



GENERAL COMMENTS

Students generally performed well on the 2012 Geography examination. Most students used their time effectively, and many used the extra space provided at the back of the question and answer book to complete their answers. Most students were able to demonstrate what they knew, with many students displaying an in-depth understanding of both the topics covered and their case studies. Students gave full examples, especially in their Murray-Darling Basin (MDB) answers, and used accurate place examples rather than generalised ones. Local fieldwork provided a reasonable background for analysing a strategy to manage movement within or to/from the resource. Many students, however, were unsure of the concept of sustainability. Some students wrote knowledgeable answers but did not refer to the concept of managing 'movement' as requested. Although most students generally made good use of examples and quantitative data, some students still wrote all they knew, rather than answering the questions asked. Despite this, many students' responses showed a sound grasp of the study and answered questions in a succinct, well-expressed manner.

Areas of strength and weakness

Areas of strength included

- excellent examples of map work
- evidence of sound research and attempts to provide detail in answers
- an improved understanding of the Murray-Darling Basin, especially the more recent conflicts
- the confidence displayed by most students when describing patterns and using a range of correct geographic language
- the ability of the majority of students to respond to all questions.

There were some weaknesses displayed by students, including

- a poor understanding of topographic maps, and an inability by many students to understand the significance of contour lines
- lack of map evidence to support answers
- poor map skills, such as the use of a legend or key, and appropriate symbols to depict certain features
- out-of-date material, especially when discussing aspects of the MDB. Outcomes from 20 years ago should not be used as recent information
- writing generally; for example, generalising for the whole MDB when discussing conflicts. Students need to know the names and details of specific groups, places and events
- a lack of focus on the wording of questions. There was a number of students who had prepared answers and tried to fit them to the question asked rather than applying what they knew
- not reading the question carefully and ignoring the instructions; for example, the use of 'a' and 'or' in questions
- a lack of planning when preparing answers; for example, when responding to questions with linked parts, which required students to think about the change to the focus of the question
- an inability to distinguish between local, national and global scales
- handwriting, which was often difficult to read
- inaccurate geographical knowledge, such as referring to Africa as a country.

SPECIFIC INFORMATION

Note: Student responses reproduced in this report have not been corrected for grammar, spelling or factual information.

This report provides sample answers or an indication of what the answers may have included. Unless otherwise stated, these are not intended to be exemplary or complete responses.

Question 1

Overall, the map work was very good and most students located and labelled on their maps the features requested, as well as completing their key. The more successful responses used appropriate coloured-pencil shading; small, clearly printed labels; and located features accurately using the grid lines as a reference point. Some students did not follow the instructions and failed to label the features on the map and/or key. Shading or symbols alone were not adequate when names were requested. There were a few students who thought the map was the entire MDB, marking Cubbie Station and the mouth of the Murray onto the outline topographic map of Mannum.



Question 1a.

Marks	0	1	2	3	4	5	6	Average
%	1	2	9	15	27	29	16	4.2

1ai.

Most students marked the irrigation areas in the correct location with the right number of regions, and completed the key. Some students need to take more care with the neatness, accuracy and completeness of their mapping.

1aii.

Students were required to identify two features associated with water and name them on the map and in the key. The most common examples given were 'Reedy Creek Swamp' and the 'effluent ponds'. Other examples included 'pumps', 'dams', 'tanks' and 'channels'.

Many students identified the features but didn't name them and/or put them in the key. Some students incorrectly identified features simply located on or near water resources, rather than those that would be dependent on a source of water for their existence or function.

1aiii.

The correct response was the Mannum-Adelaide Pipeline. Most students accurately located, identified and named the pipeline.

1aiv.

Most students marked and named one transport feature dependent on water, although some students marked the feature but did not name it. Generally, students included the feature in their key and most chose the 'ferries' as their feature. Other examples included 'wharf', 'pipeline', 'irrigation channels' and 'pumping station'.

Question 1b.

Marks	0	1	2	Average
%	15	45	40	1.3

Most students correctly described the distribution of the irrigation regions. Many applied the PQE method – general pattern, quantification and exceptions. The more successful answers recognised that the distribution generally did not extend more than 1000 metres away from the river's edge, was on flat land and on both sides of the Murray River. There was a tendency to try to use a range of descriptive terms that were not always appropriate; for example, linear, random and radial, often in the same sentence. A few students suggested 'why' the irrigated regions were where they are but this was not the question. The more successful students also noted the discontinuous nature of the linear pattern, and identified the meander loop as a densely irrigated area. These students might also have used the map scale to determine the extent of the irrigated areas inland from the river.

Some weaker responses simply referred to the location of the irrigated land (along/near the river, south of Mannum, etc.) and gave the location of individual irrigation areas often in relation to Mannum. More attention should have been given to the pattern of distribution rather than individual locations. Students should be able to identify a variety of distribution patterns and know the difference between a clustered and a linear pattern.

