

AQA Qualifications

GCE

Geography

Unit 3 Contemporary Geographical Issues (GEOG3) Exemplar Script 6

Spec no: 2030 Version: 0.1



Option 3 Ecosystems: Change and Challenge

Total for this option: 25 marks

0 7

Study **Figure 3** which provides information on the island of Socotra in the Arabian Sea. Comment on the nature and management of its environment. (7 marks)

Candidate's Answer

The figure shows the island of Socotra off the east coast of Africa. From the information I can see that it is a very diverse ecosystem with a high biodiversity (number of different species within an ecosystem). An ecosystem is an dynamic system characterised by the relationship of flora and fauna with each other and components of the non living environment. In Socotra there are over 900 species of plants, (300 of which are endangered) [misuse of term here] this is a third and therefore management of this area is important to prevent extinction due to exploitation of the environment through zoning therefore the designation of national parks has (around ½ to a ¾) of the island which areas that help to protect the unique habitats, provide scientific, educational and recreation opportunities to help and research into future protection. There are 13 designated Nature sanctuaries on Socotra where there is strict protection preventing the species diversity and habitat from being exploited. [This is largely repetition of the data provided - all Level 1 material so far]

There are only 2 general use zones where development is allowed. One of which is on the city. Both are located on the North coast and therefore encourages development to remain in the urban area and not spread outwards or further south of the island destroying more land. [Comment - Level 2]

Finally around a third of the island and a 30km radius have been designated resource use reserves. Where areas can be developed by the community as long as the biodiversity – (eg fishing activities) therefore allowing the human population to live without affecting the environment. Management of a fragile ecosystem, where sustainable development and management is used to protect species eg 24/27 reptiles that are found no where else on the planet. [Lacking clarity, but also just repeating the data in words - Level 1]

[Overall, one Level 2 comment - 5 marks]

0 8

Describe the characteristic features of the biome of **one** tropical region that you have studied. (8 marks)

Candidate's Answer

The equatorial Tropical rainforest is located within the equatorial climate belt, 10°N and 10°S of the equator, between the tropic of Cancer and the tropic of Capricorn [Chosen biome] found across America, Northern Australasia South Asia. There is little seasonal variations in climate with temperature monthly averages ranging between 25°C →28°C. In some locations further from the equator a dual peak and annual temperature may occur where the sun is directly overhead (as sun passes from tropic of Cancer to Capricorn). There is also high precipitation can be in excess of 2000mm a year due to the location of inter tropical convergence zone (a low pressure belt). The rainforest is very humid from continuous evapotransporation. [Some detail of climate] The zonal soil of the rainforest is latosol and is actually nutrient poor due to the rapid nutrient cycle where saprophytes (decomposers) rapidly break down litter and is rapidly broken up by vegetation. Latosol is roughly 40m deep made from the A horizon (decaying material) Bs horizon many biota (soil bacteria), iron oxides present, B horizon (yellowish from silica deposits) and C horizon. Latosol is a rich red colour from iron oxides deposits as the net down movement of water leaches silica deposits downwards leaving less soluble iron oxides. [Clear detail of the soil of the biome]

There is a long wet period (8 months of years) where soil moisture store is full, rivers often flood. Short dry season December to Jan where evapotransporation exceeds precipitation. [Some detail of the water budget]

The rainforest is one of the most diverse ecosystems with the highest net primary productivity of 2200kg per m² of organic matter and over 300 species of trees per km². Trees are hardwood, mahogany, teak, rosewood, balsa and Brazil nut and vegetation is divided up into layers (zones). The emergent is made up of the tallest trees (up to 45m) that rise above the upper canopy) below this is the upper canopy – a dense unbroken canopy of (25-40m high). Below this is the lower canopy/shrub layer of smaller trees and shrubs, eg only 15% of light reaches these. Below this is the ground layer made up of mostly lichen – little light reaches here (1%) vegetations of the rainforest have special adaptations, trees grow tall trunks with broad leaves concentrated at top to maximise photosynthesis. Think bark as don't need protection from winter epiphytes eg lianas grow on other trees. Buttress roots help stabilise the tallest trees and drip tips on waxy leaves help shed excess water. The Swiss cheese plants have holes in leaves to prevent damage from wind and trees have shallow but vast root systems to stabilise and find nutrients in thin soils. [Clear detail of the vegetation]

