# Examiners' Report
Principal Examiner Feedback

Summer 2017

Pearson Edexcel GCE in
Geography (6GE03/01)
Unit 3: Contested Planet

**Edexcel and BTEC Qualifications**

Edexcel and BTEC qualifications are awarded by Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at www.edexcel.com or www.btec.co.uk. Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

**Pearson: helping people progress, everywhere**

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk

Summer 2017
Publications Code 6GE03_01_1706_ER

**6GE03**
**Examiners' Report/Principal Examiner Feedback**

## Introduction

This summer's examination was the last full sitting of 6GE03 Contested Planet since its first outing in January 2010. Note there is a resit available in June 2018, but only for candidates that sat the examination in summer 2017.

The format of the examination has remained the same since its inception. Over the last 7 years candidates, guided by their teachers, have gradually raised their game such that detailed, evaluative, well-informed and engaging answers are now common place. In 2010 it was possible to find such answers, but an improvement – especially in thinking skills – is beyond doubt. Very roughly, the popularity of questions was as follows:

**Question 1:** Energy Security = 27%
**Question 2:** Water Conflicts = 24%
**Question 3:** Biodiversity under Threat = 23%
**Question 4:** Superpower Geographies = 18%
**Question 5:** The Technological Fix? = 8%

Over the years, this pattern has not changed very much. The Technological Fix has always been the least popular option, but this appears to be as much to do with its position as Question 5 as the topic itself. It is worth highlighting that back in 2010 Techno Fix and Superpower Geographies were very 'new' topics. It is to the credit of teachers and candidates that these topics have been fully engaged with and are now considered quite 'normal' areas for A-level Geographers to study. Overall, the vast majority of candidates performed well on this examination paper. As in the past, timing issues were relatively uncommon. Most candidates produced full answers and there were many excellent responses reflecting up to date teaching and candidates engaged with learning about their fast changing, and in many ways troubling, world.

## Specific comments on Section A

Rather than focus on aspects of Section A that could be improved (fairly pointless as the number of candidates who will sit this exam in 2018 is so small) it is perhaps better to consider some broader lessons and how these might be applied going forward to the new 2016 Specification:

- An ability to assess and evaluate has always been the key to gaining a mark of 8/15 or more in a Section A 'b' part essay.
- In 2016 Specification this is likely to be equally true. 20 mark 'evaluate' and 12 mark 'assess' questions will require the consideration of more than one viewpoint.
- Many candidates still fail to engage with phrases such as 'to what extent' or 'the relative importance of'. Both require a judgement to be made, and for that judgement to be supported by evidence i.e. data, concepts, examples and facts.
- Weaker answers continue to use evidence in the form of 'big' case studies, but these are not used selectively – instead the whole case

study is presented in a descriptive way, rather than relevant parts being selected and applied to the question.
- Such candidates are effectively saying to the examiner "this is everything I know, you sort out what is relevant". This lack of selection or 'filtering' leads to disappointing marks.
- A smaller number of candidates still fail to fully engage with the data (the Figure) in 10 mark data stimulus questions. They refer to it only in passing, and often only in the first paragraph of their answer.
- The skill of interpreting data, and providing explanations for it, is critical for a Geographer and will be in the new 2016 Specification.

**Question 1 Energy Security**

**Question 1a**

Figure 1 was interpreted correctly by most students. A small number saw the higher bars as indicating greater security rather than greater insecurity. However, in many cases this error did not preclude answers from being credited for correct reasoning linked to rising or falling energy security.

Most answers provided some reasons for changing security. These often focused on periods of conflict influencing the price of oil in particular, such as the Iraq conflicts, Iranian revolution or 1973 oil embargo. Many candidates understood that reliance on foreign sources of energy could increase insecurity especially during periods of high or volatile prices.

Many answers did refer specifically to the USA, although there was no need to refer to that country specifically. Answers often referred to fracking of US domestic oil and gas reserves as a reason for increasing security. The Russia – Ukraine gas dispute in 2006 and 2009 was also often used as an example of over-reliance on a foreign energy source and therefore increasing energy security if pathways were disrupted.

In general, understanding was good, although a number of answers focused very heavily on oil without considering other energy sources. Stronger answers often referred to the concept of energy mix and how renewable energy could broaden this and contribute to greater security. Many answers could provide cogent reasons for higher energy insecurity in the near future, often related to rising global demand placing pressure on finite resources and tightening supply pushing up prices. Peak oil was often referred to.

**Question 1b**

Although not common, the weakest answers to this question often started with much too broad a perspective on TNCs, and included non-energy suppliers such as Nike or Apple. Making these relevant to the global supply of energy is not easy, and led to tenuous answers at best.