The following are examples of high-scoring responses.

The irrigation areas near Mannum are distributed in a linear pattern along the Murray River. They are distributed within 1 kilometre of the river. There are two regions on the west side – Baseby and Wall and three on the east side – Cowirra, Neeta and Pompoota.

Irrigated areas are distributed in a linear pattern along the Murray River, on both sides. Approximately 90% of the irrigated area is directly beside the river, within 1–1.5km of its banks, with the exception being two small irrigated areas north of the Pompoota Irrigation Area.

Question 1c.

Marks	0	1	2	Average
%	35	24	41	1.1

Generally, this question was poorly answered. Many students were not able to use the map legend and interpret it in relation to the map. Good students noted that the area marked 'X' was steep, making it unsuitable for irrigation. The

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more successful responses used map evidence as required to attribute this to the contour lines being close together, representing steep land. Quite a few students did not recognise that the land was steep at 'X' and discussed sand ridges, suggesting a poor reading of the legend and a poor knowledge of topographic maps. Some students discussed elevation. A number of students did not provide a link as to why the area would not be irrigated. Some students even believed that the contour lines represented mountains.

The following responses received full marks.

The contour lines at X are close together, showing that this area is steep, compared to other areas on the map which are irrigated. For irrigation to occur, the ground must be relatively flat, therefore this area of land is not suitable for irrigation.

'X' has not been irrigated because the area is not flat, making it difficult to grow crops. This is supported by the close contour lines on the map, indicating a steep slope.

Question 1d.

Marks	0	1	Average
%	61	39	0.4

This question was poorly done. Students were expected to refer to the 'pastures' identified on the irrigation area. Many students could not read the map legend, and 'pine plantations' was a frequent incorrect answer. Unfortunately, many students gave very logical suggestions as to the type of farming that could have been performed in this area, but failed to examine the sub-region of this map more closely for actual map evidence or information to answer the question correctly. There seemed to be a lack of knowledge about what pastures are. Some students said there were irrigated pastures (correct), so there must be fruit, rice or cotton grown there.

The following responses were correct.

Irrigated pasture farming is practised in the Wall Irrigation Area as indicated on the map.

The map shows irrigated pastures therefore this area is most likely used for livestock farming.

The map suggests dairy farming is practiced in the Wall Irrigation area. Grid square reference 4629 contains the word 'pasture' suggesting dairy farming is practised here.

Question 2a.

Marks	0	1	2	3	4	Average
%	5	10	23	33	28	2.7

Most students provided a detailed response to this question. They clearly had some understanding of the conflicts in the MDB. Students, even those who produced basic answers, were able to identify at least two parties involved in the conflict.

Many students gave a location for a conflict and who it was between, and elaborated on this information. These students were able to demonstrate a high level of knowledge and understanding of the conflict. They described in detail why there were conflicts and the causes of them. The most successful answers gave relevant statistics and referred to specific groups; for example, local indigenous groups, farmer organisations (such as the National Farmers' Federation), conservation groups (such as the Australian Conservation Foundation) and specific local pressure groups. The most successful answers also outlined the complexity of the conflict and made it clear that both sides of the conflict had legitimate perspectives.

Poor responses were generalised and did not contain details or facts and figures to support their answers. The most basic responses referred to 'farmers' and 'environmentalists' and competition for the available water.

Students and teachers should ensure that they keep up-to-date with issues, conflicts, legislation and the current environmental situation in the MDB to avoid incorrect and dated answers; for example, *The Bracks government is doing ...* and *The drought is making life difficult for farmers...*

Some responses referred to a conflict over a policy or resolution rather than water use specifically; for example, the response of angry farmers burning copies of the Draft Plan in 2010 or the conflict over the Food Bowl Modernisation Project and the Sugarloaf-Pipeline. This made part b. of the question more difficult to answer and often confusing since the management policy or strategy was the cause of the conflict rather than the solution to deal with it. The more



successful students were able to distinguish between conflict over water usage, with specific reference to the water requirements of the environment, different farming uses and domestic use, and the conflict resulting from a policy or strategy, which they included as a weakness in their evaluation in part b.

The following are examples of high-scoring responses.

The Barmah Forest which is a RAMSAR wetland located on the Murray River lost 15% of its River Red Gums between 2000 – 2010. The ACF (Aust. Conservation Foundation) want water to be returned to the Murray in order to flood the forest in Spring, which allows for regeneration of plants. The upstream town of Yarrowonga on the banks of Lake Malwala has a water ski team with 5000 members who rely on the lake being full to enable the sport. The 45 hole golf course also needs 500 ML of water per year. Both of these activities attract tourism and employment so rely on the water, thus creating a conflict with the ACF over the Barman Forest.

