

Examiners' Report Summer 2007

GCSE

GCSE Geography (1313)

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Summer 2007

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Examiner Report

Summer 2007

GCSE

GCSE Geography (1313) Paper 1F

Unit 1313 Paper 1F

General Comments

The Resource Booklet contained a wide variety of materials, as usual: text, photographs, various types of graph and chart, tables and statistics, and choropleth maps. As last year, the paper was intended to be accessible for less able candidates in the target range by use of basic questions, in contrast to Paper 3H. There were also, however, questions designed to challenge abler candidates in the target range; some were common to both papers 1F and 3H.

The paper proved to be generally accessible for the target grade candidates. Indeed, some candidates scored high marks, and there were relatively few questions left blank. Candidates seemed to handle the resource materials well on the whole, and where candidates did seem to struggle, it was in areas where more careful preparation using the pre-release Resource Booklet could have prevented the loss of some marks. Once again, some candidates did not seem to have been prepared to explain key terms, despite being alerted to this by the italicised words in the pre-release Resource Booklet. Question 6, the decision-making question, was generally answered satisfactorily, but rarely extremely well; many candidates merely repeated information about the schemes, without developing their answers or opinions sufficiently.

Question 1

Question one was answered well by many candidates.

- (a) Virtually all candidates correctly gave the percentages as
(i) 60 in 1970 and (ii) 40 in 2000.

In (iii), virtually all candidates also scored both marks for identifying the increase and giving some data e.g. 17 to 40%.

- (b) In (i), nearly all candidates correctly gave (about) 8 million, and in (ii) correctly identified the high birth rate and the rural-urban migration / migration from the surrounding countryside.

(c) and (d) were answered correctly by virtually all candidates, although a few scored no marks in either part because they confused 'push' and 'pull'. This was disappointing, as the terms were identified in italics in the pre-release Resource Booklet and were therefore quite likely to be tested.

Question 2

Question two was also straightforward for candidates on the whole, although many could not quite manage to score full marks in each part.

- (a) Many candidates identified the building materials, stilts, rubbish, dirty water and cramped conditions. A few did not focus on the photograph as required, instead writing about general conditions in shanty towns such as lack of electricity, sewage disposal etc..

The following concise answer scored the full three marks:

"The squatter settlement looks as though it has been poorly constructed using wood and cloth. The houses have been built on stilts, in case the river floods. There is a lot of waste and dirt which is a breeding ground for disease."

- (b) The majority of candidates correctly identified the lack of infrastructure / waste collections / money / public awareness from figure 2 - but a significant number merely quoted the single fact that 'waste management in Kolkata does not work well', gaining only one mark as a result.

(c) Most candidates correctly identified problems such as the attracting of rats, disease and smell. A significant number also referred to contamination of groundwater *by effluent and sewage*, whereas the question actually asked about problems arising from the dumping of waste in the street (as shown in photograph B).

The following answer scored two marks:

"There is very little of the waste that is collected using a door to door system. This causes unhygienic conditions in areas where waste is not collected regularly so that there is also a high risk of diseases."

The following example scored the full four marks:

"The problems caused by dumping of waste are very unhygienic streets which attract rats which can then bring in diseases. Also waste heaps can block off streets so people cannot get through easily. This is bad for tourism in the area."

Question 3

Question three was straightforward and well answered.

(a) Nearly all candidates correctly gave 65+.

(b) Most correctly identified "more old people living on their own" and "more marriages end in divorce" as the appropriate reasons.

(c) Virtually all candidates correctly suggested an increase in waste production.

Question 4

Question four proved to be more testing than anticipated.

(a) Part (i) was more successfully answered than part (ii).

In (i), many candidates were too imprecise in their definition of household waste - merely repeating that it was 'waste from a household'.

In (ii), a significant number gave 'waste from industry' as an answer, not appreciating that industrial waste is a separate category also shown on figure 5. Many did, however, give some precise explanations here, such as waste from businesses / shops / offices.

The examples of waste given in both parts (i) and (ii) were very variable, ranging from drinks cans and crisp packets to scrap metal and nuclear waste!

A very few candidates interpreted the instruction "give two examples" as meaning two examples of households or commercial activities - therefore responding with 'bungalows and flats' and 'MacDonalds and Burger King'!

The percentages in (iii) and (iv) were generally given correctly as 9 and 11 respectively.

(b) In part (i), many candidates explained the idea of waste decomposing or rotting down to gain the mark. A few candidates, however, clearly had not prepared an answer to this question despite it again being identified in italics in the pre-release Resource Booklet and therefore quite likely to be tested.

The following answers both scored the mark available:

"Composting is when you put left over food in a bin and it rots down into compost for the soil."

"This means when organic waste is naturally decomposed and becomes a fertiliser for plants and crops."

(ii) This was fairly straightforward for many candidates; a score of two or three marks was common.

(c) This was again fairly straightforward for many candidates; a score of four or five marks was common.

Question 5

(a) Virtually all candidates gave the correct years as

(i) 2000 and (ii) 2004.

(iii) Again, virtually all candidates also correctly described the increase in the rate of recycling. Fewer, however, gained the second mark for referring to data accurately. The most commonly successful answers were those which stated simply that the rate had increased from 7.6 to 18%.

(b) (i) Virtually all candidates correctly identified 3 regions.

(ii) This was a testing question which was designed and proved to be an excellent discriminator. Candidates made good use of the two maps in figures 9 and 10, but did not often use the information appropriately enough to answer the question.

Nearly all candidates scored one mark for identifying the increase in the rate of recycling in all areas, but for a significant number this was the only mark scored. Many candidates went on to describe facts such as 'East Anglia has the highest rate of recycling', or 'the South recycles more than the North'; these statements do not describe *change* between 1999 and 2004, and did not, therefore, earn credit.

The following answer, worth one mark only, was typical:

"There is a clear trend here. In general the South of England and East Anglia recycle more than the other regions. Between 1999 and 2004 there has been a noticeable increase in the amount of recycling that everybody does. In fact every region has increased its household recycling rate between 1999 and 2004."

Where candidates did manage to focus on *changes*, such as which regions increased most or least, they gained more credit. The following example gained 3 marks:

"The maps show that the rate in general increases by one level, but the biggest increase was in East Anglia where it increased three levels from 10-14.9% to over 25%. Sunderland, the North West, Yorkshire and Humberside and the South East only increased by one level."

Relatively few candidates scored four marks; the following concise but detailed answer demonstrates how four marks could be achieved.

"The maps show that in 1999 only 3 regions were above 10%, but in 2004 8 regions are 10% or over. East Anglia had the greatest change from 10.0-14.9% in 1999 to over 25% in 2004. The area with the least change was Sunderland which increased only about 5%, but the overall change is that everywhere is increasing their recycling rate between 1999 and 2004."

Question 6

(a) The issue of dealing with waste was very topical and relevant, and many candidates were able to write at length. It was quite pleasing that there were relatively few scripts without at least a paragraph of writing for each part of the question. There were no overwhelming favourites in terms of schemes chosen or rejected by candidates - reflecting the range of information and argument which could be used in support of, and against each of the schemes. Many candidates did, however, support options one and two together because they were both

'green' options, whilst some others combined options one and four together, since "by reducing the amount of waste the Council has to handle, it would automatically reduce the amount being sent to landfill".

Credit had to be earned by the range / depth / quality of argument in each section of the question, and to reach a Level 2 mark, candidates must have been able to develop or explain their ideas in support of / against their chosen schemes. Some answers were rather vague and thin on supporting evidence, merely lifting points from figure 11 without further comment, or concentrated solely on environmental impacts by lifting material from figure 7; Level One was the usual score in these cases.

Reducing the amount of waste the Council has to handle was chosen mainly because of the advantage that householders could get compost for little or no cost, and because it was 'easy for people to do' - also a common comment in support of increasing the sorting of waste.

The main argument in support of increasing incineration of waste was that the energy recovered could be used to provide heat for up to 5000 households; unfortunately, this statement, lifted directly from figure 11, was rarely developed. Similarly, the points from figure 11 about the advantages of reducing the use of landfill sites - less farmland and less brownfield sites in cities needed - were often quoted without any explanation or development.

