

GLOSSARY

anthropogenic	Human-induced; produced by or resulting from human activity
apparent consumption	The amount or quantity expressed by the following formula: production + imports – exports +/- changes in stocks
biomass	The mass of living organic matter (plant and animal) in an ecosystem. Biomass also refers to organic matter (living and dead) available on a renewable basis for use as a fuel. Biomass includes trees and plants (both terrestrial and aquatic), agricultural crops and wastes, wood and wood wastes, forest and mill residues, animal wastes, livestock operation residues, and some municipal and industrial wastes
carbon sequestration	The chemical conversion or physical restraining of carbon or carbon-bearing molecules so as to prevent their direct entry into the atmosphere or environment for some period of time. Often used narrowly to refer to increasing the carbon content of carbon pools in the biosphere and distinguished from physical or chemical collection of carbon followed by injection into geologic reservoirs, which is generally referred to as “carbon capture and storage.”
carbon cycle	The combination of the many different physical, chemical and biological processes that transfer carbon between storage pools or reservoirs in the atmosphere, plants, soils, freshwater systems, ocean and geological sediments
carbon equivalent	The amount of carbon in the form of carbon dioxide that would produce the same effect on the radiative balance of the Earth’s climate system. Applicable in this report to greenhouse gases such as methane (CH ₄).
carbon intensity	The relative amount of carbon emitted per unit of energy or fuels consumed
CO₂ equivalent	The amount of carbon dioxide that would produce the same effect on the radiative balance of the Earth’s climate system as another greenhouse gas, such as methane (CH ₄).
CO₂ fertilization	The phenomenon in which plant growth increases (and agricultural crop yields increase) due to the increased rates of photosynthesis of plant species in response to elevated concentrations of CO ₂ in the atmosphere

decarbonization	Reduction in the use of carbon-based energy sources as a proportion of total energy supplies or increased use of carbon-based fuels with lower values of carbon content per unit of energy content.
dry climates	Climates where the ratio of mean annual precipitation to potential evapotranspiration is less than 1.0
ecosystem	A naturally occurring unit consisting of all biota (e.g., plants, animals, and microbes) in a given area, and the associated abiotic environments with which they interact through nutrient cycling and energy flows
energy intensity	The relative amount or ratio of the consumption of energy to the resulting amount of output, service or activity (i.e., expressed as energy per unit of output)
fossil fuels	Fuels such as coal, petroleum, and natural gas derived from the chemical and physical transformation (fossilization) of the remains of plants and animals that lived during the Carboniferous Period 360–286 million years ago
global warming potential (GWP)	A factor describing the radiative forcing impact (e.g., warming of the atmosphere) of one unit mass of a given greenhouse gas relative to the warming caused by a similar mass of carbon dioxide. Methane (CH ₄), for example, has a GWP of 23.
greenhouse gases (GHGs)	Certain gases (including water vapor, carbon dioxide, methane, nitrous oxide, and halocarbons) which are “radiatively active” in the atmosphere in that they trap or absorb heat radiated from the earth’s surface (i.e., heat that would otherwise be lost into space) thereby contributing to the potential warming of the air in the lower levels of the earth’s atmosphere
measures	Actions or activities designed to reduce carbon emissions or otherwise manage the carbon budget
mitigation	A human intervention to reduce the sources of or to enhance the sinks of greenhouse gases
North America	The combined land area of Canada, the United States of America, and Mexico and their coastal waters
ocean acidification	The phenomenon in which the pH of the oceans becomes more acidic due to increased levels of CO ₂ in the atmosphere which, in turn, increase the amount of dissolved CO ₂ in sea water

option	A choice among a set of possible measures (<i>q.v.</i>) or alternatives
peatlands	Areas characterized as having an organic layer thickness of at least 30 cm (note, the current U.S. and Canadian soil taxonomies specify a minimum thickness of 40 cm)
permafrost	Soils or rocks that remain below 0° C for at least two consecutive years
pool/reservoir	Any natural region or zone, or any artificial holding area, containing an accumulation of carbon or carbon-bearing compounds or having the potential to accumulate such substances
private sector	Those entities, functions, and interest areas that are not directly associated with the “public sector” (<i>q.v.</i>); for example, carbon-related industry (including energy); transportation, agriculture, and forestry sectors; and climate policy and carbon management interest groups
public sector	The collective set of entities directly associated with the functions of federal, state, and/or local governments
sink	In general, any process, activity or mechanism which removes a greenhouse gas or a precursor of a greenhouse gas or aerosol from the atmosphere. In this report, a sink is any regime or pool in which the amount of carbon is increasing (i.e., is being accumulated or stored).
source	In general, any process, activity or mechanism which releases a greenhouse gas or a precursor of a greenhouse gas or aerosol into the atmosphere. In this report, a source is any regime or pool in which the amount of carbon is decreasing (i.e., is being released or emitted).
stocks	The amount or quantity contained in the inventory of a pool or reservoir
temperate zones	Regions of the earth’s surface located above 30° latitude and below 66.5° latitude
trend	A systematic change over time
tropical zones	Regions located between the earth’s equator and 30° latitude (this area includes subtropical regions)

- uncertainty** A term used to describe the range of possible values around a best estimate, sometimes expressed in terms of probability or likelihood
- wet climates** Climates where the ratio of mean annual precipitation to potential evapotranspiration is greater than 1.0
- wetlands** Areas characterized by the presence of waterlogged conditions in the upper soil profile during at least part of the growing season and by plant species and soil conditions that reflect these hydrologic conditions