



Acidification

BT : Snow, glacier and ice sheet

Ocean acidity

TT : Snow and Ice

Open Ocean

★ *Changing levels of water pH.*

Agricultural and ecological drought

BT : Wet and Dry

TT : Wet and Dry

NT : Biological growth

Drought

★ *Episodic combination of soil moisture supply deficit and atmospheric demand requirements that challenge the vegetation's ability to meet its water needs for transpiration and growth. Note: 'agricultural' versus 'ecological' term depends on affected biome.*

Air pollution weather

BT : Air pollution weather (CID type)

TT : Other

Air pollution weather (CID type)

BT : Other

TT : Other

NT : Air pollution weather

★ *Atmospheric conditions that increase the likelihood of high particulate matter or ozone concentrations or chemical processes generating air pollutants. Note: distinct from aerosol emissions or air pollution concentrations themselves.*

Aridity

BT : Wet and Dry

TT : Wet and Dry

NT : Average humidity patterns

Water table

Desertification

Desiccation

★ *Mean conditions of precipitation and evapotranspiration compared to potential atmospheric and surface water demand, resulting in low mean surface water, low soil moisture and/or low relative humidity.*

Atmospheric CO2 at surface

BT : Other

TT : Other

NT : Biological growth

★ *Concentration of atmospheric carbon dioxide (CO2) at the surface. Note: distinct from overall radiative effect of CO2 as greenhouse gas.*

Avalanche

BT : Snow avalanche

TT : Snow and Ice

★ *Mass movement of snow, ice and rocks, often in mountainous areas.*

Average humidity patterns

UF : *Increasing humidity*

Decreasing humidity

Changing humidity

BT : Mean air temperture

Mean precipitation

Aridity

Mean wind speed

TT : Heat and Cold

Wet and Dry

Wind

★ *Changing diurnal and seasonal humidity patterns, including sustained high and low humidity events.*

Average precipitation patterns

UF : *Average rainfall*

Average rainfall patterns

Decreasing rainfall

Increasing rainfall

BT : Mean precipitation

TT : Wet and Dry

★ *Changing diurnal and seasonal patterns of precipitation. Does not include high precipitation events.*

~~Average rainfall~~

USE : Average precipitation patterns

~~Average rainfall patterns~~

USE : Average precipitation patterns

Average temperature patterns

UF : *Increasing temperature*

Decreasing temperature

Changing temperature

BT : Mean air temperture

TT : Heat and Cold

★ *Changing diurnal and seasonal temperature patterns.*

Average wind speed

UF : *Increasing wind speed*

Decreasing wind speed

BT : Mean wind speed

TT : Wind

★ *Changing patterns in average wind speed.*

Average wind transportation patterns

UF : *Changing prevailing winds*

BT : Mean wind speed

TT : Wind

★ *Changing patterns in average wind movement, such as changing directions of prevailing winds.*

~~Biological colonisation~~

USE : Biological growth

~~Biological colonization~~

USE : Biological growth



Biological growth

UF : *Biological colonization*
Biological colonisation
BT : Mean air temperature
Agricultural and ecological drought
Lake, river and sea ice
Mean ocean temperatures
Marine heatwaves (CID type)
Ocean acidity
Ocean salinity (CID type)
Dissolved Oxygen (CID type)
Atmospheric CO2 at surface
Radiation at surface
TT : Heat and Cold
Wet and Dry
Snow and Ice
Open Ocean
Other

★ *Change in typical biological growth patterns, such as changing levels of organisms, and mould, fungi, algae, and lichen growth. Does not include changing species distribution.*

Bush fire

USE : Uncontrolled fire

Changing humidity

USE : Average humidity patterns

Changing prevailing winds

USE : Average wind transportation patterns

Changing temperature

USE : Average temperature patterns

Coastal

NT : Relative sea level
Coastal flood
Coastal erosion (CID type)

★ *Climatic Impact-Drivers associated primarily with the land and sea interface.*