The following example was typical of the many which simply gave vague ideas and merely lifted points from figure 11.

Options A and C

"I have chosen option A as it would be more reliable if the council made people reduce their household waste. They would have to reuse their waste as there would be nowhere to dispose of it. The council would provide compost bins for less than in a garden centre and compost is helpful to them. By using this every household can reduce waste by 170kg a year. I think by choosing option C it would be cheaper and more useful as the new incinerator may cost £30 million to build but over the years Sunderland would profit. The incinerator is also useful to Sunderland as energy is recovered and can provide energy for 5000 households."

Answers which included some 'developed' points, i.e. where the candidate had explained or elaborated on the basic points typical of Level One, gained more credit to reach Level Two. Alternatively, the candidate had addressed a wider range of criteria by drawing evidence from other sources in the Resource Booklet e.g. by referring to Sunderland's population change and / or number of households, or to impacts on the environment at different scales - local, national and global.

The following answer was a low Level Two response, with much of the information lifted from the Resource Booklet, but with some explanation in the first paragraph about the implication of reducing the amount of waste the council has to handle. The second paragraph has some ideas of cost, but does not carry the idea through completely.

Options A and D

"I think Option A is good because if you reduce the amount of waste the council has to handle, then it will be cheaper because there won't be as many staff needed to collect it. Also one home compost bin can reduce green waste by up to 170kg per year. Also it is cheaper because the council could sell and deliver home compost bins for £15 which is less than garden centres which cost £25-£40 but there is a down side because you don't know if householders continue to use them. I think that you should reduce the use of landfill sites because then there

will be more farmland and fewer brownfield sites in the city will be needed for landfill. Sunderland sent a total of 150,000 tonnes of waste to its five landfill sites which works out to be 30,000 tonnes at each site and this is too much and they should reduce the use of landfill sites. Finally it costs the council £20 per tonne to send waste to landfill sites and if you work it out 150,000 tonnes of waste at £20 per tonne it costs a lot of money."

The following example was a good Level Two response, which considered each of the chosen options with several criteria - cost, environmental impact, and including some comparison with the other options. The quality of written communication was also sufficient to allow the top mark of eight at Level Two to be awarded.

Options C and D

"I have chosen Option C because although a highly expensive option to build at £30 million, it would be efficient, long lasting, sustainable, and deal with a large chunk (30%) of the city's waste. At the same time it could give out recovered heat energy for up to 50,000 households, which would decrease the amount of resources wasted. I chose this over Option A because I think Option A is not as efficient and an underlying cost isn't mentioned, advertising. Option C would also bring other benefits because other cities may pay to have some of their waste incinerated, increasing the council's funds for other projects. I have chosen Option D along with Option C because I think that landfill is unsustainable, environmentally bad, and doesn't have any benefits. These landfill sites are dangerous because they release methane, a greenhouse gas that is very flammable and in these sites there is a risk of spontaneous combustion. The cost of landfill in the future will also be very expensive with the increase in UK landfill tax, and therefore the money would be better spent decreasing landfill and increasing farming and sustainable incineration."

(b) The Option most commonly rejected was increasing the incineration of waste, either because of the obvious negative environmental impacts, or because of the cost. Again, however, many candidates merely lifted the fact that it would cost £30m, without any further comment, resulting in only a Level One mark.

Options A and B were frequently rejected because 'they would not work'; increasing the sorting of waste was often seen as too much of a job for householders, whilst the Level One responses for reducing the amount of waste the council has to handle nearly always merely repeated the fact that the council would not be able to find out if home compost bins were being used.

The following answer was typical of such a Level One response, being rather unfocused and lacking real evidence. There was at least some comparison, albeit rather vague, with Option C.

Option D

"I didn't think that Sunderland would benefit from this choice as there are no factors that can reproduce or cut down on landfill, and over the years energy would run out. The cost per tonne would work out more expensive over the years than actually building an incinerator."

The following example just reached Level Two, scoring three marks:

Option C

"The council in Sunderland will have to pay for a new incinerator which will cost an expensive amount of over £30 million. Also this scheme will take time to build meaning waste is still going to increase during building time. Using an incinerator will release greenhouse gases which contribute to global warming."

Having an incinerator reduces one problem (waste) but starts another (global warming). Incinerators do not dispose of all the waste because ash is left over."

At the top of Level Two for four marks, the following answer did attempt to cover all aspects of the scheme, and used several different pieces of evidence to justify why it was being rejected. There was also some recognition of a possible benefit of the scheme, despite its rejection.

Option B

"I did not choose this Option because I think that people will not be willing to sort their rubbish into different bins. Another reason for not choosing it is that only 2% of rubbish is recycled at supermarket rubbish stations at the moment and this shows that spending more money on these 'banks' would not be efficient and would probably not recycle the required amount. Kerbside collection is also still expensive because the bin lorries etc. have to be paid for as well as the workers to man the lorries and collect the rubbish. I do realise that this scheme could help Sunderland reach its target of recycling at least 33% of household waste by 2015, but on balance I do not think this target will be achieved by this method."

Examiner Report

Summer 2007

GCSE B

GCSE Geography (1313) Paper 2F

Section A

Question 1 Providing for Population Change

(a) The pictures provided a straightforward start to the examination for the vast majority of candidates. There were a few however, who confused immigrants with emigrants in parts (i) and/or (ii).

(b) Most demonstrated good locational knowledge here.

(c) Most scored at least one mark when defining **death rate**. Those who referred to the number of deaths (rather than the number of people who died) were penalised as they were merely repeating a word in the term. Nearly all candidates recognised Country B as the LEDC and could give at least one reason for this deduction.

(d) Some showed really good understanding of factors causing the birth rate to fall and nearly all achieved at least one mark. Most chose family planning but health care and education for girls were often selected too. However, a few took family planning to mean not birth control but parents discussing and organising their family life (e.g. to provide quality time for their children).

(e) Most correctly identified Japan as the MEDC, but explaining this decision clearly was more difficult. Weaker candidates referred to Graph B rather than A in (ii) but many of the rest did realise that GNP was a measure of wealth. Most only scored one mark in (iii), usually for commenting that Japan was richer. Many wrongly suggested that size of population was a factor, thus showing they did not grasp the significance of "per person" statistics.

(f) Most suggested the world's energy resources would be used more quickly but could not elaborate any further. Quite a few misread the question and wrote about other effects of population growth such as pressure on food supplies.

(g) Nearly all correctly defined the term **non-renewable** and nearly as many also gave a correct example of that type of energy resource.

(h) Here there were some blank responses and also a few vague choices (such as fuel and power station) which were not credited. However most candidates did give an appropriate example, most commonly coal or oil but sometimes biogas, nuclear power or wind. Although some wrote irrelevantly about how a biogas plant or power station worked or about the effects on people, most candidates were able to explain the environmental impact to some extent.

Question 2 Coping With Environmental Change

(a) In (i) and (ii) nearly all candidates read the graph accurately. As expected, part (iii) was more challenging and few could explain the lag time.

(b) 76% of candidates correctly defined a river flood, most either referring to the river overflowing or bursting its banks. Again some repeated the word in their answer such as "a river flood is when it floods over the land" and so lost the mark. The vast majority did realise the river shown on the graph had flooded.

(c) Most candidates responded well to the photographs. 78% spotted the water stain on the garage walls and correctly estimated the depth of the floodwater.

(d) Some described the flood damage too vaguely, for example "cars and gardens were damaged" and "quite bad" for Photograph C, and "the pub has been ruined" and "disgustingly

dirty” for Photograph D. However most were more specific and there were some very detailed accounts. Many were also able to explain the damage in terms of the force of the floodwaters in (i) and their carrying capacity in (ii). Some thought the mud in Photograph C was earth exposed after the flooring had been totally removed, rather than debris deposited on the floor by floodwater.

(e) Candidates usually understood why helicopters were needed at the scene. A particularly good example is given below.

To airlift seriously injured or stranded people to safety because they cannot get to them by road because of the high water.

