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Introduction

This paper presented candidates with a previously-unseen decision-making scenario. The resource booklet contained a suite of resources exploring the issue of palm oil production in Indonesia and its consequent effects on people and the environment. The questions varied greatly in the level of demand. They ranged from short tasks targeted at Assessment Objectives 1 and 2 (knowledge and understanding of learned ideas, and concepts) to three pieces of extended writing, including a 12-mark evaluative essay.

Overall, Paper 3 is weighted heavily towards Assessment Objectives 3 and 4. This means there is a requirement for candidates to analyse, interpret and evaluate the information with which they have been presented.

In general:

- There was evidence of good guided teaching and learning about how to approach extended-writing tasks with the command words 'assess' and 'evaluate'. In particular, most candidates were well-prepared to deal with Question (Q) 4. The majority of those who answered it were able to evaluate their selected option, whilst also reflecting on the strengths and weaknesses of the two less-favoured paths of action. There was widespread evidence of candidates understanding how to 'scaffold' this task.

- The 8-mark questions using the command word 'assess' were well-answered by a sizeable minority. They understood the requirement to write critically about the information in the resource booklet, and not merely describe it (see detailed feedback on Q3e and Q3f(ii) below).

- Many candidates were less well-prepared when it came to responding to short-answer questions targeted at Assessment Objective 3 (AO3). These items included Q3b, Q3c and Q3d. Such questions, like those in the Specification Assessment Materials (SAMs) use the standard question format: 'Study Figure... Explain...'. This means that the answer given should analyse or interpret the information included in the relevant figure(s). The space in the answer booklet must not be used simply as a 'showcase' for recalled knowledge. There are plenty of opportunities in GCSE Geography Papers 1 and 2 for candidates to do this, whereas Paper 3 requires Geography candidates to demonstrate their broader 'geo-capabilities' by applying what they have learned in a new context.

- A minority of candidates was very well-prepared for the two short-answer questions – Q1d and Q2b(ii) – which did not relate to a figure and instead were targeted at Assessment Objective 2 (AO2). In too many other cases, however, knowledge gaps were all too evident (see detailed comments below).

- The majority of candidates performed the mathematical calculation in Q3a(i) correctly. However, marks were sometimes lost needlessly due to an inability to follow all of the instructions given (see detailed comments below).

- A significant number of candidates was unable to complete all of the paper, either because of lack of time, or effort. In the former case, it was clear that some candidates had written far longer answers than were required on some pages of their script, particularly for Q3e. As a consequence, they were often unable to complete Q4 adequately.
Question 1 (a)

A high proportion of candidates provided a clear and concise definition of biodiversity. With only 1 mark available, candidates were required to demonstrate awareness that the term is used to describe the range or variety of life on earth. There are many acceptable ways of conveying knowledge of this, all of which were credited. Typically, less-knowledgeable candidates wrote erroneously about population diversity, different types of biome or different kinds of fuel.

1 Use Section A (pages 2, 3 and 4) in the Resource Booklet to answer this question.

(a) Define the term biodiversity.

Biodiversity is the range of different organisms in a biome.

This response gains 1 mark. Candidates should not provide lengthy answers when only 1 mark is available.

Question 1 (b) (i)

The overwhelming majority of candidates answering this question identified India correctly.

Question 1 (c) (i)

The overwhelming majority of candidates answering this question identified 2015 correctly.
Question 1 (c) (ii)

Most candidates understood correctly that increased wealth (at either a personal or national scale) will result in more disposable income being spent on water, thereby increasing demand. Large numbers of candidates offered no further development of this idea, however. This was despite the fact that 2 marks were available and four lines had been provided.

Those candidates with better understanding of the assessment offered some further explanation, for example by mentioning growing household use of showers or washing machines. Many explained correctly that rising affluence gives more households access to safe, clean water for which a bill must be paid. A minority of candidates argued incorrectly that rising affluence results in a higher national birth rate and thus increased national water demand. This point could not be credited: it directly contradicts key principles of demography and economic development.

(ii) Explain one way in which rising affluence could increase the demand for water in Indonesia.

rising affluence means people can afford to live in houses and use more running water for showers or in sinks.

Two marks are awarded for this more detailed explanation.