Coastal erosion

BT : Coastal erosion (CID type)
Snow, glacier and ice sheet
TT : Coastal
Snow and Ice

★ *Long term or episodic changes of shorelines. Caused by storms, rising sea levels, wave action, tides, wind-driven rain, ocean currents, and ice.*

Coastal erosion (CID type)

BT : Coastal
TT : Coastal
NT : Coastal erosion
Coastal landslide

★ *Long term or episodic change in shoreline position caused by relative sea level rise, nearshore currents, waves and storm surge.*

Coastal flood

BT : Coastal
TT : Coastal
NT : Saltwater incursion
Coastal flooding

★ *Flooding driven by episodic high coastal water levels that result from a combination of relative sea level rise, tides, storm surge and wave setup.*

Coastal flooding

BT : Coastal flood
Severe wind storm
TT : Coastal
Wind

★ *Episodic flooding of coastal areas. Connected to rising sea levels, storm surges, wave action, and high tides.*

Coastal instability

USE : Coastal landslide

Coastal landslide

UF : *Coastal instability*
BT : Coastal erosion (CID type)
TT : Coastal

★ *Rapid loss or movement of coastlines.*

Cold snap

USE : Cold wave

Cold spell

BT : Heat and Cold
TT : Heat and Cold
NT : Low temperature events

★ *Episodic cold air temperature events potentially exacerbated by wind.*

Cold spell

USE : Cold wave

Cold wave

UF : *Cold snap*
Cold spell
BT : Low temperature events
TT : Heat and Cold

★ *A rapid fall in temperature.*

Cyclone

USE : Tropical cyclone

Decreasing humidity

USE : Average humidity patterns

Decreasing rainfall

USE : Average precipitation patterns

Decreasing temperature

USE : Average temperature patterns



Decreasing wind speed

USE : Average wind speed

Derecho

BT : Severe wind storm

TT : Wind

★ *A group of thunderstorms causing long-lived straight-lined wind storms.*

Desertification

BT : Aridity

TT : Wet and Dry

★ *Long-term land degradation in which one of the three (biological productivity, ecological integrity or value to humans) is reduced or lost.*

Desiccation

BT : Aridity

TT : Wet and Dry

★ *Extreme drying of hygroscopic materials.*

Dissolved Oxygen

BT : Dissolved Oxygen (CID type)

TT : Open Ocean

★ *Fluctuations in concentration of dissolved oxygen in seawater.*

Dissolved Oxygen (CID type)

BT : Open Ocean

TT : Open Ocean

NT : Biological growth
Species distribution
Low oxygen events
Dissolved Oxygen

★ *Profile of ocean water-dissolved oxygen and episodic low oxygen events.*

Drought

BT : Hydrological drought

Agricultural and ecological drought

TT : Wet and Dry

★ *A period of drier-than-normal conditions for the area and season.*

Dust storm

BT : Sand and dust storm

TT : Wind

★ *Strong winds causing the transportation of dust and soil.*

Extratropical cyclone

BT : Severe wind storm

TT : Wind

★ *Low-pressure systems occurring in middle latitudes, capable of causing extreme precipitation, storm surges, extreme winds, sea level and wave build up.*

Extreme heat

BT : Heat and Cold

TT : Heat and Cold

NT : Rapid humidity fluctuations
High temperature events

★ *Episodic high air temperature events potentially exacerbated by humidity.*

Extreme melt event

BT : Snow, glacier and ice sheet

TT : Snow and Ice

★ *Rapid melting of ice or snowpack.*

~~Extreme rainfall~~

USE : Heavy precipitation event

Extreme wind speed

UF : Wind gusts

High winds

BT : Severe wind storm

TT : Wind

★ *Wind speed above typical levels.*

~~Fire season~~

USE : Fire weather

Fire weather

UF : Fire season

BT : Fire weather (CID type)

TT : Wet and Dry

★ *Diurnal and seasonal periods when fires are likely to start and spread.*

Fire weather (CID type)

