

Mark Scheme (Results)

June 2011

GCE Geography 6GE04
Geographical Research

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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.

Unit 4: Geographical Research Mark schemes

<p>Question Number 1</p>	<p>RESEARCH FOCUS: Explore the range of factors that make tectonic activity hazardous. Research contrasting locations to draw out the scale of impacts from tectonic hazards and disasters. QUESTION: Assess the relative importance of physical and human factors in determining the severity of tectonic hazard impacts.</p>
<p>Indicative content plus generic mark scheme- be prepared for different approaches to this Question.</p>	
<p>FOCUS:</p>	<p>The focus of this title is the factors contributing to differing levels of impact from tectonic hazards. The framework chosen may be by</p> <ul style="list-style-type: none"> • Physical factors(event profiles: magnitude, frequency, nature, strength....) and human factors (politics, population density, technology available, salience • Severity of impact(eco/soc/env, long /short term, local/larger scale) - measured by : <ul style="list-style-type: none"> ✓ Earthquake; Richter(magnitude-NB some more modern versions)) and Mercalli (intensity and damage) ✓ Volcano: VEI ✓ Tsunami: Sieberg-Ambraseys intensity scale • Level of economic development <ul style="list-style-type: none"> • Type of hazard- earthquake, volcano, and secondary hazard of tsunami, <p>Better candidates will justify their focus and framework more effectively and set up criteria for 'severity' to test their case studies.</p>
<p>Key ideas / concepts which candidates may discuss + possible case studies/ examples</p>	<p>An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals such as Geography Review, the New Scientist, or reputable websites like the USGS. Better candidates may develop the importance of topical, unbiased sources e.g. scientific/academic researchers e.g. USGS versus blogs and NGOs or have a comparison of sources in accuracy. Case studies/examples likely to feature: older examples like Kobe and Pinatubo useful here, as are all the newer e.g.: earthquakes in New Zealand, Haiti, Chile, Spain, volcanoes of Eyjafjallajökull and Grimsvotn, and the Indian Ocean tsunami 2004 and Japan tsunami2011..... Credit relevant fieldwork/primary research e.g. to Iceland, Sicily, Vesuvius and topical examples if relevant. Models may feature, e.g. Degg, Park's, event profiles.</p> <p>Key ideas:</p> <ul style="list-style-type: none"> ❖ A tectonic event is a physical occurrence resulting from the movement /deformation of earth's crust. They become hazards when have potential to cause loss life/property damage. Disasters are the realisation of this hazard. ISDR: '<i>A disaster is a function of the risk process. It results from the combination of hazards, conditions of vulnerability and insufficient capacity or measures to reduce the potential negative consequences of risk</i>'. ❖ Impacts severity = focus on negative impacts- social + economic - property and lives and Quality of Life. Can argue less severe impacts can actually be positive e.g. encouraging people to live in hazardous zone e.g. Iceland,

Sicily, Hawaii.

- ❖ Range of hazards from
- ✓ volcanic activity: lava, pyroclastics, ash, gases, lahars.
- ✓ earthquakes: ground shaking, displacement, liquefaction, tsunami.
- ❖ **Human factors** focus on vulnerability and human perception and response, management mitigation/adaptation. Wealth and economic development plus governance and aid often critical. Effective response may mitigate impacts.
- ❖ **Physical factors**: magnitude and frequency, duration etc .Not all tectonic events are hazardous: physical factors of deep earthquakes, low magnitude events, most intrusive activity. The causes of hazards are relevant here: plate boundaries and intraplate activity differ with subduction often producing more violent volcanic activity. However, the less explosive spreading ridge /hotspot constructive boundary under Iceland, caused Eyjafjallajökull and Grimsvotn, with long running economic effects. Changes in subduction zone activity over time may feature , e.g. Mt Merapi (effusive changed to explosive)
- May get discussion of: Secondary **hazard** of earthquake: tsunami /f Volcanic eruptions-lahars, floods, jokulhaup, **Tertiary effects**- e.g. crop failure, aircraft disruption, even Germany abandoning nuclear power post Fukushima incident

Credit those who go beyond simplistic viewpoint that all tectonic activity is hazardous to the same extent i.e. uniform severity, or it is all human factors or all physical. Depends on e.g. chosen.