Conflict has occurred in the Barmah-Millewa Forest region between Landcare Australia (including the Yorta-Yorta tribe) and the Deniliquin Rice Farmers. Landcare and the Yorta-Yorta tribe want water for environmental flows to preserve their ancient culture and protect one of the largest Red River Gum forests on the world. Whereas the Deniliquin Rice Farmers believe they are entitled to more water as rice uses only 20% of total diverted water and their industry brings \$30 million to the economy through rice exports. Conflict intensified when water allocations were cut to farmers by 37%.

The lack of water in the lower lakes (Lake Alexandrina and Lake Albert), especially between the years 2001–2010 (drought) has sparked debate about what to do about it. Environmentalists (such as the organization Lakes Need Water (LNW) strongly supported by the local indigenous people, the Njarrindjeri people, want any water (whether fresh or salty) into the lower lakes to fix problems such as increased salinity and exposed acid sulphate soils, whilst local farmers (eg livestock in Goolwa) want only fresh water in the lakes as they require a sure body of fresh water to supply them for their agriculture so they can earn an income (livestock around this region earned approximately \$113 million in 1996/7.

Question 2b.

Marks	0	1	2	3	Average
%	10	16	33	41	2.1

Most students were able to identify a policy or strategy. Many gave an overall statement saying whether the management policy was successful, partly successful or not successful in managing the conflict, and supported their answers with detailed evidence. A few students did not know the name of a policy but gave broad overviews, such as ‘water allocations’ or ‘dredging the mouth’. The more successful responses named a policy or strategy designed to resolve the conflict discussed in part a., elaborated on the policy or strategy and evaluated it by discussing the extent to which the conflict was resolved. The more successful answers discussed established policies such as The Living Murray Initiative. Again, the best students wrote comprehensive answers.

Many students presented a very limited understanding of the policy; for example, ... *a Cap has been implemented which will only allow a certain amount of water in the Basin to be distributed amongst farmers. This will be effective for the river as it will help sustain the river and prevent drought.*

Some responses followed a formula such as SWOT (Strengths, Weaknesses, Opportunities, Threats) or SAFFEIT (Sustainability, Affordability, Fairness, Flexibility, Efficiency, Incentives, Time Scale), but again did not provide an overall evaluative statement or summary. Students are advised that such formulas are useful in structuring an evaluation but do not constitute an evaluation on their own. Students who followed the formula often failed to link their evaluation with the conflict and evaluated the strategy or policy more generally.

The following responses received full marks.

The management policy ‘The Living Murray Initiative’ has nominated BMW (Barmah Millewa Wetlands) as one of its 6 iconic sites for which it is to return 500GL of environmental flows annually to support the health and vitality of the river system. At BMW, the policy has been very effective in providing water which has enabled 44% regrowth in vegetation (of a targeted 55%) and annual flooding of the wetland (6.1 m on average) in 2009, 2010, 2011. This policy has been only partially effective in dealing with this conflict by satisfying the aims of Friends of the Earth and Parks Victoria. However, it has meant that Deniliquin Rice Farmers must accept a 37% cut in water allocation and they are not satisfied with the outcome, making the policy response only moderately effective.

The Murray Darling Basin Authority (under the control of the Federal Government) implemented a \$2 billion plan known as NVIP (part of the food bowl modernisation project). The Northern Victoria Irrigational Renewal Project (NVIRP) aimed to improve infrastructure of delivery systems by providing plastic lining for channels, solar power automated gates etc. This strategy was effective in increasing delivery efficiency to 85%, which allowed more environmental flow to be achieved. By implementing this strategy, farmers such as those in the Tatura region were satisfied as they received the same water allocations

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as before, whilst Environmentalists saw an increased return of environmental flow to protect endangered species. Despite this, the project was long and spent \$2 billion of tax payers money, however was effective in satisfying the needs of stakeholders.

Question 2c.

Marks	0	1	2	Average
%	25	28	47	1.2

This question had a variety of responses, from very good to very poor. A number of students were able to name a policy resolution for another water conflict and say how it was similar to or different from their previous solution. Some students did not appear to know another conflict and response, and some made up their own in a very vague way. Some answers identified a difference/similarity between the conflicts rather than the resolution.

The more successful responses clearly stated their resolution or proposed resolution for another conflict, mentioned the conflict, described the resolution and then described one similarity or one difference between it and the resolution described in part b. The less successful responses often did not describe the other resolution and, as a result, their comparison lacked relevance. A good number mentioned both differences and similarities, usually without much substance.

The following responses received full marks.

The Living Murray initiative and the Basin Plan differ in terms of the scale of water returns for the environment. The Living Murray Initiative aimed to return 500 GL for six iconic sites. The Basin Plan aims to return 3200 GL of water to the river system (increased from 2750 GL in October, 2012) to be achieved across the entire region.

A difference in the two strategies was whilst the National Victorian Irrigation Project aimed to permanently fix infrastructure to satisfy both parties, the Buy Back scheme simply bought water off farmers in the Upper Darling region, which may not have satisfied both parties effectively, as many jobs may have been lost in the process (up to 10,000 who produce \$1.5 billion in exports). More jobs and export money were lost as a result of the Buy Back scheme than that of the NVIRP.