2 marks
(ii) Explain one way in which rising affluence could increase the demand for water in Indonesia.

As people become richer in Indonesia, they'll be consuming more resources like water so this will lead to the demand for water increasing across the country.

A simple explanation is provided: people with more money may use greater amounts of water. For the award of a second mark, further explanation is required, for example, some detail of what use is made of the water.

1 mark
**Question 1 (d)**

The majority of students demonstrated some familiarity with Boserup's theory and conveyed an optimistic idea that technology may 'unlock' new resources. However, the majority of candidates were unable to achieve full marks because they did not explain the reason they had provided, fully.

Typically, they used an example to illustrate a simple explanation, rather than providing a developed exploration. Candidates who achieved full marks proceeded to explain that the innovation occurs because of an impending crisis ie 'necessity is the mother of invention'.

Answers that did not convey understanding adequately, that population growth actively stimulates innovation, typically gained 1 mark only. This was because they had asserted that 'technology will save the day' without fully explaining why that might be the case.

(d) Boserup believed a growing population would never run out of resources.

Explain **one** reason why a growing population might never run out of resources.

Because in recent years we've developed things like solar power, wind power etc. This shows that if we keep developing, we will have unlimited resources.

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Answers of this kind are relatively commonplace. Although at first glance the answer may appear sound, on closer inspection it consists of an extended *description* (examples), rather than a developed *explanation*. 
(d) Boserup believed a growing population would never run out of resources.

Explain one reason why a growing population might never run out of resources.

Because when we reach critical point Boserup believe we would use technology to find new resources. An example is genetic engineering of crops, this could mean that we change their DNA so it gives more nutrients or a higher yield etc.

This response is awarded full marks.

The candidate provides sufficient explanation of why there is a causal link between a growing population and technological/resource innovation.

2 marks
Question 2 (a)

The majority of candidates were able to identify three changes in the pattern shown. The structure of the question logically allows three relatively simple statements to be rewarded with maximum marks.

Despite the relative accessibility of this item, surprisingly large numbers of candidates answered incorrectly, apparently due to poor comprehension of the question. Rather than identifying changes in the pattern shown, less-able candidates wrote about three changes affecting Indonesia’s Forest, such as Norway’s decision to pledge money.

2 Use Section B (pages 5 and 6) in the Resource Booklet to answer this question.

(a) Study Figure 3.

Identify three changes in the pattern shown.

1 Forest cover in areas in southern Asia has decreased rapidly drastically.

2 Areas of eastern Africa have completely lost areas or forest currently losing green areas.

3 Areas around the coast of South America mainly Brazil have lost green forests.

This answer achieves full marks.

The candidate demonstrates applied geographical understanding of the word 'pattern' and interprets Figure 3 correctly.

3 marks
**Question 2 (b) (ii)**

The majority of candidates were not familiar with the 2007 international agreement on 'Reducing Emissions through Deforestation and Degradation' (REDD) and the inter-governmental 'Convention on International Trade in Endangered Species of Wild Fauna and Flora' (CITES), despite the specification requiring that these must be learned.

Only a minority (around one-quarter) of the cohort demonstrated satisfactory understanding of how the rainforest is protected by these global actions. Use of the command word 'explain' required candidates to do more than simply write the words 'REDD and CITES', however. Marks were also awarded to candidates who explained alternative actions that were genuinely global in scale. For example, there were creditable suggestions that the Group of Seven Countries (G7) or the Brazil, Russia, India, China (BRICs) group could hold a conference to raise awareness.

(ii) Explain **two** global actions which help protect the rainforest.

1. **CITES**: Rely on member countries to provide donations needed to conserve rainforests and biodiversity & ensure sustainability of habitats for animals.

2. **REDD**: A company that helps to reduce deforestation by providing alternative sources of income, e.g., Juma SFR families are paid not to deforest or cut down trees to help protect and conserve the forest.

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Examiner Comments

This answer explains in satisfactory depth how REDD and CITES work to protect the rainforest; full marks were awarded.

3 marks
The majority of candidates carried out the calculation correctly. The mark scheme admits several different ways of arriving at the right answer (such as multiplying by 0.15 or dividing by 100 prior to multiplying by 15). The words 'billion US$' were included in the answer booklet in order to help candidates arrive at the right answer. It was a pity that large numbers of those answering the question did not recognise this and instead produced a very long number followed by a string of zeros.

