Edexcel IAL Geography

World at Risk

Glossary of Definitions

Accretion Wedge - The accumulation of material at the point of subduction.

Anticyclone - A system of high pressure, causing high temperatures and unseasonably high evaporation rates.

Aseismic Buildings - Buildings designed to withstand or minimise destruction during an earthquake.

Asthenosphere - The upper mantle layer of the Earth. It is semi-molten and approximately 2000km wide.

Ash - Fine particles and dust ejected during an eruption, which can remain airborne as clouds or accumulate on the ground.

Channel Flow - Water flowing in a rivulet, stream or river

Continental Crust - Crust that forms the continents of the lithosphere, on average 35km thick.

Continental Drift - The movement of tectonic plates, due to varying weights of crust. It was originally thought that convection currents caused the movement of the plates, but now Slab Pull is thought of as the primary driving force.

Convection Currents - The circulation of magma within the mantle (asthenosphere). Magma is heated by radioactive processes in the core and cools at the surface, and so circulates between the two places.

Convectional Precipitation - Solar radiation heats the air above the ground, causing it to rise, cool & condense forming precipitation (often as thunderstorms)

Degg's Model - This model shows that a hazard becomes a disaster if it affects a vulnerable population.

Depression - A system of low pressure, with fronts of precipitation where low and high pressure air masses meet.

Drainage Basin - The area of land drained by a river and its tributaries

Drainage Density - The total length of all rivers & streams divided by the area of the drainage basin

Drought - An extended period of deficient rainfall relative to the statistical average for the region (UN)

Economic Water Scarcity - When water resources are available but insufficient economic wealth limits access to it

Enhanced Greenhouse Effect - The build-up of greenhouse gases in the atmosphere, reducing the amount of solar radiation reflected into space.

ENSO Cycles - El Nino Southern Oscillations - naturally occurring phenomena that involves the movement of warm water in the Equatorial Pacific.

Epicentre – The point on the surface, directly above the earthquake's origin.

Focus – The place in the crust where the pressure/seismic energy is released.

Glacial Period - A period of time of colder average global temperatures causing the growth of ice cover, glacial advances and sea levels to fall.

Hazard Mitigation Cycle - The sequence of governance of a natural hazard: monitoring & prediction, mitigation, preparedness.

Holocene Epoch - Our current glacial period of limited ice cover, lasting over 10,000 years.

Hot Spot - Volcanoes found away from the plate boundary, due to a magma plume closer to the surface.

Hydrological Drought - Insufficient soil moisture to meet the needs of vegetation at a particular time

Interglacial Period - A period of time of warmer average global temperatures, resulting in reduced ice cover, glacial retreat and sea levels to rise.

Jokulhaup - A sudden glacial flood caused by a glacier on top of or near a volcano melting due to the heat from the eruption.

Lahar - A flow of mud and debris.

Lithosphere - The upper crust of the Earth (average thickness = 100km).

Love Waves - A surface earthquake wave with horizontal displacement.

Meteorological Drought - When long-term precipitation trends are below average

Mid-Ocean Ridge - Parting oceanic plates at a constructive plate boundary creates a ridge, with new land at the base of the oceanic valley.

Milankovitch Cycles - Changes to the tilt and shape of the orbit will affect the average temperature of the Earth.

Moment Magnitude Scale - A measure of an earthquake's energy released, considered the most accurate measure.

Oceanic Crust - Crust, usually thinner than continental crust, that forms the sea floor. It is on average 7km thick.

Orbital Eccentricity - How far a planet's orbit is from being a perfect circle.

Paleomagnetism - The alternating polarisation of new land created. As magma cools, the magnetic elements within will align with the Earth's magnetic field, which can alternate over thousands of years.

Park's Model - A model describing the decline and recovery of a country over time, following a natural disaster.

Partial Melting - Elements within the lithosphere have different melting points, and so rock is partially melted, partially solid.

Permafrost - Permanently frozen soils throughout the year.

Physical Water Scarcity - A physical lack of available freshwater which cannot meet demand

Primary Waves - An earthquake wave causing compressions within the body of rock.

Pyroclastic Flow - A mixture of gases and rock fragments, at high temperatures travelling at rapid speeds.

Rayleigh Waves - A surface earthquake wave causing both horizontal and vertical displacement.

Richter Scale - A logarithmic measure of earthquake's intensity.

Runoff - Water flowing over the surface of the ground eg. after precipitation or snowmelt.

Secondary Waves - An earthquake wave causing vertical displacement within the body of rock.

Seismic Waves - The energy released during an earthquake, in the form of Primary, Secondary, Love and Rayleigh Waves.

Slab Pull - The force contributing to the movement of tectonic plates. Slab Pull is due to the weight of the plate.

Subduction - Oceanic plate is forced below continental plate, due to the oceanic plate being more dense than the continental plate.

Thermohaline Circulation - The movement of volumes of seawater from cold deep water to warm water surface water.

Tipping Point - A critical threshold where any changes to a system after the tipping point are irreversible.

Tsunami - Initial vertical water displacement (often from a submarine earthquake) creates waves, with large destructive power.

Volcanic Explosivity Index (VEI) - A measure of the magnitude of a volcano's eruptions.

Volcanic Island Arc - A series of volcanoes (often in the shape of an arc) that are formed consecutively, as a tectonic plate moves across a magma plume.

Wadati-Benioff Zone - A region of the subducting plate, most affected by pressure and friction, where most destructive margin earthquakes originate.