

Edexcel A Geography GCSE

Topic 6B: Water Resource Management Glossary of Definitions

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Abiotic Components - Non-living environmental factors that have influence over the ecosystem (e.g. climate, light exposure, soil type).

Air Pollution - The level of toxic gases and particulates in the air.

Aquifer - A permeable or porous rock which stores water.

Biodiversity - The variety of species of plants and animals within a region.

Biotic Components - Living organisms that interact with the environment and other organisms within an ecosystem.

Channel Flow - The movement of water flowing in a rivulet, stream or river.

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

Deforestation - The permanent (and usually large-scale) removal of trees.

Degradation - The act or process of damaging or ruining the environment.

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

Desalination Plant - The conversion of seawater to freshwater, suitable for human consumption happens here.

Drainage Basin - Often called a catchment area, it is an area of land where all water, precipitation and streams flow and drain off into a single river, a bay or out to sea.

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

Drought - A prolonged dry period in the natural climate cycle that can occur anywhere in the world (WHO Definition).

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

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

Evapotranspiration - The combined total moisture transferred from the Earth to the atmosphere, through evaporation and transpiration.

Forestry - The management of woodland and forests.

Fossil fuels - Fuels made up of the remains of organic material, such as oil, coal and gas.



Frontal Precipitation - Where air masses of different temperatures meet at a front, one mass will be forced over another, causing precipitation beneath the front.

Global Hydrological Cycle - The continuous transfer of water between land, atmosphere and oceans. The Earth is a closed system.

Groundwater Flow - The horizontal movement of water through permeable or porous rock deep below the water table.

Hydrological Drought - When reduced precipitation impacts water supply. There is a decrease in streamflow, soil moisture, reservoir, lake and groundwater levels.

Industrialisation - The development of the industrial sector in a country or region.

Infiltration - The movement of water vertically through the pores in soil.

Interception - Raindrops are prevented from falling directly onto the ground, instead hitting the leaves of a tree.

Meteorological Drought - When the amount of precipitation received in an area is below average.

Monsoon - The drastic variation between wet and dry seasons for subtropical areas, caused by a change in the prevailing wind. It can lead to annual flooding.

Percolation - Water moving vertically from soil into permeable rock.

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

Relief Precipitation - Precipitation produced when air masses are forced to rise over high land, determined by the relief/ morphology of the land.

River Regime - The pattern of river discharge (flow) over a year.

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

Salinisation - When salt water contaminates freshwater stores or soils, creating saline conditions and reducing human use/ consumption.

Saltwater Encroachment - The movement of saltwater into freshwater aquifers or soils. This may be caused by sea level rise, storm surges or over-extraction

Smart Irrigation - Providing crops with a water supply less than optimal, to make crops resistant to water shortages.

Soil Erosion - Removal of soil particles, causing a loss of nutrients and moisture, leading to a reduced number of plants.



Storm Hydrograph - A graph that shows the variation of river discharge over a short period of time (days).

Throughflow - Water moving horizontally through the soil, due to gravity.

Transpiration - The process through which water evaporates through the stomata in the leaves of plants.

Urbanisation - The increase in the proportion of the population living in urban areas.

Watershed - The boundary between neighbouring drainage basins.

Water Conservation - Strategies to reduce water usage and demand.

Water Recycling - The treatment and purification of wastewater, in order to increase supply and meet demands.

Water Security - The ability to maintain and access a sustainable water source that adequately meets demand.

Water Pollution - The levels of toxic substances and litter in waterways and underground water stores.

Water Sharing Treaty - International agreements for transboundary water sources.

Water Transfer - Hard engineering projects, such as pipelines or aqueducts, which divert water between basins to meet demand.