BT : Wet and Dry

TT : Wet and Dry

NT : Uncontrolled fire
Fire weather

★ *Weather conditions conducive to triggering and sustaining wildfires, usually based on a set of indicators and combinations of indicators including temperature, soil moisture, humidity and wind. Fire weather does not include the presence or absence of fuel load. Note: distinct from wildfire occurrence and area burned.*

Fluvial flood

UF : River flooding

Riverine flooding

BT : River flood

Snow, glacier and ice sheet

Heavy snowfall and ice storm

TT : Wet and Dry

Snow and Ice

★ *Rising levels of water in rivers, streams or creeks.*

~~Forest fire~~

USE : Uncontrolled fire



Freeze-thaw cycles

BT : Frost
TT : Heat and Cold

★ *Diurnal or seasonal changes of freeze-thaw cycles.*

Freeze-thaw events

BT : Frost
TT : Heat and Cold

★ *Freeze-thaw events.*

Freezing rain

BT : Heavy snowfall and ice storm
TT : Snow and Ice

★ *Rain that freezes upon contact with cold surfaces.*

Frost

BT : Heat and Cold
TT : Heat and Cold
NT : Freeze-thaw cycles
Freeze-thaw events
Frost heave

★ *Freeze and thaw events near the land surface and their seasonality.*

Frost heave

BT : Frost
Permafrost
TT : Heat and Cold
Snow and Ice

★ *Lifting of the soil due to swelling caused by the pressure of ice moving towards the surface of the ground.*

Glacial melt

BT : Snow, glacier and ice sheet
TT : Snow and Ice

★ *Melting, shrinking, and calving of glaciers.*

Ground instability

USE : Shrink-swell

Groundwater flooding

BT : Mean precipitation
Snow, glacier and ice sheet
TT : Wet and Dry
Snow and Ice

★ *Flooding caused by sustained high water table levels.*

Hail

UF : *Hail storm*
BT : Severe wind storm
TT : Wind

★ *Pellets of solid precipitation.*

Hail

BT : Hail (CID type)
TT : Snow and Ice

Hail (CID type)

BT : Snow and Ice
TT : Snow and Ice
NT : Hail

★ *Storms producing solid hailstones.*

Hail storm

USE : Hail

Heat and Cold

NT : Mean air temperature
Extreme heat
Cold spell
Frost

★ *Climatic Impact-Drivers associated with air temperature.*

Heat wave

BT : High temperature events
TT : Heat and Cold

★ *An extended period of high temperatures.*

Heavy precipitation and pluvial flood

BT : Wet and Dry
TT : Wet and Dry
NT : Heavy precipitation event
Pluvial flood

★ *Episodic high rates of precipitation and resulting localized flooding of streams and flat lands.*

Heavy precipitation event

UF : *Extreme rainfall*
Heavy rainfall
BT : Heavy precipitation and pluvial flood
Severe wind storm
TT : Wet and Dry
Wind

★ *Episodic events of heavy precipitation.*

Heavy rainfall

USE : Heavy precipitation event

Heavy snowfall

BT : Heavy snowfall and ice storm
TT : Snow and Ice

★ *Higher than average snowfall events.*

Heavy snowfall and ice storm

BT : Snow and Ice
TT : Snow and Ice
NT : Fluvial flood
Pluvial flood
Heavy snowfall
Freezing rain
Ice storm
Rain-on-snow

★ *High snowfall and ice storm events including freezing rain and rain-on-snow conditions.*



High temperature events

BT : Extreme heat
TT : Heat and Cold
NT : Heat wave

★ *High temperature events, including heat waves.*

High winds

USE : Extreme wind speed

Hurricane

USE : Tropical cyclone

Hydrological drought

BT : Wet and Dry
TT : Wet and Dry
NT : Water table
Drought

★ *Episodic combination of runoff deficit and evaporative demand that affects surface water or groundwater availability.*

Ice extent

BT : Lake, river and sea ice
TT : Snow and Ice

★ *Changing patterns of ice formations, often leading to previously frozen areas becoming ice-free.*

