

Glossary

Term	Definition	Example
Adaptation	The process of adjusting to new (climate) conditions in order to reduce risks to valued assets.	Relocating buildings out of flood plains or further inland from rising seas are examples of physical <i>adaptations</i> . Using smaller amounts of water during times of drought is an example of behavioral <i>adaptation</i> .
Adaptive capacity	The ability of a person, asset, or system to adjust to a hazard, take advantage of new opportunities, or cope with change.	Increasing the diameter of culverts that channel storm-water away from assets enhances the <i>adaptive capacity</i> of places that face flooding from increasingly heavy rainfalls.
Assets	People, resources, ecosystems, infrastructure, and the services they provide. Assets are the tangible and intangible things people or communities value.	The infrastructure of roads, airports, and seaports are <i>assets</i> . The service of supply chain stability (supported by transportation infrastructure) is an asset. A community's local "charm" is an example of an intangible asset.
Climate stressor	A condition, event, or trend related to climate variability and change that can exacerbate hazards.	Increasing frequency and intensity of drought conditions can be a <i>climate stressor</i> for forests and crops. Rising sea level is another climate stressor.
Consequence	A subsequent result (usually negative) that follows from damage to or loss of an asset. Quantifying potential consequences is an important part of determining risk.	The destruction of commercial buildings in a flood event could result in the <i>consequence</i> of reduced tax revenues for a community.
Ecosystem services	Benefits that humans receive from natural systems.	Humans draw food and fiber from ecosystems. Ecosystems also filter water and air, sequester carbon, and provide recreation and inspiration for people.
Exposure	The presence of people, assets, and ecosystems in places where they could be adversely affected by hazards.	Homes and businesses along low-lying coasts are <i>exposed</i> to coastal flooding from storms.
Hazard	An event or condition that may cause injury, illness, or death to people or damage to assets.	Extended periods of excessive heat are likely to be an increasingly common <i>hazard</i> in the coming decades.
Impacts	Effects on natural and human systems that result from hazards. Evaluating potential impacts is a critical step in assessing vulnerability.	In the West, the destruction of homes by wildfires is among the <i>impacts</i> of hotter and drier conditions and earlier snowmelt.
Mitigation	Processes that can reduce the amount and speed of future climate change by reducing emissions of heat-trapping gases or removing them from the atmosphere.	Carbon-neutral energy sources such as solar and wind represent <i>mitigation</i> efforts.
Non-climate stressor	A change or trend unrelated to climate that can exacerbate hazards.	Altering drainage patterns and replacing open land with roads and buildings are <i>non-climate stressors</i> for flooding hazards. Population growth along exposed coasts is another non-climate stressor.

Term	Definition	Example
Probability	The likelihood of hazard events occurring. Probabilities have traditionally been determined from the historic frequency of events. With changing climate and the introduction of non-climate stressors, the probability of hazard events also changes.	Locations within a 100-year flood zone have a greater <i>probability</i> for a flood hazard than locations in the same region's 500-year flood zone.
Projections	Potential future climate conditions calculated by computer-based models of the Earth system. Projections are based on sets of assumptions about the future (scenarios) that may or may not be realized.	Climate <i>projections</i> indicate that if human emissions of heat-trapping gases continue increasing through 2100 (a scenario, or possible future), most locations will see substantial increases in average annual temperature (potential future conditions).
Resilience	The capacity of a community, business, or natural environment to prevent, withstand, respond to, and recover from a disruption.	Installation of backflow preventers in the stormwater systems of a coastal city increased their <i>resilience</i> to flooding from extreme high tides.
Risk	The potential for negative consequences where something of value is at stake. In the context of the assessment of climate impacts, the term <i>risk</i> is often used to refer to the potential for adverse consequences of a climate-related hazard. Risk can be assessed by multiplying the probability of a hazard by the magnitude of the negative consequence or loss.	Warehouses sited on a floodplain represent a higher <i>risk</i> for flooding when they are filled with products than when they are empty. Risk also generally increases with proximity to floodways.
Sensitivity	The degree to which a system, population, or resource is or might be affected by hazards.	The yield of crops with a high <i>sensitivity</i> may be reduced in response to a change in daily minimum temperature during the pollination season.
Uncertainty	A state of incomplete knowledge. Uncertainty about future climate arises from the complexity of the climate system and the ability of models to represent it, as well as the inability to predict the decisions that society will make.	Though climate model projections are <i>uncertain</i> about how much precipitation will change in the future, they generally agree that wet places are likely to get wetter, and dry places are likely to get drier.
Vulnerability	The propensity or predisposition of assets to be adversely affected by hazards. Vulnerability encompasses exposure, sensitivity, potential impacts, and adaptive capacity.	Despite the thick walls of the aging lighthouse, its location on a barrier island and lack of resources to tie its foundation to bedrock made it <i>vulnerable</i> to shoreline erosion.