(f) Most could name the main river and a tributary, though this term was misunderstood or misapplied by 30% of candidates. For part (iii) a few thought the sea had flooded Boscastle but most lifted some relevant information from the diagram and so produced a Level One response. Others wrote a Level Two answer by elaborating on that information, usually referring to heavy rainfall or trees forming a dam under the bridge.

(g) Nearly all candidates chose dams rather than levees. Most found it easier to give a disadvantage (usually the cost) than to explain how dams reduce the flood risk.

(g) The response to this was pleasing, with more Level Two answers evident than is usual for a physical case study. Few candidates were unable to name an appropriate example. Barton-on-Sea, Walton-on-the Naze, North Norfolk and Holderness were given most often. Most answers outlined the problems and gave a little more detail on the coastal defence measures used.

Section B

This year Question 3 on Water was only slightly more popular than Question 4 on Weather and Climate. There has thus been a big increase in the number of candidates choosing the Weather and Climate option (49% did so in 2007).

Question 3 Use and Abuse Of The Environment (Water option)

(a) Surprisingly less than half the candidates could define the term reservoir but the vast majority did identify picnicking as a leisure activity there.

(b) Part (i) was straightforward for most candidates. Working out the distance from the national park boundary was the most challenging task. Part (ii) proved very difficult, with only a few candidates scoring more than one mark. Generally they were not aware of site factors relevant to a water storage reservoir, such as relief, amount of rainfall and population density. Most described the advantages of the reservoir for recreation instead. Part (iii) was answered well, though most candidates stressed the problems tourists would cause or speculated on the consequences if the reservoir overflowed. Very few considered the nature of the land that would have been flooded when the reservoir was originally built. Many did however note the dam could be considered an eyesore.

(c) Part (i) was hard. A third of candidates realised the pesticides had been washed from farms into streams feeding the reservoir or, more rarely, that pesticide spray had blown in by the wind. Most attributed it to people dumping waste, animals or acid rain. Part (ii) was better understood. Most said the water would be polluted and unsafe to drink and some that the company would need to treat it. Part (iii) was far too difficult for Foundation candidates. Many suggested a cure (e.g. filters) rather than a preventative measure. Others suggested something unworkable such as building walls round or a cover over the reservoir to keep the pesticides out.

A few said “build the reservoir in a more suitable place”. Only few candidates gained credit for suggesting using organic farming methods or fining farmers who pollute water.

(d) Many answers focused on trivial uses such as brushing teeth and often these did not refer to increases in demand at all. Stronger candidates could give examples of increasing demand such as “more people have dishwashers”, “more people in LEDCs have water taps” or “factories are using more water” although many did not set these in a wider context such as rising living standards or population growth.

Question 4 Use And Abuse Of The Environment (Weather And Climate option)

(a) Over 90% of candidates scored full marks here.

(b) Part (i) was straightforward for most, with only the working out of the distance from the national park proving difficult. Part (ii) was more accessible than the equivalent task in B3 (a) ii). Most were aware of site factors relevant to a wind farm such as altitude and exposure, and a few commented on the lack of many nearby residents who might complain about the noise.

(c) Most candidates correctly noted from the OS map that site Y was the open space but few could explain the difference in temperature. The candidates who suggested that Y was exposed to the cooling effect of winds had overlooked the information that the fieldwork was done on a calm day. Only a few correctly commented that buildings at X would release heat into the air or that car exhausts would too.

(d) In (i) most candidates said “the earth is getting warmer” which was too similar to the term itself to credit. A reference to the earth’s atmosphere, climate or temperatures was required to gain the mark. Part (ii) was disappointing since many candidates misinterpreted the question and wrote about the causes of global warming rather than evidence of it. They could, however, still gain some credit if they happened to mention some evidence in passing. Most did not go further than say “ice caps are melting” and “sea level is rising” although some referred to more flooding. There were many erroneous references to the destruction of the ozone layer, acid rain and even tsunamis. Level Two responses were not common but an example is given below. It gave a range of direct and indirect evidence, including a located example, in part (ii). The definition in (i) was also credited.

Section C

Question 5 on Farming is still less popular than the alternative Question 6 on Recreation and Tourism, but the difference in popularity has narrowed considerably. Those opting for C6 outnumbered those choosing C5 by nearly three to one.

Question 5 Use And Abuse Of The Environment (Farming option)

(a) The term **deforestation** was nearly always grasped, as was part (iii). Part (ii) proved difficult for some. Those who just wrote 26,000 without “square kms” were not credited. Most candidates scored at least one mark in (iv), although some ignored the instruction only to use evidence from Figure 7.

(b) There were many vague descriptions of the vegetation, such as “very green” or “lots of plants”. Many candidates found it difficult to point out even simple details like tall trees or a thick layer of bushes. Part (ii) was answered better, although most candidates referred to the uneven or bumpy nature of the ground rather than relief features such as gullies or even mounds of earth. Less than a third of candidates recognised running water as the agent responsible for the erosion. Only ice did not attract many votes.

(c) Part (i) was difficult, especially for those who thought heat was responsible for the erosion in Photograph D. Answers relating to wind and water erosion were often vague or confused, and they rarely scored more than one mark. Part (ii) proved slightly easier, with many candidates identifying one problem at least. The difficulty of travelling on or cultivating such uneven land and the loss of soil fertility were the most commonly recognised problems.

(d) Nearly all candidates attempted this part of the question. Most just focused on the effects of using chemicals and burning stubble (the cues given in the question), though some examined other practices such as the use of machinery and removal of hedges. It was not necessary to refer to a specific region to gain full marks, although a few did (usually East Anglia). Most candidates could explain some damaging effects (albeit quite simply) and give one or two reasons why farmers used their chosen methods.

Question 6 Use And Abuse Of The Environment (Recreation and Tourism option)

(a) Virtually all candidates understood the term **conservation** and why permits were needed to enter the conservation area.

(b) Part (i) was usually well understood. However some candidates lost three straightforward marks by suggesting their own attractions (e.g. discos and zoos) rather than using evidence from Figure 7. Part (ii) was fairly straightforward, with many candidates noting the tiger breeding centre and the solar power plants. Most answers to part (iii) contained vague references like "the area will be polluted" and "the environment will be spoilt" and/or did not specify what feature or activity of the planned resort would cause the damage. To gain a high mark it was necessary to include detailed statements such as building hotels will destroy forest habitats, building new waterways will allow poachers to enter the forest and sewage from hotels may pollute the water. Few managed more than one mark here.

(c) As in C5 (b) i), most candidates found describing the vegetation difficult. Vague answers were common, for example "there are lots of plants" and "the plants are green". Few commented on the shapes/sizes of the leaves or even mentioned basic features like thick forest and tall trees. Most however could identify an advantage for the local fishing people, usually selling fish to the resort's restaurants or gaining employment as a tourist guide. Slightly more identified a disadvantage, such as the fish numbers being reduced by water pollution or disturbed by the noise of speedboats. Vagueness prevented many candidates from scoring the marks here. For instance just to say "the people could get a new job" or "there might be fewer fish" was not enough at this stage in the question. Candidates should always take notice of the amount of answer space provided when they are deciding how much detail to give.

(d) Nearly all candidates attempted this part of the question, which again was an improvement on previous years. Weaker candidates had a shaky understanding of what is meant by a national park, as revealed in statements like "planners should build the park somewhere else" but there were some good answers too. Most candidates just focused on conflicts between groups mentioned in the question, although a few considered others such as environmentalists and business people too. It was not necessary to refer to a specific region to gain full marks, although some did (usually the Lake District).

Examiner Report

Summer 2007

GCSE

GCSE Geography (1313) Paper 3H

Unit 1313 Paper 3H

General Comments

The Resource Booklet contained a wide variety of materials, as usual: text, photographs, various types of graph and chart, tables and statistics, and choropleth maps. The overall demands of the paper were similar to previous years. There were some questions designed to challenge abler candidates, in contrast to the simpler questions on Paper 1F. There were also, however, some more straightforward questions common to both papers 1F and 3H.