Question 3a.

Marks	0	1	2	Average
%	18	19	62	1.5

Most students were able to classify their resource, but 'local park' and 'national park' were not valid.

The justification was not always attempted. Sometimes there was no link between the classification and justification. It would be advisable for students to ask themselves 'why' after the classification and then say 'because', 'due to' or 'as' to justify. It is important to be specific and not provide a general answer, such as *Brimbank Park is a recreational, environmental and historic, natural and manmade resource which provides the land for people and also acting as a wildlife park for local species of flora and fauna. Also, it is a human resource due to the fact that it was made for humans by humans*, which does not really answer the question.

The following responses received full marks.

Elwood Bowls is classified as a recreational resource because it provides the users with a place for recreation. This includes, for example, enjoying, exercising and having fun with facilities such as quarter pipes, ramps and skating bowls.

Point Leo Reserve is a natural resource as it is a nature reserve containing naturally made features like beaches and cliffs.

Question 3b.

Marks	0	1	2	Average
%	6	29	64	1.6

Most responses succinctly described the location of their resource, giving the distance and direction, and its regional context. Poor responses gave irrelevant information, such as *It is close to Hungry Jacks...*

The following responses received full marks.

The Venus Bath Walking Track is located 200 m west of the main shops of Halls Gap on the eastern border of the Grampians National Park. The GNP spreads over 167,000 h in the Wimmera and Western District Regions of Victoria.

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Parks Bend Regional Park is located within the Goulburn Valley region. It is approx 5 km south of the region's main town of Shepparton. The region of the Goulburn Valley is located within the state of Victoria.

Question 3c.

Marks	0	1	2	3	4	5	6	Average
%	11	7	14	16	22	16	15	3.4

Students needed to read the whole question carefully and plan their response. Instead many wrote about their local resource, filling up the spaces with what knowledge they had. Many students did not appear to understand the terms used. Instead, they wrote a prepared piece on spatial interaction or a management policy unrelated to movement.

The more able students demonstrated a clear understanding that each part of Question 3c. was linked to a strategy managing movement. These students tended to outline a current strategy that managed movement within the resource and then proceeded to provide evidence for the need for this strategy or explained how the park was being used, and thus the necessity for a particular strategy that was either in current use or needed to be used in the future.

3ci.

Although many students were able to identify a management strategy, some students found it difficult to link the strategy to movement directly. Movement was often implied. Often the management strategy appeared in part cii. Necessity was often not emphasised.

The following are examples of successful responses.

Boardwalks have to be built at Cape Woolamai to stop visitors from walking on the vegetation and causing soil erosion.

The placing and or embedding of rocks and logs at the side of the track as a means of preventing users from venturing off the track is a necessary one, as evidence by visitors doing this may be seen at both the 130 m and 280 m marks along the track. The strategy will help prevent new tracks being made.

The RBG experiences approx 1.6m visitor's very year. Management must control the movement of people through the garden to stop them trampling the plants. To prevent this walkways and paths have been built throughout the 39 h region.

The River Rules Management Strategy which controls the movement of rowers, a large percentage of users within the resource, is essential to assure the safety of users and to avoid collisions.

Question 3cii.

Many students did not address the practicality of the management strategy but often introduced the strategy in this section. Very few indicated that it was easy and affordable, or not doable and why, as required. Too many students interpreted 'practicality' as an excuse to elaborate on the policy or seemed reluctant to say anything negative about the policy. Often they wrote about the necessity, not the practicality of the policy/strategy.

The following are examples of successful responses.

The contour drain is a practical management strategy in the GFH (Gully Farm Hill). It is cost effective, only cost \$300 to be implemented. It is also an easily repairable strategy with land owner, George, being able to repair the damage in the short term (1 day).

The paths are very practical because they are cheap and work well. They can be simply constructed and are an effective way of managing movement.

The walk way fences at Junction Skate Park are designed to be long wearing and are made from materials which are long lasting and easy to maintain.

This good answer relates to Balcombe Estuary Rehabilitation Group. The strategy was the boardwalk built to keep tourists and locals away from the natural habitat.

The strategy is practical because the resources needed to fix the boardwalk are funded by the Mornington Peninsula Shire Council and therefore does not cost the group money to maintain the reserves health on their own account. Thus, the strategy is affordable and the workers are readily available.



Question 3ciii.

This part was not well done, with few students really understanding the meaning of sustainability. The more able students recognised that the question required them to focus on the sustainability of the strategy (rather than the resource) and how the strategy itself was or wasn't sustainable. Students should read the question in its entirety first and make sure they are dealing with the actual question – in this case, a discussion of movement.

Weaker responses focused on the sustainability of the resource and how the strategy would help to make the resource sustainable. These responses deviated from the focus on the management of movement. For example, *This strategy aims to protect the sustainability of Stony Creek by preventing users of the park from threatening the stream's eco-system by trampling the vegetation on the creek banks.*

The following are examples of successful responses.