A surprising number of candidates ignored the requirement to answer to one decimal place only, which unfortunately led to a mark being lost needlessly.

This response arrives at the correct answer and all instructions are followed.

1 mark
Question 3 (a) (ii)

The most common correct answer was that: '26 per cent of Indonesia’s economy is manufacturing, which means the secondary sector is now important.' This response is perfectly adequate because it applies geographical understanding to give an accurate analysis of the information provided.

Candidates were not required to write at great length about the characteristics of emerging countries. One frequent reason for candidates gaining one mark only was a tendency to explain multiple pieces of evidence. For example, they wrote: ‘the diagram shows that manufacturing has a high percentage but so too does agriculture.’ In this case, two pieces of evidence have been presented and neither is used to explain Indonesia’s emerging-country status as the question requires.

(ii) Explain one piece of evidence from Figure 5 which shows that Indonesia is an emerging country.

\[ \frac{1}{4} \text{ of Indonesia's GDP comes from manufacturing which is in the secondary sector whereas money are remitted away from primary sector (Agriculture).} \]

This response interprets the resource successfully and demonstrates applied understanding of the topic.

2 marks
**Question 3 (b)**

This question was targeted at Assessment Objective 3 (AO3) and required students to interpret Figures 6, 7a and 7b as part of their answer.

Most candidates made some use of figures and were able to gain 2 or more marks. Most usually, 4 marks were gained by explaining that:

- (i) rainforest must be cleared to make space for palm oil, which thrives in the same climate
- (ii) there are commercial pressures which make this happen on a large scale

The best answers referenced the figures explicitly ('Figure 6 shows...'). Typically, answers gaining half marks made the same point twice (the first reason offered being that rainforest is cleared so palms can be planted; the second reason offered being that rainforest is burned to make this happen).

The weakest answers revealed confusion over what the figures actually showed: in such cases, candidates explained incorrectly that the rainforest is made up of palm trees that need cutting down.

(b) Study Figure 6, Figure 7a and Figure 7b.

**Explain two reasons why rising global demand for the products shown in Figure 7a has led to widespread rainforest loss in Indonesia.**

1. Palm oil trees can only grow if the area in the rainforest is deforested first, so a greater demand for products that contain palm oil will increase deforestation in Indonesia to create space.

2. Rainforests are burnt down by communities and companies, and these forest fires can spread rapidly and are hard to control so more rainforest could be burnt down than necessary.
This answer provides two distinct reasons for deforestation based on valid interpretation of the figures. It also demonstrates applied understanding of energy resources issues.

4 marks
**Question 3 (c)**

Figures 8a and 8b show a strong correlation between fossil fuel oil and palm oil prices. Candidates were asked to apply geographical knowledge and understanding in order to suggest a reason for the rises shown at particular times. A sizeable minority of candidates did not attempt the question or answered in a poorly-focused manner (some offered an explanation of why one price might rise while another falls, for example).

Answers achieving full marks recognized that external events, such as strong global economic growth, might lead to greater energy demand in general, which would lead to both prices rising (as shown in 2007-08 by the figures). Credit was also given to candidates who synthesised understandings drawn from other figures in the booklet. A large number argued that sizeable amounts of fossil fuels might be needed for the factory production of the commodities shown in Figure 7a; therefore if demand for palm oil rises to meet commodity command, so too may fossil fuel demand (with the result that prices for both may rise).
**Question 3 (d)**

The majority of candidates understood reasons why oil prices may vary but very few managed to receive 4 marks, because often they included no interpretation of Figure 8 in their response. Instead of applying their knowledge and understanding to the context shown, they provided a generic account.

A minority of successful answers were better-versed in the assessment objectives of the examination. They related successfully the trends in Figure 8a to possible causes such as the discovery of more fossil fuels in particular years (which could increase supply, therefore triggering a price fall). Another popular theme was renewable energy or shale gas supplies following their own price trajectories with implications for oil prices.