The majority of answers did focus on energy TNCs. Although examples such as Shell, BP, Exxon, Gazprom and Saudi Aramco were often mentioned only a minority differentiated between state-owned enterprises (SOEs) and publically traded companies. This distinction is important, as it might be argued that SOEs are more political and therefore more likely to be engaged in political aspects of energy supply.

Although many candidates could explain the important role TNCs played in the supply of oil in particular, only a small number recognised their role in exploration for new reserves and even fewer explained that some TNCs are crucial in terms of generating and distributing electricity.

OPEC was often considered as another player. Understanding of OPEC ranged from very sound to very weak. OPEC does not set the world oil price, it attempts to influence it by using production quotas for OPEC members – but this is only one of many factors that influence global oil prices. Some answers simplistically over-stated OPEC's role. Many answers considered government as a key player and often wrote convincing arguments based on the setting of overall energy policy and plans to diversify the energy 'mix'.
As in the past, the strongest answers i.e. Level 3 and Level 4 included some assessment of the extent to which TNCs are the most important players. This required an argument to be made in terms of TNCs versus other players; while many answers included this, many did not.

**Question 2 Water Conflicts**
**Question 2a**
This proved a popular question. Most candidates had a good understanding of Figure 2 and could recognise that some country groups were likely to experience declining water demand in the future, whereas others were likely to have demand growth. In general, data from Figure 1 was not used as often as might have been expected to support the answers.
Most candidates could explain declining demand in developed countries often in terms of increasingly levels of conservation of water supply – such as in the home or in terms of advanced irrigation that could reduce demand. Some candidates referred to changing economic sectors such as a decline in the secondary sector leading to reduced industrial demand. Economic sectors sometimes became a major theme that candidates struggled to break away from. In addition, some answers were heavily focussed on HEP water use at the expense of other use sectors.
The BRIC group's increase in demand was usually explaining well in term of industrialisation, rising affluence pushing up domestic demand and rising population. Some answers struggled to explain falling demand from agriculture. The explanations for the BRICs group were frequently the most detailed and convincing especially from Level 2 answers.
In terms of the developing world, explanations were generally on the weak side. Figure 1 showed large relative increases for industry and electricity generation but because these were small compared to changes in the other groups they were often not fully considered. One of the most interesting aspects of the data – the small projected increase in developing country domestic demand – was rarely referred to. This is hard to explain, but not if it is recognised that by 2050 pressure on water supplies in likely to be so great that only small increases are possible. Some candidates referred to global warming and other stresses as possible explanations but these were rare.

**Question 2b**
Over the years, the 15 mark Water Conflicts question has often proved one of the weaker links in the Contested Planet chain. Somewhat understandably, case studies, rather than concepts, have tended to be front and centre in many answers. Case study use in the past has often been unselective and descriptive and lacking application to the question. This year, many answers followed this model, and while they were often decent answers they could have been stronger. Many water case studies do link to

the question theme of environmental problems, but also have other facets such as conflict and transboundary issues which are much less relevant. Stronger answers focussed on both the 'extraction' and 'use' of water. Some answers used examples of groundwater extraction to show how salinization of water supplies could result from over-extraction of coastal aquifers. The example of groundwater extraction in Bangladesh leading to arsenic poisoning was sometimes used. Many answers focussed on the environmental impact of dams. Many different examples were used but in a number of cases insufficient focus was given to the specific environmental aspects of this type of water management. This was also the case with the Aral Sea and South-North Water Transfer Project. Water pollution was also mentioned, especially that resulting from industry. Water pollution from domestic sources was mentioned less often despite it being just as significant and in fact more widespread. A number of answers did seem to want to answer a different question on transboundary water conflicts – an issue we have encountered before.
Key to a Level 3 or higher mark was recognising that environmental issues are not an inevitable consequence of water extraction and use. This was sometimes considered in answers, but often in a rather general way. There are many examples of sustainable water management that both minimise the overall use of water and attempt to ensure only clean water is returned to the water cycle.

**Question 3 Biodiversity under Threat**
**Question 3a**
This question proved a little more popular this year than it sometimes has in the past. The success of an answer often came down to whether or not candidates were answering the question "explain the threats shown on Figure 3" or the actual question which asked them to explain why some threats are larger than others. Explaining why the threats exist is a fairly low-demand task, but explaining their different sizes is more demanding. Those that took on the actual question often focused on global trends such as population growth and resource demand as explanations for the large size of the exploitation threat. Good answers often used examples of over-fishing and illegal resource taking to illustrate their points. Urbanisation was often linked to habitat destruction and argued to be widespread so explaining the large size of the threat.
Stronger answers went on to recognise that both disease and alien species are essentially local in scale, and therefore small in size. Some good examples of the devastating, but localized, impact of alien species were used such as the zebra mussel. Good answer sometimes took exception to the stated size of the climate change threat and argued that the threat was much greater, or would be in the very near future. This was often linked to coral reefs.
Many answers really only dealt with why the threats existed and did not consider their relative size, or explain this. Hence they struggled to get beyond the bottom of Level 2 in the mark scheme.

