the knowledge they had gained from their wider study of small scale ecosystems. Local examples were well used to show human influence and the Bialowieza Forest in Poland (a UNESCO World Heritage Site) was often quoted as an example of a natural ecosystem, as were remote isolated parts of the Amazon or Congo. The best answers addressed the “consider the extent” aspect of the question. Any point of view was acceptable, as long as it was supported by appropriate exemplar support.

Questions 3, 7 and 11

The syllabus suggests that questions/hypotheses should be at a suitable scale, be capable of research, be clearly defined with a named location(s) and be based on wider geographical theories or concepts. Weaker answers which simply described what candidates had done without attempting to address the specific demands of the question could have been improved by following those suggestions. The best responses did just that. Other acceptable approaches suggested their titles had to be SMART (specific, measurable, achievable, realistic and time manageable). Personal interest and safety considerations could be added to this list of acceptable factors.

Questions 4, 8 and 12

The question required candidates to describe and justify the techniques they used to present their findings. Good answers described a range of techniques, often illustrating their responses with sketch diagrams to illustrate the techniques used. They then analysed the strengths and limitations of their chosen techniques and justified their choices, depending upon the technique, in terms of appropriateness, good visual impression, emphasising spatial patterns or highlighting relationships between variables. The syllabus also mentions relevance as a factor in choosing a technique.

Page 11 of the 2014 syllabus suggests hypotheses/questions should have a “named location(s)”, so it is reasonable to expect each investigation to include a map of the location (along with perhaps a small inlay map showing the location of the study within the country). Additionally, most raw data is summarised in tables and these in themselves are also means of presenting findings. Many responses could have been improved by discussion of these two techniques which should be common to all investigations.

Candidates should also make it clear which variables are being plotted on graphs. Often a brief sketch serves as a better description than words. The use of photographs on their own has limited use – they should include annotations, labels or overlays to highlight features relevant to the investigation.

Section B - Conservation

Question 5

- (a) Almost all candidates scored full marks, correctly stating the range to be 0.8 and supporting this with evidence from Fig. 4.
- (b) Candidates coped comfortably with this comparison of the ecological footprint of high and low income countries shown on Fig. 4. A small minority unnecessarily referred to middle income countries which were not required in this question.
- (c) This question was quite demanding because it required candidates to compare the three variables of ecological footprint, HDI and annual population growth rate. Good answers referred to both resources, noting differences between the MEDCs and the LEDCs. Several correctly identified Cuba as an anomaly with a low ecological footprint and negative population growth rate in spite of its high HDI.
- (d) Good responses to this question discussed the advantages and limitations of each resource, then went on to suggest other information which might be of use to those responsible for managing conservation. Fig. 4 shows a good visual impression of changes through time in ecological footprint for different groups of countries, though 2008 is now rather dated and there is no indication of the exact meaning of “high”, “middle” and “low” income countries, or even how income is measured. Fig. 5 shows data for selected countries only and there is no date given. The table, though a useful summary, makes the identification of patterns quite difficult. Some candidates stated that conservation usually has to be targeted at scales smaller than the national scale and neither of the resources gives this amount of detail.

A key part of the answer was that a judgement of the value of the resources to conservation managers had to be made. Any judgement, from “extremely valuable” to “of little value” was acceptable, as long as it was well supported.

Question 6

- (a) Most candidates scored well here, able to compare the trends of the lower two lines to the national line. The best answers used accurate data from the graphs to support their answers. This was a question where precision paid dividends for those candidates who took the time to read accurately from the graphs.
- (b) Several candidates used their knowledge to describe management strategies in conservation areas they had studied. Their answers could have been improved by assessing the success of these strategies in terms of balancing the need for public access and the need for protection as required by the wording of the question.

Section C - Central Business Districts

Question 9

- (a) Almost all candidates scored full marks, correctly identifying residential as the land use displaying the largest change in area and able to support this with data from Fig. 7.
- (b) Again, this caused few problems for candidates. The best answers included a comment about differences in change within one category, for example “a large drop in residential land use from 1985 to 1995, followed by a more gradual decline”.
- (c) The emphasis here was on zoning of functions and good responses identified zones such as “a central East-West strip of residential land use” or “industrial land use to the East in Sudhama Nagar”, using both Figs. 8 and 9. The best answers addressed the “to what extent” part of the question. A judgement anywhere on the spectrum was acceptable as long as it was supported by reference to the figures. Weaker answers tended to lapse into simple description of the map – they could have been improved by focusing on land use zones and making a judgement.

- (d) Good responses to this question discussed the advantages and limitations of each resource, then went on to suggest other information which might be of use to those studying the characteristics of CBDs, along with a concluding final paragraph. The advantages of Fig. 7 were usually seen as ease of comparison of the different land uses as well as changes through a period of 18 years being clear. The limitations were the time scale (2003 being rather dated now), area of each activity is not the same as the number of individual units, as well as divisions within each of the main categories (e.g. what exactly does commercial consist of?). The spatial element lacking in Fig. 7 is apparent in Fig. 8, but again the date of the map (2003) is some time ago. A large range of other information would be acceptable – the most often quoted being land values, the position of the PLVI, pedestrian and traffic flows. The question is not limited to Bangalore (Bengaluru).

Question 10

- (a) Most candidates scored well here by linking the changes between the two pictures to the three aims stated in the question.
- (b) An opportunity for candidates to use the knowledge they had gained from their wider study of CBDs. Good answers discussed both the growth and recent changes in CBDs, of which changes to retailing and the competition from on-line retailing dominated. This was supported by detailed evidence from cities such as San Diego. The best answers addressed the evaluative aspect of the question. A range of judgements were acceptable, as long as there was evidence presented to support the opinion expressed.

Weaker responses referred to named cities but could have been improved by using detailed knowledge of the CBDs of those cities.