[Although this has not been expressed well, the candidate is in a hurry perhaps, all aspects of the biome (other than fauna) have been covered - climate, soils, water budget and vegetation. Top Level 2 - 8 marks]

0 9

Discuss the potential for sustainability in relation to development issues in **one** tropical biome that you have studied. (10 marks)

Candidate's Answer

Although the tropical rainforest is one of the most diverse habitats it is also under great threat from deforestation (removal of vegetation for commercial purposes) eg for timber as hardwoods eg teak to produce furniture, provide land for farming such as cattle ranching (40% of the Amazonian rainforest (Brazil is deforested for this) and slash and burn, and for plantation (soya). In the region of Santanim in the last 10 years soya plantations have been the most. Deforestation also occurs to provide land for hydro electric power stations (Tucurui HEP station in Amazonia flooded an area six times size of Isle of White) and area for mining (Carajas mine – open cast uses an area the size of the UK). [Statements of development uses in the Amazon, again not well-written and with spelling errors, and extreme statements of scale. However, these are specific and therefore Level 2 is accessed]

The Amazon Rainforest covers an area of 300 million hectares – 1 million of each destroyed each year however the central Amazon complex a 6 million hectare complex that uses zoning to protect the environment located in Manaus it legally protected from development, made from 3 reserves – Jau National park, Mamirana reserve and Amana reserve. Only small settlements and river transport used to prevent construction of roads. 4 zones designated 'intensive use', 'extensive use', 'special use' and finally zones that have the highest number of protection due to most value of natural resources. Inhabitants are also educated on how to create a sustainable environment.

[More specific statements, but this time of conservation schemes. Tentative link to sustainability - the penultimate word of the answer. Potential for sustainability not discussed. Level 2 mid - 6 marks]

Option 4 World Cities

Total for this option: 25 marks

1 0

Study **Figure 4** which provides elements of the Traffic and Transportation Policy in the city of Freiburg, Germany (October, 2008). Comment on its development as an integrated, efficient and sustainable transport system. (7 marks)

Candidate's Answer

Freiburg has developed a well integrated, efficient and sustainable transport system. There are much evidence to show that it is integrated. Firstly, the extract says that there is continuous development of "coordinated" elements to the transport system. Furthermore, it is well integrated because it reaches a lot of people. 65% living in the catchment area is really well integrated. The system is efficient because it has been well thought out. The old tram system has been developed into an efficient "modern city rail system" that connects almost all major city districts. This makes it efficient because someone could get on at one stop and get all the way to their destination without having to get off. The S-Bahn has also been made efficient compared to the 1973 levels because it 'allows good and fast' connections between places. This allows people to get places as quickly as possible. [A set of weak statements that do not connect precise statements from the data with good commentary. Much is simplistic. All Level 1 so far]

The bicycle development is integrated, efficient and sustainable. It is integrated because it is continuous throughout the city. There are 9000 parking sites and 500km of network. It is also energy + time efficient because the bikes are 'green' transport and the network may mean it is quicker to travel by bike. It is sustainable because biking is better for the environment and also, the scheme is not difficult to upkeep. It will also benefit future generations. The 30kph zones are sustainable because they reduce pollution and the pedestrian zones which keep pollution out of the city centre are also sustainable. [Statements here regarding sustainability, with evidence from the data. Level 2 awarded - 5 marks]

1 1 Outline characteristic strategies of waste management in urban areas. (8 marks)