A few candidates were able to talk about specific world events such as war in the Middle East, or the global financial crisis in 2008-09, and made a successful attempt to link these ideas to Figure 8a. A common misconception was that limited supply might lead to lower prices. Candidates receiving no marks had sometimes written about palm oil prices, instead of fossil fuels. Others explained why prices rise in some years.

(d) Study Figure 8a.

**Explain two reasons for lower fossil fuel oil prices in some years.**

1. In 2008, the price of oil may have went down due to a financial crisis. This may mean that countries economically slowed down and the economy is slower, so less money is used, meaning less demand for oil decreases so the price also decreases.

2. Also, in 2013, the price may have went down due to new oil sources being discovered which means that there would be a surplus of oil, and not enough demand, which would drive prices down.
(d) Study Figure 8a.

Explain two reasons for lower fossil fuel oil prices in some years.

1. First is that in the years it was lower this could mean that there was a higher amount of oil to sell so it was cheaper to buy.

2. Second is that more companies were trying to use less fossil fuels and use more recyclable and renewable sources of energy.
**Question 3 (e)**

This 8-mark question provided candidates with an opportunity to give a critical assessment of the environmental impacts in Figure 9 of the resource booklet. Numerous impacts are shown; these vary in terms of their severity, level of irreversibility, spatial extent, implications for individuals and societies, and interconnectivity.

The 'assess' command word requires candidates to do more than merely describe or explain. Additionally, they are expected to 'add value' to the information by providing some extra insight, for instance by ranking impacts according to their probable severity and identifying which is the most serious. Many candidates did not supply this critical dimension as part of their answers.

Typically, those candidates who managed to access Level 2 of the levels-based mark scheme (LBMS) did so by offering a perfunctory overview of the situation by way of assessment, noting for example, that Indonesia as a whole appears to be very adversely affected.

At the top of Level 3, candidates were assessing the extent to which impact were reversible or permanent; they usually argued the case that one or more of the impacts were especially harmful, either socially or environmentally.

(e) Study Figure 9.

Assess the environmental impacts of exploiting Indonesia's energy resources.

One environmental impact, is the loss of habitat, due to forest being burnt down to make farmland for oil palm trees, so they can sell it to other countries to make money. This is a significant problem, as it critically endangers different species and animals, such as the Sumatran Orangutan, there is only 7,500 left.

Another impact on the environment is the pollution in rivers lined with toxicity from coal mines. This heavily affects the coastal environments due to its acidity level, erodes the coastal area away. Furthermore, the mining has also left eyesore and landscape issues.
Selective use of data (AO4) has been married with a relatively sophisticated evaluation of the impacts in ways that show the candidate can 'think like a geographer'.

- The significance of critically endangered species is highlighted.
- The assessment of river pollution is detailed and focuses on the spatial pattern of impacts.
- The assessment of deforestation establishes logical linkages and connections between a range of environmental impacts.
- A final assessment is also provided of which is the most serious impact because of its implications for people (poverty).

8 marks

Level 3
Assess the environmental impacts of exploiting Indonesia's energy resources.

Exploiting Indonesia's resources can lead to a decrease in biodiversity. For example, in 100 years ago there were 230,000 orangutans but due to habitat loss, their population now numbers about 50,000 and the Sumatran orangutan numbers to only 7,500. It is causing animals to become extinct, which could effect the whole ecosystem.

In addition there is a lot of air and water pollution. For example, the hout of Krakatau's rivers suffer from...
Geographical skills have been used to extract meaningful and relevant information from Figure 9. However, a more limited assessment is provided of the impacts shown, and the overall tone is descriptive.

5 marks
Level 2
Question 3 (f) (i)

A frequent shortcoming with many answers was that they merely repeated the question *in lieu* of an actual explanation. Typically, such responses informed the reader that richer countries are able to afford to adopt renewable energy, which will therefore lead to a carbon footprint reduction. Full marks could not be awarded for such limited insight.

To access the second mark, it was essential that candidates demonstrated understanding of what the phrase 'reduction in its carbon footprint' actually means. Ideally, they might have explained that greater use of renewable energy would lower the *per capita* carbon dioxide emissions of a country's population.

(f) (i) Explain one reason why the rising affluence of a country can lead to a reduction in its carbon footprint.

Rising affluence can lead to a reduction of a country's carbon footprint because people will be able to afford to use renewable energy sources.

