

Examiners' Report January 2008

GCE

GCE Geography B (8215/9215)

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Unit 6471 Paper 1 Changing Landforms and their Management

General Comments

This paper appears to be of similar accessibility to last January's paper but the mean total score was considerably lower, perhaps reflecting the ability of the current cohort of students. Questions 2 and 5 were marginally more popular than questions 1, 3 and 4 but all yielded some excellent responses. The overall impression was of a cohort of students who, with some exceptions, do not have a good basic grounding in some fundamental concepts such as changes in river velocity, sustainability, ecosystem structure and the impacts of global warming. There were encouraging signs that centres have worked on essay structure for the part (c) questions and on the overall timing of the paper; there were fewer rubric offences and most candidates seemed to answer all of the sections in each question. However a significant number of candidates wrote the essays that they had learnt rather than the answers to the essays on the paper and in general question interpretation needs to be improved.

Some areas for centres to highlight when preparing candidates for future examinations in the paper:

Language is a major barrier to communication for many students who probably knew the answer but were simply unable to communicate their understanding in written form. Work on the use of specialist terminology and the use of basic English. This is most easily achieved by exposure to examination questions throughout the course and not just for revision purposes, particularly writing answers under timed conditions- often a good plenary activity.

The use of examples is often sporadic and students tend to lapse into the habit of focusing on one case study. Named examples are not always required but the use of specific case studies often makes it easier for students to communicate. Students should be reminded that case study material should support points within the body of the essay. Aim to increase the number of different points that students use in an essay to stop them getting too immersed in a single point.

Annotation skills need improving. There were two diagrams on this paper where students could have scored relatively easy marks if they had practiced the skill of annotation and of interpreting unfamiliar diagrams. Labelling is not acceptable at this level.

Look at the mark allocation: 3 or 4 marks generally requires more than one developed point or several ideas to be identified and/or the use of terminology.

The marking of examination papers online is much more effective if students write within the clip areas in the answer booklet. If it is necessary to find additional space for answers candidates should be encouraged to write underneath the lines or on the blank pages of the answer booklet rather than on separate sheets. It is also helpful for examiners if candidates can indicate if they have written elsewhere in the booklet. In almost all cases the use of extra paper, particularly on the part (c) questions does not enhance marks but simply reflects poor essay structure and selection of inappropriate material.

Question 1

Most candidates could identify a relevant hypothesis for (a)(i) with only a few candidates giving generalised ideas such as “how does a river change downstream?” This could have been avoided by referring to the resource. The measuring of velocity had been undertaken on fieldwork by many candidates so most had a vague idea of methodology for (a)(ii). Equipment included “floating pebbles”, “missiles” and a “propella (sic) on a stick” as well as the more conventional orange or hydroprop. However methodology was often simplistic and focused on timing an object floating down a river. It was clear that many did not actually understand how the hydroprop measures velocity, or how to calculate velocity using data collected from the river. Definitions of discharge in (a)(iii) were variable and easy marks were lost through lack of learning of basic definitions or confusion between wetted perimeter and cross sectional area.

Explaining how and why load quantity and calibre changes downstream was difficult if candidates did not understand that velocity *increases* with distance from the source of a river! This is a fundamental error in understanding and is occurring with increasing frequency on this paper. Too many attributed steep gradients to high velocity or tried to write about Hjulström’s model rather than answering the question. However there were some excellent responses offering a range of reasons with candidates clearly understanding how rivers really work.

The sustainable management of rivers is equated to leaving it in its natural state for many candidates rather than creating new habitats in wetland areas on the floodplain or reducing water temperatures by creating shade from indigenous trees. 1b(i) was a demanding question in as much as candidates had to apply knowledge of sustainable river management to an unfamiliar situation but marks were easy to accumulate if candidates understood sustainability and were able to annotate diagrams. Many diagrams were labelled rather than annotated so failed to score. Some centres are clearly doing an excellent job at teaching this concept and some answers were outstanding in their detail and explanation. The identification of a group opposed to sustainable river management for (b)(ii) proved much harder than anticipated and a significant number misinterpreted the question and wrote about a group’s objection to hard engineering. There was misunderstanding of the role of the Environment Agency who many thought would be opposed to sustainable management because it allowed a floodplain to flood naturally - this may be partially explained in the light of the 2007 floods in the UK and the media’s reporting of the lack of flood prevention measures but it is poor geography.

Candidates often chose weak case studies for 1(c) that focussed on events and causes rather than management issues. Colorado, Mississippi and Piddle were usefully employed, though Greta and Severn were less convincing. Responses were either excellent or very poor. Some of the most effective responses used the wording of the question throughout the answer. The following is not perfect but an example of a good attempt to apply knowledge to the question:

“After periods of flooding, river management teams face big challenges as to how best to handle the situation. There is a big debate about the popularity of hard or soft engineering to manage rivers and others are convinced that the most appropriate response would be to do nothing.

In Mississippi USA the river was controlled with the use of levees. This is one form of expensive hard engineering. However managers were faced with a big challenge when the levees were breached in 1993 causing widespread flood damage. Additionally the rivers meanders were reduced in size to improve navigation and reduce travelling time for freight but this caused widespread flooding. The challenge now is an alternative form of management more effective in the long term? The flood recurrence level will perhaps determine the method of management used as well as public perception.

On the Komadugu-Yobe river in Nigeria flooding causes devastation to the people of the area. The Tiga dam was built to reduce the impact of flooding but there was a subsequent decline in wildlife, 92% less birds and damage to the Ngura wetlands. This in turn triggered the Ngura Wetlands Conservation Project which allows floods in the wet season to sustain and replenish the wetlands without harming the people. The challenge is therefore to keep people safe and protect the environment at the same time.

In conclusion it is nearly always needed but different strategies have to be adopted in different areas.”

How could this essay be improved?

Question 2

Storm hydrograph was defined well by most though it is clear others do not learn terms so easy marks are thrown away. The key to gaining marks in (a)(ii) was to use the resource, in this case the woodland shown in landscape A, and then to get events in the correct order - interception, stemflow and throughfall, then maybe infiltration and throughflow. The important idea was that runoff would either be prevented or be delayed. Many wrote about overland flow without qualifying that this would only occur if the ground became saturated - an unlikely scenario given the dense vegetation cover. Some candidates simply listed all the likely processes by which precipitation may reach the river without identifying a sequence. For (a)(iii) the loss of woodland and the bare soil were the key resources alongside the steeper hydrograph. The ploughed furrows drawn to help candidates were misinterpreted as irrigation channels and this led to errors. (a)(iv) was the most successful item in this section since the majority of candidates had some ideas about the causes of flooding and the ensuing risks. Channelisation was often incorrectly accredited with causing flooding due to increased velocity. However a pleasing range of groups was identified.

“Property developers would not want the land to be managed sustainably because it would reduce the amount of land available next to the river. Sustainable management does not prevent flooding and since developers want to make money their profits would be reduced if the properties were at risk of flooding. Houses may not sell and land values would fall.”

Regime is becoming a more familiar term although many failed to point out that it shows variations rather than total discharge over a period of time. Most used the resource to successfully explain the graph. A general lack of understanding of European climate and basic geography betrayed many in (b)(iii) although a significant number identified the sheer size of the Rhine and the contribution of melting in spring as influencing factors on the regime. For all three marks candidates had to write about more than one factor that would influence the regime:

“Very high levels of discharge in the summer months are due to spring snow melt moving downstream from the mountains. In winter much of the potential discharge is locked in the snow and ice. A large river basin means that discharge is more likely to be high all year round.”

2(c) was generally well done and most were able to tease out the human pressures which create the need for river management. Most concentrated on discharge and disappointingly did not consider wider issues such as pollution or water supply.

Question 3

Benefits and problems were generally done well although many identified one benefit and one problem rather than benefits and problems as the question requested.

Candidates had problems with the idea of *combined* effects in (a)(ii), and tended to simply go through each component separately, often at great length and with repetition. The mark scheme required them to explore the collective impacts and look at the scheme as a whole.

For the familiar territory of sand dunes in (b)(i) candidates were required to identify changes in the vegetation across the dunes and not to describe the vegetation in different locations. Type and diversity were the most common choices. Reasons for change were less secure; ideas such as salt tolerance, soil pH, humus content, moisture levels, wind/shelter, and succession. Many understood zonation but explained it poorly. There was particular confusion about changes to pH and length of roots across the dune system. Stronger answers included reference to indicator plants and used key terms. Some showed that they had carried out similar transects and used their experience well. Trophic levels in (b)(iii) were not understood by many candidates. Corals, Wetland and Dunes were used successfully. Full marks required use of both terminology (e.g. Producers, Consumers) and species appropriate to the chosen ecosystem. It was abundantly clear that some centres had taught this topic very well and candidates produced detailed diagrams.

On the whole 3(c) was a very accessible question, evenly divided between sand dunes and coral reefs. Students had a good idea of a range of threats - better for the coral reef than the sand dune in terms of range/detail. Studland and Mauritius were the top locations used and there were some excellent responses. At the lower end dogs and litter were the main threats identified with no reference to flora, fauna or soil and frequently these answers lapsed in to management problems with descriptions of thousands of cars full of ignorant people dropping litter and setting fire to dunes!

An example of a top level 2 answer:

“The Camargue in southern France is a wetland ecosystem containing a huge diversity of plants and animals. There are over 300 species of migratory birds and it is a breeding ground for the flamingo. It receives freshwater from the river Rhone and salt water from the Mediterranean Sea. It is under threat because urbanisation and deforestation increase discharge in the river channel. Urbanisation creates more impermeable surfaces and increase surface runoff. Deforestation causes less interception so discharge increase too. If the discharge is higher more fresh water enters the system and some species die out. Tourism creates litter and pesticides used by farmers kill insects and cause eutrophication. The loss of insects affects the food chain and reduces biodiversity. A nearby petrochemical plant release toxins into the water which are harmful. Rice farms use fertilisers which further increases the risk of eutrophication.”

What does the candidate need to do to access Level 3?

Question 4

The photograph for (a)(i) was used quite well to identify cliff features, such as cliff and wave-cut platform, although some candidates failed to distinguish between processes and feature and so described slumping and undercutting. In (a)(ii) most had a generally sound idea of some sub aerial processes, though some failed to separate them from marine processes and wrote about both just in case. The best candidates went beyond freeze thaw and described rain wash and saturation leading to mass movement. Ignorance of basic geology was evident too since some candidates were convinced that corrosion of the chalk/limestone in the photograph was likely to take place. Distinguishing between rock type and rock structure for (a)(iii) was challenging for many candidates and many had only a vague idea of what was meant by structure. Referring to the layered rock saved many from half marks. The impact of storms for (a)(iv) is well understood and the most common ideas were the impact on waves and therefore increased cliff-foot erosion, as well as the lubricating effect of rainfall on sub-aerial processes such as landslides and slumping. Some candidates however failed to link their response to the coastline in the resource and lapsed into "great corrosion of the limestone" once more or suggested waves overtopping the cliff.

In 4(b) responses were disappointing since differential erosion was poorly understood and very few students managed to gain the full 4 marks. The majority produced simple labelling such as "hard rock/soft rock" and did not link this to headlands/bays or use the different rock types in the key. A surprising number of candidates misinterpreted the diagram completely and reversed the position of land and sea.

4(c) should have been the most straightforward essay on the paper but many went off into general impacts of global warming, away from coastal environments with sections on storms and their links to river flooding. Lots of the generalised Bangladesh and Maldives responses would not have been out of place in a Key Stage 3 classroom. The impacts on the UK were less well known and were frequently mixed up with post-glacial isostatic readjustment. Global warming and its impacts need to be understood much more clearly. The best answers identified the positive impact of more tourism in coastal locations as well as a range of negative impacts that covered more extreme weather events or the impact on increased levels of carbon dioxide on coral reefs as well as the more usual coastal flooding. Candidates that limited their answers to one location were unable to score over 6 marks since the questions asked for locations.

Question 5

In (a)(i) although a range of ideas was given, few candidates gained the full 4 marks. Most settled for the idea of land use/value and cost-benefit analysis. The state of the coast, its population, existing defences, ecology and potential were ignored in favour of simplistic ideas like tourist resorts versus farm land. The concept of sustainable coastal management in (a)(ii) was vaguely understood by the majority but not well applied and again candidates did not seem able to express themselves in an appropriate manner. Examiners were often faced by repetition regarding the two options. There were some excellent answers but these were the exception. Some candidates identified such things as managed retreat enabled buffer ecosystems to develop improving biodiversity. The idea that 'do nothing' has 'no costs' or that 'sustainable management is equivalent to leaving the coast to its own devices' reveals a lack of understanding in this area amongst the majority of candidates. Surprisingly there appeared to be limited understanding of managed retreat despite a wealth of available material and several fieldwork locations using this method of management, including Studland. <http://www.swgfl.org.uk/Jurassic/opencost4.htm> is just one link that gives details.