This strategy is sustainable in the sense that the logs and rocks will last a long time and when they do begin to break down or deteriorate they may be easily replaced.

The controlled movement on the river will allow for busy periods on the river. The policy has worked in the past, with no collisions and it is affordable and socially acceptable and therefore sustainable into the future.

The paving is cheap and long lasting. It is very durable and only requires minimal maintenance to ensure it is long lasting. It will be fit for human use well into the future.

Question 4

Some parts of this question were well answered by most students, but other parts were poorly understood and/or misunderstood.

Question 4a.

Marks	0	1	2	Average
%	9	43	48	1.4

This question was generally well handled by many students. Most students correctly identified the 'global trend' to be that life expectancy had risen and was predicted to rise further between 1975 and 2045. The more successful students then extracted specific information from the Data Book to support their response and used quantification in their answer.

The less successful answers did not address the key word 'trend' and simply said that life expectancy was increasing and/or went into lengthy explanations explaining the reasons for the changes, which was not required. They tended to refer to only one or two of the maps or attempted to describe one or all of them.

Some less successful answers confused the term 'trend' and instead looked for a pattern – a distribution of life expectancies over time. In doing this, some failed to comment on the basic increase. By using development as a descriptor, some students then went on to explain this, again missing the key ideas. Some students also showed lack of confidence in the maps, confusing areas despite the key map and missing the idea of no data.

The following are examples of successful responses.

The overall trend evident in Figure 2 is that life expectancy has risen significantly between 1975 and 2045. From 1975 to 2010 life expectancy increased by approximately 10 years in most parts of the world – in developed regions such as Western Europe from 70–80 years to over 80 years and in many developing regions such as South America from 60–69.9 years to 70–80 years. Between 2010 and 2045 it is predicted to increase by a further 10 years e.g. in large parts of Asia from 60–69.9 years to 70–80 years.

There is an increasing life expectancy as a global trend. This is evident as in 1975 there were three countries with life expectancy under 40 years and over thirty under 60 years where as in 2045 there are to be no countries with life expectancy under 40 years and only one country under 60 years.

There is a trend in increasing life expectancies globally as life expectancies will change over time. With no regions of the world with life expectancies over 80 years in 1975, there are predictions of over 30% with life expectancies over 80 years by 2045. This includes North America, Australia and Western Europe. Similarly, while large regions of sub-Saharan Africa, Central and South East Asia had 49.9 and below life expectancies in 1975, by 2045 it is predicted that Afghanistan will be the only country with a life expectancy between 40–49.9 years and nowhere will there be life expectancies below 40 years.



Question 4b.

Marks	0	1	2	3	Average
%	3	8	22	67	2.6

This question was well handled by most students. Students had to firstly identify that Western Europe's life expectancy was over 80 years (with the exception of Portugal and Denmark). Students were then expected to select one of the regions shown in Figure 2a, make a comparison statement and then provide some evidence for this.

The most successful students correctly identified Western Europe's life expectancy in 2010 as being over 80 years for the majority of countries in the region. They then went on to identify the life expectancy of another region in the world, such as sub-Saharan Africa, where life expectancy ranged from 40–49.9 years to 60–69.9 years. The strongest responses then made a comparative statement identifying the life expectancy difference between two regions. Use of the world region guide, provided in the Data Book, resulted in more accurate references to regions than in previous examinations.

Some less successful responses, while identifying the life expectancies of two global regions, failed to make any comparative statements. A few students misread the question and referred to data in the 1975 and/or 2045 maps when the question directed students to the 2010 map only. Students often gave reasons for the differences or similarities between two regions, which was not required.

The following are examples of successful responses.

Western Europe has a life expectancy of over 80 whilst parts of Eastern Europe have a life expectancy of 70–80 years of age in 2010.

In 2010, all of Western Europe aside from two countries had an average life expectancy exceeding 80 years. In comparison, South East Asia showed greater variation with lower life expectancies. All life expectancies were between 60 and 80 years. However, Indonesia and Vietnam had life expectancy of 70–80 years whilst Laos and Cambodia only had 60–69.9 years.

Question 4c.

Marks	0	1	2	3	4	Average
%	7	17	53	15	8	2.0

This question was not generally well done. Many students were able to describe two factors that could influence changes in life expectancy but many ignored the instruction to 'evaluate the relative importance' at the start of the question. Most students did not make a ranking or attempt a justification for their ranking. Teachers are reminded about this important instructional term and essential technique.

Most students were able to identify two factors that could change life expectancy over time. Some students chose to classify their factors using the SHEEPT (Social, Historical, Environmental, Economic, Technological factors) method. This was acceptable but not mandatory. Common factors described were economic factors such as income and living standards, social factors such as education and literacy, and environmental factors such as access to clean water and the amount of disease.

Most students related the factors they identified to a relevant country or regional example. Some excellent information was provided, with many students showing that they had learnt specific case studies. The more successful responses discussed two factors that could influence changes in life expectancy over time in a country or region of the world. They then went on to make an evaluative statement ranking the importance of the factors ('the more important of these two factors is...') and giving reasons to support their evaluation of relative importance.

A few students misclassified the factor they were discussing; for example, correctly identifying a high GNP per person as one factor that might raise life expectancy but classifying this as a social, rather than an economic, factor. Some students failed to identify 'any country or major region of the world'. Some students stated that both of their chosen factors were important and did not rank the two factors in order of importance or justify their ranking.

The following are examples of successful responses.

Increased education in Africa may have increased life expectancy as education enables access to jobs and economic independence which helps individuals ascertain basic needs and wants which promotes healthier and thus a higher life expectancy. Greater access to health care may also increase life expectancy in Africa as vaccinations reduce the spread of disease such as polio which often results in death. Greater access to health care may be more important in increasing life expectancy as life threatening disease can spread to those with education and economic independence.

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In the Gambia in sub-Saharan Africa, two factors that could lead to a change in life expectancy would be access to health care and access to adequate diet with proper nutrition. Access to healthcare would prove most significant to changes in life expectancy over time as it compromises not only aid for when sick but preventative immunisations against communicable diseases as well as maternal and child health. The refurbishment of maternal and child health clinics in the Gambia have provided care for over 20,000 people and the infant mortality rate has reduced from 90 in 2000 to 68 currently. Although access to adequate nutrition may prevent deaths, if there is limited access to healthcare there can be no guarantee of survival if just eating well.

Question 4d.

Marks	0	1	2	3	Average
%	28	24	29	19	1.4

This question was poorly handled by many students. Many responses indicated that the student had not really understood the wording of the question. Some students incorrectly described how birth and/or death rates could affect changes in life expectancy. The question was the reverse of this – how changes in life expectancy could affect birth or death rates.

To answer this question successfully, students needed to select a country or region that could be used as an illustration and develop the link that changing life expectancy was associated with certain birth and death rates. Many students appeared confused as to what they were being asked and attempted to link changes in life expectancy to both birth and death rates rather than only one (the word ‘or’ was often ignored).

Good answers included examples such as: a fall in life expectancy would lead to an increase in the death rate (for example, in southern Africa due to HIV); an increase in life expectancy in developing countries could lead to a decrease in birth rates as parents realise that more children will survive into adulthood; an increase in life expectancy and an ageing population will lead to lower birth rates with fewer people in the reproductive years and/or an increase in death rates eventually as the aged cohort moves through (for example, in Japan and Western Europe).

The more successful responses addressed the question directly. They stated the country or region under discussion. They identified the nature of the change in life expectancy (an increase or a decrease). They stated whether the response was addressing birth or death rates and how the birth or death rates could be affected by changes in life expectancy. Finally, the more successful responses supported their arguments with evidence relevant to their chosen country or region.

The less successful students often used inappropriate assumptions about populations being controlled by policies and couples restricting the size of their families because of the longer life expectancy rather than economics. Too many students tried to use China’s One Child Policy for this question, often making outrageous claims such as this policy alone has led to a change in life expectancies. Other factors need to be considered and identifying a single casual factor is short-sighted.

The following are examples of successful responses.

Life expectancy in the Gambia is slowly increasing (less than 50 years in 1980s, to 65 years currently). This is contributing to a fall in birth rates in the Gambia (40/1000 in the 1980s to 25/1000 presently – still high but lowering).The increasing life expectancy leads to a lowering birth rate because as people expect to live longer they tend to delay having children as they are better fed and educated than before and so do not feel they need to have children to support them in their old age. Also even if the actual number of births per woman remains the same if people are living longer, then the total population is expanding and proportionally the number of children born per woman appears to be falling = a decreasing birth rate.

If life expectancy continues to rise yet birthrates stay constant the countries population will grow as death rates would decrease due to individuals living longer. This is seen in Nigeria where the BR (TFR?) was 5.94 in 1980 yet due to the gradual increase in life expectancy and hence the reduction in death rates the population was one of the most rapid growing. If people live longer and as a result curb the death rate as seen in Nigeria the birth rate may need to be lowered to maintain and sustain the increase in population for example Nigeria is trying to reduce fertility rate from 5.94 to 4.00 to reduce growth.

In China due to the One Child Policy (1979 –current) the life expectancy increased from 63 (1970) to 73 (2011) as the birthrates have rapidly decreased from 34 per 1000 births 1970 to 12 per 1000 births (2011). The higher the life expectancy tends to lead to lower birth rates and a growing aging population.

The increasing life expectancy and ageing population of Japan could result in a sharp decline in birth rates for the country. As more Japanese people move into retirement age, fewer are entering their reproductive age and therefore birth rates fall. The



problem is exacerbated by a rapidly dropping fertility rate which is forecast to drop below 1.2 by the year 2050. This problem would have a negative effect on the demographics of Japan.