Note that, in part, this response simply restates the question without adding any further explanation.

1 mark
(f) (i) Explain one reason why the rising affluence of a country can lead to a reduction in its carbon footprint.

The country can now afford to move to renewable energy resources. This would mean less fossil fuels are being used which reduces the carbon footprint.

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This candidate gives a reason and an explanation:

Reason: an affluent country can afford to invest in alternative energy

Explanation: the result is that fossil fuel use will decrease

2 marks
Question 3 (f) (ii)

In this question, candidates were required to assess the reasons why people disagree over who is to blame for deforestation. Most demonstrated their geographical skills (AO4) by making good use of evidence drawn selectively from Figure 10. Different perspectives were identified and sometimes explained.

The question proved problematic for the majority of candidates to identify any overarching reasons for the lack of consensus shown in Figure 10. In many ways, this proved to be the most challenging question on the paper. Some candidates who achieved a relatively high overall mark on the paper, nonetheless did not comprehend fully what was being asked by question 3f(ii). They often assessed who – in their own view – was most to blame for deforestation (fingers were pointed at the government in large numbers). But this was not what the question asked.

In contrast, candidates reaching the Level 3 of the LBMS were able to provide an assessment that recognised the 'big story' behind the data: which is that there are very large numbers of people involved in this complex issue. Thus there is a lack of consensus about who to blame.

A minority of excellent answers possessed this important insight. They:

- (i) deconstructed the information provided
- (ii) established logical connections – by seeing that the six quotes are all part of a big, complex picture rather than isolated fragments of information
- (iii) presented a coherent geographical assessment of the key reason for disagreement – multiple individuals and organisations all hold their own unique viewpoints, which reflect their own priorities or partial knowledge of the issues
(ii) Study Figure 10.

Assess the reasons why people disagree over who is to blame for deforestation.

Some people say that it is the government who are to blame for deforestation. Examples of this are the Norwegian government, the university expert, and the manager of a palm oil company. The university expert blames it on the fact that it sells permits to expand palm oil production, and the manager says it sells land to companies that do not care about the environment. However, the expert also acknowledges that palm oil companies abandon land too quickly, and thus does not place the entire blame on the government.

However, other people disagree with this, for example the government official, the chief of the village and the pressure group. This is because it is difficult to pin the blame over deforestation onto one group or organisation - deforestation of the rainforest is caused by many different factors and thus there is not one single entity to blame - all of the people mentioned could be equally responsible. However, for example, the chief blames the palm oil company, which in turn defends itself in their provided statement, while the government official also does not accept blame for its actions, instead blaming the local people. Therefore, no one wants to admit responsibility for deforestation because then they would be obligated to fix it. Moreover, the pressure group implies that consumers are also to blame for their mindless consumption without considering where the products they are using are coming from. Thus it is difficult to determine exactly whose fault it is.
Selective use of data (AO4) has been married with a relatively sophisticated assessment. In particular, note the sophisticated way the answer reflects critically on why there is disagreement over who to blame.

8 marks

Level 3

(ii) Study Figure 10.

Assess the reasons why people disagree over who is to blame for deforestation.

Many people think that the government are to blame for deforestation because they are not doing anything to stop it - a university expert even says that they are selling permits to allow people to expand palm oil production areas. The people think that the government do not care for stopping deforestation. For example, a palm oil company manager blames the government because they sell land to people companies that will do deforestation on the rainforest.

On the other hand, people also think that local communities are to blame because “they don’t ask questions” about where their resources come from. They are also difficult to control and make them obey the rules so sometimes they burn down villages.
Geographical skills have been used to extract information from Figure 10. However, no assessment is provided of *why there is disagreement over who to blame*, as the question asks.

The overall tone is very descriptive, and the argument provided (the candidate's own view of who to blame) does not address the question that has been asked.

3 marks

Level 1
Question 4

Overall, the resource booklet was used well. The majority of candidates made sustained use of it in support of their arguments, thereby meeting the AO4 criteria. In contrast, far fewer met the AO2 criteria satisfactorily in Q4. Under these criteria, candidates are expected to apply knowledge and understanding from across the specification to support and enhance their arguments. Those who did so, typically provided fragments of information about climate change, multiplier effects or globalisation.