A range of pressures was offered for (b)(i) but many simply described what they saw rather than suggesting the impacts. (b)(ii) was less well done and many answers were on a theme of bin it, ban it or fine people for doing it. Beach protection was highlighted even though it did not seem a very obvious response from the diagram. Zoning, legislation, education and monitoring were among the more successful responses and there were some excellent answers on the management of marine ecosystems.

On the whole 5(c) was satisfactory but there were far too many locational errors leading to a mean mark of just under 5 out of 10. Many candidates were let down by a lack of detail about their coast, focussing on only one place, or concentrating too much on geomorphology and causes, rather than people and the wider environment (e.g. ecosystems). The key to this question was identifying rapid erosion and its effects on both people and the environment; the latter proved more challenging for many and was omitted altogether or confined to 'birds having to find new nests'. Wessex and Holderness were the favoured locations although an alarming number included Lulworth Cove as an example of rapid coastal erosion. This essay highlighted the fact that candidates are either studying more than one stretch of coastline and are therefore getting muddled, or that they simply have no idea about the nature of the coastline and the relative location of each of the places studied. All candidates should be able to draw a map of their chosen stretch of coastline, know where it is in relation to the rest of the UK (or beyond), recognise photographs of each location studied and be able to summarise each of these locations in 3-5 key words. Working through these basic tasks (which could be set as homework) would improve basic understanding and make for better quality answers.

Unit 6472 Paper 1 Human Environments

Overall there were a number of strengths in candidates performance which reflected an improvement in previous years.

- Most candidates had a sound knowledge of the process of counterurbanisation, with good understanding of its impacts both on village populations and rural environments (in Q1).
- Many candidates were very well informed on a range of innovative schemes which were improving the quality of life of rural people in LEDCs. It was pleasing to see detailed accounts of schemes in particular villages (in Q2c).
- Nearly all candidates could define the key differences between rural and urban areas, and competently interpret changing population trends in Korea and Vietnam (in Q3).
- Many candidates were knowledgeable about the features of urban slums and also understood the process of slum improvement in Latin American cities (in Q4c).
- There was an improved knowledge of flagship schemes with many candidates aware of the selective impact of the subsequent regeneration these schemes have brought about (Q5c).

However there were a number of weaknesses which prevented many well prepared candidates from maximising their performance.

- Knowledge of recent developments in the countryside needs improvement, especially when considering new styles of tourism, or the impact of new energy sources such as wind farms or biomass fuels (in Q1c).
- The impact of rapid growth on a named LEDC city was also only understood in general terms, with many accounts full of sensational tales of filth and squalor (in Q4c).
- The rural-urban continuum was not well understood as a concept, frequently being confused with the rural-urban fringe. Many candidates have an imperfect knowledge of what exactly constitutes the rural-urban fringe as a zone of dynamic change.

The main weaknesses however concern failings in exam technique.

- Failure to fit answers to the spaces provided. Candidates can certainly write in bullet points in all except part (c) questions as only here is QWC assessed. Particular problems of overrun included 5(b)(i) and 2(b)(i) and often led to subsequent timing problems.
- Failure to identify command words - for example in 4(a)(ii) and 4(b)(iii) students had to describe and suggest reasons, with many doing only one. In 2(b)(ii) many just lifted off data and failed to explain.
- Failure to read key words correctly as shown below:
 - 1(b)(ii) changes in village populations
 - 2(d)(iii) developing two further principles i.e. further to those in Figure 2(a)
 - 3(b)(i)(ii) being sure to think about differences and similarities
 - 4(a)(i) failing to write about the features of slums
 - 4(c) selecting named examples (of locations and impacts) from a named LEDC city (some candidates wrote about 2/3 cities)
 - 5(b)(i) failing to compare the two population profiles.
- Failure to use data from the resources to support their answers. Lift-offs will not achieve marks at AS levels.
- Failure to maximise the marks for the definition questions. If in doubt always include an example as in 2(a)(i) NGO or 4(b)(i) mega city.
- Failure to keep to the rural/urban, LEDC/MEDC rubrics (less of a problem this time). In 2(c) some candidates wrote about innovative schemes in Latin American slums, or in 1(c) they wrote about schemes such as Three Gorges Dam - China is not yet an MEDC.

Question 1

1(a)(i) Most candidates did well here, taking advantage of a mark scheme which rewarded both breadth and depth. The farmers were usually 'cast' as villains, but occasionally statements were extreme - such as the noise pollution from methane emissions from penned cattle.

In 1(a)(ii) again most candidates offered balanced arguments for and against the building of new motorways, usually providing a good standards of detail, as opposed to noise, air, visual pollution.

1(b)(i) **Counterurbanisation** was nearly always correctly defined although exemplar support was rarer.

1(b)(ii) There was continued confusion about temporary and permanent populations. Counterurbanisation implies **permanent** living in the countryside, so the **second home issue** was not core to the answer, unless linked to out migration of young villagers who could not find affordable housing.

1(b)(iii) There were many good accounts of villagers' concerns across a range of issues.

In 1(c) many candidates struggled to provide relevant named examples. **Farm diversification** was often very well understood, with good detail on farm and non farming diversifications ranging from new crops through to business parks and farm shops.

Most candidates needed more detail on the **Broadband revolution** but did understand the impacts. What was needed was detail on new business start ups, or innovative use of the technology (use websites, include Western Isles County Council, or Cornwall County Council as well as websites from particular villages).

New types of recreation and tourism in rural areas include rural rebranding, for example food tourism in Ludlow, or book festivals in Hay on Wye, as well as new **Extreme Sports Activities**.

Far too many candidates wrote about tourism in the Lake District with no detail of any locations, and the usual impacts of trampling, open gates, littering etc. These bland answers could at the most achieve low Level 2. Demands for **new energy resources** were rarely seen - a useful case study (Feb 2008) is the impact of electricity (wind/solar) coming to the Island of Eigg, clearly improving the quality of life for its inhabitants.

Question 2

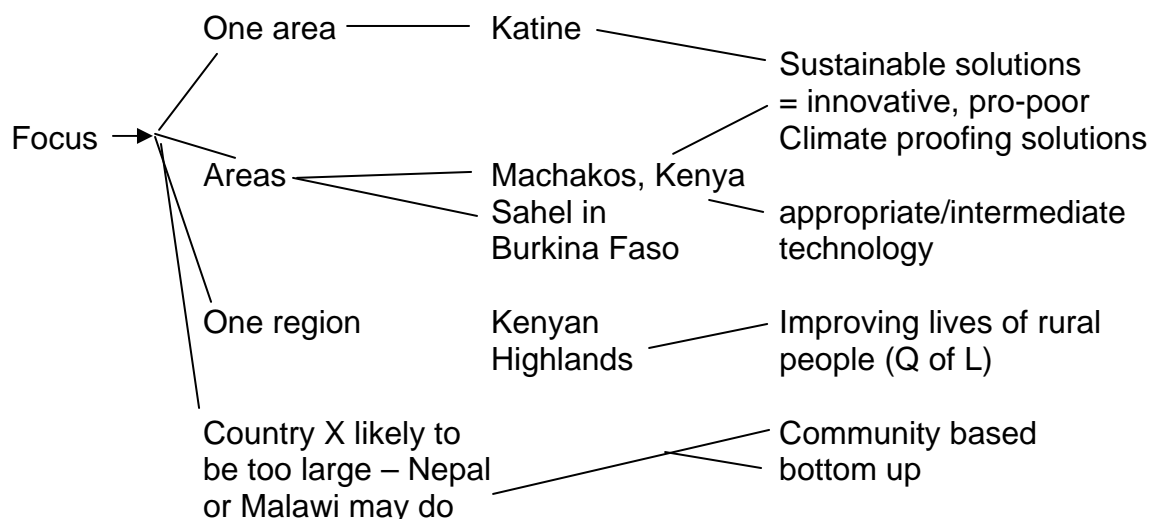
2(a)(i) Most candidates could define an NGO - but needed to include an example or extended point for 2 marks. Some were even aware of BINGOS such as OXFAM i.e. Big International NGO.

2(a)(ii) and (iii) were often well done, with some interesting further principles developed. These included using appropriate technology, developing eco-friendly projects, or farm based education. Credit was not given for general eg improve health projects which were **not** related to farm based work or farmers.

2(b)(i) required **explanation** as opposed a reworking of the statistics i.e. **low life expectancy** linked poor access to health care, or **high infant mortality** linked to HIV/AIDS or male immortality or food insecurity.

In 2(b)(ii) there were some excellent responses but they needed to be linked to named examples of rural areas for maximum marks.

In 2(c) there were many good answers, showing very sound knowledge of the schemes. The very best answers were focused on villages. **Katine** (sponsored by the Guardian/Observer group) is proving an excellent example as reports appear on a regular basis of all the ways it is funding innovative projects.

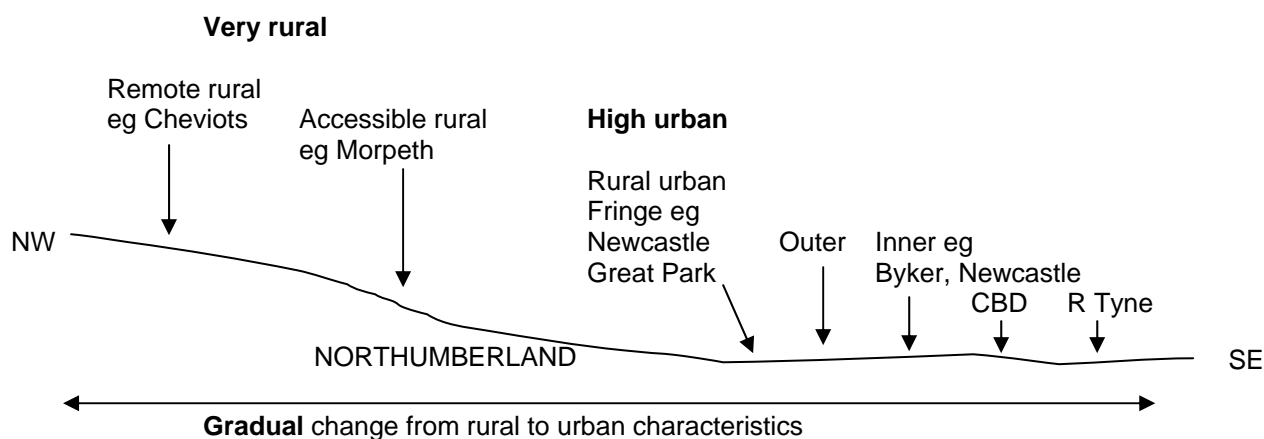


Question 3

This question was focused around rural-urban contrasts. Whilst many candidates did this question, their performance was not always good.

3(a)(i) In filling in the table most candidates could summarise the differences. The table proved a good 'confidence booster' and will be used again as a technique for sieving information. Other differences were very open ended, but most concentrated on areas of open land versus built up urban jungle not Greenfield v brownfield sites which is incorrect.

3(a)(ii) - The diagram below shows an example.



3(b) Involved the analysis of **graphs**. As with most of the skills questions it was competently done. Candidates should **always** quote data in their answer but not just 'lift-off' numbers. Many could look at trends quoting dates, and rates. The explanations for differences and similarities were more tentative but nearly all could explain the process of urbanisation and most were aware that S Korea was an original tiger, or now a NIC, and that Vietnam was a 'stage' behind as a 3rd generation NIC or RIC, although the statements were tentative.

3(c) Candidates responded well to this new style question provided they had a good knowledge of a selected area. It was a values based question, and provided the justification was there all sorts of nominees for the good, bad or ugly were accepted with Tesco frequently featuring as the 'good'! Many candidates were aware of the loss of Greenfield sites, the mixed and rapidly changing land use, or the proliferation of golf courses and country parks. Others never actually located the rural-urban fringe correctly and so scored minimal marks when writing about the ugliness of the Hulme flats, or the beauty of the Lake District.