Better candidates may:

- Weigh up the relative importance of the factors for their case studies more effectively.
- May discuss short and longer term effects, and perhaps use Parks model more effectively
- be more vigilant in referencing
- use accurately specialist geographical/associated terminology e.g. hazard profile, subduction zone, Benioff Zone, explosivity index, liquefaction, secondary hazard, asthenosphere, quasi-natural.

<p>Question Number 2</p>	<p>RESEARCH FOCUS Explore the variety of periglacial processes and their characteristic landforms and landscapes. Research a range of relict and present locations which show evidence of periglacial processes QUESTION To what extent do periglacial processes produce distinctive landforms and landscapes?</p>
<p>Indicative content plus generic mark scheme- be prepared for different approaches to this Question</p>	
<p>FOCUS:</p>	<p>The focus of this title is periglacial processes and the degree to which they create obvious more micro scale landforms and landscapes on a macro scale</p> <p>The framework chosen may be by:</p> <ul style="list-style-type: none"> • past/present locations: upland, lowland or relict, active). • periglacial associated with active glaciations. • processes – cryoturbation, freeze thaw – possibly split into above and below ground. • scale: micro-macro. <p>Better candidates will justify their focus and framework more effectively and debate the term distinctive: i.e. does it mean only found in periglacial areas, are they at different scales, types, or a combination of these. To whom is it distinctive-players? They may have some reference to glacial landscapes/landforms or fluvial ones to show distinctiveness.</p>
<p>Key ideas /concepts which candidates may discuss + possible case studies/ examples</p>	<p>An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals such as the Geographical Review, New Scientist, or reputable websites like the BAS, BGR’s Coldweb.</p> <p>Better candidates may develop the importance of topical, unbiased sources e.g. scientific/academic researchers e.g. BAS versus blogs and NGOs or have a comparison of sources in accuracy</p> <p>Case studies/examples likely to feature: any ‘edge of’ current glacial area, ANWR, Copper River Alaska, Scottish mountains e.g. Cairngorms have above ground periglacial processes still.</p> <p>Credit relevant fieldwork/primary research e.g. to Dartmoor, Snowdonia, Iceland, Alps and topical examples if appropriate: for example global warming resulting in changes to/loss of periglacial landscapes in e.g. Greenland and Scandinavia especially</p> <p>Key ideas</p> <ul style="list-style-type: none"> ❖ Periglacial not just at edge of glaciers, but anywhere with freeze/thaw processes resulting in displacement of soil materials, migration of groundwater, and the formation of unique landforms. ❖ Affects today c.25%of Earth's land surface, permafrost found in c.20% ❖ Active in UK still e.g. Cairngorms. Areas not affected by glaciation e.g. Devon, Snowdonia show relict distinctive erosional and depositional landscapes(Dartmoor) and features e.g. head deposits from solifluction around the coastline, ex pingos in the Brecklands. ❖ Main active areas today in Arctic or high altitude (alpine) locations not necessarily close to glaciers /icesheets.

- ❖ Periglacial processes(erosion-transportation-deposition) will produce generally less spectacular landforms than glaciers/icesheets although still may be classed as 'distinctive' because may only be found over permafrost or where repeated freeze thaw cycles operate. Landforms include upland tors, patterned ground, scree and in lowland areas micro ice wedge features. Landscapes are made up of assemblages of such features

Useful classification:

Distinctive landforms because unique to periglacial areas: ICE related		Less distinctive landforms because found in other environments	
Characteristic features created Above ground	Characteristic features created Below ground	Characteristic features -Ice related	Characteristic features -Other processes
Nivation creating nivation hollows and pro talus ramparts Solifluction creating lobes and helping large scale detachment slides occurs when (Gelifluction when on permafrost)	Frost heave creating patterned ground Ground water freezing and pingos and smaller scale palsas Contraction and ice wedge polygons Cryoturbation, thaw and thermokarst landscapes	Frost shattering creating scree and blockfields anywhere with water freezing into cracks- happens in temperate areas as well as glacial	Mass movement Aeolian creating loess Fluvial creating braided streams and floodplain features found wherever overloading of sediment

- ❖ Repeated ice advances and retreats mean many distinctive features have been masked/modified by glaciation and fluvio glaciation
- ❖ Since then fluvial and marine processes and weathering and erosion generally have modified/masked landforms, e.g. filling in valleys, creation of lakes, erosion of depositional forms especially at coastlines. Humans have also affected many.
- ❖ Other processes may be mentioned e.g. glacial, fluvial, general denudation to assess the 'to what extent' part of the question- the concept of equifinality may be introduced. However the main focus should be **periglacial**.