The paper proved to be generally accessible for the target grade candidates, and there were very few questions left blank. Candidates seemed to handle the resource materials well on the whole, and where candidates did seem to struggle, it was in areas where more careful preparation using the pre-release Resource Booklet could have prevented the loss of some marks. Once again, some candidates did not seem to have been prepared to explain key terms, despite being alerted to this by the italicised words in the pre-release Resource Booklet. Question 6, the decision-making question, was generally answered satisfactorily, but rarely extremely well; many candidates offered rather general arguments or merely lifted information about the schemes from the Resource Booklet, without developing their answers or opinions sufficiently.

Question 1

Question one was generally answered quite well, with the exception of parts (c) and (d), which surprisingly proved quite testing for many.

(a) Virtually all candidates scored both marks for identifying the increase and giving some data e.g. 17 to 40%.

(b) In (i), almost all candidates correctly gave (about) 8 million, and in (ii) correctly identified the high birth rate and the rural-urban migration / migration from the surrounding countryside.

(c) and (d) These questions proved surprisingly challenging, and a few candidates scored no marks in either part because they confused 'push' and 'pull'. This was disappointing, as the terms were identified in italics in the pre-release Resource Booklet and were therefore quite likely to be tested. A few candidates also lost marks in part (d) because they ignored the instruction not to write about factors covered in (c). A few candidates rather puzzlingly wrote about problems of waste disposal in cities (taken from figure 2) in answering part (d).

The following example illustrates a response which comfortably gained the full four marks in both (c) and (d). In the second part of (c), either the education / schools idea or the health care / hospitals idea would have been sufficient for full credit.

(c) Pull factor 1: More job opportunities

Explanation: Poor people would move into the city for a better chance of wealth. There are more businesses and customers in cities so more chance of a job and making money.

Pull factor 2: Better services like education and health care

Explanation: In the city there are more schools so children have more chance of getting an education, and hospitals are nearby if you get ill.

(d) Push factor 1: Famine / lack of food

Explanation: If there is not enough food in a rural area due to a poor harvest, people will want to leave in order to survive.

Push factor 2: Natural disaster - flooding / earthquake

Explanation: These will ruin people's homes and livelihoods. They would move away from the area to restart their lives and to be safer from future hazards.

Some candidates failed to score marks for the 'Explanation' because they simply stated that the factor would cause people to move. The following answer, for example, scored two marks for (c), but only one mark for (d), since the second factor was repeated from part (c).

(c) Pull factor 1: Work

Explanation: People move to the city to find jobs.

Pull factor 2: Housing

Explanation: Again people move to the city hoping there will be better housing conditions.

(d) Push factor 1: Sanitation

Explanation: Sanitation in rural areas is very bad so people want to move away from it.

Push factor 2: Jobs

Explanation: There are no jobs in rural areas so people move away to find work in the city.

Question 2

Question two was straightforward for candidates on the whole, although many could not quite manage to score full marks in each part.

(a) Many candidates identified the building materials, stilts, rubbish, dirty water and cramped conditions. A few did not focus on the photograph as required, instead writing about general conditions in shanty towns such as lack of electricity, sewage disposal etc..

The following answer scored the full three marks:

"The squatter settlement is made from rags, cardboard and bits of wood. It is on stilts to avoid flooding from the river. The houses are really small, most only having one room. The floor is dirty with rubbish everywhere."

(b) The majority of candidates correctly identified the lack of infrastructure / waste collections / money / public awareness from figure 2 - but a significant number merely quoted the single fact that 'waste management in Kolkata does not work well', gaining only one mark as a result.

(c) Most candidates correctly identified problems such as the attracting of rats, disease and smell. A significant number also referred to contamination of groundwater *by effluent and sewage*, whereas the question actually asked about problems arising from the dumping of waste in the street (as shown in photograph B).

The following example was worth two marks:

"In areas where waste is not collected, there are unhygienic conditions. Many people dump rubbish in the streets. This causes diseases which can be passed on. In some cases like in photograph B children go scavenging in the rubbish for food."

The following concise answer scored the full four marks:

"The waste would attract many types of vermin, such as rats, and also attract many types of disease. The living standards of the people would be poor. The

waste would pollute drinking water supplies. It would also be a fire risk and block the streets."

Question 3

Question three was straightforward and generally answered fairly well.

(a) Most correctly suggested marriages ending in divorce, young people wanting to live on their own, and more old people living on their own as valid reasons. Some candidates suggested the increasing tendency for people to be able to afford second homes, which was not accepted.

(b) Virtually all candidates correctly suggested an increase in waste production to gain one mark, but too many merely suggested the need for 'more management', which was insufficient for the second mark. The increased cost of collecting additional waste was correctly identified by many candidates.

Question 4

(a) proved to be more testing than anticipated. (a)(i) was more successfully answered than (a)(ii).

In part (i), many candidates were too imprecise in their definition of household waste - merely repeating that it was 'waste from a household'.

In part (ii), a significant number gave 'waste from industry' as an answer, not appreciating that industrial waste is a separate category also shown on figure 5. Many did, however, give some precise explanations here, such as waste from businesses / shops / offices.

The examples of waste given in both parts (i) and (ii) were very variable, ranging from drinks cans and crisp packets to scrap metal and nuclear waste!

A very few candidates interpreted the instruction "give two examples" as meaning two examples of households or commercial activities - therefore responding with 'bungalows and flats' and 'MacDonalds and Burger King'!

(b) In part (i), most candidates had no problem, although some failed to explain *how* waste turns into compost; simply using one of the terms rotting / breaking down / decomposing would have been sufficient to enable these answers to score the mark. A few candidates clearly had not prepared an answer to this question despite it again being identified in italics in the pre-release Resource Booklet and therefore quite likely to be tested.

The first example below was insufficient for credit, but the second example comfortably scored the mark available:

1. *"Composting is putting old food into a bin and letting it turn into compost."*
2. *"Organic waste such as fruit and vegetable peelings are left to decompose in a bin to produce compost which can be used as a soil fertiliser."*

(ii) This was fairly straightforward for many candidates; relatively few failed to score the three marks.

The following concise answer was a typical, accurate response.

"Between 2003 and 2004 the amount of recycling and composting increased by just over 3% from 15.6% to 19%, whilst the amount of waste sent to landfill decreased by 3% from 75% to 72%."

(c) (i) and (ii) were also quite straightforward. Nearly all candidates scored two marks for (i), and although many scored two marks for part (ii), fewer scored all three marks.

The following response easily earned full marks for both parts.

- (i) *"Incineration releases greenhouse gases which can cause global warming. The smoke given off pollutes the air and can cause cancer and acid rain. It also costs a lot, and doesn't dispose of all the waste as ash is left over."*

- (ii) *“One advantage of landfill is that it is highly monitored and designed to keep waste buried for years. Also the methane gas can be monitored, released under control and used as an energy source.”*

Question 5

- (a) (i) Virtually all candidates gave the correct year as 2000.
(ii) Again, virtually all candidates also correctly described the increase in the rate of recycling. Fewer, however, gained the second mark for referring to data accurately. The most commonly successful answers were those which stated simply that the rate had increased from 7.6 to 18%.
(b) (i) Virtually all candidates correctly identified and named the 3 regions.
(ii) This was a testing question which was designed and proved to be an excellent discriminator, even on this higher tier paper. Candidates made good use of the two maps in figures 9 and 10, but did not always use the information appropriately enough to answer the question. Nearly all candidates scored one mark for identifying the increase in the rate of recycling in all areas, but for some candidates this was the only mark scored. Many candidates went on to describe facts such as ‘East Anglia has the highest rate of recycling’, or ‘the South recycles more than the North’; these statements do not describe *change* between 1999 and 2004, and did not, therefore, earn credit.

The following answer, worth one mark only, was typical of this:

“The two maps show that every area has had an increase of 5% or more. This automatically shows that recycling is being hugely publicised and that people are taking it into account. It is noticeable that East Anglia, the South East and the South West are ahead of the North of England in terms of recycling. This is probably due to the population difference - the South has more population than the North.”

Where candidates did manage to focus on *changes*, such as which regions increased most or least, they gained more credit. The following concise example gained 3 marks:

“Everywhere in England, the amount of recycling has increased. The places which have increased the most are East Anglia, from 10.0-14.9% to over 25%, and the Northern region, from less than 5% to 15.0-19.9%. Sunderland has increased least, from under 5% to 5.0-9.9%.”

