Paper 1 (Our Natural World) – Case Studies

Unit	*Case Studies – Key content*		
Hazards: Tectonic and Atmospheric	**Haiti, 2010 (LIDC)** 7.0 magnitude. Conservative boundary - Caribbean and N American Plate. Shallow focus and epicentre 25km from the capital, Port-au-Prince. **Consequences:** 3 million affected, over 220,000 deaths, 300,000 injured. 1.3 million made homeless. 30,000 businesses collapsed, damage to airports and ports in the capital city **Responses:** Dominican Republic provided aid (food, water and medical supplies). Emergency rescue teams arrived from Iceland. Temporary hospitals set up. 'Cash for work' schemes helped Haitians.	**Tropical Storm: Typhoon Haiyan (EDC)** November 2013, "super" storm, category 5. Originated in an area of low pressure. Ocean temperatures reached above 30°C which fuelled growth. **Consequences:** Storm surge destroyed Tacloban. 6,300 deaths, 600,000 people displaced, 30,000 fishing boats damaged, flooding, Power lines down, crops destroyed. Water shortages, disease, looting in Tacloban. **Responses**: 1200 evacuation centres, US aircraft bring aid, UK send shelters, French and Belgian field hospitals, "cash for work" programmes, financial aid, Oxfam helped replace fishing boats, more shelters built for the future.	**UK 2022 Heatwave (AC)** **Causes:** A change in the UK's jet stream in mid-July meant that air was being sucked up from NW Africa, Spain and Portugal. **Consequences:** Infrastructure - Rail tracks near London's King's Cross caught fire. Avanti trains could only run one service an hour at reduced speed. Ice cream sales broke records, with over 9 million sold in 5 days. 18 firefighters in London alone were injured tackling blazes. **Responses:** Red Weather Warning (the first ever in the UK) was declared. Network Rail issues a 'DO NOT TRAVEL' warning - passenger levels dropped by 40%. London Fire Brigades busiest day since WWII: drafting in units from Hertfordshire to assist.
Changing Climate	**UK Impacts of Climate Change (AC)** **Climate:** 2 Degree temperature increase by 2050, warmer and wetter winters, warmer and drier summers. **Coastal Flooding:** Low lying areas could see more flooding. Erosion rates will increase. More elderly people may suffer. **Extreme Rainfall:** More floods in winter, current damage each year is £1.3bn. **Heat Problems:** Rise in heat related death and illness, water shortages worse in South. 9000 additional salmonella cases. **Positive Impacts:** UK can grow crops just like France – different incomes created. Opportunity for increased tourism, especially coastal areas.		**Global Impacts of Climate Change: Tuvalu (LIDC)** Island is predicted to be uninhabitable within the next 100 years. 9 islands in South Pacific. Low lying. 11,000 population. Economy based on fishing. **Impacts:** Increased salinization (water pollution) affecting soil and farming, water wells polluted, tides flood homes and roads, main airport runway under threat. **Management:** Government campaign for community action, people migrating to nearby New Zealand – climate refugees. Japan supports coral reef restoration programme. Sea walls built; however, these are costly and ineffective as sea water can rise through the ground.
Distinctive Landscapes	**Walton on the Naze, Essex** **Problem:** Suffers from coastal erosion, London Clay and Red Crag rocks easily eroded. Slumping and LSD. **Management:** 1977: large groynes installed; sea wall enhanced. 1998: £167,000 for 300 tonnes of granite near the Tower – reduced erosion of the cliffs. 1999: Beach replenishment took place to reduce wave speed and erosion. **Successes and Failures:** + 'Hold the line' strategy has been successful. Erosion has been reduced to approximately 2m per year. X Future risk as erosion rates increase. Northern areas erosion is increasing as groynes trap sediment which would act as a buffer further south.		**River Tees, NE England** **Location:** Source = Cross Fell in Pennines, Mouth = North Sea at Middlesbrough. 128 km long. **Key Features:** • High Force water fall and gorge (dolomite overlying limestone) in upper course • Meanders in the middle course • Floodplains in middle and lower course **Management:** Tees Valley Barrage costing £54m installed to control water flow. Yarm flood defence scheme was installed in 1995, costing £2.1m. Land use zoning. **Successes:** No major flooding since 1995. The barrage led to £500 million of investment including shopping facilities.