Better candidates may

- debate the term distinctive more effectively. Credit those who go beyond simplistic viewpoint that periglacial processes produce distinctive landscapes
- refer to both landform and assemblages of these making landscapes, and may refer to specific landscapes

- | | |
|--|---|
| | <ul style="list-style-type: none">• be more vigilant in referencing• use accurately specialist geographical/ associated terminology such as glacial, thermokarst, tundra, patterned ground, solifluction, head deposits, talus, terraces and lobes, ploughing boulders, blockfields, gelifluction, active layers, palsa, pingo, cryoturbation..... |
|--|---|

Question Number 3	RESEARCH FOCUS Explore the processes leading to food insecurity, including desertification. Research contrasting locations which show food insecurities, making particular reference to drylands. QUESTION Assess the extent to which desertification is a major contributor to food insecurity.
Indicative content plus generic mark scheme- be prepared for different types of approach to this Question.	
FOCUS	The focus of this title is how much the processes of desertification cause food insecurity. The framework chosen may be by scale/degree of insecurity , indices e.g. global hunger index, Maplecroft risk index, economic development, scale of contribution, location and possibly over time. Better candidates will justify their focus and framework more effectively, setting up criteria to test on major contribution to food insecurity'.

Key ideas /concepts which candidates may discuss + possible case studies/ examples

An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals such as the Geographical Review, New Scientist, Economist or reputable websites like the FAO, UNEP.

Better candidates may develop the importance of topical, unbiased sources e.g. scientific/academic researchers e.g. UNEP versus blogs and NGOs or have a comparison of sources in accuracy.

Credit should be given **to topical /current examples**.

Key ideas:

- ❖ **Food insecurity** (FAO) exists when people do not have adequate physical, social or economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life. 850m people are chronically hungry, up to 2bn lack food security intermittently. Over 50% of the world's population live in low-income, food-deficit countries that are unable to produce or import enough food to feed their people.
- ❖ **Desertification** (OECD) the **process** of land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors, including climatic variation (drought) and human activities (for e.g. the exploitation of drylands). It affects all continents except Antarctica, and affects the food security of over 40% global population: 2 billion people in drylands especially Asia, including Russia. So **it IS a major direct contributor**, but more immediate impact in **LDCs** - Africa and Central Asia compared with wealthier Australia, USA or Spain. However, the latter produce much global supplies of food so this may cause insecurity not so much within the country but to importing countries /areas especially poorer megacities dependent on outside supplies
- ❖ **WRI:** Drylands are generally subject to climate regimes that are not highly favourable to crop production. Low total rainfall and high variability in rainfall patterns present difficult challenges for growing crops
- ❖ In Sub-Saharan Africa: the Sahel, the Horn of Africa and SE Africa: severe droughts occur on average once every 30 years, although the major causal factor here is mismanagement as part of systemic issues developed since mid 20th C.
- ❖ **Desertification process** is from
 - ✓ **Direct/proximate causes:** FAO: desertification process started and expanded following the change from a cold-humid climate to a warm-dry climate during the late Tertiary or early Quaternary periods. Natural or climatic factors therefore include climatic change in geological periods and climatic variation or periodical alternations now. Fragile dry land ecosystems and agricultural systems easily disrupted.
 - ✓ **Indirect/root causes:** Artificial or biological factors include negative influences of human activities on the natural environment, such as over-cultivation, overgrazing, large-scale irrigation of farmland, overcutting of fuelwood and overuse of water resource. Although natural factors were originally responsible for desertification, **artificial factors now speed up the progress**. The enhanced greenhouse effect created by modern industrialization and urbanization also contributes to desertification. Impact on food security: less supply and poorer nutritional value from products.

Other contributors to food insecurity which may be included in terms of assessing the contribution of desertification's role.