Relatively few candidates scored four marks; the following answer is an example.

“The two maps show that every region in England has increased its recycling from 1999 to 2004. In 1999, only two areas had rates over 15%, whereas in 2004, six regions were over 15%, with three over 20%. The maps show that the areas most improved in their rates of recycling are the Northern and East Anglia, which increased their rates by about 15%. The areas with the smallest increase in recycling are the North West, Yorkshire and the South East, which increased their rates by only about 5%.”

Question 6

The issue of dealing with waste was very topical and relevant, and some candidates were able to write at considerable length. There were no overwhelming favourites in terms of schemes chosen or rejected by candidates - reflecting the range of information and argument which could be used in support of, and against each of the schemes.

The question gave candidates the opportunity to express their own views, and a variety of arguments were put forward. Many candidates supported options one and two together because they were both ‘green’ options, whilst some others combined options one and four together, since “by reducing the amount of waste the Council has to handle, it would automatically reduce the amount being sent to landfill”.

Credit had to be earned by the range / depth / quality of argument in the explanation of both the chosen and rejected Options. To reach a Level Two mark, candidates must have been able to develop or explain at least one idea in support of, or against their chosen schemes.

To reach Level Three, there had to be a number of developed or elaborated points, with at least one argument developed in detail.

Some answers were rather vague and thin on supporting evidence, merely lifting points from figure 11 without further comment, or concentrated solely on environmental impacts by lifting material from figure 7; Level One was the usual score in these cases. Most candidates were able to explain or elaborate on at least one argument, to reach Level Two; relatively few candidates, however, managed more than one really well developed point, so that Level Three scores were not as common as would have been hoped or expected.

Reducing the amount of waste the Council has to handle was chosen mainly because of the advantage that householders could get compost for little or no cost, and because it was 'easy for people to do' - also a common comment in support of increasing the sorting of waste.

The main argument in support of increasing incineration of waste was that the energy recovered could be used to provide heat for up to 5000 households; unfortunately, this statement, lifted directly from figure 11, was not often developed. Similarly, the points from figure 11 about the advantages of reducing the use of landfill sites - less farmland and less brownfield sites in cities needed - were often quoted with little if any explanation or development.

Options A and B were often rejected because candidates felt that people would not use home compost bins, or would not be willing to sort waste into different bins. Option C was frequently rejected on the grounds of excessive cost, or because of the various negative environmental impacts. High or increasing cost was also often cited as a reason for rejecting Option D.

Candidates often used basic information from Figures 11 and 7; abler candidates also made relevant use of figures 3 and 4, 6, and 9 and 10 to put forward more compelling and well thought out arguments. Reference to Sunderland's population and household structure was occasionally made; the relevance of Government targets for recycling and recovering value were more frequently referred to. Cost, health / safety issues and environmental impact were all quite frequently used in arguments both for choosing and rejecting the various Options.

The following answer illustrates a low Level Two response; Options A and B are supported and Options C and D rejected with a number of basic arguments, using information essentially lifted from the resources. There is a no explanation as to why Sunderland's targets would or would not be met; the example of acid rain effects is quite specific, but does not really focus on why an incinerator is bad for Sunderland; the catastrophic scenario of a landfill explosion is also not really realistic for Sunderland!

A mark of 5 at Level Two was awarded.

"I have chosen Options A and B because they are the two Options that I feel will meet Sunderland's targets in the future. I decided not to choose Options C and D because I don't think they would benefit Sunderland as much as Options A and B. I chose Option A because I think it would help Sunderland reach its target of recycling or composting 33% of its waste by 2015. I think people are more likely to come around to the idea because they will be given the compost bins at a much lower price than normal. I think that when people start using the bins they will see that the product of compost could come in handy for their gardens. The only problem with this Option is that once the bins have been distributed, there is no way of knowing if people are using them. The only way to get around this problem is by the council employing people to go around and check but this would lead to them losing money which is not good. I also chose Option B because working alongside Option A I think that it would help to achieve both of Sunderland's targets. Even though it may require the household members to have to spend more time sorting out the rubbish, they

will be persuaded by the cost of waste collection dropping like it did in As people become more aware about the world running out of resources, I think more and more people will start to recycle. When they see the recycled product they will know that they helped by making their contribution.

I decided not to choose option C because it would not help meet either of Sunderland's targets and it has major disadvantages. These include the production of greenhouse gases which can lead to acid rain or cancer in people. The acid rain can kill thousands of animals and plants. In Germany the Black Forest is now completely dead due to acid rain, and fish in lakes have died as well. The only way to reduce these effects is by spraying all over the tops of the trees with limestone or lime water.

This is an alkali and will neutralise the acidity. Like Option C, I didn't choose option D because it has a lot of disadvantages and I do not think that it will help Sunderland meet its targets. Even if the number of landfill sites is reduced it will still have the same effect on the environment but it will just take a little longer to occur. Like Option C it can produce greenhouse gases from the rotting waste but the main problem with landfill sites is that there is a high risk of explosion occurring because methane gas is highly flammable. If an explosion does occur then it will have a huge impact on the environment surrounding it. Litter would be thrown everywhere and dust and rotting materials would be on the streets which could lead to disease occurring due to poor sanitation. Money would have to be spent clearing up all of the mess and try to prevent any diseases occurring."

The next example argues for Options B and C with a number of simply developed points e.g. there is reference to the resulting fall in demand for raw materials if recycling is increased, and to the availability of jobs at an incinerator. There is also some recognition of the limitations of the chosen Options, which is often more likely to be seen in a Level Three response. The quality of written communication (spelling, punctuation and grammar) was also good enough to allow the award of 8 marks at the top of Level Two.

"I chose B - increase the sorting of waste - because this Option encourages the public to sort rather than force them to do so. Unlike Option A - reduce the amount of waste - option B is recycling and will help the council meet their targets of recycling or composting at least 33% of household waste by 2015. Recycling will cause the demand for raw materials to fall. Recycling is more efficient than producing materials from scratch.

I rejected option A because the council is subsidising £15 for every compost bin and they cannot measure if the public still use them after they are sold. The £15 could be spent on other things such as the new incinerator, Option C, which I have also chosen. Although I understand option B has its limitations such as you cannot force the public to participate and contribute with this scheme. However, if this Option is successful it would cause less demand for weekly collections and the council may be able to implement alternate week collections, thus saving money. Option A only deals with composting and this is not appropriate for all; not everyone has a garden or the need for compost. With option B more people can participate.

The other Option I chose was C - to increase the incineration of waste. This could handle 30% of the city's waste by 2015. The other government target of recovering value from 67% of municipal waste is addressed with this Option - the energy recovered could provide heat for up to 5000 households. I chose this Option (C) over D - reduce the use of landfill sites - because at the moment 89.7% of waste is sent to landfill and this is a lot to find other ways to deal with. This Option (D) would need to work alongside other options in order to be efficient, which is why I did not choose it. Although I understand that the

incinerator Option has its limitations, such as, dealing with the ash left over, and the cost to build it. However, I believe the benefits outweigh the costs and once the plant is in operation jobs could be acquired.

I chose Options B and C because as waste is increasing we need to increase the treatment of waste not reduce it."

The following example had some well explained arguments at Level Three standard in support of Options B and D, but was weaker in its rejection of Options A and C, which just prevented it from reaching Level Three overall; it was, like the previous example, awarded the top mark of 8 at Level Two.

"I have chosen option B and Option D because together they present the most sustainable answer to dealing with Sunderland's waste in the future. At present, all over the country landfill space is set to run out in the next few years so I think that Sunderland should reduce their waste going to landfill by increasing the sorting of waste and therefore recycling more. More recycling is also a more sustainable option as unlike incineration it doesn't produce greenhouse gases. It will also provide more materials to make new products making it more cost effective. I think Options B and D are the best strategies as they can apply to both household and commercial waste. Option B will also make people more inclined to recycle. At present they have to go to 'tips' to dispose of their recyclable waste but if the council will collect the sorted recyclable materials it will make recycling more convenient and herefore a more attractive system.

