

Working definitions for western Lake Superior Resilience Forum February 9, 2022

Climate: *Climate* is determined by the long-term pattern of temperature and precipitation averages and extremes at a location. Climate descriptions can refer to areas that are local, regional or global in extent. Climate can be described for different time intervals, such as decades, years, seasons, months or specific dates of the year. ([NOAA, through Climate.gov](#))

Global Warming versus Climate Change: *Global warming* refers only to the Earth's rising surface temperature, while [climate change](#) includes warming and the "side effects" of warming, such as melting glaciers, heavier rainstorms or more frequent drought. Said another way, global warming is one symptom of the much larger problem of human-caused climate change.

Resilience: The formal, Intergovernmental Panel on Climate Change ([IPCC](#)) definition of *resilience* is the "capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure, while also maintaining the capacity for adaptation, learning and transformation.

Climate Adaptation: According to the National Aeronautics and Space Administration (NASA), [climate adaptation](#) refers to adapting to life in a changing climate. This adaptation involves adjusting to actual or expected future climate. The goal is to reduce our vulnerability to the harmful effects of climate change, such as sea-level encroachment, more intense extreme weather events or food insecurity.

Mitigation of climate change: NASA defines [climate change mitigation](#) as **reducing the flow of heat-trapping greenhouse gases into the atmosphere**, either by reducing sources of these gases (for example, the burning of fossil fuels for electricity, heat or transport) or enhancing the "sinks" that accumulate and store these gases (such as the oceans, forests and soil).

Climate Action: A shortcut term being used in this venue for all the climate work (mitigation, adaptation and resilience) under one umbrella (as they often overlap). That way, we don't separately characterize and plan for climate mitigation, climate resilience and climate adaptation. Rather, we can create one plan for all *climate action*.

Hazard Mitigation: Any sustained action that reduces or eliminates long-term risk to people and property from future disasters. Mitigation planning breaks the cycle of disaster damage, reconstruction, and repeated damage. *Hazard mitigation* includes long-term solutions that reduce the impact of disasters in the future. Hazard Mitigation grants provided by the Federal Emergency Management Agency (FEMA) offer funding for eligible mitigation measures that reduce disaster losses.

Web addresses for links:

<https://www.climate.gov/teaching/literacy/4-definition-climate-and-climatic-regions>

<https://www.climate.gov/news-features/climate-qa/whats-difference-between-global-warming-and-climate-change>

<https://www.ipcc.ch>

<https://climate.nasa.gov/solutions/adaptation-mitigation>