- The different people/organisations who are the players in the food security problem.
- Role of global patterns in trade, aid, debt repayments.
- Other socio-economic factors; land tenure, economic status, poor governance, role of supermarkets and TNCs, war and civil issues, gender equality, rise of middle classes and food transition.
- Environmental contributors: Natural disasters of: volcanoes, floods, drought and pests; overcropping + overgrazing; urban sprawl ; Pollution + Climate Change especially drought.
- 2007 + fuel and food crises/food spike.
- The biofuel and land grabbing issues reducing land used for local agriculture and food supply.

Better candidates:

- ❖ May challenge the viewpoint that desertification is a major factor in food insecurity- depending on case studies chosen.
- ❖ They will investigate the processes involved more (rather than isolated factors) and weigh up human/natural aspects for each case study
- ❖ They will use accurately specialist geographical/associated terminology such as, nutritional spectrum, desertification, degradation, salinisation, marginal food supply areas, land tenure, bottom up, transitory and chronic food insecurity, food spike, megacity, intermediate technology.

<p>Question Number 4</p>	<p>RESEARCH FOCUS Explore the concept of cultural diversity and varying views about globalisation's impact on cultures and their diversity. Research the contrasting influences of globalisation on cultural diversity at a range of locations and scales. QUESTION Assess the extent to which globalisation is having a negative impact on cultural diversity.</p>
<p>Indicative content plus generic mark scheme - be prepared for different types of approach to this Question.</p>	
<p>FOCUS:</p>	<p>The focus of this title is how much globalisation as a process is affecting the diversity of culture and landscape, from local to global scales. The framework chosen may be: positive or negative type/strength of threat, location, time scale, type of culture/landscape, economic development, level of vulnerability, or actual reason: globalisation, government, TNC, etc. Theories like hyperglobalisers / transformationalists / sceptics may also be used or Huxley's model of artefacts / sociofacts / mentefacts. Better candidates justify their focus and framework more effectively and will weigh up the degree of negativity, and consider WHO is judging the impact.</p>
<p>Key ideas /concepts which candidates may discuss + possible case studies/ examples</p>	<p>An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals such as the Geographical Review, Economist or reputable websites like UNESCO. Better candidates may develop the importance of topical, unbiased sources eg scientific/academic researchers e.g. university led ,versus blogs and NGOs such as Survival International or have a comparison of sources in accuracy. Key ideas.</p> <ul style="list-style-type: none"> ❖ Culture = a system of shared meaning: religious, ethnic, language, tradition + also art and music. Diversity = variations. Culture is not fixed/rigid but evolves with inputs: new people/ideas/ technology advances, so could argue that change is inevitable. Time scale may be taken ❖ Culture + cultural landscapes may feature ❖ Changes are both positive and negative from the multifaceted processes of economic, social and political globalisation. Negative impact may be large/small, direct/indirect.....or on a short/longer timescale. May well be different viewpoints on this, as shown in major theories ❖ Globalisation isn't just westernisation and McDonaldisation (popularised by George Ritzer) since many cultures are not overtaken by consumerist culture but may glocalise it and hybridise it- as seen in music e.g. rap and hip-hop. This links with the switched on/off locations studied at AS. ❖ Views vary greatly as to significance of globalisation on cultural diversity- pessimistic hyperglobalisers (reduction of cultural diversity, eventually all will be McDonaldised) to sceptics (not global but reinforces original N-S divide especially Africa). In the middle=

transformationalists.

- ❖ Global TNCs and media corporations e.g. Disney, Viacom, are important in spreading dominant cultural values/attitudes, especially with cultural globalisation
- ❖ Globalisation is often linked with the dominant current culture associated with consumerism- which may be seen as negative if older customs/values are lost. Key to globalisation = technology--- internet and increase in social networking
- ❖ Cultural globalisation may be localised- and hybridised e.g. Bollywood
- ❖ Urban areas may be more subject to the processes of globalisation as gateways, hubs, with more communication networks
- ❖ Cultural imperialism(imposition of one culture on another) is an increasing threat, e.g. Tibet,
- ❖ Globalisation and consumerist culture can be viewed as a type of imposition/threat – as viewed by some Islamic cultures, even nations like France or Wales or Basque which try to retain national/regional identity
- ❖ Some governments foster diversity- e.g. UK, other shun it e.g. Japan, France, Myanmaror Bhutan regulating tourism
- ❖ Some cultures are more vulnerable to negative effects - small subcultures e.g. Yanomani or Inuit
- ❖ Credit should be given to **topical /current examples**, e.g. latest form of spread of culture via globalisation from rising superpowers: e.g. China land grabbing and influence e.g. Chittagong, Kenya, China town in London or San Francisco - NB not all necessarily negative? May venture into the politics and change in culture unfolding in N Africa and Middle East-role of Facebook, twitter.....or even white weddings post the royal one 2011

Credit those who go beyond simplistic viewpoint that globalisation is just McDonaldisation and it is all negative.

Better candidates

- ❖ may use accurately specialist geographical/associated terminology such as, globalisation, glocalisation, Bollywood, financescape, imperialism, hyperglobalisers, sub culture, externalities.....
- ❖ may use the theories more accurately and consistently
- ❖ may be more vigilant in referencing e.g., Geography Review, National Geographic
- ❖ May judge the impact on the basis of 'negative for whom', the type of impact, the severity of impacts or the timescales.

Question Number 5	<p>RESEARCH FOCUS</p> <p>Explore how far health risks can be linked to factors such as transport, environment and others.</p> <p>Research the links between different types of health risks and human and physical features at a range of locations.</p> <p>QUESTION</p> <p>Assess the extent to which health risks can be related to geographical features.</p>
<p>Indicative content plus generic mark scheme- be prepared for different types of approach to this Question.</p>	
FOCUS:	<p>The focus of this title is the role of geographical features as factors in contributing to health risks: human, physical.</p> <p>The framework chosen may be by feature / factor, health risk, scale of issue, morbidity/mortality, possibly the epidemiological transition, physical or human features.</p> <p>Better candidates will justify their focus and framework more effectively and may use the epidemiological model, models of diffusion, economic development, chronic or short term risk, physical-human feature. They will have a clearer set of criteria to test the relationship.</p>
Key ideas /concepts which candidates may discuss + possible case studies/ examples	<p>An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals such as the Geographical Review, Geofiles, New Scientist, BMJ, Economist or reputable websites like the WHO , NHS.</p> <p>Better candidates may develop the importance of topical, unbiased sources e.g. scientific/academic researchers e.g. BMA versus blogs and NGOs or have a comparison of sources in accuracy Credit should be given to topical /current examples.</p> <p>Key ideas</p> <ul style="list-style-type: none"> ❖ There are a vast array /range of health risks, including infectious, chronic, degenerative, acute and trauma. Also genetic may be mentioned. ❖ The relationship between these and geographical features may be in the initial cause of the risk, and/or its subsequent development and spread. ❖ Some health risks are NOT so linked to geographical features(e.g. many cancers, ischemic heart disease) but more lifestyle choices. ❖ Health risk equation: <i>Risk to longevity and quality of life= health hazard exposure, + vulnerability – management.</i> ❖ Geographical Features may be split into physical and human: clear links with some diseases • Physical: poor sanitation and water supply, polluted water, (diarrhoea, malaria... Vectored diseases e.g. mosquitoes) changing global conditions, e.g. ozone depletion, (skin Cancer) ; global warming, (malaria and more climate shocks of extreme heat or cold; more lethal natural hazards such as tsunamis and floods . Pollution causes many health risks, from sustained and incidental sources. It

alters in type according to the type of economy and management effectiveness. The Kuznet curve model may feature. Vectored and non vectored risks may be linked to geographical features both physical and human.

- **Human** (more varied) involving lifestyle choices and external changes: e.g. Increased migration , especially air travel, and more rapid spread of infectious diseases. rise in industrialisation and links to pollution. Not so much a geographical feature is the overuse of antibiotics, but this is a factor.
- ❖ Currently the biggest global health risk cause= non communicable chronic diseases especially cardiovascular. Health transition changes means double health burden for transition economies like China, India .However more regional/local causes may vary- e.g. in very poor countries infectious disease still a main killer. The relationship is hence complex. Not really a geographical feature but is a factor.
- ❖ Diffusion models would be appropriate here, e.g. of recent Swine Flu or measles. May use epidemiology model or diffusion models, and time scales.

Credit should be given to **topical /current examples**, e.g. Dengue fever increases from improved transport and resistance to pesticides in the Caribbean and N America. Refugees from natural disasters (e.g. Haiti) or political upheaval (e.g. Libya, N Africa).

Credit those who go beyond simplistic viewpoint that all health risks are all linked to geographical features- although it depends how catholic the term geographical feature is defined.

Better candidates may be more vigilant in ongoing referencing and use accurately specialist geographical/associated terminology such as chronic, epidemiology, health risk, health shock, prevalence, pandemic, epidemic, diffusion, source, sink ,sustained, incidental, DALYs (Disability Adjusted Life Years).

<p>Question Number 6</p>	<p>RESEARCH FOCUS: Explore a variety of measures to assess significance and fragility such as environmental and ecological value and nature and intensity of use. Research a range of rural locations deemed to be of high value and under threat from leisure and tourism. QUESTION Discuss the criteria that might be used to measure the significance and fragility of rural landscapes used for leisure and tourism.</p>
<p>Indicative content plus generic mark scheme- be prepared for different types of approach to this Question.</p>	
<p>FOCUS:</p>	<p>The focus of this title is way in which rural landscapes may be audited as to their intrinsic importance for landscape, ecology, culture etc and their resilience to use by leisure and tourism.</p> <p>The framework chosen may be by type of urban fringe---wilderness spectrum, player assigning criteria (e.g. National Park authority, UNESCO, private organisation, cultural group), type/strength of fragility and/or significance, type of leisure/tourism or location, economic standing, or length of development, fieldwork locations and secondary research locations.</p> <p>Better candidates justify their focus and framework more effectively and go into more depth on criteria. They will be clearer in their definitions.</p>
<p>Key ideas /concepts which candidates may discuss + possible case studies/ examples</p>	<p>An indication of Methodology should feature: why/ what particular material was used, reputable sources like academic text books and journals such as the Geographical Review, New Scientist, Economist or reputable websites like UNESCO or a National Park Authority.</p> <p>Better candidates may develop the importance of topical, unbiased sources e.g. scientific/academic researchers e.g. BAS, UN versus blogs and NGOs and TNCs or have a comparison of sources in accuracy</p> <p>Key ideas</p> <ul style="list-style-type: none"> ❖ Both leisure and tourism activities should be covered. ❖ Both significance and fragility should be covered in the answer. ❖ Expect use of the carrying capacity and resilience models helping to create criteria to measure significance (importance) and fragility (vulnerability to change) qualitative and quantitative measures to test significance e.g. of SSSIs, N Parks. ❖ Some rural landscapes are viewed as physically significant globally , e.g. UNESCO sites- Jurassic Coast, Lake District or parts of Himalayas ❖ Some are ecologically significant too e.g. Ngorongoro or Antarctica. ❖ Many have cultural significance- e.g. Uluru or areas in coldlands / mountains etc. ❖ Managers and pressure groups use a variety of qualitative and quantitative indicators to designate and zone e.g. National Parks (VERP in USA) and SSSIs(UK) ESAs(EU)....NB controversy over boundaries for latest NPs in UK: New Forest and South Downs. ❖ Some settlements, especially honeypot sites in national parks may be classed as physically, and socio-economically fragile from the pressures, threats and uncertainties of a fickle industry. ❖ Effective management may enhance significance and decrease fragility e.g. Macchu Piccu.

- ❖ Some areas may not be significant per se other than useful in space- e.g. many urban fringe locations
- ❖ Some originally degraded rural areas have had their significance enhanced e.g. ex mining sites of Eden Project or Ebbw Vale Garden Festival site, or Doncaster's Earth Centre.
- ❖ The Prosser carrying capacity model and Trudgill resilience models may be used to assess these concepts.
- ❖ Players like English Nature, Natural England, local councils, National government e.g. DEFRA, TNCs all involved in trying to quantify landscapes and ecosystems- but may have varying agenda.

Credit should be given to **topical /current examples** e.g. New National Parks like in the UK (the South Downs) or in Russia (2010-2020). UNESCO sites like the Lake District and The Jurassic Coastline or smaller Country Parks and nature reserves would also be relevant.

Credit those who go beyond simplistic viewpoint that only quantitative or conversely qualitative measures may be used.

Better candidates may be more vigilant in ongoing referencing and accurate use specialist geographical /associated terminology such as carrying capacity, pleasure periphery, resilience, degradation, qualitative and quantitative measures, rebranded, commodification, valorisation.

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