Candidate's Answer

In urban areas, there are many different waste management strategies that can be used. The most favoured strategy is to 'reduce', ie to reduce the amount of waste being produced. Kenco coffee supported this strategy with their 90% less packaging scheme. Unfortunately, this is the least commonly used strategy as it is more difficult to enforce. Another strategy is to reuse. This could include the reuse of glass bottles (milk and cola) and also 'bag for life' schemes like Sainsbury's + Waitrose. This is reusing the same bag to prevent such a huge amount of plastic bags going to landfill. If we reuse one glass bottle it saves enough energy to power a computer for 25 minutes. [Two strategies - reducing and reuse, with exemplars from an urban environment - supermarkets and Kenco exist in urban areas. Level 2 awarded] Recycling is a more popular scheme that has been more well integrated into urban areas. Local councils provide homes with separate containers for different materials such as glass, paper and metal. [General strategy] Unfortunately, many councils do not accept certain plastics so much of this still goes to waste and is put into landfill. Marks and Spencer has a 2swopping2 scheme. This is a new scheme, implemented in 2011. When one buys something from Marks and Spencers one takes in an old item of clothing that one doesn't want anymore. It is either reused by sending to poorer countries or the materials are recycled. It is in partnership with Oxfam. [Some detail of a strategy again could be in an urban area]

Recovery is another waste management technique. The UK has 17 incinerators in which waste is burnt and the energy recovered. This means that, although slightly worse for the environment interests of CO₂, at least the waste is not just being dumped in land fill. *see below

A final management strategy, that is the most common, but <u>should</u> be the most unfavoured is the disposal of waste. This is dumping waste into old quarrys etc and letting it decompose. In 2006, the government said we have another 9 years worth of space before we start running out of landfill sites. They had to start implementing the other strategies. Landfill is also bad because decomposing material produces methane which contributes to global warming. The average person in the UK produces 517kg of waste per year. It is time that we started looking more at recycling, reducing and reusing. [More statements of strategies, with some exemplification at a national scale]

*Another method of recovery is composting. On a large scale, the energy is harnessed for biomass fuel and on a small scale it can be spread around gardens. **[General statement]**

[A wide range of strategies is discussed with some support. The urban focus is implicit rather than explicit. Level 2 has been achieved through the range - but maximum cannot be awarded as the urban focus is not paramount. Level 2 - 7 marks]

1 2

Evaluate the success of **one or more** partnership scheme(s) in the regeneration of urban areas. (10 marks)

Candidate's Answer

Partnership schemes are partnerships between the local authorities, local people, governments and private investors. They include schemes like city challenge, sustainable communities and flagship projects. [An introduction]

City Challenge schemes have been used to regenerate urban area. They are when a Council comes up with an inventive plan to regenerate an area. The best plans are then chosen and given a set amount of money for the partnership to continue. One city challenge example is Hulme City. [Named scheme, with general background] The scheme was to regenerate the city including the refurbishment of houses and the implementation of parkland and green areas. The City Challenge partnership in Hulme was relatively successful. By 2008, it built 600 houses and almost 2000 were planned to be continued. It had also refurbished 800 council houses. Furthermore, it provided green space and lower house prices. It could be said to be successful because people moved into the city. It had been in decline but the regeneration made people want to move in. However, the City Challenge was less successful because it suffered criticism from many people. City Challenge authorities chose the most innovative projects to give money to rather than the people who needed it most. [Some detail of the scheme, though not entirely accurate, and statements of success or otherwise; a sense of evaluation - Level 2]

The areas that got regenerated may have needed it but they were not necessarily the most needy area. Furthermore, Hulme City became a bit expensive as more people moved in. **[This is not true]**

Another partnership scheme example is prestige projects. An example is Canary Wharf. Prestige or 'flagship' projects have been successful because they provide an eyecatching piece of regenerated area which then attracts more investment. However flagship projects can raise the people of an area so much that it becomes very desirable. This can push house prices up as new applicants move in. It also causes friction with the original residents. [Canary Wharf was not a partnership - but no specific detail has been given anyway]