There is also proof that this system works well to increase recycling. In St. Edmundsbury council, households have an alternate weekly collection of food waste and recyclable / composted waste (in blue and brown bins) and in 2002/2003 they came in the top 10 boroughs for best recycling rates in England, recycling 29% of their waste - compared to Sunderland which came in the bottom 10, recycling only 1.8% of its waste. I would not choose option C as it is the least sustainable of all the four Options. It releases greenhouse gases and smoke which can lead to global warming, acid rain and cancer. It will also cost £30 million to build and does not dispose of all the waste because ash will be left over. I would also not choose option A as a way of dealing with Sunderland's waste in the future. Although it is the most sustainable of all the four Options, it will probably not decrease waste by that much. There is no way to force people to buy compost bins and there is no way of monitoring if people are using them. It would also take a long while to have an effect as composting takes years and only applies to domestic waste as businesses can't use composting bins."

The following answer was a really well balanced response with a number of really well developed arguments both in support of Options A and B, and against Options C and D.

It also referred to a range of criteria - environmental impact, health and safety issues, cost, and government targets - as well as recognising the drawbacks of the chosen options and the benefits of the rejected options. It also showed a very good quality of written communication (including the use of geographical terms). It was awarded the top mark of 12 at Level Three.

"I have chosen Option A because the use of one home compost bin could reduce green waste by up to 170kg per year, which means that there will be over 20,000 tonnes less waste going to landfill sites per year in total. This will consequently mean that there will be fewer journeys to landfill sites, meaning less petrol used, less carbon dioxide being given off, therefore contributing less to global warming. The compost bins are affordable for virtually everyone, but as well as this they will be gaining the council money which they can invest in other methods of waste management. One of the targets Sunderland has to meet is to recycle / compost 33% of household waste by 2015. This scheme will be able to help meet this

target, as only 1.1% is being composted at the moment, so there is a lot of room to improve this. The humus that is produced from composting can be used to enrich the soil. This will attract people to the scheme because they will no longer have to buy as much fertiliser. It is also a very efficient scheme because it will encourage people to 'reduce' which is the first of the '3Rs', so there will be less waste in the first place. The scheme is also immediate, and will also bring benefits in the longer term. Gradually, the city's population will become more educated about composting, and environmental difficulties, which means they will try to recycle more and reuse much of the waste that they create. I have also chosen Option B, because kerbside collections will make it very easy to recycle so more people will be inclined to do it. The scheme means that the council will not have to sort so much waste, so it will be cheaper and therefore council taxes will be able to fall which benefits everyone.

The 'bring sites' at supermarkets will fit in with people's way of life, and they will use them simply because it is easy and convenient. Once one of Options A or B are in place, it will also be easier to introduce the other one, because they complement each other. Option B will also create more jobs because different kinds of sorted waste will need collecting.

I have chosen to reject option C because I feel that there are too many disadvantages involved with incineration. The risk to health is great, as dioxins are released which can cause cancer. As well as this it damages the environment because greenhouse gases can lead to global warming and sulphur dioxide can lead to acid rain. There will need to be a suitable site to build the incinerator on, and it will take a long time before it is working. It will be an eyesore, as well as probably being noisy, and it will not be totally efficient because ash will be left over. I have also chosen to reject Option D because if Options A and B are put in place as I recommend, then the amount of waste going to land fill will decrease anyway - and so will the amount of land needed. This means that Options A and B will indirectly lead to more land being available and more brownfield sites left for building. I do not think Option D would not work by itself - it would need to be complemented by some other effective method to deal with the waste not going to landfill. Even if reducing landfill were to take place, it would still be expensive for the council because the UK landfill tax is set to increase in future.

In conclusion, I think A and B will be the most effective Options for Sunderland because at the moment it has a very low recycling rate of 5-9.9% (map, figure 10), and this could be improved upon greatly."

Examiner Report Summer 2007

GCSE B

GCSE Geography (1313) Paper 4H

Section A

Question 1 Providing for Population Change

(a) This provided a straightforward start to the examination for the majority of candidates, who were able to demonstrate their locational knowledge. However, some stated that the population of most countries in North America increased by less than 1% whereas the map showed that only one (Canada) did. A few forgot to include data in their answer to part (ii).

(b) Nearly all candidates scored full marks here. However a few thought **natural increase** is the same thing as the birth rate or that you calculate it by adding the birth and death rates.

(c) Excellent understanding of factors causing the birth rate to fall was often evident, irrespective of which topic the candidates chose. Education for girls was the more popular one. Many produced answers worth more than the three marks available. Some quite passionate points of view were expressed.

(d) Most candidates accurately read off the figures from the rather unfamiliar charts. Those who instead gave words (such as small and large) were not credited. In (ii) some described the difference rather than explained it, but most managed full marks here.

(e) Most candidates correctly defined the term **resource** but “raw material” and “something people need” were not acceptable answers. Nearly all identified the resources on the graph as non-renewable. The few who just said they were fossil fuels had overlooked the metal ores and so were not credited. In (iv) the discovery of new deposits and the development of alternative energy sources were often cited, but recycling of metals and greater energy-efficiency were less commonly mentioned. Most candidates understood this issue well.

(f) Most candidates chose biogas plants (usually in India but also Tanzania and Sri Lanka) but micro-hydro projects in Peru were also quoted. Wind and solar schemes were more rarely given and then often vaguely by weaker candidates. Those who wrote about a large-scale scheme (usually the Aswan or Three Gorges Dams) were limited to a maximum of six marks.

The descriptions of the locations (and the sketch maps) showed some improvement on 2006. Many candidates described the location of the country well, but this was inappropriate when the location of a small-scale project within the country was required. Many candidates did not have sufficiently detailed knowledge for this and gave vague descriptions like “in a village in India”. Several candidates drew an irrelevant diagram of a biogasifier, although some did show recycling of organic matter.

In (f) ii) some candidates ignored the instructions and wrote about how a biogasifier worked or about the economic and social impacts of their scheme. However most were able to explain the environmental impact and there were some well developed accounts.

Question A2 Coping with Environmental Change

a) Nearly all candidates plotted the four discharges accurately on the graph, but joining them with a smooth and accurate line often proved difficult. Some extended the line above 50 cumecs, a few failed to connect the readings for noon and 1pm, and many rather carelessly missed at least one of their points. A few candidates did not realise they had to complete the graph and so forfeited three straightforward marks. Candidates could usually identify the peak discharge if they had drawn the line accurately. 70% correctly worked out when the river started to flood and could explain why. Others inaccurately said 6am (when the river merely began to rise) or 8am (when the peak discharge occurred).

b) Most candidates responded very well to the photographs and there were many excellently detailed descriptions of the flood damage. Most were able to explain the damage too, especially for Photograph B. A few candidates misunderstood the question and explained the possible consequences of the damage rather than its causes.

c) All candidates could explain to some extent why the river flooded at Boscastle, and there were many excellent answers.

(e) Many candidates seemed unfamiliar with levees, their answers often suggesting they thought they were a sort of channel or sluice gate. There were also quite a few blank responses to this part of the paper. Dams were more familiar but even here most candidates found it difficult to explain precisely how they reduced the flood risk. The average score was less than two.

(f) As expected, this proved challenging. In (i) some candidates did mention that they were hard engineering methods which interfered with nature and caused habitat loss, or that flooding should be welcomed as it can enhance the soil for agriculture. However few scored both the marks here. In (ii) most candidates suggested various hard engineering solutions that were not accepted. Others did correctly suggest avoid building on flood plains, plant trees in the catchment or use a flood warning system.

(g) The responses to this were very pleasing, most candidates producing good Level Two answers or better. There were many excellent accounts of Barton-on-Sea, Walton-on-the Naze, North Norfolk and Holderness which included place-specific details (e.g. geology of the cliffs). Many candidates showed a sound grasp of the physical processes at work and particularly of a range of coastal defence measures. The Level Three example below contains place-specific details and shows good understanding of both the processes and various management methods that are clearly linked to those processes.

Section B

This year Question 3 on Water was only slightly more popular than Question 4 on Weather and Climate. There has thus been a big increase in the number of candidates choosing the Weather and Climate option (46% did so in 2007).

