

Ecosystems and Climate Change Glossary

Note: the definitions of more general terms are represented in the context of climate change.

Adaptation: the identification, preparation and implementation of the measures necessary to increase resilience and reduce vulnerability to climate change.

Adaptive capacity: the ability of a species or system to moderate potential damages, to take advantage of opportunities, or to cope with the consequences of climate change.

Afforestation: the planting of new forests on lands that historically have not contained forests. *See reforestation.*

Assisted migration: the human-assisted movement of plants or animals to more climatically suitable habitats.

Biodiversity: the variability among living organisms from all sources, including diversity within species, between species, and of ecosystems (or more simply put: the variety of life on Earth and the natural patterns it forms.)

Carbon sequestration: the process of carbon absorption and deposition.

Carbon sink: any natural or artificial system that absorbs more carbon than it releases. *See carbon source.*

Carbon source: any natural or artificial system that releases more carbon than it absorbs. *See carbon sink.*

Climate change: any significant change in the measures of climate lasting for an extended period of time (several decades or longer), such as major changes in temperature, precipitation, or wind patterns.

Ecosystem: Any natural unit or entity including living and non-living parts, which interact to produce a stable system through cyclic exchange of materials.

Ecosystem services: the benefits humans receive from ecosystems, such as clean air and water, carbon storage, soil fertility, flood regulation, and cultural or recreational value.

Erosion: the wearing away of the land surface by water, wind, ice, gravity or other natural or anthropogenic agents that abrade, detach and remove soil particles from one point on the earth's surface, for deposition elsewhere. Four main forms are recognized: water, wind, harvest and tillage.

Global Warming: the global average increase in temperature near the Earth's surface in recent decades.

Habitat: the natural environment in which a species lives and grows, providing the resources it needs such as food, water, shelter, and space.

Invasive plant: a non-native species that, once introduced—whether intentionally or accidentally—spreads aggressively, outcompeting native species for both space and nutrients (sometimes referred to as “invasive alien plant”), causing harm to the environment, economy, or society.

Metric tonne: the common international measurement equal to 2205 lbs or 1.1 short tons. *See short ton.*

Mitigation: reduction of the rate and magnitude of climate change through addressing the impacts that are already occurring or will occur in the future.

Pollution: the presence of substances and heat in environmental media (air, water, land) whose nature, location, or quantity produces undesirable environmental effects; and the activities that generates pollutants.

Prescribed burn: the deliberate and controlled use of fire in a specific area for forest management, wildlife management, risk/hazard reduction, or other land and resource management objectives. Also referred to as a “controlled” burn.

Reforestation: the planting of forests on lands that have previously contained forests but have since been destroyed or converted for some other land use. See *afforestation*.

Resilience: the capability to anticipate, prepare for, respond to, and recover from climate change with minimum damage to social well-being, the economy, and the environment.

Riparian zone: the interface between aquatic and terrestrial systems.

Short ton: the common measurement for a ton in the United States. A short ton is equal to 2,000 lbs or 0.907 metric tons. See *metric tonne*.

Sustainability: the ability to meet the needs of the present without compromising the ability of future generations to meet their own needs.

Urban heat island (UHI): an urban area experiencing temperatures much warmer than the surrounding non-urban areas.

Vulnerability: the degree to which a species or system is susceptible to, or unable to cope with, the adverse effects of climate change, such as climate variability and weather extremes.

Watershed: the area of land that drains into rivers and lakes, which, in turn, flow to a common outlet.

Wetland: lands that are saturated with water long enough to promote wetland or aquatic processes as indicated by poorly drained soils, hydrophytic vegetation and various kinds of biological activity which are adapted to a wet environment.

Sources:

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