Ice storm

BT : Heavy snowfall and ice storm
TT : Snow and Ice

★ *Storm characterized by freezing rain.*

Increasing humidity

USE : Average humidity patterns

Increasing rainfall

USE : Average precipitation patterns

Increasing temperature

USE : Average temperature patterns

Increasing wind speed

USE : Average wind speed

Invasive species

USE : Species distribution

Lake, river and sea ice

BT : Snow and Ice
TT : Snow and Ice
NT : Biological growth
Shoreline erosion
Ice extent

★ *The characteristics and seasonality of ice formations on the ocean and freshwater bodies of water.*

Landslide

BT : Landslide (CID type)
TT : Wet and Dry
NT : Mudslide
Rockfall

★ *A geological mass movement of soil, debris, mud or rocks*

Landslide (CID type)

BT : Wet and Dry
TT : Wet and Dry
NT : Landslide
Shrink-swell

★ *Ground and atmospheric conditions that lead to geological mass movements, including landslide, mudslide and rockfall.*

Low oxygen events

BT : Dissolved Oxygen (CID type)
TT : Open Ocean

★ *Episodes of extreme low oxygen levels in the ocean.*

Low temperature events

BT : Cold spell
TT : Heat and Cold
NT : Cold wave

★ *Low temperature events. Includes the effects of wind-chill, does not include snow and ice conditions.*

Marine heatwaves

BT : Marine heatwaves (CID type)
TT : Open Ocean

★ *Episodes of extreme high ocean temperatures.*

Marine heatwaves (CID type)

BT : Open Ocean
TT : Open Ocean
NT : Biological growth
Species distribution
Marine heatwaves

★ *Episodic extreme ocean temperatures.*

Mean air temperature

BT : Heat and Cold
TT : Heat and Cold
NT : Average temperature patterns
Average humidity patterns
Salt crystallization cycles
Biological growth
Species distribution

★ *Mean surface air temperature and its diurnal and seasonal cycles.*



Mean ocean temperatures

BT : Open Ocean
TT : Open Ocean
NT : Biological growth
Species distribution
Wave action
Water temperature
Ocean currents

★ Mean temperature profile of ocean through the seasons, including heat content at different depths and associated stratification.

Mean precipitation

BT : Wet and Dry
TT : Wet and Dry
NT : Average humidity patterns
Salt crystallization cycles
Average precipitation patterns
Groundwater flooding
Water table

★ Mean precipitation and its diurnal and seasonal cycles.

Mean wind speed

BT : Wind
TT : Wind
NT : Average humidity patterns
Average wind speed
Average wind transportation patterns
Wind-driven rain

★ Mean wind speeds and transport patterns and their diurnal and seasonal cycles.

Mudslide

BT : Landslide
TT : Wet and Dry

★ Mass movement of fine or liquified debris.

Ocean acidity

BT : Open Ocean
TT : Open Ocean
NT : Biological growth
Acidification

★ Profile of ocean water pH levels and accompanying concentrations of carbonate and bicarbonate ions.

Ocean currents

BT : Mean ocean temperatures
TT : Open Ocean

★ The continuous patterns of seawater movement.

Ocean salinity

BT : Ocean salinity (CID type)
TT : Open Ocean

★ Amount of salt dissolved in sea water.

Ocean salinity (CID type)

BT : Open Ocean
TT : Open Ocean
NT : Biological growth
Species distribution
Ocean salinity

★ Profile of ocean salinity and associated seasonal stratification. Note: distinct from salinization of freshwater resources.

Open Ocean

NT : Mean ocean temperatures
Marine heatwaves (CID type)
Ocean acidity
Ocean salinity (CID type)
Dissolved Oxygen (CID type)

★ Climatic Impact-Drivers associated with ocean thermal structure and chemistry.

Other

NT : Air pollution weather (CID type)
Atmospheric CO2 at surface
Radiation at surface

★ Climatic Impact-Drivers associated with atmospheric chemistry and radiation.