Sustainable communities are another partnership project. Private and public sector investment is put into 'green' technology and housing in the areas. Greenwich Millennium village GMV has had moderate success in that it has built 40000 new houses with 'green materials' such as timber cladding and glass. [Another scheme - this is a partnership] It has also implemented green technology like energy saving boilers. Furthermore, it has 3 parks including one ecology garden. These encourage wildlife and are good for the environment. However GMV has had many criticisms. Firstly the prices are very expensive . This means that no families really live there. It is all middle-aged families. [Sweeping statement here - are middle aged people not part of families?] 25% commute to London. Furthermore many work in Canary Wharf. This means there is a bottle neck in rush hour because the road system was not well designed. Finally, GMV is supposed to be an integrated part of Greenwich community as part of the Greenwich regeneration. However, it is kind of cut off because the only way to easily get there is the notoriously infrequent and slow 129 bus. [Specific statements of the scheme - GMV - with some sense of evaluation. Not thorough though]

Overall, partnership schemes have been quite successful in regenerating urban areas, because they have combated decline and brought people back to the area. However, with each scheme, there are problems that would need to be addressed if it was done again. [General conclusion] [Two appropriate schemes discussed, with some specific detail of both (and some inaccuracy) and a sense of evaluation for both. It is a pity that the 'partners' for each scheme are not identified. A good Level 2 response - not strong enough for Level 3 - 8 marks]

Option 5 Development and Globalisation

2 3

'The global economy has moved on from the Asian Tigers; the present and the future of the global economy now lie elsewhere.'

To what extent do you agree with this statement?

(40 marks)

Candidate's Answer

The Asian Tigers, a group of countries including Hong Kong, Singapore, Taiwan and South Korea experienced enormous growth in the 1960s and 1970s when the governments decided to utilise their huge assets, being cheap labour and to encourage the foreign direct investment of wealthy countries to transfer industry to them often in terms of manufacturing. This allowed the tigers to experience enormous economic growth, often in the double figures for many years. This created a better standard of living and allowed western style development to take place. [Background knowledge here] However in the late 20th century their success was threatened by new emerging markets of other countries and a large self- caused financial crisis. [Introduction with a hint of synopticity]

The problems of the Asian tigers had to do with their main asset, their cheap workforce which following their development and therefore increased quality of life and wages, meant it was now financially less competitive compared to new industrialising nations such as China, who were following in their foot-steps. [Evidence of critical understanding (c/u)] Many Transnational Corporations (TNCs) who had originally based themselves in the tigers, soon moved elsewhere. For example Nike who manufactured large amounts of their shoes and clothing in Taiwan began to relocate to areas with more competitive rates in wages, for example, Vietnam and China. [Use of example] The same occurring with Barbie made by the American brand Mattel. [Another example] The cheaper production costs, the higher the profits for the company and it was made relatively easy for these companies to move e.g. Nike doesn't own any of its factories, it subcontracts to local firms and therefore can relocate when the short contract runs out. [Evidence of synopticity] Alternative countries are also copying the traditional methods used by the tigers in the early stages. For example China is encouraging investors with special enterprise zones and export processing zones, giving (FDI) Foreign direct investors tax breaks and tariff free processing, thus making their labour force (the world's largest with well over 1 billion people) seen even more appealing. [More evidence of synopticity and knowledge]

Emerging markets also provide services that the Asian Tigers cannot, for example India has a growing highly educated workforce, with over 350,000 English speaking graduates every year. They are suited to the high-tech service industry and there 'back office' functions for TNCs in services e.g. banks, such as HSBC, and American express as well as customer service for companies such as British airways and BT. [Knowledge and detailed use of case study] Their workforce is also extremely appealing as it is cheap as well as educated. [Evidence of c/u] It is estimated that if a British company moves 1000 jobs to India it will save £10 million. India also has invested in hightech areas such as Bangalore, with business and science parks, new holding offices for many of the world's major companies. [Brief use of example] Other examples of special benefits of alternative NICs and emerging economies is some of their locations provide a huge amount of natural resources and minerals. These include South Africa and areas in South America such as Brazil with mines, and a large supply of wood. This avoids TNCs from importing resources something that none of the Asian Tigers could provide. [Evidence of c/u] Brazil is now a major destination in the production of cars, for example the large Fiat production that occurs there. There is also a large amount of space for large industries. Another special case is Dubai which has developed ahead of the tigers due to the prevalence of oil in the country. However another one of the main benefits of these new NICs is their vast populations. With India and China

being two of the world's most populous nations they provide a market in itself. [Evidence of c/u] TNCs such as Unilever create household products for all over the world, with over 170,000 employees in 100 countries. And though they make brands for MEDCs such as the UK they also market their products to the country of manufacturing, such as India, Ghana and China also provides enormous amount of income. [Clear use of example, together with c/u]

