Tuesday 12th April 2022

Geography Revision – Paper 1

Structure

Section 1 – Natural Hazards (Tectonics, Climate Change, Weather) 33 Marks

Section 2 – The living world (33 Marks)

Section 3 – Coasts (22 marks shared between Sections 3 and 4)

Section 4 – Rivers (22 marks shared between Sections 3 and 4)

* 88 Marks
* 1 hour 30 mins
* SPaG assessed on one 9-mark question

Natural Hazards

A natural hazard is a natural event which poses harm to people and property.

Distribution of Earthquakes – Found in belts along plate margins. Some found away from margins due to human activities such as fracking.

Distribution of Volcanoes – Found in belts at destructive and constructive plate margins.

Natural Hazards have primary and secondary effects:

* Primary – Immediate impacts caused by the hazard itself
* Secondary – Effects that happen later, as a result of the primary effects.

Tectonic Hazards – Case Study

Effects

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| --- | --- |
| Nepal (2015) Mag. 7.9, cost $21b | Chile (2010) Mag. 8.8, cost $247b |
| Primary Effects:   * 9000 killed, 20,000 injured * 7000 schools destroyed; 500,000 homes destroyed * Communication lines broken * 1.4 million without food and water | Primary Effects   * 500 killed, 12,000 injured * 4500 schools destroyed; 220,000 homes destroyed * Power lost * Ports and Airports damaged |
| Secondary Effects:   * 3 million homeless * Landslides and Avalanches on Mt. Everest * 250 missing as a result of avalanche * Evacuation due to risk of flooding from blocked River Gandaki | Secondary Effects:   * 1.5 million left homeless * Tsunamis damaged coastal areas * Remote communities cut off by landslides * Fire at a chemical plant in Santiago |

Responses

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| --- | --- |
| Nepal (2015) Mag. 7.9, cost $21b | Chile (2010) Mag. 8.8, cost $247b |
| Immediate Responses:   * International help requested * Search and Rescue and supplies sent from India, China, and the UK * Field hospitals set up * 500,000 tents provided | Immediate Responses   * Emergency services acted quickly * Field hospitals set up * Satellite phones and floating bridges used * Power and water restored to 90% of homes * Repairs made to Route 5 North-South highway within 24 hours |
| Long-Term Responses   * Roads repaired and landslides cleared * Blocked lakes and rivers cleared * Stricter building codes introduced * New trekking routes created, and visas extended. | Long-Term Responses   * Reconstruction plan launched to help 200,000 affected homes * Copper exports helped to restore the economy * Took up to 4 years to recover. |

Weather Hazards

Typhoon Haiyan (2013) – Philippines, Cat. 5 tropical storm

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| --- | --- |
| Primary Effects:   * 50% of houses destroyed * 6190 killed * 75% of farmers and fishermen lost income * Damage to crops worth $53m * Oil barge caused 800,000L spill * 400mm of rainfall caused flooding | Secondary Effects:   * 4.1m homeless * Infection and disease spread through contaminated water * 8 killed in a stampede as survivors fought for rice crops * Power cut off for a month * Schools destroyed * Looting and violence in Tacloban due to lack of food * Flooding caused landslides |
| Immediate Responses:   * Government televised an evacuation warning * 1200+ evacuation centres set up * Emergency aid arrived by plane within 3 days * 800,000 people evacuated * Curfew enforced 2 days after to prevent looting * Beckhams, X-Factor, and Coca-Cola fundraised * 1m food packs and 250,000L water distributed | Long-Term Responses:   * A cash for work program set up to pay people to clear debris * More cyclone shelters built * Mangroves (a crop) were replanted * No build zone established in areas at risk of flooding * “Build back better” recovery program created in 2014 which reinforced buildings * Total damage cost - $12b |

Svalbard

Development Opportunities:

* Mineral Extraction – 300 people employed in this industry, after a new coal mine was constructed near Svea in 2014
* Energy – Coal used to power Longyearbyen’s power station, which supplies all of Svalbard. Extensive reserves of coal and gas in Svalbard’s coastal waters.
* Fishing and Tourism – 150 species in the water, one of the richest in the world. 70,000 tourists per year, 30,000 cruise liners per year.

Challenges of Cold Environments

* Extreme Temperatures – Below freezing, Longyearbyen often below -30
* Inaccessibility – Only 50Km of roads, flights only from Norway or Russia, most transport requires snow mobiles
* Buildings and Infrastructure – Construction can only be done in the summer months, buildings are well insulated, gravel roads raised above the surface to prevent heat transfer