

## Glossary of Environmental Science Terms

Abiotic	All non-living objects, substances or processes of an ecosystem.
Aerobic	When oxygen is present.
Aerobic respiration	The process some organisms use to obtain energy when glucose reacts with oxygen.
Anaerobic	When oxygen is not present.
Anaerobic respiration	The process some organisms use to obtain energy when glucose reacts with a substance other than oxygen.
Allele	Different forms of the same gene that occurs at the same locus on the chromosome. Eg. Blue or brown are alleles for eye colour in humans.
Atmosphere	The gaseous region around the earth. There are four layers called the troposphere, stratosphere, mesosphere and thermosphere.
Bioaccumulation	A naturally occurring process in an organism where there is an increase in the amount of a substance that exceeds the rate that it is removed. Harm can be caused to the organism if the substances are higher than normal levels.
Bioassay	Testing an indicator organism with a substance or process and measuring the response.
Biodiversity	The variety of organisms and the genes they contain in an ecosystem. See genetic diversity, species diversity and ecosystem diversity.
Biological control	The use of organisms to control pest animals, weeds, or diseases.
Biomarker	An organism with a low threshold for particular contaminants that are used to measure the health of an ecosystem
Biomass	Total dry weight of living matter in an area.
Biomass energy	Energy obtained from material produced by living things.
Bioremediation	The use of living microorganisms to clean up a contaminated site.
Biosphere	The region on the earth where living and dead things are found.
Biotic	The living components of an ecosystem.
Commensalism	Interaction between species where one species benefits and the other is not harmed.
Competition	Interaction between species where resources may be needed by both species.
Critically endangered	When a species is facing an extremely high risk of extinction.
Degradation	The reduction in quality of a habitat.
Diurnal	Being active during the day.
Ecological integrity	When all components of an ecosystem are intact.
Ecological niche	The structural and functional role of an organism in its ecosystem.

Ecology	The study of ecosystems
Ecosystem	A group of different organisms interacting with each other and the environment around them.
Ecosystem diversity	The variety of habitats, communities and ecological processes that exist on the earth.
Endangered	When a species is facing a very high risk of extinction.
Endemic	When a species is only found in one particular area.
Endothermic	A reaction where heat is absorbed.
Environmental indicator	Something that helps to measure the overall condition of an environment.
Erosion	The physical removal of soil or rock material by water, ice or wind.
Eutrophication	An increase of nutrients in a particular area such as a river, lake or wetland and are required for plant and algae growth.
Exothermic	A reaction where heat is released.
Extinct	When there is no doubt that when the last individual of a species has died. A species may also be extinct in the wild but still exists in captivity, cultivation, etc.
Food chain	The feeding relationship that links one organism to another. This can also be thought of as a transfer of energy.
Food web	Two or more food chains interlinked.
Fossil fuels	Coal, oil and natural gas formed over millions of years in the ground from the remains of dead plants and animals.
Geothermal energy	Heat energy obtained from within the earth.
Gene	The basic unit where inherited characteristics are transmitted from parent to offspring. They are located on the chromosomes, which are contained within the nuclei of a cell.
Genetic diversity	Total genetic information contained in the genes of all organisms on earth.
Genetic drift	Alleles normally arise in a population by mutation and natural selection. Genetic drift occurs when harmful alleles are retained in a small population over time such as when animals are held in captivity.
Genetic swamping	When two genetically isolated populations of the same species come into contact and the genetic diversity of the smaller populations is lost.
Greenhouse effect	A naturally warming of the earth that occurs when heat (infra-red radiation) that is reflected by the earth is absorbed by gases in the atmosphere.
Host	A species that supports or nourishes a parasite and is harmed by the interaction.
Hydroelectric	Energy obtained from the movement of water. E.g. tidal power, wave power.
Hydrosphere	Covers all water found on the earth.
Kinetic energy	Energy that a moving object has due to its motion.
Limiting factors	A condition that will exceed an organism's tolerance.
Lithosphere	The earth's crust and upper mantle forms this region.

Mechanical energy	A combination of potential and kinetic energy.
Mesosphere	This layer in the atmosphere extends to 80km above the earth's surface. The temperature decreases to -100°C at the bottom of the layer and then increases at the top.
Mutualism	Interaction between two species where both benefit.
Near threatened	When a species is close to or is likely to qualify as a vulnerable, endangered or a critically endangered species.
Nocturnal	Being active at night
Non-renewable energy resources	Sources of energy that exist as a limited deposit on the earth. They can only be replaced after long geological periods of time.
Organism	Any individual living thing.
Parasite	When one species lives or feeds on another species that causes them harm and sometimes death.
Photosynthesis	The chemical process used by plant cells to produce energy and oxygen using sunlight, water and carbon dioxide.
Policy	A plan of action for dealing with issues.
Pollutant	A substance that alters the physical, chemical or biological properties of the environment.
Potential energy	Energy stored in an object.
Predation	When one organism kills and feeds on another.
Primary consumers	Organisms that feed on producers. Also known as first order.
Producer	An organism that makes its own energy using such things as the sun.
Renewable energy resources	Sources of energy that are considered to be able to last indefinitely without reducing their supply.
Respiration	The process some organisms use to obtain energy. See aerobic or anaerobic respiration
Salinity	The measurement of salt in soil or water.
Secondary producers	Organisms that feed on primary consumers. Also known as second order.
Sewage	Waste matter carried away in sewers or drains.
Sewerage	System of sewage collection, treatment and disposal.
Species	A group of organisms that can interbreed.
Species diversity	The variety of species on earth.
Stratosphere	This layer in the atmosphere is between 15 and 50 km above the earth. This is where the sun's energy is absorbed.
Symbiotic	A relationship between two organisms where they both benefit.
Thermosphere	Region in the atmosphere that is 80km and above the earth. Temperature increases in this layer from the sun and other stars rays.
Threshold	A boundary to which an organism may tolerate any changes.
Trophic	Term used to describe different feeding patterns or levels, e.g. autotrophs, heterotrophs.

Troposphere	The lowest layer in the atmosphere extending to 15km above the earth's surface. Visible clouds and our weather occurs in this layer.
Turbidity	A term to describe how much solid material is suspended in water, or the cloudiness of water.
Vulnerable	When a species is facing a high risk of extinction.
Wildlife corridor	A strip of land kept between areas of used and unused land to allow wildlife to move from sites of activity to other habitat sites.

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