As well as all of the competition from emerging nations, the growth of the Asian Tigers in today's economy was slowed by the large financial crisis they caused and endured in the 1990s. [Evidence of synopticity] The South East Asian Financial crisis put many of the economies into recession and had worldwide repercussions. It was caused by the economies growing too fast and the borrowing of money to expand. They were also vulnerable economies due to their reliance of support and business from other countries. So during the crisis business slowed and the problem was made worse. [Evidence of c/u] Though the countries did recover, they have not been able to generate the same phenomenal revenues and growth as before, leaving them behind the new super powers e.g. China, whose economy is expected to overtake the USA's in 2020. [Knowledge and c/u]

However this is not to say that the Tigers hold no future in the global economy. [Explicit link to question here at last - has been largely implicit to this point] The development that occurred after 1960 allowed the countries themselves and their population to move out of the LEDC status, something that China and India are far from with their large poverty stricken population, e.g. India 71% still work in agriculture. [Evidence of synopticity] Education is at very high levels with over 90% in secondary schools in many of the Tigers and living standards are much higher. This has also allowed the population to become more skilful and entrepreneurial. For example Taiwan is now home to many of its own TNCs often in high tech that can complete with western companies eg the mobile phone company Siemens which is used all over the world. [Use of example] They are now outsourcing to the NICs themselves to benefits from the cheap labour to establish their industries and projects. [Evidence of c/u]

Manufacturing itself is still an important industry in the Tigers' economy, and has not seen major decline (nowhere near to the extent seen in the UK). [Evidence of synopticity] For many TNCs moving countries is costly especially when there are large training and production costs. This means that many, often companies that require a more skilled service, continue to manufacture in the Tigers. Examples of this are often in the construction of software, computers and electronics eg Dell, HP and Mac so instead of decline, the Tigers have seen a change in the traditional manufacturing they developed eg plastic toys, and clothes. Now utilised for the more skilled construction and with the market of electronics and technology being one of the fastest in the world, it proves they are still a factor in the global economy. [Use if example, evidence of c/u, and a link to the question]

To conclude, the Asian Tigers have seen a shift in their importance in the global economy, with a decline in growth and the competition from the emerging newly industrialised nations, such as India, China, and Brazil (also known with other countries as the BRICS) who provide a more competitive market and cheaper labour. However the Tigers have learned to diversify and their previous development has allowed them to invest more greatly into education. [Evidence of synopticity] They provide a different service to the other newer developed nations and in many ways are beginning to compete with the large nations with their home-grown companies, therefore in many ways they are moving towards an even bigger part to play in the future global economy. [Clear conclusion with a summative view being expressed]

[The candidate has engaged with the question throughout, and there is a recurrent, though often implicit, recognition of the task in hand. The student demonstrates strong background and conceptual knowledge of this area of study, and there is frequent evidence of critical understanding of that knowledge. The answer makes regular reference to supportive examples, in terms of countries and/or firms - they are integrated well. If there is a weakness in this element it is in the lack of development of these examples. There are many ways to address this question - perhaps the candidate could have developed Brazil, or Dubai better, and also discussed the role of the existing developed world (USA and EU for example). But, in the time constraints that exist, the student has written a confident and competent answer.

One other aspect is that sometimes the language is not that clear, but this may be due to the candidate having so many ideas that he/she is struggling to get them down.]

Knowledge - Level 4 (higher)
Critical understanding - Level 4 (higher)
Case studies - Level 4 (lower)
Synopticity - Level 4
Quality of argument - Level 4 (lower)

Overall Level 4 (higher) - 37 marks.]