Sustaining Ecosystems	**Sustainable Management of an Area: Costa Rica** S America. Deforestation rates fell from 1.3% loss in 1970 to 0.1% loss in 2010. **Solutions:** Afforestation – Trees are planted to replace forest that has been lost. Selective logging – Trees felled only when they reach a certain height. **Samasati Nature Reserve:** + Minimal negative environmental impact as it is small-scale. Creates local employment. Uses local timber for accommodation. Recycles rainwater. Uses natural light. X Land prices have increased. People have migrated into the area increasing pressure on the local infrastructure.	**Small Scale Example of Sustainable Management: The Ice Hotel (Sweden)** **Background:** World's first hotel made of ice and snow from local area. Founded in 1989, up to 100 guests. **Tourism Activities:** Ice sculpting, sled dog ride, visiting reindeer. **Successes:** Building only from river ice (river Torne), using solar panels for energy, eco-hotel, Local people involved in development. **Failures:** Negative environmental impacts. In winter, the hotel needs fossil fuels. Hotel depends on Climate Change effects – shorter winter season.	**Global Example of Sustainable Management: The Arctic Council** Formed in 1996, 8 member states, aims to protect Arctic ecosystem through cooperation. **Aims:** Acts to support nations reduce emissions and pollutants, monitors the Arctic environment, works towards sustainable development. **Successes:** Helped negotiate three legally binding contracts, research has enhanced understanding of the ecosystem, potential for future Arctic Treaty. **Failures:** No programming budget, not legally binding, pirate fishing increased, Council's existence under threat.

Paper 2 (People & Society) Case Studies

<table>
<tr><th>Unit</th><th colspan="4">Case Studies – Key content</th></tr>
<tr><td>Urban Futures</td><td colspan="2"><u>London, United Kingdom (AC)</u>
International Importance: One of the most important financial centres in the world. Headquarters of many TNCS.
National Importance: 22% of UK's GDP (wealth).
Migration: London is very ethnically diverse. People migrate internationally for employment, education and family. Internal (UK) migrants tend to be between 20-30 years old looking for employment and high education.
Character: Notting Hill Carnival celebrate the British West Indian population. Chinatown is traditionally Chinese.
Contemporary Challenge: Deprivation – London is very unequal. 16% of Londoners are in the poorest tenth nationally. Poorest suffer lack of access to health and housing.
Opportunity and Sustainability: East Village Sustainable Housing – filters rainwater to reduce consumption. Green roofs to encourage wildlife.</td><td colspan="2"><u>Rio de Janeiro, Brazil (EDC)</u>
International Importance: Important tourist destination.
National Importance: 5% of Brazil's GDP (wealth). Trading port.
Migration: 190k Portuguese immigrants, with same Spanish language. Nationally mechanisation hasp ushed people from rural areas to Rio. Rural-urban migration contributes to 65% of growth.
Character: 2.8 million tourists annually. High crime rates (2021 – 4,600 shootings). 16 million live in poverty. Large favelas.
Contemporary Challenge: Squatter settlements (favelas) – 25% of Rio's population. No public services, electricity or water. Run by drug and trafficking gangs. Traffic congestion – 80% own cars. Most congested city in S America. Air pollution from CO2 is high.
Opportunity and Sustainability: Bus Rapid Transit – Cost $1.9 billion and involves four planned bus routes. Advantages: Reduced CO2 by 38%. Bus only lanes and 'pay off the bus' system. Disadvantages: Not all can afford the fares. Car numbers continue to rise.</td></tr>
<tr><td>Dynamic Development</td><td colspan="2"><u>Development in Zambia, Africa (Part 1)</u>
Background: Landlocked, rich in copper, was a British colony, 14 million population.
Timeline of Events that Helped or Hindered Development:
1964 – Gains independence. However, few Zambians are trained to run the country.
1990 - Zambia's debt is now very high. Food is expensive to buy which leads to riots.
2006 - The IMF cancels Zambia's debt, enabling the government to spend more on services.
2010 – Development of new industries like tourism and hydro-electric power. Reduces reliance on copper.
