Climate Connections – Glossary of Terms

Albedo:

The measure of the amount of sun reflected off the Earth's surface. High albedo means there is lots of reflectivity, which occurs off of snow and ice. Low albedo means that much of the sun's rays are absorbed by the surface, which occurs with water.

From http://eobglossary.gsfc.nasa.gov/Library/glossary.php3?mode=all
The ratio of the outgoing solar radiation reflected by an object to the incoming solar radiation incident upon it.

Atmosphere:

The thin layer of gases that surround the Earth and help regulate temperature.

From http://dictionary.reference.com/browse/atmosphere
The gaseous envelope surrounding the earth; the air

Barometer:

From http://www.answers.com/topic/barometer?cat=technology
An instrument for measuring atmospheric pressure, used especially in weather forecasting

Biosphere:

From http://www.visionlearning.com/library/pop_glossary_term.php?oid=
The part of the world in which life can exist

Carbon Dioxide:

A gas that is exhaled by humans and absorbed by plants during photosynthesis. It is also emitted when fossil fuels are burned.

From http://ans.engr.wisc.edu/eic/UsefulTerms.html
A heavy colorless gas that does not support combustion, and is primarily formed by animal respiration and combustion of fossil fuels. It is essential for life because plants absorb it from the air by photosynthesis. Also known as CO_2.

Climate:

The average weather in a certain area that occurs over a long period of time

From http://www.merriam-webster.com/dictionary/climate

1. a region of the earth having specified climatic conditions
2. the average course or condition of the weather at a place usually over a period of years as exhibited by temperature, wind velocity, and precipitation

Climate Feedback:

The interaction of climate processes: one process triggers changes in another process that eventually leads back to the original process. Positive feedback reinforces and intensifies the process while negative feedback reduces it and brings it towards balance. Often there is a long lag time, or delay, between when the change is triggered and when we see the effects.

From http://encarta.msn.com/dictionary_561538421/climate_feedback.html
An atmospheric, oceanic, or terrestrial process brought about as a direct result of changes in the energy balance between incoming solar radiation and outgoing infrared radiation from the

Earth

Climatologist:

A person who studies climate and its effects on the Earth and its systems

From http://www.sensesofwildness.com/africa/GLOSSARY.HTM
A scientist who studies the Earth's climate

Drifting Buoy (or Ice Buoy):

An instrument placed in the water or on a block of ice to measure weather and climate indicators and send the information back to data collection centers.

From http://nsidc.org/arcticmet/glossary/drifting_buoy.html
Floating (or drifting on ice) ocean buoy equipped with meteorological and/or oceanographic sensing instruments linked to transmitting equipment for sending the observed data to collecting centers.

Ecosystem:

From http://www.ifdn.com/teacher/glossary.htm#e
A system made up of a community of animals, plants, and bacteria and its interrelated physical and chemical environment

Environment:

From http://www.doe.mass.edu/frameworks/scitech/2001/resources/glossary.html
The complex of physical, chemical, and biotic factors (as climate, soil, and living things) that act upon an organism or an ecological community and ultimately determine its form and survival.

Ice Core:

From http://www.greenfacts.org/glossary/ghi/ice-core.htm
Cylinders of ice obtained by drilling into a glacier. Since the different layers of ice are formed over time through build-up of snow, ice cores provide information on climate from different periods (up to almost one million years) that can be used for research.

Latitude:

Latitude lines are imaginary horizontal lines that circle around the Earth and measure distance from the equator.

From http://usinfo.state.gov/products/pubs/geography/glossary.htm
A measure of distance north or south of the equator. One degree of latitude equals approximately 110 kilometers (69 miles).

Levee:

From http://www.merriam-webster.com/dictionary/levee
An embankment for preventing flooding

Longitude:

Longitude lines are imaginary vertical lines that run from the North to South Pole and measure distance from the Prime Meridian.

From http://usinfo.state.gov/products/pubs/geography/glossary.htm
A measure of distance east and west of a line drawn between the North and South Poles and passing through the Royal Observatory at Greenwich, England

Meteorologist:

A person who studies weather and makes forecasts on weather patterns

From **http://www.merriam-webster.com/dictionary/meteorologist**

A person who studies the science that deals with the atmosphere and its phenomena and especially with weather and weather forecasting

Migrate:

From http://dictionary.reference.com/browse/migrate

1. to go from one country, region, or place to another 2. to pass periodically from one region or climate to another, as do certain birds, fishes, and animals

Precipitation:

From http://www.doe.mass.edu/frameworks/scitech/2001/resources/glossary.html

A deposit on the earth of hail, mist, rain, sleet, or snow; also the quantity of water deposited.

Seasons:

A time of the year identified by a specific climate (i.e. winter, spring, summer, or fall).

From http://www.fisicx.com/quickreference/weather/glossary.html

Climatic changes caused by the position of the earth relative to the sun. The temperate zones have four seasons and the tropics two.

Sequestration:

The separation of carbon from the atmosphere

From http://www.neo.ne.gov/statshtml/glossarys.htm

The capture of atmospheric carbon dioxide in a solid material (such as growing trees, other vegetation, and soils) or a carbon sink through biological or physical processes, such as photosynthesis.

Sustainability:

The ability to last over the long-term. A process is sustainable if it can be done over and over again with little or no need for change or modification.

From http://www.sustainabletable.org/intro/dictionary/

The ability to provide for the needs of the world's current population without damaging the ability of future generations to provide for themselves. When a process is sustainable, it can be carried out over and over without negative environmental effects or impossibly high costs to anyone involved.

Weather:

Atmospheric conditions at a certain place and time. Weather is measured in shorter lengths of time like hours and days.

From http://www.ametsoc.org/amsedu/WES/glossary.html#W

The state of the atmosphere at some place and time described in terms of such variables as temperature, cloudiness, precipitation and wind.