Permafrost

BT : Snow and Ice
TT : Snow and Ice
NT : Frost heave
Permafrost thaw

★ Permanently frozen deep soil layers, their ice characteristics, and the characteristics of seasonally frozen soils above.

Permafrost thaw

BT : Permafrost
TT : Snow and Ice

★ Melting of the permafrost due to increasing global temperatures.

Pluvial flood

UF : Surface water flooding
BT : Heavy precipitation and pluvial flood
Heavy snowfall and ice storm
TT : Wet and Dry
Snow and Ice

★ Localised flooding of low-lying areas due to heavy precipitation. Independent of nearby bodies of water.

Radiation at surface

BT : Other
TT : Other
NT : Biological growth

★ Balance of net shortwave, longwave and ultraviolet radiation at the Earth's surface and their diurnal and seasonal patterns.



Rain-on-snow

BT : Heavy snowfall and ice storm
TT : Snow and Ice

★ *Rainfall on existing snowpack.*

Rapid humidity fluctuations

BT : Extreme heat
TT : Heat and Cold

★ *Rapid changes in relative humidity levels, can be due to diurnal cycles or fast-moving weather systems.*

Relative sea level

BT : Coastal
TT : Coastal
NT : Sea level rise
Storm surge
Saltwater incursion

★ *The local mean sea surface height relative to the local solid surface.*

River flood

BT : Wet and Dry
TT : Wet and Dry
NT : Fluvial flood

★ *Episodic high water levels in streams and rivers driven by basin runoff and the expected seasonal cycle of flooding.*

River flooding

USE : Fluvial flood

Riverine flooding

USE : Fluvial flood

Rockfall

UF : *Rockslide*
BT : Landslide
TT : Wet and Dry

★ *Rockslide or fall due to geological mass movement.*

Rockslide

USE : Rockfall

Salt crystallisation cycles

USE : Salt crystallization cycles

Salt crystallization cycles

UF : *Salt crystallisation cycles*
BT : Mean air temperature
Mean precipitation
TT : Heat and Cold
Wet and Dry

★ *Crystallization and dissolution of salts caused by wetting and drying cycles, temperature, and humidity fluctuations.*

Saltwater incursion

UF : *Salt-water inundation*
Saltwater inundation

BT : Relative sea level

Coastal flood

TT : Coastal

★ *Movement of saline waters into freshwater zones*

Saltwater inundation

USE : Saltwater incursion

Salt-water inundation

USE : Saltwater incursion

Sand and dust storm

BT : Wind
TT : Wind
NT : Sand storm
Dust storm

★ *Storms causing the transport of soil and fine dust particles.*

Sand storm

BT : Sand and dust storm
TT : Wind

★ *Strong winds causing the transportation of sand and soil.*

Sea level rise

UF : *Sea-level rise*
BT : Relative sea level
Snow, glacier and ice sheet
TT : Coastal
Snow and Ice

★ *Rising mean sea surface height. Caused by melting ice sheets and glaciers and the expansion of seawater as it warms.*

Sea-level rise

USE : Sea level rise

Settling

USE : Subsidence

Severe wind storm

BT : Wind
TT : Wind
NT : Heavy precipitation event
Storm surge
Coastal flooding
Extreme wind speed
Hail
Thunderstorm
Tornado
Derecho
Extratropical cyclone
Wave action

★ *Episodic severe storms including extratropical cyclones, thunderstorms, wind gusts, derechos and tornados.*



Shoreline erosion

BT : Snow, glacier and ice sheet
Lake, river and sea ice

TT : Snow and Ice

★ *Destabilisation of shorelines.*

Shrink-swell

UF : *Ground instability*
BT : Landslide (CID type)

TT : Wet and Dry

NT : Subsidence
Soil heave

★ *Volume changes in the soil as a result of changes in moisture content.*

Snow, glacier and ice sheet

BT : Snow and Ice

TT : Snow and Ice

NT : Groundwater flooding

Water table

Fluvial flood

Sea level rise

Coastal erosion

Glacial melt

Extreme melt event

Acidification

Water temperature

Shoreline erosion

★ *Snowpack seasonality and characteristics of glaciers and ice sheets including calving events and meltwater.*