**Question 3b**
Although this exact question has not been set before, questions on a similar theme have been. It was a touch disappointing to find that weak answers were quite common. Both physical and human factors influence levels of

biodiversity but in quite different ways. Physical factors such as latitude, altitude and isolation have been in operation for millennia and have caused the global and local pattern of biodiversity. Human factors are a much more recent addition. In general they reduce biodiversity, but in some cases might preserve it. Rarely can humans actually increase biodiversity – ecosystem restoration being the only example (and a rare one).
Many candidates lacked a clear grasp of what constitutes a physical factor. In some cases alien invasive species were claimed to be 'natural' whereas they result from human accidental or deliberate introductions – they undoubtedly affect ecosystem physical processes but that does not make them a physical factor. A number of answers were really just a long list of human threats with examples used to illustrate how 'bad' they were with very little consideration of levels of biodiversity.
The strongest answers – and there are were many – had a clear understanding of a range of physical factors as well as processes such as islandisation. The best used latitude and limiting factors of temperature and precipitation to show why biodiversity levels vary globally, and then used more local physical and human factors to add some detail and range. Assessment of importance was often present, but it was only really successful when both human and physical factors had been considered in a fairly balanced way.

**Question 4 Superpower Geographies**
**Question 4a**
As in previous years this question was popular. Most candidates understood the geographical information they were presented with in Figure 4. As has happened in the past when Figures contain text, there was a tendency to both copy out the text and be rather descriptive of what the map within Figure 4 showed. Candidates needed to take the information shown and move beyond it to explain consequences.
Good answers differentiated between economic and geopolitical consequences. Weak answers made no such distinction. There was generally good understanding that an expanded EU might be good for new members in terms of trade and wealth, but less good for countries outside trying to gain market access. Sometimes issues such as how Russia would react to the EU expanding east were considered. It's worth mentioning that many candidates grasp of which countries on Figure 4 constituted the light-blue potential EU members was often very weak.
The 'China into Africa' story has been much more well-known over the last few years so it was not surprising that the Colonial China part of Figure 4 was explained quite well by many candidates. Most could recognise that Chinese expansion into Africa was likely to be a mixed blessing in economic terms for African nations. There was less consideration of how Chinese expansion in Asia might sit with the USA and Japan. Less consideration was given to the Pacific part of the map and often recent USA events i.e. President Trump's actions clouded the picture.

**Question 4b**
This question was generally answered very successfully. Most candidates have a good grasp of the importance of military power in relation to other forms of power. The majority of answers considered a number of different 'pillars' of power rather than military alone. In many cases candidates had

both historical data and contemporary data to back up their assertions of the value of military power. The USA's spending and capabilities were often used as a quantitative example.
A number of answers argued that the importance of military power has changed over time i.e. was more important in the past than it is today. Many argued, convincingly, that it is actually economic power which is the key as this allows a country to build and maintain a strong military. Cultural aspects of power were often considered in the context of hard versus soft power, as was the role IGO membership plays. Overall, this question was the strongest of the 15 mark questions on terms of evidence of assessment with many answers containing a supported judgement.

**Question 5 The Technological Fix?**
**Question 5a**
Historically this has been the least popular question on the examination paper, although this might have as much to do with the fact that it is always the last Section A question. Figure 5 proved accessible to many candidates, although the extent to which they were realistic about incomes and capabilities in Bangladesh did vary. There were many decent answers which were perhaps on average stronger than in the past.
Many explained the value of communications technology both in terms of market access and information for farmers and in terms of natural hazard response. Similarly, there was a generally sound grasp of how GM crop technology might produce future crops that were resistant to flood or disease, hence improving harvests and incomes. Examples of intermediate technology such as the pumpkin tank were used to show how basic needs might be met. Overall answers were quite pleasing and fairly comprehensive. The best did make an attempt to 'comment on' the potential of technologies, for instance considering whether Bangladesh could afford civil engineering to protect itself from floods or arguing that the benefits of GM were theoretical and might not be affordable to many subsistence farmers.