Question 4

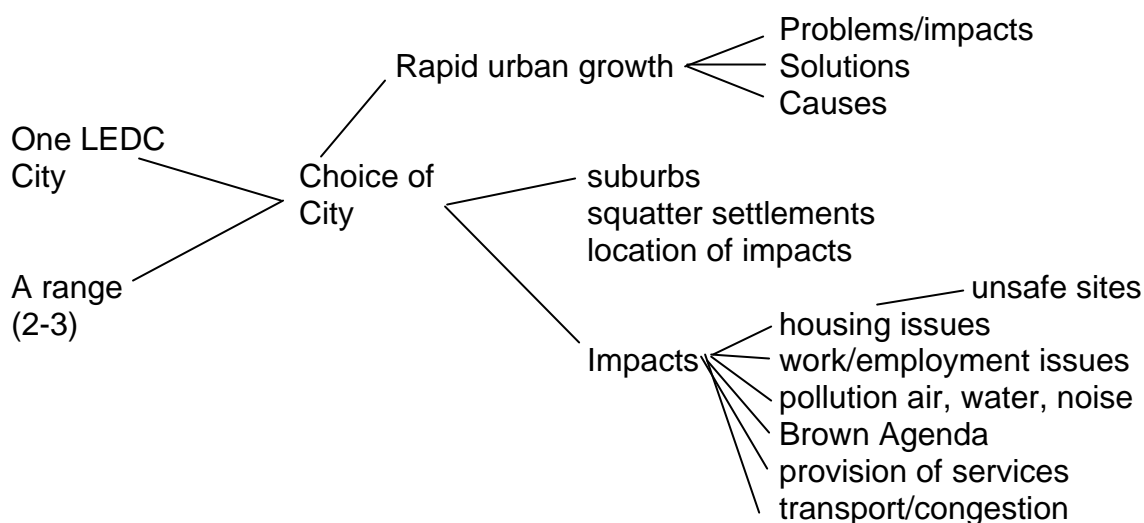
It was disappointing for candidates that so many misread 4(a)(i) and wrote about the distribution not the features of urban slums otherwise it proved a straightforward question.

4(a)(ii) involved the analysis of a distribution of slums. Students do need more practice on map analysis as it is their one weak skill. Essentially the question required comment on N/S divide, and any anomalies (Greenland, Uruguay, etc). The reasons were linked to levels of personal and governmental poverty. Most candidates wrote about rapid urbanisation, provision of government schemes, and in MEDCs the 'welfare net'.

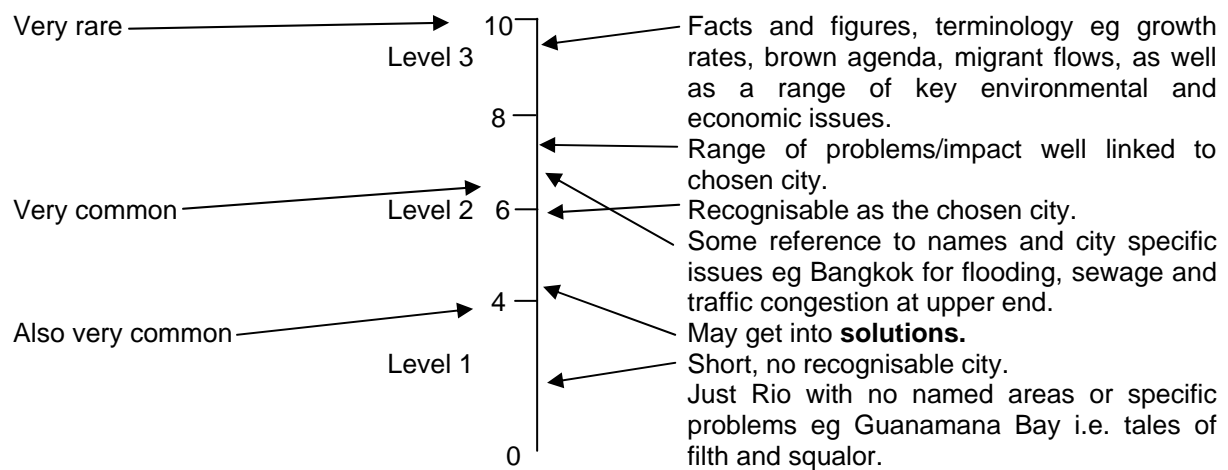
4(b)(iii) Answers to this question were often perceptive, showing sound photographic skills, some even used the squatter settlement model to explain the development. Systematic treatment was required which involved the description and reason for each. Many candidates failed to state the obvious of squatter settlement slum/shack, the only home recent arrivals could build (extreme poverty). Many commented on the electricity, 2 floors, flowers, official address etc and looked at legislation, self help buy a brick, site and service and rising prosperity, often with sound geographical perception.

4(c) performed poorly. 'Named examples' was included in the stem to get students to 'name a slum' or include detail on an issue, but the focus was on one LEDC city.

The diagram below summarises a possible plan for these question types.



Therefore when, for example, choosing **Mexico City** - growth issues could particularly include the height, bowl shaped site, industrial smog, lake beds etc with named squatter settlements. **Cairo** was perhaps the most successful as there are many named districts such as the City of the Dead (new site and serviced). **Bangkok**, **Bangalore** and **Karachi** also worked well. The least successful continues to be **Sao Paulo**. The superb map from June 2007 paper should be linked to the notes (from GCSE) to improve the factual accuracy. Some tried to use **Curitiba** but it is so much better for questions about solutions and should be learned in the sustainable city context.



Question 5

5(a)(i) In general the table was confidently completed - one word answers sufficient. The only problem was naming a street layout for Area B - ranging from culdisacks to coldysex! We accepted crescentic, *cul-de-sacs*, winding/curvaceous/curving street plans.

In 5(a)(ii) the fieldwork surveys were mostly doable and better than previous years **but** to secure marks precision is required. 'Interview a sample of residents to question them about their perception of environmental quality in two contrasting residential areas,' will score more highly than 'talk to locals'. Equally, 'use lichens to survey air pollution' or 'use decibel recorder to measure noise pollution' or 'do traffic counts to record Co2 emissions' is much better than simply 'pollution'.

In 5(b) the population profiles required **interpretation** with a maximum of 2 for lift offs such as 'Area A has over 40% 15-PA whereas Area B has over 60% 15-PA'. Explanations of the differences were often sound although Area B was seen as a rural area by some. Essentially, virtuous and vicious cycles would be a useful means of explanation.

5(c) was usually well done, with excellent knowledge of flagship projects often associated with Urban Development Corporations. Newcastle Quays and Gateshead, Salford/Manchester, Liverpool, Sheffield, Birmingham, Bristol and of course the London Docklands were encouragingly all well done. Perhaps the very best was **Cardiff Bay**. Centres should beware of using the London Olympics **just yet** as there is very little regeneration at present - maybe by 2010 things will begin to happen.

Unit 6473 Environmental Investigation

The majority of candidates follow the assessment criteria and work is highly organised. Moderators report that work seen is a similar standard to previous years and some indicate improvements have been made. Centres correctly assessed most investigations although some marks tend to be generous above 70 and a little harsh below 50. Accurate marking tends to be done by those centres highlighting key descriptor phrases or underlining on the assessment criteria form. The January cohort contains many resit candidates and they should use the new GB2 form and give their former marks including breakdowns. A number of moderators report that centres do not always follow the instructions on p67 of the specification and that many investigations are not highlighted to show new work of resit candidates. Centres still tend to inflate resit candidate marks. Many additional and OPTEMS errors occurred this cycle.

Areas of concern raised by the moderation team

Administration

- Teacher and candidate must sign the GB2 form and word limit should be given with reasonable accuracy.
- OPTEMS must be signed by teacher and marks should be checked to avoid mistakes - it is the centre's responsibility to correct mistakes found by the moderator.
- Resit candidates must highlight new work and ideally produce an additional sheet with details of new work using page numbers.
- Centres must inform moderators & Edexcel of withdrawn candidates.
- Overlength investigations (i.e. over 3000 words in continuous prose) should be penalised in the QWC section.

Comments on popular topics

Rivers

The best centres use 8+ sample sites and include statistical analysis that focuses on a narrow question. The worst use less than 5 sites with no focus often vaguely testing Bradshaw model. Some excellent work was seen this cycle on the River Horner and Lemon both of which had plenty of data collection directly leading to varied analysis including the use of Spearman rank. The inclusion of flood risk, riverbank ecology and human impacts can add weight when the process-based title runs out of steam.

Coasts

Topic selection is crucial. A general description of changes along the coast often does not work when the fieldwork does not find any or the 'issue' turns into a disappointment. Excellent work is found in focused small areas using detailed measurements and in centres that encourage a range of analysis. Excellent work seen based in Devon & Somerset, weaker in Norfolk.

Settlement

Urban topics can produce the worst work seen by moderators as many candidates collect insufficient data to do any sort of sophisticated analysis, hardly ever use statistical analysis, and often rely on scrappy questionnaire data with a few bar charts or a one-page pie chart repeated several times for each question. Small areas focused on an issue that can be measured or actions that can be evaluated are best. Some excellent work was seen on urban regeneration in London that used extensive data collection in a small area and impressive data recording sheets.

Ecosystems

Often the best topics as candidates have to collect data or get low marks. They cannot hide the lack of data by claiming they could not measure it and these topics lend themselves to focused questions often with people-environment issues that they find interesting. Excellent work seen from sand dunes all around England and Wales.

An updated table of good practice and areas for improvement.

Section	Good Practice	Areas for improvement
1 Purpose of Investigation A key section that often causes problems later when done poorly	<ul style="list-style-type: none"> • Focused aims & key questions • Better use of maps to show general & detailed area • Reference to relevant background & theory • Use of key question table or effective hypothesis use 	<ul style="list-style-type: none"> • Broad titles, lack of focus • Poor, often downloaded maps • No reference to models or background information • No key questions or misuse of hypothesis approach
2 Methodology A difficult section that needs more time and effort	<ul style="list-style-type: none"> • Detailed understanding of sampling techniques applied to the investigation • Discussion of issues, problems & solutions to data selection, collection & recording • Use of robust & detailed tables for data collection • Innovative use of maps, photos & questionnaires going beyond standard 	<ul style="list-style-type: none"> • Little or no sampling and appreciation of methods • No issues discussed, little understanding shown • Simple tables with no detail and generalised comment • Little variety or imagination evidenced - often group teacher-led work
3 Data Representation Too few techniques	<ul style="list-style-type: none"> • Integrated data representation within the analysis • Great variety of techniques - maps, graphs & statistics 	<ul style="list-style-type: none"> • No integration or appropriate selection • Little variety - mainly simple graphs and photos
4 Analysis Can be generalised and simplistic	<ul style="list-style-type: none"> • Appropriate use of statistics including significance • Understands trends and patterns • Logical and structured with analysis integrated to rest of investigation • Double figure sample size and pilot surveys 	<ul style="list-style-type: none"> • No statistics used or incomplete understanding of technique and/or significance • No overall patterns recognised • No proper structure, simple description only • Small sample size, with no appreciation & disjointed
5 Evaluation & Conclusion Often too brief	<ul style="list-style-type: none"> • Detailed analysis and innovative diagrams to summarise • Includes management reports • Uses & adapts theory and models 	<ul style="list-style-type: none"> • Brief, little or no evaluation • Generalised summary, very short conclusions • Little geography, no use of theory
6 Quality of Written Communication	<ul style="list-style-type: none"> • Contents page, pagination & bibliography • Highly developed skills and much imaginatively designed diagrams 	<ul style="list-style-type: none"> • No contents, pagination or bibliography • Weak presentation skills - little or no imagination

UMS & Raw Marks

There has been confusion in some centres about the relation of raw to UMS marks and the effects of scaling. The following is an effort to remove some of the misconceptions and inform those who have not realised why a candidate who is given 45 as a raw mark ends up with 32 UMS and possibly fails AS and drops out.

RAW	UMS	GRADE	
92	100		
90	97		Above scaled upwards
85	88		progressively more
78	80	A	
71	70	B	----- TIPPING POINT -----
64	60	C	
			Below scaled downwards
			progressively more
57	50	D	
50	40	E	
45	32		Below pass grade raw marks hit
37	26		very hard by scaling

These are based on current grade boundaries A 78 & E 50. Over-generous marking occurs mostly from 78 upwards whilst most undermarking occurs sometimes in Grammar schools at below 50 marks. An E performing candidate in exams will often fail AS completely when given a 'harsh' 45 which then becomes 32 UMS. Whilst both of these are serious, a harsh lower mark has dire consequences for the candidate.

Unit 6474 Global Challenge

General

At the top end, candidates produced outstanding accounts given the time available. Such answers were well structured, clearly exemplified and showed a clear understanding of the question focus. At the lower end, answers were very generalised and tended towards description rather than any real attempt to address the command word of the question. Candidates had relatively few timing and rubric problems.

A wide range of case studies is being generally well-taught in centres and well-deployed by many candidates. Many candidates also have a mature grasp of global and development issues and sustainability. The use of geographical terminology is developing but could be extended further by most candidates. Weak place-specific knowledge and poor grasp of scale in some instances also needs to be developed further.

Question 1

This was not a particularly popular question but candidates that attempted it generally had a good grasp of the processes and concepts. In part (a) knowledge of the tricellular global circulation model was sound in many answers, with good understanding shown of the Hadley Cell, ITCZ, seasonality and low and high pressure belts. However, a sizable minority of candidates mistook surface weather for climate and this led to a general account (e.g. latitudinal variations in climate regimes) rather than meteorological conditions overall.

For part (b) there were some confident answers on the well rehearsed topic of the influence of one aspect of weather on economic activities. Typical answers offered a wide range of effects such as the impact on different aspects of farming and tourism examples. At the lower end, some candidates mistook seasonal variations in weather for the impact of extreme weather events and outlined the impact of that event (e.g. drought, flooding, hurricane, etc) on a particular area.