The majority of candidates seemed to understand the AO3 element of the question, which allowed them to access the higher LBMS levels by arguing a case in favour of their chosen option. However, a minority of candidates were content only to justify their own option, whilst offering no comment on the other options.

A number of responses argued in favour of Option 1 because it offered the least controversial 'third way' between preservation and exploitation. Spirited defences of the other two options were presented too. Those who favoured Option 3 sometimes referred back to Boserup's argument (Q1d). They argued that the money gained from palm oil production might fund 'technological fixes' further down the line, thereby delivering the best result overall for Indonesia's people and environment in the long-term. This demonstrated excellent application of learned ideas.

In no particular order, other strengths and weaknesses were as follows.

• Weaker responses tended to describe what was best for 'the world' rather than for the Indonesian Government. These candidates tended to choose Option 2.

• Some of the best responses applied their knowledge of 'the sustainability stool'. This allowed them to assess the merits of human and environmental development of each of the options. Recall of this idea (AO2) was therefore used effectively to provide the scaffolding for their evaluation (AO3).

• The best answers usually showed some evidence of careful planning.

• A disappointing number of candidates neglected, or were unable, to attempt this question altogether.

Use of key terminology and SPaG, on the whole, was positive, with few candidates achieving below 2/4.
4 Study the three options below that the Indonesian Government can choose from in order to manage the palm oil industry.

**Option 1:** Prevent any further deforestation but allow oil palms to be grown on land where forest has already been removed.

**Option 2:** Stop palm oil production completely and assist the regrowth of the rainforest and the restoration of its wildlife.

**Option 3:** Encourage further production of palm oil in order to increase Indonesia’s exports and help economic development.

Select which option the Indonesian Government should choose that would be best for its people and its environment.

Justify your choice.

Use information from the Resource Booklet and knowledge and understanding from the rest of your geography course to support your answer.

Chosen option 3

Option 3 is clearly the best option as it will benefit the people hugely and although there is some cost to the environment, this can be restored. Boserup’s theory suggests that people will always find a way to supply the population with resources so option 3 fulfills this. If we did not continue to develop resources to supply the needs of the population, then we would reach a point of catastrophe, as suggested by Malthus.

Firstly, Indonesia is an emerging country, meaning that it needs
to continue to develop in order to better the country. By producing
more palm oil, money would be brought to the government and its
people. The government could use this to better education and health-
care so that fewer children under age 5 die and also so that
people will become more educated and aware of the environment
by reducing their carbon footprint. Some may argue that money
would mainly go to TNCs, however, partly as a result of palm
oil, a higher percentage (60%) of people have an affluent income
(figure 2) so clearly the money is helping the people. Also, Indonesia’s
energy sources would become more stable as there is no need to
rely on imports, therefore, the population will have a sufficient
energy supply. TNCs also create jobs for local people and the
money earned can be used to better their lifestyle so they no
longer have to use the wood for fuel source. Despite the severe
environmental impacts, the money can be used to restore the
environment, e.g. by planting more trees or educating.*

Some may argue that option 2 is best for the environmental
because Indonesia’s forests have a rich biodiversity that should
be protected. Although habitats are being destroyed and there
is pollution (figure 9), this happens on a global scale. Indonesia
need to develop economically to help their people and eventually this
will aid the environment in the long term. This option would
appeal to environmentalists but not the majority of the population.
Also, replanting the rainforest takes a long time so would not
benefit the environment rapidly. Some replanting would, however
natural
Option 1 does not make sense because... people's income would stop rising so quality of life decreases.

Option 1 does not make sense because this way no one gets what they want so discontent is spread. Although it could be seen as sustainable, no land is restored so environment is not improved. Deforestation is difficult to police and some illegal loggers could still exploit it. - laws cannot be enforced. Some may argue that Norway would pay Indonesia the money lost from not economically exploiting oil production (Figure 4), however, this money is nowhere near as much as Indonesia would receive from oil exports, so people benefit less.

* 26% of the population work in the manufacturing industry. The money received by the government for exploiting the rainforest could be used to benefit the education system, so more people work in the tertiary sector as they become more skilled.