Question 3 Use and Abuse of the Environment (Water option)

(a) Part (i) was straightforward for most candidates. Part (ii) Few seemed aware of site factors relevant to a water storage reservoir, such as relief, amount of rainfall, geology, population density and value of land. Many candidates described the advantages of the reservoir for recreation instead. Very few scored more than two marks for part (ii).

(b) Candidates accessed the higher marks range on this question but many candidates stressed the problems tourists would cause or speculated about the risks if the reservoir overflowed. Few considered the nature of the land that would have been flooded when the reservoir was originally built. Many did however note the dam could be considered an eyesore.

(c) On the whole this was tackled well. Many realised the pesticides had been washed from farms into streams feeding the reservoir and some that pesticide spray had blown in by the wind. Some did attribute it to people dumping waste. Part (ii) was well understood. Many said the water would be polluted and unsafe to drink, the company would need to treat it and this would be expensive. Few scored any marks in (iii) however. Most suggested a cure (e.g. filters) rather than a preventative measure. Others usually suggested an unworkable measure such as

building walls round or a cover over the reservoir to keep the pesticides out. A few gained credit for suggesting fining farmers who polluted water, educating them not to spray in windy conditions or when rain was expected, or using organic farming methods.

(d) In (i) there were a few weaker answers focusing just on trivial uses such as drinking water or brushing teeth and often these did not refer to increases in demand at all. Most candidates could give examples of increasing demand such as “more people have dishwashers”, “more people in LEDCs have water taps”, “industries in LEDCs are using more water” or “more water is needed for irrigation” although many did not set these in a wider context such as rising living standards, urbanisation or population growth and its effects (such as the demand for food). The strongest responses did give a wider context and distinguished between LEDCs and MEDCs. Sometimes they gave located examples too.

In (d) ii) most candidates referred to the problems simply, for example “there will be no water to grow crops” or there will be droughts”. Others speculated about future price rises or possible solutions such as desalinisation, or they mentioned the possibility of international conflicts over water. Some of the best mentioned an example like the Colorado or Aral Sea to good effect.

Question 4 Use and Abuse of the Environment (Weather and Climate option)

(a) Nearly all the answers to (i) were correct. Part (ii) was usually well understood, though some did not appreciate the significance of the rainfall total or even failed to refer to it at all. Full marks could not be achieved without some reference to rainfall/clouds.

(b) Part (i) was straightforward for most candidates. Part (ii) was handled much better than the equivalent task in B3 (a) ii). Most candidates were aware of site factors relevant to a wind farm such as altitude and exposure, and quite a lot commented on the lack of nearby residents to complain about the noise. However, hardly any noted the wind farm was outside the National Park and so not in a protected area. Some did say the nearby road was advantageous for turbine maintenance but others thought the benefit would be moving vehicles producing wind.

(c) Most candidates read the OS map well and noted site X was a built-up area and/or site Y was an open space. Some also correctly commented that houses/buildings at X would generate heat, as would cars on the roads. Candidates who suggested that tarmac at X had absorbed heat from the sun or that Y was exposed to the cooling effect of winds had overlooked the information that the fieldwork was done on a calm January day. Other explanations failing to score were the reflection of the sun’s heat off buildings at X, site Y’s supposed greater altitude and site Y’s more southerly location (i.e. nearer to the Equator).

(d) Many candidates misinterpreted this question and wrote about the causes of global warming rather than evidence for it. They could, however, still gain some credit if they happened to mention some evidence in passing. Many did not go much further than say “ice caps are melting” and “sea level is rising” although some referred to more hurricanes and flooding. There was limited reference to evidence from the UK or especially the land masses of Africa and Asia. There were however still some erroneous references to the destruction of the ozone layer. Predictions of possible future effects of global warming could also not be accepted as evidence.

Part (d) (ii) on the reliability of the evidence also proved difficult, in spite of it being a specific requirement of the specification. It was striking how many candidates wrote that global warming may only be a manifestation of natural climatic change. Only a few were aware of techniques such as ice core analysis or data on climate change that is now available (e.g. evidence in the latest UN IPCC Report).

Section C

Question 5 on Farming is still less popular than the alternative Question 6 on Recreation and Tourism, although the difference in popularity has narrowed markedly. Those opting for C6 outnumbered those choosing C5 by over three to one.

Question C5 Use and Abuse of the Environment (Farming option)

(b) The definition of **deforestation** was difficult for some. It was necessary to give a phrase such as “cutting down trees on a large scale” rather than just “cutting down trees” to score the mark. Part (ii) was easy for most candidates, although a few thought the last paragraph in Figure 6 meant soya was being grown with the purpose of conserving the forest. Part (iii) was also very straightforward, unless candidates ignored the instruction only to use evidence from Figure 7.

There were many vague descriptions of the vegetation, such as “a lot of greenery” or “lots of plants”. Many candidates found it difficult to point out even simple details like tall trees with no lower branches or a thick layer of bushes. In (ii) the term **relief** was not well understood, many candidates describing the soil or even vegetation instead. Those who understood the term usually referred to the uneven or bumpy nature of the ground, rather than relief features such as gullies or even mounds of earth. If the photograph had been a little clearer perhaps no candidate would have commented “there are lots of tree stumps” in the foreground. Less than half the candidates recognised running water as the agent of erosion responsible for the relief. Wind was often suggested instead, and even heat was chosen by some.

(c) Since part (i) was a general question rather than specifically related to Photograph C, answers referring to wind and water erosion were both accepted. There were some vague or confused responses here, and the understanding of the physical processes was not generally as secure as that shown in A2 (d). However, most candidates scored one or two marks here.

Part (c) ii) proved slightly more accessible. Most candidates scored one or two marks by referring to the loss of soil fertility and its consequent effect on crop yields, the difficulty of cultivating such uneven land or the lack of vegetation for animals to graze.

(d) The response to this question was pleasing. Nearly all candidates attempted it and there were some really superb answers too. Many candidates just focussed on the effects of burning stubble and using chemicals (the cues given in the question) and some particularly good explanations of eutrophication were produced. Others examined practices such as the use of machinery, removal of hedges and draining of marsh. It was not necessary to refer to a specific region to gain full marks, although some did use one (usually East Anglia and/or the Fens) to good effect. Some understanding of the reasons why farmers used these methods was also evident.

Question 6 Use and Abuse of the Environment (Recreation and Tourism option)

(a) The definition of **conservation** was widely understood but (ii) was more demanding. Here it was not enough just to say “to stop people damaging the environment” or “because there are endangered species.” A more detailed reason was needed such as “to stop people poaching animals” or “to limit the number of people entering the area”. Nor were answers such as “to make money” accepted, since these were not based on evidence in Figure 8. Less than half the candidates scored the mark here.

(b) Part (i) was straightforward, most candidates noting the tiger breeding centre or the solar power plants. Very few said that the craft museum might support local traditions or sell local

people's products. Many answers to part (ii) contained vague references like "the area will be polluted" and "the environment will be spoilt" and/or did not specify what feature or activity of the planned resort would cause the damage.

To gain a high mark it was necessary to include detailed statements such as building hotels will destroy forest habitats, building new waterways will allow poachers to enter the forest and detergents from hotels may pollute the water.

(c) Most candidates found describing the vegetation difficult. Vague answers were commonplace, for example "the vegetation is very green and looks very natural and fresh". Compare that with the example below, which comfortably scored full marks.

There are tall trees which are dense and have small leaves making a canopy. There are palm trees on the banks with long, larger leaves. There are reeds growing at the water's edge.

The descriptions of the fishing boat in (ii) were usually precise and many candidates scored maximum marks. They also commonly recognised possible problems for the local people such as fish numbers being reduced by water pollution or disturbed by the noise of speedboats. Fewer suggested that the fishing people might be denied access to some rivers or might be displaced from their land by building development. Answers often focused on negative effects rather than possible advantages such as selling fish to the restaurants or gaining employment as tourist guides.

(d) The response to this was usually pleasing. Nearly all candidates attempted it and, although there were occasional vague answers that betrayed a weak understanding of what is meant by a national park, there were some really superb answers too. Many candidates just focused on conflicts between groups mentioned in the question, whilst others considered groups such as quarry owners and environmentalists too. It was not necessary to refer to a specific region to gain full marks, although some did use one (usually the Lake or Peak District) to very good effect, especially in part (ii) about solutions.

Moderator Report

Summer 2007

GCSE B

GCSE Geography (1313) Paper 05

Unit 1313 Paper 5

General comments

A significant number of studies were well-constructed and met fully the assessment criteria. Urban topics were most appropriate for generating a variety of data for candidates to collect, present and analyse. However, coastal studies frequently had woolly or unachievable aims and so candidates found it difficult to produce appropriately structured studies to address these. Studies which related directly to a taught aspect of the Specification were felt to exhibit the best structure.

There were a few totally inappropriate topics chosen by the candidates. Some studies based on the location of new sporting venues, like the new Arsenal stadium, were based far too heavily on secondary data with no justification for this. Therefore, candidates struggled to score well on the assessment criteria.

Where teachers had used the *Assessment for learning* approach and shared the assessment criteria with the candidates from the planning stage, candidates generally scored well on all five criteria. In some centres staff had been reluctant to help candidates to structure their work at all. Teachers should realise that 15 and 16 year olds do need to be taught the how to set up and structure their enquiries, even if the content is to be determined by the candidates.

Criterion 1 - Introduction and aims

Far too many studies were based on vague hypotheses and had not made clear the type of data they intended to collect.

There were significant numbers of candidates who included irrelevant chunks of text and diagrams copied from text books. Frequently these had not been referred to and had simply been bolted on to introductions with no attempt to weave in with intentions for fieldwork. Mostly, these trends applied to coastal and river studies and were less evident in urban and leisure based studies.

Most candidates had included maps to locate their studies. However, these were frequently not annotated in any way, or referred to in their introductions.

There was clear evidence that candidates had improved awareness of how to sequence their work. However, every moderator reported some centres where the sequence of intended study had been omitted. In most cases this had happened because the centres were using the old version of the ICRS form. I would strongly advise centres to refer candidates to the Specification requirements for Criterion 1 before they write their introductions in future.

Criterion 2 - Data collection

There was a good variety of data collection methods across the entry this year. However, some centres had collected very limited sets of data and their candidates struggled to justify marks above low Level 2.

Where secondary data had been included, this was rarely integrated with the study and seldom justified, as stipulated in the Specification.

Where justification of data and problems of its collection had been included, these were usually referring to practical difficulties, rather than to the theory underpinning the work. Too many centres had awarded Level 3 marks on this criterion when there was neither justification nor limitations of the data had been given.

The trend of moving to the use of a methodology table continues to increase. This is an excellent strategy for moving weaker candidates into Level 2. However, moderators again felt that the use of such a structure limited many able candidates since they did not include sufficiently detailed explanation of methods to access top Level 3 marks. This was not the case where candidates had used an open ended table, so that their explanations could be extended. This approach was demonstrated in training events of 2006 and several centres used this refinement to their candidates' advantage in 2007.

Criterion 3 - Data presentation

Moderators reported a further improvement this year in the overall quality of data presentation. However, many centres still use only bar graphs and pie charts. This is not a sufficient variety to warrant marks above low Level 2. Some centres had awarded Level 3 marks for a large number of such graphs when no higher level skills at all had been demonstrated.

There were many more usefully annotated maps this year which was pleasing. There were also many located graphs. The trend, to construct flow lines and isolines, is also increasing.

The most innovative techniques and best use of ICT tended to be based on urban or leisure based studies. Coastal and river studies were often limited by the narrow range of data available. Candidates were given credit on these topics for quality of methods, rather than for quantity of graphs.

Very few candidates had used no ICT to present data. However, there were still significant numbers of centres using the Excel package without ensuring that their candidates had full understanding of its functions. Many legends were left as "Series 1" and scales on comparison graphs had not been adjusted from the automatic scale setting, rendering analysis of results worthless. There was also widespread use of line graphs to represent discrete data sets. These ICT issues should be addressed by sound teaching of them before the candidates approach the writing up of their coursework.

Criterion 4 - Analysis and conclusions

It was felt that some work sectioned rigidly around the marking criteria prevented cross-referencing by the candidates. Analysis must be credited wherever it is given; candidates should be rewarded on Criterion 4 for relevant comments made on or near graphs, maps and photographs.

Candidates should be advised not to use the multi-hypothesis approach. This clearly makes it very difficult for candidates to link up different sets of results and come to meaningful conclusions.

A few centres used a grid for data analysis and this was largely unsuccessful. It constrained candidates from making in-depth comments and from cross-referencing.

Many conclusions were far too descriptive. Explanation must be included for candidates to access the higher level marks on this criterion. Some use of the actual detail/figures from the data must also be included to warrant such credit.

Criterion 5 - Planning and organisation

Excellent application of ICT by the majority of centres was evident this year. However, it was felt that some centres had disadvantaged their candidates by not giving them full access to ICT. Being able to present data in colour is vital in this subject. Teaching the ICT techniques before the coursework is undertaken also benefits candidates (See Criterion 3 above).

There were just a few seriously over-length studies where coherence was an issue. A few were very thin and it was difficult to justify top Level 3 marks when there had been no scope for candidates to organise their work.

Moderators expressed surprise at the high numbers of able candidates who had not included page numbers, contents pages and bibliographies.

Administration

Every moderator received work from centres which had reverted to using the old ICRS form. In a significant number of these centres, candidates had actually been disadvantaged as they had not structured their work to meet the Specification. Mostly they had not included sufficient ICT skills to warrant access to full mark ranges at all levels on Criteria 2, 3 and 5. Many had not been guided towards expressing a sequence of study in their introductions. I would strongly advise centres to examine the full marking criteria with their candidates before embarking on coursework for next year and to download the correct version of the ICRS (used since 2004).

Many centres had neither correctly added up candidates' marks, nor transferred these accurately to the OPTEMS. This varied from one or two candidates in some centres to as many as sixty plus in a few! Many centres had not sent the correct sample to the moderator, especially

omitting the work of highest and/or lowest marked candidates. Following such administrative oversights, responses by centres to E6 requests were generally fast and apologetic.

Multiple carriers made delivery of coursework difficult and in a few cases impossible. Royal Mail was excellent and efficient and willing to deliver on a Saturday. DHL performance was varied from excellent in some areas to grossly inefficient in others. Other carriers would never deliver outside normal working hours and several refused to redeliver to alternative addresses without multiple identity proof being given. In a few cases this resulted in parcels being returned to centres as undeliverable!

Most centres despatched their work on time. In the few cases where there was a small delay the moderator was kept informed.

Heavy ring-binders continue to cause problems for moderators. Centres should NOT use these or plastic page liners. Such stationery does nothing to enhance the work of candidates and several ring-binders actually fell apart in transit. The weight of parcels is a serious Health and Safety issue for all those handling the work. Please use light card covers and treasury tags or string in future.

Some centres had omitted candidates' names and numbers on their work and ICRS, involving moderators in detective type work to ensure that the correct sample was looked at. In only one case did the sample have to be sent back to the centre, to name and number but a lot of time was wasted.

GCSE Geography 1313 Statistics

Mark Ranges and Award of Grades

1313 Foundation Tier

Grade	Max. Mark	C	D	E	F	G
Overall Subject Grade Boundaries	100	64	53	42	32	22

Paper 1F

Grade	Max. Mark	C	F
1F Raw Mark Boundaries	60	43	24

Paper 2F

Grade	Max. Mark	C	F
2F Raw Mark Boundaries	100	64	32

1313 Higher Tier

Grade	Max. Mark	A*	A	B	C	D	E
Overall Subject Grade Boundaries	100	79	71	63	55	49	46

Paper 3H

Grade	Max. Mark	A	C	D
3H Raw Mark Boundaries	60	43	33	29

Paper 4H

Grade	Max. Mark	A	C	D
4H Raw Mark Boundaries	100	71	54	50

Coursework

Grade	Max. Mark	A	C	D	F
Coursework Raw Mark Boundaries	63	45	36	29	16

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