Question 2

This was a relatively popular question. For part (a) knowledge of El Niño was stronger than La Niña. Most candidates understood the resource but a significant minority merely described the graph rather than assessing its value for forecasting. Some answers showed a strong grasp of forecasting and examined various approaches in comparison to this one. Some answers then assessed the shortcomings of forecasting. Many answers scored in Level 2 for part (a) but Level 3 answers were rarer.

Many candidates had revised well for part (b), being able to successfully differentiate between El Niño and La Niña. However, some candidates confused the two here. Many answers scored in the Level 3 band as the candidates had quite extensive knowledge of El Niño impacts. Specific knowledge and understanding of La Niña too was needed to reach Level 4 and some answers were limited here. Some ignored La Niña altogether.

Question 3

Once again this was a popular question. In part (a) candidates showed a clear understanding of physical factors influencing biome distribution. Most answers focused on temperature and precipitation related to the resource, often with data support from the table. The top answers could also discuss plant adaptation, levels of primary productivity, speed of nutrient cycling, growing season and the influence of daylight hours. Weaker candidates were heavily reliant on the resource with few additions. Most answers showed a good understanding of the concepts of NPP and biomass.

For part (b), forests and marine were most popular and candidates had often prepared well for a chosen case study. The stronger answers were able to take a broader view e.g. different types of forest and could back up answers with reference to specific locations. The link between human activity and ecosystem impact was variably covered. At the top end there were some really detailed assessments in answers with a balanced view between positive and negative impacts of human activity. Positive examples included agro forestry, conservation and ecotourism. There were some excellent marine examples with reference to coral (St Lucia, Tobago etc) and mangroves in particular. Forest ecosystems were largely confined to Tropical Rainforests but had well developed examples from the Amazon (although this tended to be generalised with little reference to specific details), Sierra Leone and Korup.

Question 4

Question 4 was the most popular question in this section. Overall, there was a good understanding of the stages of the demographic transition model. However, many answers missed the focus on factors that influence such stages, perhaps coincidentally mentioning relevant reasons for the differences between the different stages in a descriptive tour of it. Popular reasons suggested for the relative birth and death rates focused around healthcare, contraception availability and understanding, and career development alongside industrialization. Stronger answers used a range of supporting examples.

Part (b) often yielded a re-run of the part (a) answer with an examination of the different stages of the demographic transition model. Strong answers outlined the economic characteristics of each stage moving from an agrarian society to a high-tech post-industrialized with reference to real case studies. Some candidates rightly pointed out that the demographic transition model may not be relevant for BRICs or the post-Fordist / globalisation modern economy.

The following answer provides an example which makes an effective link between economic development and population characteristics:

“According to the Rostow model there is a wide link between the stages of the demographic transition model and economic activity. In stage 1, the pre-modern stage, there is a high level of primary industry. This is generally in farming and is often subsistence. Therefore to achieve the highest yields possible families have a large number of children who are able to help farm the land and perform daily tasks such as collecting the water. This is typical of many LEDCs such as Ethiopia. Here the population remains fairly constant as the birthrate, with low ineffective contraception, remains high plus high death rates due to poor healthcare systems, access to medicine and very often poor sanitation. For example the only water nearby maybe heavily contaminated further upstream by sewage.

During stage 2 and 3 industrialisation takes place, in areas such as the NICs or RICs of eastern Asia. An example of a NIC is Brazil in South America. Here industrialisation, for example assembly and construction of parts for the car industries such as Volkswagen, has led to high income. Secondary products have higher added value and therefore gain more money for their sale. This means that the country is able to invest in healthcare, medicine and infrastructure so that many places are connected so that business can spread and services can be set up in varying regions. This reduces the death rate as people have improved access to healthcare, although many living in favela settlements such as at the edge of Rio de Janeiro have little access to improved sanitation or healthcare. The birthrate remains high as there is little contraception and family planning and it is ineffective.

Another approach is shown by Mauritius as the Cairo Conference in the 1980s aimed to control population numbers by educating women and legal reform so that women had more rights and family planning campaigns. This meant that there was an optimum population which therefore means the economic development could grow as there was the correct number of people for the resources and the resources were not being over exploited.

For MEDC countries such as Japan and USA international trade further developed the economy; for example via the motoring industry which rose by 50% since 1850. These countries were able to do this trading as the population numbers in these countries were high in the labour sector of the population pyramid (30-50) with an increasing development of skills and the money to invest in growing industries. However, in more recent years these countries have a growing elderly population with an increasing welfare burden.”

Question 5

Most candidates were able to better describe than explain the differences. There was a good understanding of push / pull factors and many candidates were able to refer to other 'mini-case studies' to support their answers. Most candidates understood the idea that the resource focused on forced migration (perhaps reflecting the topical nature of this issue) and put forward a range of relevant suggestions. Popular reasons focused on corrupt political regimes, civil war, conflict, natural hazards and physical constraints such as the aridity associated desert areas.

For part (b), there was good use of current topical case studies. Weaker answers focused on Europe as a host, with issues mainly relevant to a MEDC host country. However, some candidates were able to write articulate answers that scored highly. There were still a number of answers concentrating on guest workers (e.g. Turks) in Germany but given the topicality of the issue and current debates, some answers used good material on contemporary examples such as Eastern Europeans in Britain. There was a slight tendency to focus on negative rather than positive impacts.

Question 6

This was another popular question. Part (a) was largely answered well with candidates outlining a range of relevant factors. Popular inclusions were lower labour costs, the development of the specialist skills in different parts of the world, the availability of infrastructure, existing trade links, the level of economic development and the emergence of RICS and BRICS, outsourcing and the effect of globalization on who does what in terms of the production of this laptop. However, only higher level answers were successful in linking the general issues of globalization to the actual laptop situation.

In part (b) candidates used some relevant material on global shift and globalisation. There were some good answers about direct investment into LEDCs. Some of the stronger answers were well-structured and exemplified. Inevitably, the weaker candidates wrote extensively on Nike and exploitation, etc. Some candidates wrote a very good answer about one TNC (e.g. Nike) and scored a maximum 8, rather than an industrial mega-region (e.g. Telford, Taiwan). There was some good use of case studies such as motor manufacturing and high technology. Some weaker answers struggled with the assessment of *impact* in a *named* place.

Question 7

In part (a) many answers correctly identified the pattern of vulnerability, though a significant number tended to focus on the 'high vulnerability' areas. Popular reasons given were level of economic development and its impact on personal wealth and unfair trade, healthcare issues and AIDS related problems, and environmental stresses related to climate, hazards and ecosystem management. Some even correctly identified and explained the pocket of vulnerability (Lesotho) within the South Africa. Some answers effectively examined the range of indicators given on the resource.

Part (b) motivated students to write about a range of interesting and feasible, or not-so-feasible, needs and practices. There were some good answers at different scales of management which included re-cycling, use of renewable energy, environmental conservation and the use of agreements/regulation to control harmful emissions. Weaker answers tended to focus on climate change and responses to it but higher level answers had a strong grasp of the concept of sustainability and its challenges. Such answers also argued that all economic development is not all bad and that with economic development comes a choice for conservation and sustainable management too. Exemplification was variable.

Question 8

Some students misinterpreted the resource associated with this question in terms of the performance against targets, interpreting positive values as good and negative ones as negative numbers rather than in relation to the target set. The stronger candidates were able to analyse the subtleties of the pattern and the relative success of meeting the targets compared with economic development. A sensible list of relevant issues were put forward, on the whole. Common themes were renewable energy strategies, government commitment, public awareness through the media, consumerism levels and affordability. Higher level answers started to examine the targets set and questioned the challenge and feasibility of such variable values for the different counties.

The theme of part (b), greenhouse gas emissions, was a popular topic which produced a very wide range of material, most of which was made relevant to the question. There were many possible examples here and the higher level answers were able to draw upon a wide range of relevant ideas - eustatic sea level rise, extreme weather events (e.g. Hurricane Katrina), global circulation patterns and even links to El Niño frequency and magnitude. Exemplification was lacking in some answers, preventing marks being awarded at the top of Level 3 or into Level 4.

Question 9

Some students found this to be a challenging question with variable answers produced. Many candidates had a good knowledge of the implications of rising carbon emissions linked to global warming. However that is where many answers ended. Knowledge of the ecological footprint was extensive, with some sound reasoning around logging, LEDC development issues, food miles idea, air transport etc. - that might all impact on the ecological footprint. Candidates understood the resource and were generally able to write about the issue in a structured and informed way. Stronger answers were able to exemplify their ideas with specific case studies, for example of areas affected by rising sea levels.

For part (b) some responses were rather vague in parts and somewhat hit-and-miss. Some candidates produced sound ideas about fair trade, debt management, the Brandt Line and globalisation and referred to development models. Some answers looked at the more global agreements such as Kyoto & Rio. Whilst many candidates were able to make a reasonably informed statement about the degree to which the gap exists (or is narrowing / widening), they were less secure in supporting their responses with examples.

The following example gives a balanced response to the statement for question 9(b):

"The North-South development gap is a description using the Brandt Line (1984) to describe the level of development of different parts of the world. Some people feel that the development is widening. With the growth of globalization, trade blocs such as the EU developed. These have quotas and tariffs to protect the countries in them to promote trade within the trade bloc. Moreover, organizations such as the WTO are run mainly by MEDCs and therefore can favour them in trade laws. This has led to unfair trade between MEDCs and LEDCs. For example, some farmers and workers only receive \$1-2 a day for their work.

As well as this, the impact of global warming has led to environmental degradation in LEDCs. In Burkina Faso, irregular rainfall has caused some reduced crop yields and soil erosion. As this continues global warming will continue to impact on the poorer areas of the world. For example, it will cause severe drought in sub-Saharan Africa and this will widen the development gap.

Debt is also widening the development gap. In Tanzania 15 years of SAPs (Structural Adjustment Programmes), which were promoted by the IMP and World Bank for debt repayment, led to increased exports. However, they also decreased the life expectancy, lowered the literacy rate to 50% (from 80% in the 1980s), and caused widespread deforestation.

Other people argue that the development gap is narrowing. In terms of trade, the movements of charities to make trade fairer, such as 'Trade Justice, Not Free Trade Movement', are encouraging governments to reconsider trade rules. Fair trade is growing in popularity and is lowering the development gap in many countries. For example Costa Coffee gives coffee growers in Tanzania a premium as well as their wage for the coffee to spend on local needs such as education and machinery.

Debt is falling in some areas so the development gap is being lowered. In Peru, a debt-for-nature swap occurred where the USA cancelled \$5m of Peru's debt to them for the protection of the rainforest. (\$10m has been put in a trust fund by the government and it has been used by them to protect 27ha of rainforest).

Overall, I feel that the development gap is narrowing in general. The growth of NICs and RICs, such China, which now has a growth rate of 12% and is set to overtake Germany (the world's 3rd largest economy) has meant that a development gap as simple as the Brandt line is no longer relevant, and a development pathway is more meaningful. However, the development gap is still widening in some areas, especially in areas in Africa where unfair trade rules and huge debt mean that they are unable to develop easily and are still reliant on a single commodity and on the primary sector such as in Chad."

Unit 6475 Paper 1 researching Global Futures

General Points

Structure and style: For the first time, the majority of candidates tried to create a 3 part structure to maximise their chances of marks being awarded for introduction and conclusion. Few missed out a conclusion, and many had ongoing evaluation. This enabled an entry for some into E grade where in previous years they would have failed. There is still much room for improvement, however, even by lower ability candidates, in practicing essay skills. Figures 1,2 and 3 summarise the essential elements of essay commands, structure and geographical components needed. Structuring and ordering essays is needed as well as rote factual recall. Bullet points in a diagram are accepted style, but the whole essay should not be note like. A gentle reminder that abbreviations and lack of punctuation, used for texting and emails, are not standard form in a formal essay!

Flexibility: Although there are still some obvious pre learnt essays being imported into the exam room, and obvious group type 'research', some students are using more initiative and applying what is going on in the world currently - in fact knowledge on global warming and the Bali road map appeared in more than just the pollution option! Hazard students made the most of recent floods and wildfires, although wilderness students did not take advantage of the recent conflicts between Greenpeace and Japanese whalers! There are still some centres who are over preparing their candidates with 'the standard introduction', which, although they do gain middle band marks, fail to have the flexibility to achieve the higher band. The students are also less able to respond to the precise questions they face in the exam.

Planning: Candidates best able to engage with the titles set, were those that spent a short time planning and creating an introduction of less than 2 sides.

Technical issues: The practice of using black and white diagrams and maps relevant to the title would benefit candidates. Basic location maps of where a mineral or wilderness is found or how hazards are caused in a response title are a waste of time. The exam booklet has now been extended so there should be plenty of room for a plan on the front/back page.