**Question 5b**
Although not very popular, many candidates who did attempt this question had a genuine go at it. Many did try to separate the issue of national income i.e. the wealth of a nation from personal income. Some answers argued that even in very low income countries, elite groups of people would be able to access technology – at a price – because of their personal wealth and connections. The general relationship between national income and access to technology was understood and examples such as internet access and water supply technology were used to illustrate this.
Leapfrogging was often mentioned as a situation where the expected relationship could be up-ended and low income groups could begin to have access to technologies that might not be expected – mobile phones or solar power. In some cases it was recognised that poverty effectively barred access to some technology such as high cost medicines. A large number of candidates considered other factors, especially political denial of access in terms of China and North Korea and physical limitations on access in isolated places. Broadening the response out in this way was essential in terms of achieving a high mark.

**Overall comments on Section B Issues Analysis: Development in Panama, Costa Rica and Nicaragua**

The Section B Issues Analysis has visited all corners of the world in the last seven years. We have travelled to Scandinavia, the Arctic, East Asia, South Asia, Europe, North Africa, the Middle East, North America, the Pacific Islands and this year to Central America.

Overall, candidates engaged fully with the Resource Booklet and most candidates wrote three full answers to questions 6a-6c. Synopticity was often quiet good with many candidates mentioning parallel example and considering models and theories as part of their answers. There was perhaps slightly less evidence of 'prepared' answers than in the past.

**Question 6a**

This question challenged students with the contention that Panama was the most developed country in the region and many were prepared to take this up and make a genuine attempt at answering the question.

It was very common, and pleasing to see, that many were prepared to make a strong case for Costa Rica as the most developed. It's worth noting that in some very good answers, Nicaragua tended to be almost completely ignored weakening the overall case in relation to the question. Nevertheless good answers often began with an attempt to define development often in terms of the Rostow model or perhaps more usefully the Development Cable model. The high income level of Panama was considered then other data was used to demolish the case for Panama as the most developed by using social and environmental data to make the case for Costa Rica. It was, of course, quite possible to make a case that Panama was indeed the most developed – and some did. Data not in the Booklet included HDI, which some had researched and used to good effect.

Weak answers tended to describe the development level of each country in turn without being comparative, which was the essential component to a strong answer. There were many evaluative answers with clear judgements which was pleasing to see.

**Question 6b**

This proved to be the most challenging question of the three. Many answers effectively described inequality in the region but fewer actually explained, in detail, why inequality exists. Most often explanations that were present focused on the urban-rural contrasts in all countries and how economic sectors and employment differed between cities and the countryside. Many answers never quite fully explained why rural people are poor i.e. subsistence incomes, low commodity prices, lack of rural opportunities.

In some countries there is a clear ethnic divide, and explanations for this needed to consider discrimination in the jobs market and out-right racism toward some ethnic and indigenous groups. This was seen, but it was relatively rare. Much of the inequality and poverty might be explained by differences in opportunity, education being key to this. Education was discussed by most, but again it was less often related to long-term life-chances and health outcomes. Costa Rica's move into eco-tourism, which is often rural-based was frequently contrasted with the elites living in Panama City to show that in some cases rural development had occurred and might be used to explain lower levels of inequality.

**Question 6c**

When timing issues did occur, they tended to reveal themselves in this question, although the number of incomplete answers was small.

There were many good answers to this question, but the default answer usually focused on reviewing the advantages and disadvantages of the three trans-oceanic megaprojects rather than considering the nature of these projects in broader terms. Relatively few candidates were prepared to see the question as 'if these projects are not the best, then what is the best?'. Given that all candidates have studied Bridging the Development Gap it was expected that more would have been prepared to argue for a completely different type of development – perhaps especially in Honduras and Nicaragua where the basic needs of most people are not fully met. Some answers did take this approach but they were relatively rare.

On the other hand many answers did question the costs of the projects, the risks of neocolonial control, the impacts on biodiversity and the question marks over water supply to argue that some of the projects were of very questionable value – what few went on to do was offer an alternative. The exception to this was ecotourism, which was argued for in some cases. Few considered the economics of three completed transoceanic projects in terms of the likelihood that all three competing projects could be successful. Most reviewed the evidence very well, and came to a view, but a bit of 'out of the box' thinking would have produced many better answers.

**Summary**

There were many good answers to the questions on this summer's Unit 3 Contested Planet paper in both Section A and B. No questions proved problematic or inaccessible and all were answered by a good number of candidates. If there are lessons to the taken from this unit into the new 2016 Specification they are:

1. The importance of being evaluative, seeing several sides of an argument and considering them, and then making a supported judgement.
2. Using case studies in a smart, selective way rather than describing all known facts about a particular case study or place.
3. Using evidence from Figure and the Resource Booklet to support explanations – and in data stimulus questions returning to the geographical data provided frequently throughout the answer.
4. Thinking beyond the question to make links to other themes and topics; this is especially important in Synoptic questions i.e. Section B on this Spec and the whole of Paper 3 on the 2016 Spec.