Overall, option 3, although not perfect, is the best long-term plan for Indonesia's people and eventually restoring the environment.
Selective use of data (AO4) has been married with a relatively sophisticated evaluation, which arrives at a mature judgement.

Note in particular:

• (i) the way that AO4 information sources are carefully referenced ('Figure 2')

• (ii) the candidate's own knowledge and understanding (AO2) is applied at important junctures (mentioning Malthus on page 1; noting that deforestation is 'hard to police' on the final page, for example)

• (iii) there is sustained ongoing evaluation, leading to a final substantiated judgement – 'option 1 ... no-one gets what they want so discontent is spread... option 3, although not perfect, is the best long-term plan...'

16 marks

Level 3
4 Study the **three** options below that the Indonesian Government can choose from in order to manage the palm oil industry.

**Option 1:** Prevent any further deforestation but allow oil palms to be grown on land where forest has already been removed.

**Option 2:** Stop palm oil production completely and assist the regrowth of the rainforest and the restoration of its wildlife.

**Option 3:** Encourage further production of palm oil in order to increase Indonesia's exports and help economic development.

Select which option the Indonesian Government should choose that would be best for its people and its environment.

Justify your choice.

Use information from the Resource Booklet and knowledge and understanding from the rest of your geography course to support your answer.

Chosen option 1

P1 - good, stops burning figure 6
- prevent further loss of habitat + smoke figure 9
- maintain economic benefit figure 5 (15% ag+top)

P2 - limitations, doesn't re-introduce wildlife, figure 9
- won't increase rainforest lost figure 3

P3 - Option 2 - won't get income, rising pop., figure 1
 Option 3 - will be more deforestation, figure 6, loss of habitat figure 9.

Conc.
I have chosen option 1 because it both encourages some economic benefits from the palm oil industry but prevents further deforestation. It will prevent any more loss of habitat for species like the orangutan, which is now endangered (figure 9a). It would also prevent the deaths of young children (figure 9a) from the smoke caused by the burning of forests depicted in figure 6. It would also mean that Indonesia would still see the economic benefit of the palm oil industry, as agriculture accounts for 15% of Indonesia’s GDP (figure 5).

However, there are limitations to option 1 including that it will not increase rainforests in Indonesia, just keep them at a constant level. This means that wildlife like the endangered orangutan (figure 9a) will not be given a new habitat and the rainforest lost since 1915 shown on figure 3 will not be regrown or reintroduced into Indonesia.

I did not choose option 2 or option 3 however, because they either inhibit the economic growth of Indonesia or increase deforestation. Choosing option 2 would result in the income shown to be generated by agriculture and the palm oil industry (figure 5) to be stopped.
Geographical skills have been used to extract meaningful and relevant information from the resource booklet as a whole (AO4).

However, there is limited supporting knowledge drawn from the specification (AO2).

Some evaluation and a judgement are provided but the arguments are not well-developed enough to meet the Level 3 AO3 criteria.

11 marks

Level 2
Paper Summary

Based on their performance on this paper, candidates are offered the following advice:

• Questions using the command word 'explain' usually have a reward of 2 marks attached (or 2 + 2). To receive full marks, candidates need to explain fully the point(s) they are making. They must become more aware of those times when they are merely repeating the question or offering superficial examples in lieu of developed explanations.

• Questions using the format 'Study Figure... Explain...' are targeted at AO3. It is essential that the response focusses on the evidence presented in the relevant figure and makes some reference to it.

• The 8-mark extended writing questions using the command word 'assess' require candidates to reflect critically on the information they write about. Candidates of all ability levels will benefit from frequent exam practice, answering questions beginning with phrases such as 'Assess the importance...'; 'Assess the impacts...'; 'Assess the benefits...'; 'Assess the role...'; etc.

• Candidates of all ability levels must be encouraged to think carefully about the amount of time allocated to particular tasks. Spending too long on short-answer questions runs the risk of not completing Q4 where 16 marks are available.

• Whilst this paper is heavily weighted towards the application of geographic skills and an ability to analyse and interpret information, significant numbers of marks are available for AO2 also. Candidates must prepare for future examinations in ways that ensure fewer knowledge gaps; they also need to work harder at integrating this knowledge into their extended response to Q4.
Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx