



Mark Scheme (Results)

Summer 2024

Pearson Edexcel International Advanced Level
in Geography (WGE04)
Paper 01: Researching Geography

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question 1 - Evaluate the view that volcanic hazards are always more successfully managed than earthquake hazards.

- Research contrasting strategies used to manage volcanic and earthquake hazards.
- Research a range of hazard management responses and their success in reducing impacts.

Indicative content

The research focus identifies the need to understand the hazards associated with volcanic and seismic events and the potential for managing their impacts. The question suggests that earthquake events are less successfully 'managed' than volcanic events.

The framework chosen may be by the following.

1. Types of hazards associated with seismic and volcanic events - there are three main types - earthquakes, volcanoes and (secondary) tsunamis.
2. Scale of hazard/disaster - case-study led using various management strategies and their effectiveness in reducing the impact (loss of life/insurance losses/economic damage) of the event.
3. Ability to manage due to factors such as development and/or socioeconomic
4. The level of predictability of an event. A comparison of seismic vs. volcanic. Could be case study led.

Key analytical points

- A clear understanding of the distinction between earthquake, and volcanic hazards and their management is a prerequisite of a good report.
- However, it is important to recognise what exactly constitutes 'successful' and how this could be measured in relation to volcanic and earthquake hazards
- The definition of 'manage/management' needs addressing, as do the reasons to be able to 'manage' an event/disaster.
- Successful management of an event may include discussion on the ability to 'predict'. Earthquakes are arguably far less predictable than volcanoes as there are less clues to an impending event. It is now clear that seismic events will tend to occur along plate boundaries but not when or at what magnitude.
- Equally, underwater earthquakes will often trigger tsunamis which can affect huge areas of coastline making them extremely difficult to respond to. Even Japan with its wealth and resources was not adequately prepared for the Tohoku event in 2011. Over 20 000 people died despite a sea wall on some parts of the coastline and a developed warning system.
- The potential for the effective management of an event may include discussions on remoteness, human factors such as level of development, building quality and control and population densities in vulnerable areas.

- Some may argue that it is precisely because of effective management that the number of deaths following volcanic eruptions is relatively low and therefore more successful. Volcanoes produce many early warning signs which are now well known to scientists. This allows for early evacuation and the setting up of exclusion zones.
- The Eyjafjallajökull eruption in Iceland could be considered an anomaly in terms of management. Whilst it created no social impacts such as deaths or injuries, the ash cloud created problems for international air travel in the days following the eruption. It created substantial economic loss.
- Therefore, whilst the management in this case did not involve dealing with serious casualties, it did prove very difficult to manage.
- Theoretical models such as the Parks Model and Hazard management Cycle are likely to feature in some responses.

In summary

The unpredictable nature of earthquakes generally creates more 'disastrous' impacts compared to volcanic events, so management is crucial in reducing the impacts. However, this can be contested through case studies such as Iceland which had wider economic impacts throughout Europe vs. impact of the Boxing Day Tsunami.

Case studies used are likely to include:

1. Iceland - Eyjafjallajökull
2. Nyiragongo
3. Nepal
4. Haiti
5. Asian and Japanese tsunami events.

Question 2 ‘Some strategies to increase food supply in developing and emerging countries have been more successful than others.’ To what extent do you agree?

- Research the different strategies used by players to improve food supply.
- Research the effectiveness of a range of management strategies used in developing and emerging countries.

Indicative content

The focus of this title is the attempt by a range of different players to manage food supply and the extent to which this has been successful. The research focus identifies the need to understand the strategies used and the success of such strategy in attempts to increase food supply. The question suggests some attempts have been ‘largely’ more successful than others.

The framework chosen may be by the following.

- An evaluation of the different types of strategies by different players involved in attempting to increase food supply-NGO’s, governments, agricultural institutions and TNC’s.
- An approach that covers the question from case-study location to case-study location - perhaps comparing strategies within and between countries and their variations of food supply.