General Analysis of Questions:

- ❖ Each question was designed to give even choice across the options, with similar types of command words and a maximum of one quote to discuss.
- ❖ As usual, the Resources option was not popular but attracted a few 'refugees' from wilderness and pollution! One of the last things to stress to candidates before taking the exam is to stick to the option they have done some research on - however tempting another title may seem!
- ❖ Hazards Q3, which was designed to reduce the simplistic LEDC/MEDC split common to many candidates, proved unpopular. Candidates who defined the term 'human geography' well at the start fared best overall, but the term proved quite a barrier to many and was often directly ignored. However, centres were expecting a Q on frequency and magnitude - Q4 (central to the generalisation) so candidates would have been primed for this.
- ❖ Questions asking about viewpoints/reactions by differing groups of people/societies proved difficult for many (Q3, 4 & 8). Candidates should be practiced in assessing what human geography/societies/groups are, since they feature in all options and underpin most geographical patterns.
- ❖ A range of carefully selected case studies is normally needed in all essays to achieve top bands.

An overview of results: of the c. 250 white scripts and 26 Rubric the majority were Q3 and 4. Most 'whites' were because planning sheets had been attached to the main booklet. Only a very small number of candidates attempted two questions.

Epen statistics:

Option	Q	Nos	Overall Comment
Resources	1.	26	The varied link needed assessment by a range of case studies.
	2.	5	Most answers seemed from 'refugees' from pollution or wilderness and did not do well.
Hazards	3.	953	Varied interpretations of what 'human geography' was, but examiners were prepared to accept a large variation in the introductory definitions. The focus was response not impact.
	4.	2834	The expected title from this generalisation, but students were expected to debate the role of frequency and magnitude - and not just agree they were critical. The focus was response not impact. The word critical often ignored.
Pollution	5.	126	Better knowledge on international strategies, but often dominated by Kyoto (and by many a pleasing knowledge of Bali roadmap).
	6.	143	Basic sustainability was understood by most.
Wilderness	7.	283	Fragility was supposed to be the focus, but not always understood.
	8.	255	

Student section: The following comments have been designed to use directly with students to improve their understanding of what the exam demands, and hopefully to improve their chances in it! Familiarity with the original generic mark scheme cannot be stressed enough, so that all students understand how to get marks via DRUCQ - see Figure 4.

Figure 1 The Command Box

Deconstruct the title, use a highlighter, or write out as part of a plan and create a concepts map/routeway for your essay.

If the title has the command word ...	Think ...
Critically examine...	Assess the strength of the evidence for or against particular theories, opinions or models.
Discuss the view...	Whose view ? Why have they got that viewpoint?
Assess the link...	Look at the strength, direction, time scale
Evaluate the effectiveness...	The pros and cons of something. Appraise the worth of something and include your personal opinion.
To what extent...	Consider how far something is true and the ways in which it is not true.
Explain why ...	Give reasons; make clear why something is the way it is.
...is critical...?	In geography this means essential, most important - but perhaps whatever the title suggests is NOT the most important and you should look for other factors/processes.

Figure 2 Key Features/Aspects of Geography

A reminder of common words in geographical essays:

Impacts	Long/short? Direct/indirect? Economic/social/environmental/ primary/secondary?
Cause	Types? Physical/human? Direct/indirect? Primary/secondary?
Factor	Something which actively contributes to a result or process eg warm seas contributing vertical air movements and hurricanes.
Process	A series of actions, changes, or functions over time bringing about a result eg air rising causing a hurricane. Could also be the process by which people prepare for an event, or bring about international agreements.
Challenge	An issue or problem facing a group/society which needs management. Consider - scale? who for - the Key Players? Why? For how long? Changes over time? Resources available to tackle? Politics involved? Bottom up/top down?
Response	A reaction to a process/factor/impact/challenge By whom? For what? Long/short term? Hard or soft? Proactive or reactive?
Human Geography	The patterns and processes that shape human interaction with the environment: social and economic characteristic of groups of people or societies in urban and rural areas. Includes economic development, which is far more complex than the outdated North-South Divide of Brandt in the 1980s because of the rise of RICs like China and increased poverty in the LDCs such as Mali.

Figure 3 Link Phrases Box

The following flag up clearly to the reader what it is trying to be said:

<p>ILLUSTRATION i.e. case studies</p>	<ul style="list-style-type: none"> ❖ For example, ... ❖ That is... ❖ Another example of ...
<p>CONTRAST between case studies and themes</p>	<ul style="list-style-type: none"> ❖ But, ... ❖ However, ... ❖ Albeit, ... ❖ On the other hand,... ❖ Yet, ... ❖ Another aspect to consider is ... ❖ In contrast... ❖ However...
<p>EVALUATION of material in essay</p>	<ul style="list-style-type: none"> ❖ To an extent... ❖ It could be argued that... ❖ It could be said that... ❖ The main reason/factor/process could therefore be said... ❖ My evaluation of this is... ❖ Other groups may... ❖ On the other hand, ... ❖ Against this it could be argued ... ❖ One view that could be taken ...
<p>EXTENSION to material presented</p>	<ul style="list-style-type: none"> ❖ Conversely, ... ❖ Moreover, ... ❖ Furthermore, ... ❖ In addition, ... ❖ Another ... ❖ In the long term, ...
<p>THE NEXT STEP i.e. next theme or case study</p>	<ul style="list-style-type: none"> ❖ Then ... ❖ After that ... ❖ Ultimately... ❖ Similarly ...
<p>CONCLUSIONS Ongoing evaluations and final summary</p>	<ul style="list-style-type: none"> ❖ Therefore, Thus, Finally... ❖ Consequently, ... ❖ As a result, ... ❖ As has been shown, ... ❖ As a sub conclusion, ... ❖ In conclusion, the statement cannot be full agreed with because ...

Figure 4 What examiners look for in an A and E grade student

The following grid used for awarding may help clarify what examiners are looking for:

Typical response grade A candidates	Typical response grade E candidates
<ul style="list-style-type: none"> ❖ Well focused introduction, clear definitions linked to title but not done by rote ❖ Probably has created a plan showing a distinct pathway to be followed in the essay ❖ Well selected research, range of case studies and examples used to support argument and show comparisons between case studies ❖ Able to formulate arguments ❖ Effective conclusion linked back to main body including case studies chosen+ on-going evaluation of case studies within essay ❖ Well written, uses evaluative language and specialist terminology, sophisticated ❖ May use topical egs, uses models effectively 	<ul style="list-style-type: none"> ❖ Brief introduction, generic definitions, may be a list of case studies to be used but not justified ❖ Descriptively used case studies, some not well selected, weak facts on case studies, narrow range ❖ Limited arguments developed, often descriptive ❖ Brief conclusion, may not be based on main part of essay lacks ongoing evaluation ❖ Satisfactorily written, some syntax errors, narrative style ❖ Scattered use of terminology ❖ May simply agree/disagree with quote/statement

Details on each Question

Option 1 Environments and Resources

Q1 Assess the link between economic development and resource exploitation.	
Typical response grade A candidates	Typical response grade E candidates
<ul style="list-style-type: none"> ❖ Clear on complex links between economic development and renewable/non renewable exploitation. ❖ May assess TNCs, colonialism. ❖ Chooses areas affected positively and negatively by resource use, &/or changes over time(inertia deindustrialisation) safe and standard case studies of Ruhr, Banaba, Nigeria and Zambia used with refreshing new one of China. ❖ Used maps/diagrams/ models to support the essay, not just because learnt, eg annotated Rowstow model. 	<ul style="list-style-type: none"> ❖ Vaguer on links, or only one way link investigated. ❖ Few specific case studies or all I know about an area/case study. ❖ Put models in introduction eg Hangman concept and then never referred to them again!
Q2 'High levels of resource consumption in MEDCs have global consequences' Discuss, with reference to EITHER energy OR mineral resources.	
Typical response grade A candidates	Typical response grade E candidates
<ul style="list-style-type: none"> ❖ Range of economic, social, environmental consequences. ❖ May have TNCs, globalisation elements. ❖ Clearly chose minerals or energy - the latter most popular. 	<ul style="list-style-type: none"> ❖ Seemed mainly to be refugees from other options! Often dominated by global warming, lacked range in energy/minerals. ❖ Tries to define sustainable, may not have details on Agenda 21, narrow range eggs/ case studies. ❖ Probably just agrees with title.

Option 2 Living with hazardous environments

Question 3

The standard of defining and describing the question was generally basic, with many candidates giving the definition of natural hazards only and failing to recognise the human geography. However, at a higher level, candidates would attempt to define and describe human geography, with some candidates relating this to natural hazards. Some candidates also referred to the Dregg or Parks model, either within the introduction, or main body of the essay, and in some cases, related this to the management of hazards. Many candidates referred to the management of natural hazards in their case studies rather than specifically to how societies manage natural hazards. Candidates who answered question 3 often displayed a **lack of knowledge and understanding** in their case studies, with a number of candidates using only three or four examples, which were either lacking in detail or poorly applied to the question. The response to the Mt. St Helens eruption was often quoted as being highly successful - which of course it was - but weaker candidates failed to note that the eruption was in a sparsely populated area and could not be directly compared with, for example the Mexico City earthquake. High death counts in LEDCs were often described simplistically - it was because of a lack of the technological fix. Candidates did not generally seem to be aware of the particular physical problems associated with e.g. the Kashmir earthquake. Although most students began by looking at frequency and magnitude, they often tended to **move their focus** as the essay progressed to look at impacts or a more generalised discussion on response. The more able candidates managed to hold it together by then writing an articulate **conclusion**. These candidates used a **range of case studies**, comparing responses in LEDCs/LDCs such as Nevado Del Ruiz, Hurricane Mitch, Bam and Kashmir to MEDCs such as Kobe, the Loma Prieta earthquake and Hurricane Katrina, giving reasoned explanations related to human geography for their management.

Question 4

Some candidates indicated a lack of understanding of frequency and magnitude in their definitions of these terms. Candidates often showed an understanding of the responses of managing natural hazards in their introduction, but it was rarely related to frequency and magnitude. Most definitions of frequency and magnitude were simplistic "frequency is how often a hazard occurs", "magnitude is the size of a hazard". In many cases, candidates simply listed the case studies they would use in the essay, very few related these to the question **justifying** why they would use them. A small number of candidates listed by bullet point the sources of their information, without relating this to their case studies or the question. Generally, most candidates used a range of case studies to answer the question, relating to both frequency and magnitude, as well as a range of responses and management techniques. However, the candidates who specifically wrote about **different groups** of people, such as governments, NGOs, school children, individuals, the army etc and linked these to the question, showed understanding and application of their case study material. Very few candidates referred to frequency and magnitude being "critical" to how people respond to natural hazards.

In both Questions 3 and 4, a range of tectonic, atmospheric and geomorphic hazards was used, with few candidates using just one type of hazard, although common case studies reoccurred, such as Kobe, Katrina, Bam, Kashmir, Hurricane Mitch, Galtur, Pinatubo etc. However, some candidates also showed more recent research such as Cyclone Sidr, the UK flood 2007 and the California wildfires. Some looked at responses over time - showing a learning curve based on past experiences to responses, which proved very successful. Many candidates stated that the eruption of Pinatubo although high in magnitude and low in frequency was a success because of the evacuations, but failed to discuss the increased deaths caused after the eruption by disease in the refugee camps. Aids is not normally considered a natural hazard.

Q3 To what extent does the human geography of an area influence how societies manage the impacts of natural hazards?	
Typical response grade A candidates	Typical response grade E candidates
<ul style="list-style-type: none"> ❖ The clearer definitions of natural hazards were based on Whittow, Hewitt and Burton and occasionally Skinner ❖ Clear definition of human geography and link to response(predict, prepare etc). ❖ Responses which understood differences between MEDCs, LEDCs and NICs. ❖ Tackled Q by theme eg density, development, rather than case study sequence. ❖ Evaluated other factors eg frequency, magnitude, type. ❖ Often effectively used models eg Kates, Parks. ❖ Usually had topical egs - Cyclone Sidr, UK floods, US wildfires. ❖ Used appropriate comparisons, for example the Kobe earthquake to the Bam one instead of comparing responses to earthquake to those of a flood. 	<ul style="list-style-type: none"> ❖ Had some idea of human geography, and had some egs and case studies but did not use effectively to argue a case. ❖ Often too dominated by simplistic MEDC/LEDC split. ❖ Often had vague refs to responses without categories/types. ❖ Tended to just agree with title.

Q4 'Frequency and magnitude are critical to how people respond to natural hazards.' Discuss.

Typical response grade A candidates	Typical response grade E candidates
<ul style="list-style-type: none"> ❖ The clearer definitions of natural hazards were based on Bishop, Whittow, Hewitt and Burton and occasionally Skinner. ❖ Clear on meanings of frequency and magnitude, and linkages to response (predict, prepare etc). ❖ Often tackled Q by theme eg high/low frequency and high/low magnitude, rather than case study sequence. Avoided repetitious similar hazard types by obvious selection. ❖ Candidates who specifically wrote about different groups of people, such as governments, NGOs, school children, individuals, the army etc and linked these to the question. Those that did showed understanding of their case study material as well as applying this data to the question. ❖ Evaluated other factors eg economics, technology, culture, perception, hazard fatigue. ❖ Often effectively used Kates and Parks models. ❖ Usually had topical egs - Cyclone Sidr, UK floods, US wildfires. ❖ Accurate on factual data eg, Etna, Vesuvius, Heimaey, Katrina and Kobe and Tsunami 2004. ❖ Some used timelines eg of Bangladesh flooding to great effect to illustrate how Cyclone Sidr showed greater preparation at grassroots level. ❖ Structure could be either by how frequency and magnitude are central to how people respond or how a variety of other factors were also important. ❖ There were some particularly thoughtful conclusions, reflecting on the problems of lack of finance and fatalism. ❖ Many used technical terms especially salience, aseismic, quasi natural. ❖ Returned to CRITICAL in conclusion. 	<ul style="list-style-type: none"> ❖ Simplistic "frequency is how often a hazard occurs", "magnitude is the size of a hazard". ❖ Simply listed the case studies they would use in the essay, very few related these to the question justifying why they would use them. ❖ Had some case studies egs but lacking in range, details or linkage to response. ❖ May have changed focus to economic development and MEDC/LEDC split. ❖ Sometimes inaccurate on case study facts eg implications of Mt St Helens, Kobe and Tsunami 2004, and there was more to Katrina than the "racism and incompetence of George W Bush"! ❖ Tended to just agree with title.

Option 3 The Pollution of natural environments

Question 5

This question was focussed on **international strategies** (as clearly stated in the pre released generalisation), but many candidates took this as an opportunity to write solely about Kyoto - this would not enable them to reach top bands in the research element which stresses **RANGE**. Candidates seemed more adept at defining pollution and some described different types of pollution. Some attempted a **framework**, discussing the case studies they would use and at a higher level made links to the Kuznets Curve and different management strategies. However, some attempts at the introduction appeared to be "standardised" and did not always relate fully to the question. Candidates indicated a good knowledge and understanding of different management strategies in general including Kyoto, Curitiba, the River Rhine (ICPR) and more recently the Bali Road Map. However, there was generally poor ongoing evaluation throughout many of the responses and many conclusions were brief and only vaguely related to the question. At a higher level, candidates summarised their case studies, compared the different strategies and referred to **futurity/sustainability**.

Question 6

Many candidates defined pollution and sustainability, referring to the Brundtland definition. Candidates generally referred to local or national strategies when answering the question such as the London Congestion Charges in relation to London Smog, Curitiba, Leicester, Agenda 21 (linking this to local strategies such as recycling in York) and Bhopal. At a higher level, candidates discussed the implications of strategies such as Rio and Kyoto to these local strategies. Some candidates focused mainly on sustainability and not pollution as stated in the question. Some candidates showed ongoing evaluation but some conclusions and case studies demonstrated limited knowledge, lack of understanding and relation to the question.

Q5 Evaluate the effectiveness of international management strategies designed to reduce pollution.	
Typical response grade A candidates	Typical response grade E candidates
<ul style="list-style-type: none"> ❖ Range of strategies, not just Kyoto. Clear linkage to reduction/or not of pollution. Expect N Sea, Rhine, Montreal, Earth Summits, possibly MDG Goal 7 target 9, as well as 2007 Bali roadmap. ❖ Link to sustainability. ❖ Where students had done local investigations there were some impressive lists of measures introduced. ❖ May have alternatives at local scale eg recycling but these should not dominate. 	<ul style="list-style-type: none"> ❖ Small range of strategies, possibly dominated by global warming and Kyoto. ❖ Tended to simply blame President Bush or the Chinese for pollution. ❖ Too large a focus on local strategies of eg recycling. ❖ Traditional case studies of eg Exxon Valdez, Bhopal and Chernobyl not dove tailed into appropriate international strategy/lack of one!
Q6 'Think globally, act locally.' To what extent is this a realistic strategy for pollution management in order to achieve a sustainable future?	
Typical response grade A candidates	Typical response grade E candidates
<ul style="list-style-type: none"> ❖ Clear link to sustainability, possibly sustainability quadrant/stool models, and Brundtland and Earth Summits. ❖ Should tackle global thinking too- ie international strategies like Kyoto and Bali roadmap. ❖ Curitiba was a popular case study many students are familiar with from 6472. Union Carbide and Bhopal still not paying their dues. ❖ Tries to assess 'realistic'. 	<ul style="list-style-type: none"> ❖ Small range of case studies, often dominated by global warming and 'do your own bit' for the environment eg recycling. ❖ Traditional case studies of eg Exxon Valdez, Bhopal and Chernobyl not dove tailed into appropriate international strategy/lack of one! ❖ Just agrees with title.

Option 4 Wilderness Environments

Question 7

A few candidates managed to score top marks by only using 2/3 case studies because they had cogent detail and excellent conclusions. The most popular case studies were the 3 "A" s ... Antarctica, Amazonia and Alaska, with Korup, Papua New Guinea and the Himalayas popular too. Some centres also used Ben Eige and the Galapagos, coral reefs and all of the Solomon Islands. Although they are on the wilderness continuum in some texts, unless there is some **discussion** of the continuum and students have a good understanding of what is there, they do not work as well. Candidates on the whole did not cover the human environment component as well as the physical one. Vague mentions of Amazonian tribes were common! A basic description of their way of life and why they shouldn't be deprived of their homeland (ie the moral stance) was common, while the better responses explored language, culture and their sustainable characteristics. Even better responses linked this to the pressures of climate change, diminishing resources linked to **fragility**. Some excellent diagrams were seen in this option, eg annotated maps and food chains.

Question 8

Case studies were as for Q7 although there were a small number who had forgotten the **groups and contrasting views** part. Those who did deal with the groups often just had exploiters and local tribes and failed to take account of NGOs, governments, environmentalists, TNCs, scientists, tourists, tour operators, migrants, military, government (international, local and national) etc. Recent conflicts between the Japanese whalers and Greenpeace did not feature, despite it being in the news the week prior to the exam. There is room in wilderness research to bring material really up to date now the internet exists. Many candidates assumed that the mere existence of conflict and threats was the reason why protection was a worthy cause. Some excellent diagrams were seen in this option.

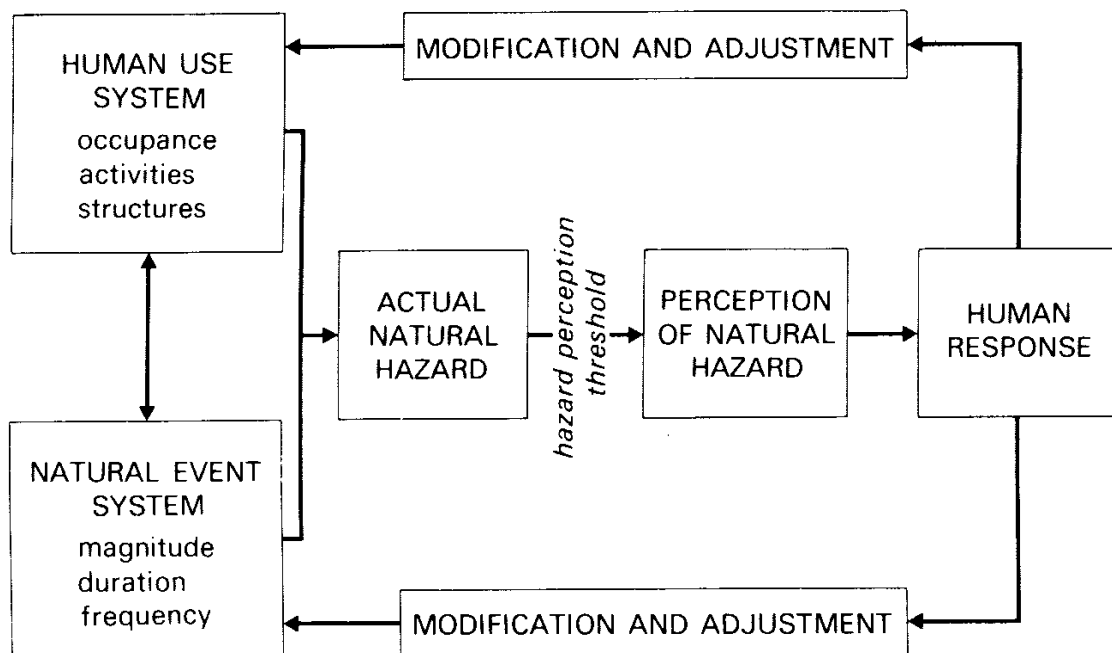
Q7 Explain why both the physical and human environments of wilderness areas are worthy of protection.	
Typical response grade A candidates	Typical response grade E candidates
<ul style="list-style-type: none"> ❖ Showed complexity by choosing case studies which demonstrated how fragile physical and human environments need protection. ❖ Had details on culture or ecosystem structure and functioning. ❖ Looked at global as well as local worthiness - eg Antarctica and Arctic and TRFs important for climate regulation/ gene pools. 	<ul style="list-style-type: none"> ❖ Limited range/depth of case studies or unbalanced between human and physical features. ❖ No strong links to fragility and protection. ❖ Some dubious case studies chosen, such as coral reefs and Norfolk Broads and Dartmoor.
Q8 'Wilderness areas have many features which are worth protecting.' Explain why different groups of people may have contrasting views about this statement.	
Typical response grade A candidates	Typical response grade E candidates
<ul style="list-style-type: none"> ❖ Showed complexity by choosing case studies which agreed and disagreed. ❖ Showed fragility of wildernesses eg trophic level and food web diagrams. ❖ Knowledge of indigenous peoples was stronger this series. 	<ul style="list-style-type: none"> ❖ Agreed with statement. ❖ Limited range of case studies or unbalanced between human and physical features and groups. ❖ No strong links to fragility and protection. ❖ Some dubious case studies chosen, such as coral reefs and Norfolk Broads and Dartmoor.

Some ideas for web based research - including Youtube features!

Resources

- ❖ Thought provoking worldmapper - watch you do not use resources like water. Stick to syllabus (minerals and energy)
http://www.worldmapper.org/textindex/text_fuel.htm
mineral depletion <http://www.worldmapper.org/display.php?selected=313>
- ❖ Ecological footprint <http://www.worldmapper.org/display.php?selected=322>
- ❖ The World Energy charity has a wealth of info <http://www.worldenergy.org/>
- ❖ International Energy Agency <http://www.iea.org/>
- ❖ China <http://www.china.org.cn/english/en-shuzi2004/zr/zrzy.htm>
- ❖ China coal fire http://uk.youtube.com/watch?v=JQM4_B6OvHI
- ❖ New Scientist and Economist online if you have a subscription - use search engines for energy especially
- ❖ OPEC - easily found!

Hazards



- ❖ Thought provoking worldmapper
http://www.worldmapper.org/textindex/text_disaster.html
- ❖ Kates 1971 model for response www.lancs.ac.uk/staff/gyaccp/hazards
- ❖ Flood and Coastal Erosion Risk Management from DEFRA for regulation, land use planning, flood and coastal defences, flood warning systems and emergency response procedures to limit the impact that floods can have on people living in an 'at risk' area <http://www.defra.gov.uk/enviro/fcd/default.htm>
- ❖ Environment agency UK
http://www.environment-agency.gov.uk/yourenv/eff/1190084/natural_forces/flooding/?lang=_e
- ❖ Asian disaster centre <http://www.adrc.or.jp/top.php>
- ❖ BBC 2008 lots of links <http://news.bbc.co.uk/1/hi/uk/7243577.stm>
- ❖ Bangladesh Flood forecasting centre
http://news.bbc.co.uk/1/hi/world/south_asia/4165926.stm

- ❖ Hurricane Sidr - sometimes Wikipedia can be good!
http://en.wikipedia.org/wiki/Cyclone_Sidr
- ❖ China hazards map from relief web
[http://reliefweb.int/rw/fullMaps_Sa.nsf/luFullMap/73EFDFE378244D07C125731700482B15/\\$File/ocha_ND_chn070629.pdf?OpenElement](http://reliefweb.int/rw/fullMaps_Sa.nsf/luFullMap/73EFDFE378244D07C125731700482B15/$File/ocha_ND_chn070629.pdf?OpenElement)
- ❖ China hazard risk by Swiss Reinsurance - fantastic summary
http://www.willis.dk/Internet/dyn/files/pages/492/SwissRe_nat_cat_China.pdf
- ❖ China - Youtube videos
http://uk.youtube.com/results?search_query=china+floods&search_type

Pollution

- ❖ China http://en.wikipedia.org/wiki/Environment_of_China
- ❖ China Youtube and BBC videos - great fun!
<http://uk.youtube.com/watch?v=-1DNjJd2YfA>
coal fire belt http://uk.youtube.com/watch?v=JQM4_B6OvHI
- ❖ Thought provoking worldmapper
http://www.worldmapper.org/textindex/text_pollution.html
- ❖ Ecological footprint <http://www.worldmapper.org/display.php?selected=322>
- ❖ Kyoto 2 and Bali:
Official UN site on un work on climate change
<http://www.un.org/climatechange/>
UK 10 Downing St on Gordon Brown and Bali - get email link
<http://www.pm.gov.uk/output/Page13792.asp>
Oliver Tickell environment journalist Kyoto 2 and Bali roadmap
<http://www.baliroadmap.org.uk/page0.html>
Lots of links from newspapers eg <http://www.guardian.co.uk/environment/bali>

Wilderness

- ❖ US wilderness links page
<http://sanfranciscobay.sierraclub.org/wilderness/links.htm>
- ❖ Wilderness net <http://www.wilderness.net/index.cfm?fuse=wsrs&sec=intro>
- ❖ China
Nature Conservancy in China, link to first National Park Pudacuo National Park in China's Southwest Yunnan Province
<http://www.nature.org/wherewework/asiapacific/china/>
Wolong Reserve and Pandas and wilderness
<http://china.org.cn/english/environment/160368.htm>
http://www.coxwashington.com/hp/content/reporters/stories/2006/11/12/BC_CHINA_PANDAS12_COX.html
IUCN and Biosphere Reserves and China
<http://www.iucn.org/themes/wcpa/wcpa/packardgeneral.html>
Youtube on Chinas national parks
http://uk.youtube.com/results?search_query=china++national+park&search_type

Unit 6475 Paper 2 Researching Global Futures

As the titles available in January continue to be available in the summer, the indicative content, which is provided for the guidance of examiners, will not be released until after the summer series. In order to be fair to both cohorts this report concentrates on general issues and is not intended to include exemplars of outstanding student work. A full report will be made in the summer.