Millennium Development Goals: Zambia has mixed achievements – HIV dropped, child mortality still high, 90% attendance at primary school, 10% still suffer from AIDS.
Copper (commodity): Over reliance. 70% of all of its exports. 1970-2000 copper prices fell, Zambia fell into debt. Today, economy has diversified – tourism and trade.</td><td colspan="2"><u>Development in Zambia, Africa (Part 2)</u>
Transnational Companies (TNCs): Provide jobs and income, taxes support Government spending, but small companies can't compete and they pollute the environment. Proportion of income leaves the country to ACs (leakage).
Example: Associated British Foods (ABF). Produces most of the sugar in Zambia. Apart from jobs, the company provides free healthcare and schools for its workers. However, it paid no tax between 2008-2013.
Relationship with China: Over 500 Chinese companies now invest in Zambia, Funding the TAZARA railway and expansion of the Kariba dam allowing more electricity to be generated.
Kariba Dam (Top-Down Project): Energy from this is vital to power copper industry, fishing and tourism has begun. 57,000 local people evicted from land.
Water Aid (Bottom-Up Project): Install simple, low-cost water pumps and toilets. Provided 54,000 people safe water, 42,000 improved sanitation. Small-scale, so minimal national impact.</td></tr>
<tr><td>UK in the 21st Century</td><td><u>Changes to Population Structure and Ethnic Diversity: London</u>
Structure: Movement of young people into the city, subsequent increase in birth rates, as people age they leave the city.
Ethnic Diversity: Between 2001 and 2011, London changed from a mainly White British population to become a city with a majority of other ethnic groups. Free movement of people as part of the EU drove an increase in non-UK White population. This also increased the number of working-age people. Migration brings new food and drink to the area. Camden celebrates a range of cultural festivals.</td><td><u>Global Conflict: Russian invasion of Ukraine</u>
Background: As part of NATO the UK has supported sanctions on Russia and provided both military and financial aid.
The UK has played a 'significant' role
In the first four months the UK donated £3.8 billion. Second only to the USA in terms of military aid. Supplied anti-tank missiles and set up military programmes in the UK to train Ukrainian troops.
UK has NOT played a significant role
UK is outspent significantly by the US. In terms of proportion of income, smaller nations e.g., Estonia have contributed more.</td><td><u>Economic Hub: Cambridge</u>
Changes: Now has 14 billion-dollar companies. Growth is slowing due to housing and transport problems. New infrastructure such as new guided bus routes and upgrading of A14 supports new growth and reduces congestion.
Regional Importance: 25 of the world's largest corporations based in the city.
National Importance: World-leading University, one of Europe's top technology areas, income measures are 34% higher than the national average.</td><td><u>Contribution of ethnic groups to Food in the UK: Chinese Food</u>
Now the most popular takeaway food in the UK (25% of the market). 'Chinatown' now exists in many UK cities, such as London and Manchester. Chinese influence on the UK has changed food culture, and therefore overall culture.
<u>Media Exports and UK Influence:</u>
Film and TV are worth over £70 billion a year, creates 1.7 million jobs. Skyfall (2012) most successful film in British box office history. TV formats are sold to other countries to be adapted e.g., Come Dine with Me. This promotes English language around the world alongside UK brands and celebrities.</td></tr>
<tr><td>Resource Reliance</td><td colspan="2"><u>Tanzania, Eastern Africa</u>
Background: One of poorest countries in the world, low level of food security. Serious hunger on the Global Hunger Index. 32% of people live in food security.
Top-Down Approach to Food Security:
Past: Canada Wheat - provided $95 million in aid, project covered 24,000 hectares of land. Tanzania almost became sufficient in growing its own wheat, only southern African country not to need food aid in 1992 drought. However mainly benefited Canadian businesses and would've been cheaper to just import wheat.</td><td colspan="2">Present: SAGCOT – Created a 'growth corridor'. Investment of millions of dollars to improve infrastructure. Increased the amount of rice grown, better prices due to improved access to markets. However, most money goes to commercial farms and not all promised investment has been delivered.
Bottom-Up Approach to Food Security:
Goat Aid programme launched in 1999. £200,000 was invested. Goats produced milk and meat for families. Only small-scale, so did not benefit nationally. Goats also requires lots of water (scarce resource).</td></tr>
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