Question 4e.

Marks	0	1	2	3	Average
%	17	19	33	31	1.8

This question was generally well done. The majority of students correctly identified a country with an ageing population and discussed the government response to this on a national or local scale. Common case studies included Japan, Australia, Germany and France. Unfortunately, too many students did not write about ageing, but any population policy (often China's).

The more successful responses stated the chosen country and demonstrated, using evidence, that the country's population was ageing and that part of the reason for the ageing was an increase in life expectancy. They then went on to identify the responses of the government to the ageing of their populations. The strongest responses provided detail and quantification of the government's responses. They also made reference to how effective or otherwise these governmental responses might be in the future.

Weaker responses tended to only describe the ageing of their chosen country's population. Some of these responses attempted to relate the ageing of the population to changes in life expectancy but others did not. Some students did not address how governments were responding or could respond to changes in life expectancy, rather they referred to the responses of non-government organisations or other organisations, responses that were not relevant given the wording of the question. Some students thought that China's One Child Policy was a policy to deal with ageing; if they had investigated this topic thoroughly, there was material that could have been used about China for this section, but many did not discuss its implications adequately. Quite a number of students suggested China's One Child Policy caused ageing. This was not relevant as it was not a response to an ageing population. It seemed that many students had learnt their China case study material and thought to use it whether it was relevant or not. It is important for students to have covered more than one case study in class so that they have appropriate options, depending on the questions set.

The following are examples of successful responses.

Italy's population is rapidly ageing. One reason for this is that for over 30 years Italian life expectancy has been over 80 years and this figure is only likely to increase in the future. However, at the same time as life expectancy has been increasing fertility rates (which determine the number of children born) have also been falling in Italy – at present the TFR is 1.2 – way below the replacement rate of 2.1. Thus more people in the old cohorts and less in the younger ones has meant Italy's population pyramid as a whole is increasingly 'square' and may even become inverted – in other words the Italian mean age is rapidly rising. The Italian Governments response to the ageing population has been to address the fertility rate rather than the increasing life expectancy. In order to boost fertility rates and so decrease the rate of ageing in the population as whole, the government introduced the Baby Bonus Scheme – after April 2004 1000 Euros for each child born. This, so far – and it is still early to tell the long term impact, has been largely ineffective as 1000 Euros is a very small amount in the total cost of raising a child and is not in of itself large enough to persuade many women to have a child.

Australia has a very high life expectancy of 81 years, one of the highest in the world. A response to the growth in the elderly population, the government implemented the superannuation fund in 1992 that put aside 9% of wages for retirement age to lift the burdens off the taxpayers money as well as families of the elderly.

In Germany increasing life expectancy (at approx. 80 years) due to a low fertility rate of 1.4 is resulting in ageing population. A current response being undertaken by the national government in Germany to this issue is 'Elterngeld' (parents' money) in which the state pays the parent who stays at home with the child 67% of that parent's current net income up to a maximum of €1,800. As the low fertility rate is a result of lack of suitable child care and high female literacy (99%), Elterngeld encourages parents to have children as they can take time off work. Elterngeld has been successful in responding to Germany's ageing population due to increases in life expectancy as a result of low fertility rates as 685,000 children have been born in Germany in 2007 up from 13,000 in 2006 and people receiving Elterngeld in 2011 was approx. 814,000 up from 801,000 in 2006.

Question 5a.

Marks	0	1	2	Average
%	7	56	37	1.3

This question was well handled in the majority of cases. The more successful students were able to outline how their global phenomenon covered a large proportion of Earth, affected significant parts of the globe or affected millions of people around the world. The most successful students were able to recognise that their global phenomenon also required a global response.



A few weaker answers gave a description of the phenomenon only.

The following responses received full marks.

1. *Desertification is occurring on every continent but Antarctica and has caused a global response including monitoring, research and assistance.*
2. *It directly affects 85 million people, majority in Africa and Asia.*

1. *HIV/AIDS affects people in all continents besides Antarctica.*
2. *HIV/AIDS has elicited a global response from international organisations and governments due to its effect on millions of people world wide.*

Question 5b.

Marks	0	1	2	3	4	5	6	Average
%	5	6	14	15	23	19	19	3.8

Most students provided relevant case studies and were able to discuss them in detail. However, some students had problems with the scale aspect of the question. Some students did not understand the difference between a local and regional case, and often a whole country was selected as an example of a local scale, rather than a town or small area within a country study (a country is not a local case study). Some students assumed that the phenomenon was an issue and treated it as such, but this was incorrect.

The following are examples of successful responses (local scale).

In the local town of Aralsk, there is an increase in illnesses such as anaemia, with 70–80% of women suffering this problem. Jobs and income have been lost as more than 15 species of fish have been lost due to the shrinking of the Aral Sea. Fishing industries have had to be shut down and the living conditions of the people have reversed. Their life expectancy has also decreased.