Popularity of titles

A large sample of reports shows that Health and Welfare was the most popular option. It contained the most popular title, H13 'With reference to one named disease, explain the impacts it has on society and the economy in countries at different states of development' which accounted for almost a third of the entries. Development and Disparity and Feeding the World's People were equally popular, each accounting for just over 20% of entries. The most frequently chosen titles in these options were D5 'To what extent can global strategies decrease poverty?' and F6 'More food and yet more hunger. Examine this statement with reference to contrasting countries'. The Geography of Sport and Leisure was least popular. This option contained the least popular title, S19 'Examine the effects of long-term international flows of people and investment in the sport and leisure industry'. S17 'Some sports activities enjoy far greater popularity in some countries than in others, discuss' was the most frequently chosen title in this option accounting for about 6% of entries.

General observations on the quality of reports

As well as variation between candidates there is also a wide variation between centres. In general the standard of reports is high and both students and teachers have worked hard to maintain and in some cases improve standards. Students now routinely show confidence and ability in their use of ICT and the integration of diagrams, graphs maps and other illustrative material into their reports. This makes reports easier to read, aids explanation and evaluation, and it saves words. Most candidates give their diagrams figure numbers, but the better ones also include references. At the less good end of the scale direct 'lift-offs' from the Internet are easy to spot especially where the candidate has not even reformatted the HTML page, or where the style of writing and quality of written communication becomes markedly different. Candidates should always be encouraged to be selective and acknowledge sources.

There are now very few 'essay' style papers being submitted. The vast majority are more 'report-like' in format. Some centres still use the 6473 model e.g. 'method' and 'evaluation / self assessment' sections which are not very useful for this style of report and for which no marks are available in the mark scheme for this unit.

Again there were many examples of high quality reports based on extensive and detailed research including up to date case studies and data, well supported by concepts from textbooks. Some reports are entirely web based in terms of research and these can sometimes lack a suitable framework. Candidates should be discouraged from relying too heavily on a single source, especially if it is out of date. Newspapers and magazines in particular, e.g. the *Guardian*, *Independent*, *Telegraph*, *New Scientist* and the *Economist* can be a rich seam of up to date information. There were excellent examples of interesting primary research, notably for titles F9 'Intensive farming is damaging to fragile environments. Assess the success of strategies adopted to minimise this damage' and S16 'Explain the geographical distribution of sport and leisure facilities in a large named urban area'.

Word Limit and Size of Reports

The length of some reports continues to cause concern. Keeping to 1500 words is not easy but it is part of the task.

- In work from some centres lengthy preliminaries take up one third of the report. Some reports contain pages where candidates define every possible term, and begin in a mechanistic style rather than engaging with the question and the issues.
- Students who can be concise are likely to do better than those who are wordy.
- Some centres are allowing large numbers of text boxes. One centre allowed candidates to write reports over 112 pages long.
- There is a penalty detailed in the specification for over length reports. Often these reports penalise themselves because selection is poor - everything is included so marks for selection cannot be high.
- There is no need to include an 'evaluation' section at the end. There is no credit for these in the mark scheme and they use up words. Ongoing evaluation is mentioned in part four of the mark scheme. It refers to evaluation of arguments as the report progresses. Appropriate ideas need to be incorporated at the planning stage, so that the report is as good as the individual candidate can make it.
- Methodology tables are sometimes very long. They can be abandoned because there is no credit for them in the mark scheme. The one useful element sometimes included is an assessment of bias. This is better placed with or near to the bibliography or in a brief appendix.
- There is no need to staple copies of sources onto the back of the report - a proper bibliography is all that is needed.
- Too many boxes inhibit fluency and encourage peripheral or at worst irrelevant material. Good selection is an important part of compiling a good research report.

Issues specific to some of the titles

This should be read in conjunction with the list of approved titles for 2007-2008.

- D3 This title calls for an examination of the environmental consequences arising from disparity, not the disparities arising from different environmental conditions. Careful planning is needed to make sure that the causes and the consequences are the right way round.
- D5 The title asks about global strategies. Some of the January reports did not include an overall global strategy. Decide what the global strategies are first and make them clear at the outset. Simply because the same types of project happen in different countries does not necessarily mean they are part of a global strategy. Identify the global strategies first of all.
- F9 Examples of intensive farming are relevant. Extensive farming is not and some forms of modern mechanised farming are extensive in terms of capital as well as labour. Clear definitions are needed and were sometimes lacking. Fishing does not count as farming. Assessment of the strategies is vital.
- F10 This option in general is about feeding the world's people. The use of the oceans to transport goods, some of which may be food, is not the right focus. The report needs to address the role of the oceans in feeding people, not the use of the oceans as transport routes. A potentially useful resource is 'Global fishery resources of tuna and tuna-like species' published by FAO on 20 February 2008. Their biennial report on 'The State of World Fisheries and Aquaculture' is due to be published in 2008 and is likely to be available on their website by the time you read this. Each month a new issue concerning fisheries and aquaculture is highlighted on the FAO website.
- H11 Remember the 'conquered' diseases as well as the 'new' ones. Some January reports lacked balance because they only dealt with the new diseases.
- H13 Diseases that have no real effect in MEDC countries are not suitable ones to choose. If the disease has little or no impact in more developed countries it limits the candidate's ability to demonstrate good research because there is nothing for them to find. The disease may be human or animal.
- S16 This title is about the distributions, rather than selected locations of chosen facilities. It should cover the distribution of sport and leisure facilities, not just the locations of some football clubs for example. A medium size UK city is about the right size to be able to achieve this. London is too big for the distribution to be shown in a report of this scale. The urban area should be large but not so big that candidates have to pick the locations of a few facilities to make it manageable.
- S17 The title is about sports activities, not just named professional clubs and it invites a discussion rather than a description.

Unit 6476 Paper 1 Synoptic Issues Analysis

The Scottish Borders

General Comments

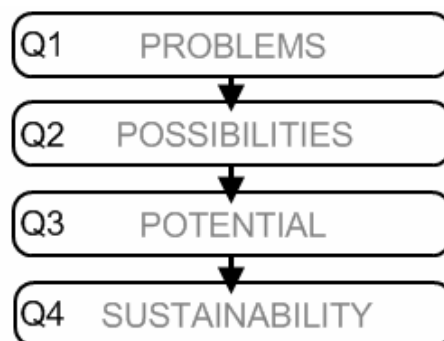
The popularity of Unit 6 in January continues to grow, with an entry for this series of just over 4000. This Issues Analysis focussed on the Scottish Borders, the area lying between the English-Scottish border and the outskirts of Edinburgh. This is one of the UK's most rural regions. The location and issues dealt with offered students the opportunity to be fully synoptic, drawing information, concepts and parallel examples from many other areas they study at AS and A2 level.

The aim of the Issues Analysis was to allow students to investigate the reasons for the relative stagnation / decline of this region, the potential the area has for regional development, and to evaluate the impact of several planned new developments. The pre-release resource booklet contained a wide range of resources, with text being relatively brief. In common with recent resource booklets, some websites were suggested and there was evidence from student responses that these had been widely used as part of pre-exam research.

Four linked tasks were set, which very broadly could be categorised as:

There was also a gradient of difficulty from questions 1 and 2, which used the command words 'explain' and 'summarise', towards questions 3 and 4 which demanded more from candidates by asking them to 'evaluate' and 'assess'.

Overall, the paper produced the expected range of responses and was generally successful. In general, timing was not a major issue. Areas centres may wish to consider when preparing students for future Unit 6 exams would be:



- *Candidates failing to read the Introductory Letter. It is clear from some responses that only cursory attention is paid to this important resource (see below).*
- *Candidates not fully addressing command words. This is especially the case with 'assess' and 'evaluate'. Some candidates are resolutely positive, when they have in fact been asked to examine an issue from both sides.*
- *Missed synoptic opportunities. There is some polarisation between candidates who are prepared to 'go the extra mile' to broaden their answer out into more general geographical concepts and similar or contrasting situations, and those who do not do this. Preparation prior to the exam should be used to help students spot and explore these links.*
- *Poor interpretation of key words such as impacts, opportunities, challenges, criteria etc. It is easy to assume candidates know the meaning of these words, however it would do no harm to reinforce their meaning during exam preparation as they appear within all Units.*

Linking the Introductory letter and questions.

It is important that candidates read the questions and Letter together as the latter expands on the former. As the diagram below shows, the Letter and questions can be matched up, providing candidates with hints on both response structure and content. For instance, the eligibility criteria referred to in Q1 are expanded upon in the Letter. In Q3 the letter makes it clear that students should clearly state their own understanding of sustainability as part of their answer.

1. Explain why this area is eligible for continuing support from the EU Structural Fund. (12)

For your first task, it would be useful for you to identify and explain the key reasons for this designation, as the reasons for a region's Objective 2 status can vary. Are there, for instance, some unique barriers to development such as isolation, demographic constraints or local economic issues which suggest that the EU funding should be ongoing?

2. Summarise the main opportunities for regional development in the Scottish Borders. (12)

Your second task is to provide a clear, structured statement which gives an overview of the development opportunities in the Scottish Borders region for both people and businesses. You may wish to consider environmental and social aspects of the region which would attract entrepreneurs and help the Borders region contribute to the Scottish economy.

3. Evaluate the contribution that planned developments will make towards improving the economy and quality of life for all people in the Scottish Borders. (20)

Thirdly, we would like you to investigate the potential economic and social impacts of the various planned developments. The main project is the reopening of the railway along with the development of new housing and commercial premises in Galashiels which, if it attracted additional funding, could lead to further development in the town. You should consider how these developments will benefit different sections of the population and improve their quality of life both in Galashiels and the region as a whole.

4. Assess the extent to which the Waverley railway project proposal meets the criteria of 'sustainability'. (16)

The concept of sustainability is increasingly important although definitions of it are sometimes unclear. Finally, we would like you to state your own understanding of sustainability and use this to assess the sustainability of the proposed Waverley railway project.

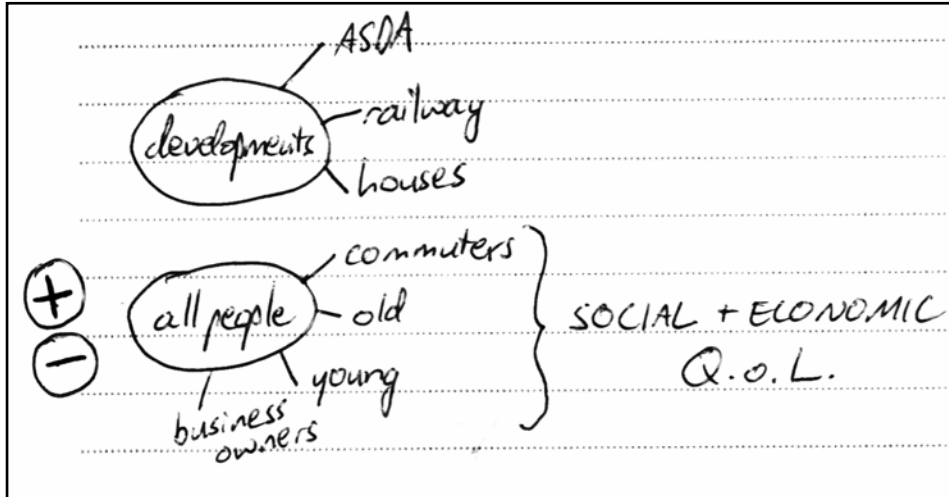
It is clear that some candidates do not make the link between the questions and the Letter. This lead to some common problems, such as:

Q1: Omitting some of the key reasons for EU support, such as geographical isolation.

Q3: Focussing on only 1 development (usually the railway) and/or not mentioning different groups of people within the borders.

Q4: Failing to clearly state the meaning of sustainability.

Students need to balance the obvious time pressure in the exam with the need to do some quick planning as they read the questions and Letter. Below is an example of a candidate's very brief plan for Q3 - more of a brainstorm of the question and Letter - which nevertheless identified the key areas that needed to be addressed. This helped produce a Level 4 answer:



Comments on individual questions

Question 1

This question was a relatively straightforward opener which produced some good responses, with many candidates achieving an upper Level 2 or Level 3 mark. The key was using the criteria in Figure 5 and linking these across to the specific issues present in the Scottish Borders. Generally evidence from the resources was used well (for instance the location map Figure 3 and employment trends from Figure 6). A number of candidates repeated the criteria from Figure 5 with very little linkage to the Borders and some covered one or two criteria in depth but not all three. A commonly seen issue was the slavish copying of parts of Figure 5 especially “*job losses in industries such as textiles, cars, coal and steel*” - only one of these industries is applicable to the Scottish Borders.

Synopticity was commonly seen, with many candidates referring to the parallel problems experienced by similar areas such as Cornwall. In a number of cases EU funding in Cornwall was specifically referred to. Ageing population and youth out-migration were often explained, linked to the population pyramids in Figure 4. In general the possible reasons for the decline in agricultural employment were less well explained than the decline in the textile industry. Candidates often explained globalisation and the impact of competition from NICs. There was generally good use of geographical terminology such as rurality, globalisation and depopulation / dependency which showed effective linkage to some of the issues familiar from Unit 2 and Unit 4. In some cases reference was made to the industrial transition / Clark-Fisher model and a number of students successfully used a de-multiplier diagram to reinforce the view that the Borders has declined and stagnated. Figure 5 provided candidates with a clear structure and answers were usually well organised and coherent.

Question 2

This question produced polarised responses, which depended on the extent to which candidates had addressed the word 'opportunities' in the question. Weaker candidates tended to fix on the Waverley railway project early in their answer and produce a response which was better suited to Q3. A number drifted heavily into evaluation of this scheme. These candidates were in fact considering the benefits of development rather than the opportunities for it. Marks were often gained in a rather accidental fashion as possible opportunities such as tourism and housing were mentioned in passing.

Set against this were better responses which did focus on opportunities. In these cases students either took a depth or breadth approach - both were valid. In depth answers usually focussed on the opportunities of tourism, noting the paradox from Figure 8 that despite the area's proximity to Edinburgh, tourism is underdeveloped when compared to Scotland as a whole. Some in depth responses did focus too heavily on one particular aspect of tourism; this also happened with a small number of responses which really only dealt with windpower. Occasionally there were suggestions that lacked realism such as large-scale FDI into Galashiels by major Asian electronics TNCs.

Many broader answers included a good deal of synoptic material and suggested developments such as salmon fishing in the Tweed, sailing at Eyemouth, Heritage sites, art centred on Herriot-Watt facilities, outdoor pursuits in the hills and the development of local crafts and farmhouse B & B. Larger scale developments such as with a Centre Parcs were suggested to cope with poor weather (Figure 7). Other ideas, usually well supported were wind turbines, Rock festival, Broadband opportunities for selling to high-end niche markets as well as home working. Some suggested National Park status. Cornwall, the Lake District and the Yorkshire Dales were frequently referred to. Farm diversification was a common theme, often supported by named farms that had been studied in Unit 2. Candidates also noted that the area contained a number of brownfield sites that could be redeveloped, including the conversion of former textile mills into apartments. In general, there was an understanding that land might be cheap, relatively available and that there was a workforce in the area - all factors that might appeal to certain types of investor.

Question 3

The third question was challenging. It produced many good answers, few very weak ones, but also few excellent ones. Candidates had been asked to keep many 'balls in the air'. Essentially the question was asking candidates to:

- *Consider two developments: the railway proposal and housing / commercial development.*
- *Evaluate the social and economic impacts of these developments.*
- *Consider the impact on different people and areas within the region.*

In many cases one or other of these areas was omitted or only covered very thinly. That said, the majority coped with the question in a satisfactory way. Perhaps inevitably many candidates did not cover all of the ground they were asked to, although this did not prevent them gaining a top Level 3 or even low Level 4 mark.

Common issues were:

- *Only covering one development, usually the railway.*
- *A lack of focus on different groups of people.*
- *A very positive response, which failed to see the potential downsides of the developments.*

In addition, many candidates focussed very heavily on the environmental aspects of the developments, which might have been better saved for question 4.

The table below illustrates some of the aspects of the development projects students might have covered:

	1. Waverley rail project	2. Housing, commercial, and retail land use development
Economy	<input checked="" type="checkbox"/> May stimulate economic growth and create jobs - good for the young seeking work. Improved access could give a boost to tourism and lead to a local multiplier effect. (jobseekers, existing businesses). <input checked="" type="checkbox"/> High costs - where does the money come from (taxes / local taxpayers), and is the scheme viable? Could impact on local bus services in a negative way (elderly, those lacking cars). Some house prices could change - not easy to say whether up or down (residents).	<input checked="" type="checkbox"/> Job creation in the construction industry (young, unemployed) Greater supply could reduce housing costs for the young first time buyer (young, outside investors); improved services. <input checked="" type="checkbox"/> Oversupply could lead to fall / stagnation for exiting property owners. Possibility of a boom / bust situation if the railway fails to take off. (existing residents) Closure of small businesses due to supermarket competition.
Quality of life	<input checked="" type="checkbox"/> Improved accessibility - could be for jobs, services, entertainment; easy to reach Edinburgh (young residents). Any economic growth could spin off into service growth, increasing the range of services for local (residents, visitors). <input checked="" type="checkbox"/> Impacts on bus services if no station (Stow residents). Some loss of property through compulsory purchase (Stow and elsewhere). Loss on amenity if close to route. 'Rural Idyll' destroyed for some if area does grow rapidly (older residents). Areas distant from the line unlikely to benefit.	<input checked="" type="checkbox"/> Better housing stock - especially if some is affordable (home buyers) Slows out-migration (young). Cleaning up brownfield sites, improving image. Greater choice of products, lower costs (ASDA). <input checked="" type="checkbox"/> Loss of greenspace - town is set to expand in a major way; NIMBY issues for existing residents during and after construction (existing older residents). Some might feel the community of the town might change if it grows. Swamped by new migrants counter-urbanising? (existing residents).

Table formats were used by candidates in their response. These were often fairly successful, especially when accompanied by a brief 'lead-on' explaining what the table aimed to show, plus a summative paragraph which provided an overall evaluation. Tables appearing out of thin air are often not as clear as the candidate assumes.

Achieving synopticity?

On this paper, achieving synopticity is one of the keys to unlocking the higher levels of the mark scheme. It is unlikely, for most candidates, that this will happen 'naturally' in the pressure of the exam hall. Some preparation is required.

Synopticity can be achieved in a variety of ways, these are illustrated briefly, with reference to the Scottish Borders in the table below:

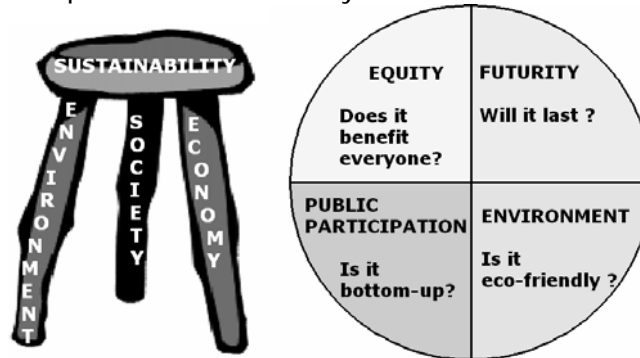
Synoptic element	Scottish Borders	Suggestions for the preparation period
1. Parallel examples	<p>Many areas, both in the UK and abroad, suffer similar problems to the Borders:</p> <ul style="list-style-type: none"> • <i>Cornwall</i> • <i>Mid Wales</i> • <i>Languedoc-Rousillon</i> • <i>The Mezzogiorno</i> <p>... and many others</p> <p>In addition, major regional development projects such as the Waverley Railway are not uncommon, such as the A7 and Millau Viaduct in France.</p>	<p>Identify parallel examples, and consider whether the problems / issues are the same, or in some way different.</p> <p>Use class time to get students to consider this.</p>
2. Geographical concepts	<p>Over-arching concepts that link well to the issues raised in this issues analysis include the Clark-Fisher industrial transition, Myrdal's model of cumulative causation, Friedman's core-periphery model, the opportunity/ household/ mobility rural deprivation concept, the sustainability stool and quadrant.</p>	<p>Identify over arching concepts and models that link to the pre-release resources.</p> <p>Use these with the resources to look for structures and linking themes.</p> <p>Test developments and changes against these models and concepts.</p>
3. Geographical processes and terminology	<p>Processes familiar from other units include rural urban migration, rural deprivation, tourism development, counter-urbanisation, regeneration, globalisation and farm mechanisation</p> <p>Useful terms would include Greenfield & Brownfield sites, global shift, honeypots, urban sprawl, carbon footprints etc.</p>	<p>Build up glossaries of process terms and key words.</p> <p>Make overt links to Units 1-5 with students.</p> <p>Drag out those dog-eared notes from 6471 and 6472 and look for links!</p>

Whilst over-preparation and 'question spotting' can lead to serious under-performance on this paper and is to be discouraged, training students in the art of synopticity is an essential part of appropriate preparation.

For further details see the Student Unit Guide for 6476 published by Philip Allan Updates (www.philipallan.co.uk)

Question 4

This question usually yielded a definition of sustainability, often as part of the opening paragraph. Most used the standard Brundtland definition. Good candidates then progressed to develop this definition, and in some cases drew a diagram to show the different aspects of sustainability:



Either of the diagrams above provided a sound structure for assessing the sustainability of the line. Good candidates then provided evidence for and against each of the '3 legs' or '4 quarters'. This structured approach generally yielded a sound assessment which did 'weigh up' the positives and negatives. Common themes were environmental impacts such as some loss of habitats along the overgrown line, the fact that the proposed trains are diesel not electric, the lack of freight carrying capacity, set against the potential reduction in car use and emissions. Many made the perfectly valid point that environmentally and socially the line looks sustainable, but the economic case for it is weaker. Many questioned the environmental case, noting that journey times by train and car are similar, ticket costs could be high and persuading the public to use the line could be an uphill struggle.

A large number of candidates, having stated the Brundtland definition, failed to structure their answer carefully. This tended to produce a series of weakly related points which missed some important aspects, or alternatively was very heavily focussed on one area e.g. the environment or economy. As in Q3, there were examples of very positive and very negative responses with little balance or assessment.

The language of evaluation and assessment?

Candidates can quite painlessly move into an evaluative style of writing if they remember to use a particular suite of words and phrases that indicate to the reader that they are looking at both sides of the argument:

- *However*
- *But*
- *On the other hand*
- *Whereas*

... there are many more. We generally teach this approach at GCSE or earlier, but it is worth reinforcing with A2 students.

Statistics

Mark Ranges and Award of Grades

Unit 6471 - Changing Landforms and their Management

	Max. Mark	A	B	C	D	E
Raw boundary mark	90	59	53	47	42	37
Uniform boundary mark	100	80	70	60	50	40

Unit 6472 - Managing Change in Human Environments

	Max. Mark	A	B	C	D	E
Raw boundary mark	90	63	57	52	47	42
Uniform boundary mark	100	80	70	60	50	40

Unit 6473 - Environmental Investigation

	Max. Mark	A	B	C	D	E
Raw boundary mark	100	78	71	64	57	50
Uniform boundary mark	100	80	70	60	50	40

Unit 6474 - Global Challenge

	Max. Mark	A	B	C	D	E
Raw boundary mark	80	54	49	45	41	37
Uniform boundary mark	90	72	63	54	45	36

Unit 6475 - Researching Global Futures

	Max. Mark	A	B	C	D	E
Raw boundary mark	120	95	88	81	74	67
Uniform boundary mark	90	72	63	54	45	36

Unit 6476 - Synoptic Unit

	Max. Mark	A	B	C	D	E
Raw boundary mark	70	53	49	45	41	37
Uniform boundary mark	120	96	84	72	60	48

Notes

Maximum Mark (Raw): the mark corresponding to the sum total of the marks shown on the mark scheme.

Boundary mark: the minimum mark required by a candidate to qualify for a given grade.

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