Key analytical points

- A key element of this question if to be resolved here is what exactly constitutes ‘successful’ and how this would be measured. Food supply has increased, and food is increasingly traded internationally although this is dominated by larger-scale industrial agriculture.
- It is important to note that food producers are experiencing greater competition for land, water and energy resources and much agricultural land has been lost to urbanisation and government decisions to grow alternative produce, such as biofuels, on good quality agricultural lands, affecting food supply.
- As a result, there has been an increase in overseas land investments to secure food supply in Africa, known as ‘land grabbing’. China has acquired 2.8million HA of land in the DROC for biofuel production. This ‘land grabbing’ increases food supply for the investing country but leaves the target country, of which are mostly developing countries in Africa at risk of losing access to the land and therefore the food supply.
- NGOs are largely involved in short term food relief through bilateral and multilateral aid. One of the most recent global examples being the Syrian World Food programme relief project. Arguably, this increases food supply in the short term which is successful to a degree. However, the future of food supply for this region is questionable if it is to solely rely upon aid.
- There have been attempts to tackle this direct short term food supply for example the MERET programme between the WFP and the Ethiopian government

working on the reclamation of degraded land which helped to increase food supply to the local population.

- The inequality between TNC's and small suppliers has seen a shift from traditional food systems and small-scale farming to agribusiness. This has meant that while supply has increased these large TNC's have reduced the power of national governments to regulate their own food systems, particularly in less economically developed regions of Africa.
- Governments can play a significant role in ensuring food supply is met for the populations, but the success of their strategies is a contentious one. In India for example the Punjab-once known as India's 'breadbasket' region has suffered from poor wheat harvests resulting in a reduction of food production and supply.
- There are many physical and human reasons for this, however, government policy has significantly impacted the poor level of food supply by introducing the National Security Bill, focusing on subsidising grain purchase rather than addressing supply issues.
- There could be discussions on the role of intermediate technology, GM crops and other technologies that have key roles in securing food supply.

In summary

The impact of strategies to increase food supply by different players is varied to say the least. It could be argued that TNC's play a significant role in increasing food supply globally but usually at the expense of poorer regions of the world.

Case studies are likely to include:

- Land purchases in Africa undermining national food supply.
- Rising population/income in India and China
- Urban/rural contrasts in south Asia

Question 3 - 'Tourism usually has positive impacts on cultures and cultural diversity.' To what extent do you agree?

- Research a range of economic, social, and environmental impacts of tourism on cultures and cultural diversity.
- Research the growth of different types of tourism in a range of locations.

Indicative content

The focus of this title is the extent to which the impacts of tourism are positive and the influence this may have on cultures and/or diversity.

The framework chosen may be by the following.

- Case studies of different societies/places with contrasting tourism levels and the impacts of tourism on culture and diversity. A place-by-place approach.
- An approach which focuses on aspects of globalisation such as trade and TNC's and the impact they may have on cultural diversity and attitudes.

Key analytical points

- 'Culture' and/or 'Cultural diversity' needs to be deconstructed to allow some assessment of how tourism may have impacted regions and countries.
- Countries with higher levels of tourism are likely to have more cross-cultural contact and therefore more diversity. Nonetheless highly centralised states have a long history of establishing a dominant culture and are reluctant to encourage higher levels of tourism.
- The Japanese Cultural Tourism Programme set by the government encourages tourists to engross themselves in the Japanese culture. The Japanese Cultural Tourism Commission hold workshops focusing on Japanese history and culture enhancing both the tourists experience of the Japanese culture and promoting it.
- However, it could be argued that tourists' search for familiarity within their tourism environment leads to a loss of cultural diversity e.g., McDonald's, which represents American culture outside America.
- Since globalisation has resulted in more movement of people, less remote areas remain untouched from tourism. Indigenous people and their cultures are under pressure and can be impacted socially, economically, and environmentally by the pressures that tourism may bring to their cultures.
- Ecotourism attempts to maximise the economic benefits of tourism and minimise its cultural impact.
- The impact of tourism (mass and small-scale) on traditional cultures is both positive and negative (economically, socially, and environmentally). In the last decades, the governments of Kenya and Tanzania have developed national parks in favour of the wildlife and to attract more tourists. Because of the wildlife-conservation, the Maasai had to move outside the

established national parks. This policy led to the Maasai moving outside of park boundaries, changing their nomadic life to a sedentary existence.