At Kassena Nankana in Nth Eastern Ghana, approximately 1000 people per year die from Malaria. 80% of these deaths are in children under 5 years. This has caused 30000 treated bed nets to be distributed at a cost of \$160,000. This highlights the negative impact on people that Malaria has caused.

The following are examples of successful responses (regional or national scale).

On a national scale, the country of Bangladesh, a low-lying, high population density nation built on a river delta, will be seriously affected by predicted sea level rises as sea water will travel further inland into the river delta environment than other localities. This will inundate a significant portion of the country and displace those living in the area. Due to Bangladesh's high population density this could mean a significant number of people are seriously affected – loss of life and loss of farmlands.

In Papua New Guinea malaria is a leading cause of debilitating illness and death; it causes over 800 deaths a year. 90% of Papua New Guinea's population is at risk of contracting malaria and 19% of deaths here are malaria related. Malaria has a significant affect on children under 5 years, pregnant women and people with HIV/AIDS in Papua New Guinea.

Question 5c.

Marks	0	1	2	3	4	Average
%	8	11	29	34	18	2.4

Students who scored well in the previous sections generally gave successful responses to this question. Students were required to describe a policy developed by an international organisation. The more successful responses clearly outlined a policy developed by an international organisation and then could elaborate on the policy in great detail using important quantifying data.

The most common errors were using the PMI (Plus, Minus, Interesting) policy, talking vaguely about an international policy without naming it or nominating an international policy and then proceeding to discuss a local one. Students who used a UN policy were quite successful but there was often a lack of specific evidence to support their statements. Again, a lack of evidence to support generalised responses was a common problem.

Many students did not choose an international organisation. Oxfam, World Bank and UNCCD were good examples. The President's Malaria Program is not international; it is a national program from the United States that operates



internationally. Some students who did not specify an international organisation used a national policy; for example, Landcare in Australia.

The following are examples of successful responses.

Oxfam and the World Food Program (WFP) have come together to help the people of Mauritania. Oxfam is funding the building of diquettes along contour lines to trap rain water and leaf litter to bring moisture back into the land. The WFP is creating empowerment within communities, especially women, who are rewarded with food for their efforts in creating brushwood fencing with the support of the WFP. Brushwood fencing is implemented to stabilise the sand and act as a windbreak so that crops can be planted and trees can be replaced behind the fences without being ruined.

In 1982 the United Nations established UNCLOS, United Nations Convention on the Law of the Sea, which gave each country control over a 200 nautical mile zone off their own coasts. These exclusive economic zones were to be made sustainable by the country which would need to set scientific quotas so that over-fishing did not occur, with correct management. Having this freedom gave countries like New Zealand and Australia the opportunity to set quotas and create reserves mentioned [in part b] which would have not have existed otherwise. Ultimately it was introduced to have a positive impact on the environment and the people, as it covered 40% of the world's oceans and 90% of all known fisheries.

To manage the negative human impacts in the North Aral Sea, the World Bank (an International Organisation) in conjunction with the Kazak Government has implemented the NAS Recovery Project in 2003. Through this project \$85 Million was provided – \$65 Million from the World Bank and \$25 Million from the Kazak Government. This helped build a 12 km concrete dam as the border of the NAS to prevent water seeping into the South Aral sea, as well as to clean and improve the wasteful Syr-Darya Canal system. This project is in its second phase currently with the World Bank providing an additional \$10 Million to increase the rate of natural regeneration.

Question 5d.

Marks	0	1	2	3	Average
%	8	16	39	37	2.1

This question was very well handled. Most students were able to link their response to the policy they had described in Question 5c. The more successful responses made a statement regarding the success of their policy. Stronger answers then went on to evaluate the success by providing strong quantifying data using numbers, percentages, dates, etc.

Very few students discussed a different policy from the one in part c. The general weakness with answers to this question was not elaborating or quantifying. In general, if part c. was done well, then so was part d. (and vice versa).

The following are examples of successful responses.

This policy of community empowerment has been very successful as it uses local knowledge with the help of new technology. With the creation of diquettes, locals have been empowered with better soil fertility and a water source. Brushwood fencing is cheap and relatively easy to complete and in two years 80 ha of land has been covered in Mauritania. This allows the communities to once again begin to plant crops for food and income as well as trees for fuelwood without fearing the movement and potential damage of moving sand.

This policy has been very successful in managing the impact of the IUU fishing. Since implementing in 1997 the policy has helped abolish any illegal fishing in the area off Heard and MacDonal Island. Total illegal catch in 1997 was 7,000 tonne, but by 2002 this was reduced to 2,700 tonne and there has been no recorded IUU fishing since 2005/06. They also caught the 'Viarsa' in 2003, an illegal vessel that had caught \$1 million (US) worth of Patagonian Toothfish without authority.