Snow and Ice

NT : Snow, glacier and ice sheet

Permafrost

Lake, river and sea ice

Heavy snowfall and ice storm

Hail (CID type)

Snow avalanche

★ *Climatic Impact-Drivers associated with many aspects of the cryosphere which are regions with snow and ice.*

Snow avalanche

BT : Snow and Ice

TT : Snow and Ice

NT : Avalanche

★ *Cryospheric mass movements and the conditions of collapsing snowpack.*

Soil heave

BT : Shrink-swell

TT : Wet and Dry

★ *Lifting of the ground due to the swelling of the soil.*

Species distribution

UF : *Invasive species*

BT : Mean air temperature

Mean ocean temperatures

Marine heatwaves (CID type)

Ocean salinity (CID type)

Dissolved Oxygen (CID type)

TT : Heat and Cold

Open Ocean

★ *Expansion and contraction of typical species distribution patterns, includes invasive species.*

Storm flood

USE : Storm surge

Storm surge

UF : *Storm flood*

Tidal surge

Storm tide

BT : Relative sea level

Severe wind storm

TT : Coastal

Wind

★ *Rise of sea level due to high storm winds.*

Storm tide

USE : Storm surge

Subsidence

UF : *Settling*

BT : Shrink-swell

TT : Wet and Dry

★ *Collapse or lowering of the ground due to soil shrinkage.*

Surface water flooding

USE : Pluvial flood

Thunderstorm

BT : Severe wind storm

TT : Wind

★ *A storm with thunder and lightning. Sometimes causes hail, heavy rain, and high winds.*

Tidal surge

USE : Storm surge

Tornado

BT : Severe wind storm

TT : Wind

★ *A rotating column of air, connecting a cloud to the surface of the Earth.*

Tropical cyclone

UF : *Hurricane*

Typhoon

Cyclone

BT : Tropical cyclone (CID type)

TT : Wind

★ *Low-pressure systems forming over oceans characterised by high winds, heavy precipitation, and storm surge.*



Tropical cyclone (CID type)

BT : Wind
TT : Wind
NT : Tropical cyclone

★ *Strong, rotating storm originating over tropical oceans with high winds, rainfall and storm surges.*

~~Typhoon~~

USE : Tropical cyclone

Uncontrolled fire

UF : Forest fire
Wildfire
Bush fire
BT : Fire weather (CID type)
TT : Wet and Dry

★ *A large unplanned fire, often spreading quickly.*

Water table

BT : Mean precipitation
Aridity
Hydrological drought
Snow, glacier and ice sheet
TT : Wet and Dry
Snow and Ice

★ *Fluctuation in water table levels.*

Water temperature

BT : Snow, glacier and ice sheet
Mean ocean temperatures
TT : Snow and Ice
Open Ocean

★ *Changing water temperatures.*

Wave action

BT : Severe wind storm
Mean ocean temperatures
TT : Wind
Open Ocean

★ *Wave movement and the related changes in connected forces (for example, buoyancy or hydrostatic force).*

Wet and Dry

NT : Mean precipitation
River flood
Heavy precipitation and pluvial flood
Landslide (CID type)
Aridity
Hydrological drought
Agricultural and ecological drought
Fire weather (CID type)

★ *Climatic Impact-Drivers associated with precipitation or lack thereof.*

~~Wildfire~~

USE : Uncontrolled fire

Wind

NT : Mean wind speed
Severe wind storm
Tropical cyclone (CID type)
Sand and dust storm

★ *Climatic Impact-Drivers associated with atmospheric circulation and storms*

Wind-driven rain

BT : Mean wind speed
TT : Wind

★ *Rain and wind occurring together, giving rain a horizontal velocity.*

~~Wind gusts~~

USE : Extreme wind speed