- By contrast, in some global hub cities with high levels of tourism, e.g., London, Singapore, there is, arguably, the development of a 'global' culture at least in skeletal form blurring the boundaries between previously culturally distinctive communities and tourists.
- Other factors that may be discussed include the impact that government policy, TNC's and media corporations play in either promoting or eroding culture and cultural diversity. These can be interlinked to tourism.

In summary

Tourism has a significant role to play in shaping culture and cultural diversity, and not all of it positive. It also isn't the only factor nor necessarily the main factor in shaping culture and cultural diversity in places.

Case studies used are likely to include:

- Japan
- Ukraine
- Iceland
- London/Singapore
- Maasai, Kenya

Question 4 - Evaluate the view that access to healthcare poses the most serious threat to human health.

- Research the range of different health risks to human populations.
- Research why there are wide variations in access to healthcare around the world and the impacts of this on human health.

Indicative content

The focus of this title is the relationship between access to healthcare and indeed other factors that may contribute to the level of health risks to humans.

The framework chosen may be by the following.

- Different causes of health risk including access to healthcare, socio-economic status, poverty and geographic factors such as climate.
- Models of health risk (ETM, Kuznets).
- By health risk, e.g., malaria, TB, Ebola, obesity, asthma, cancer epidemic.
- By level of development especially after natural hazards (GNI/GDP/HDI).
- By level of development such as 'disease of affluence' e.g lifestyle choices
- Case-study led report based on access to healthcare from HIC through to LIDCs and/or urban vs. rural.

Key analytical points

- Health risk can be expressed in two dimensions - geographic extent and threat to individuals which needs identifying to address how access to healthcare may impact this.
- The relationship between human health and access to healthcare is a simple one. The more accessible and available healthcare is, the lower the risk to populations in both more and less economically developed countries.
- The best, indirect, measures are probably life expectancy and DALYs.
- Many of the reports are likely to be focused on the economic status of the country thus an increase accessible healthcare. However, the complexity of this must be considered. Poverty is a term that needs deconstructing carefully (absolute and relative) - some students will include health risks associated with quality of the built environment, sewage disposal and lack of access to freshwater.
- These latter causes are closely related to levels of development and the availability and costs of inoculation/treatment (e.g., AIDS/HIV) but whatever the cause 'access to healthcare' is the central point.
- The role of inequalities is very significant - the higher the level of inequality the lower the life expectancy - an issue that relates to governance (postcode lottery)
- In addition, there could be some discussion on the urban and rural inequalities within countries. Geographic distance is a critical barrier to

healthcare access, particularly for rural communities in developing countries with poor transportation infrastructure and who rely on non-motorized transportation.

- However, there are several other considerable factors that could be discussed here. Health risks linked to geographical features such as bodies of water whereby having access to healthcare does not tackle the issue of disease. Or natural disasters health risk where access to healthcare may not be an option in those short-term days after a disaster.
- The future of 'access to healthcare' could be addressed. It could be argued that developed nations have, in general, more access to healthcare because of expenditure but the quality and effectiveness from providers of this healthcare could come into question.
- Developed countries also face rising healthcare costs and therefore a large economic burden with increased life expectancies and disease linked to affluence and sedentary lifestyles could pose questions for the future of healthcare systems such as the NHS.

In summary

In recent times access to healthcare is associated with the economic status of a country. There are ever growing inequalities and burdens for healthcare availability, both in the developed and less developed economies so the relationship is more complex than the title suggests.

Case studies used are likely to include:

1. USA and UK
2. India and/or China rural/urban contrasts
3. Urban inequalities through London 'life on the line' material
4. Malaria in Ethiopia

