

# TERMINOLOGY

The following sources have been used in preparing this terminology document, which provide definitions only for the terms that were used frequently throughout the Resilience Pathways Report. In the case of terms whose definition can be found in various sources, the editorial team chose the most comprehensive and clear definition.

## **Sendai Framework Terminology (Sendai)**

United Nations General Assembly. *Report of the open-ended intergovernmental expert working group on indicators and terminology relating to disaster risk reduction*. 2016. <https://reliefweb.int/report/world/report-open-ended-intergovernmental-expert-working-group-indicators-and-terminology>.

(For a user-friendly website on Sendai terminology, see: <https://www.undrr.org/terminology>)

## **Intergovernmental Panel on Climate Change (IPCC)**

Mathews, J. et al, eds. *Glossary*. Intergovernmental Panel on Climate Change, 2018. [https://www.ipcc.ch/site/assets/uploads/2018/11/sr15\\_glossary.pdf](https://www.ipcc.ch/site/assets/uploads/2018/11/sr15_glossary.pdf).

## **Public Safety Canada (PSC)**

Public Safety Canada. "National Emergency Response System – Glossary of Terms and Definitions." Government of Canada. Last modified 2018. <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/ntnl-rspns-sstm/index-en.aspx#gloss>.

(The glossary uses Justice Institute of British Columbia Incident Command System and An Emergency Management Framework for Canada as source material.)

## **Emergency Management BC (EMBC)**

Province of BC. *Modernizing BC's Emergency Management Legislation*. 2019. [https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/modernizing\\_bcs\\_emergencymanagement\\_legislation.pdf](https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/modernizing_bcs_emergencymanagement_legislation.pdf).

In the absence of official resources, the editorial team has also provided short definitions for terminologies related to data that are used in the report. These are presented in Box A.

**Build back better:** The use of the recovery, rehabilitation and reconstruction phases after a disaster to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies and the environment. (Sendai)

*Annotation:* The term “societal” will not be interpreted as a political system of any country.

**Capacity:** The combination of all the strengths, attributes and resources available within an organization, community or society to manage and reduce disaster risks and strengthen resilience. (Sendai)

*Annotation:* Capacity may include infrastructure, institutions, human knowledge and skills, and collective attributes such as social relationships, leadership and management.

**Capacity assessment:** The process by which the capacity of a group, organization or society is reviewed against desired goals, where existing capacities are identified for maintenance or strengthening and capacity gaps are identified for further action. (Sendai)

**Capacity development:** The process by which people, organizations and society systematically stimulate and develop their capacities over time to achieve social and economic goals. It is a concept that extends the term of capacity-building to encompass all aspects of creating and sustaining capacity growth over time. It involves learning and various types of training, but also continuous efforts to develop institutions, political awareness, financial resources, technology systems and the wider enabling environment. (Sendai)

**Climate adaptation:** The process of adjustment to actual or expected climate and its effects. In human systems, adaptation seeks to moderate or avoid harm or exploit beneficial opportunities. In some natural systems, human intervention may facilitate adjustment to expected climate and its effects. (IPCC)

**Coping capacity:** The ability of people, organizations and systems, using available skills and resources, to manage adverse conditions, risk or disasters. The capacity to cope requires continuing awareness, resources and good management, both in normal times as well as during disasters or adverse conditions. Coping capacities contribute to the reduction of disaster risks. (Sendai)

**Critical infrastructure sectors:** Federal, provincial and territorial governments in Canada define critical infrastructure as the processes, systems, facilities, technologies, networks, assets and services essential to the health, safety, security or economic well-being of people and the effective functioning of government. There are ten recognized critical infrastructure sectors as listed below. (PSC)

Critical Infrastructure Sectors	
Energy and Utilities	Electricity; petroleum and crude oil; natural gas; other
Health	Critical care; extended care; blood/organ facilities; pharmaceutical facilities
Transportation	Rail; road; marine; air

Critical Infrastructure Sectors	
Government	Federal; provincial; First Nations; local authority
Finance	Banking/financial institutions; securities/investments; point of sale/ATM machines
Communications	Telecommunications; radio; broadcasting; satellites
Safety	Police/law enforcement; fire; ambulance; emergency management
Water	Potable water; wastewater; dams
Food	Farming/production; processing/packaging; storage/distribution
Manufacturing	Defence industrial base manufacturing; critical manufacturing

**Disaster:** A social phenomenon that results when a hazard intersects with a vulnerable community in a way that exceeds or overwhelms the community's ability to cope and may cause serious harm to the safety, health, welfare, property or environment of people; may be triggered by a naturally occurring phenomenon which has its origins within the geophysical or biological environment or by human action or error, whether malicious or unintentional, including technological failures, accidents and terrorist acts. (PSC)

**Disaster risk:** The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity. (Sendai)

*Annotation:* The definition of disaster risk reflects the concept of hazardous events and disasters as the outcome of continuously present conditions of risk. Disaster risk comprises different types of potential losses which are often difficult to quantify. Nevertheless, with knowledge of the prevailing hazards and the patterns of population and socioeconomic development, disaster risks can be assessed and mapped, in broad terms at least.

It is important to consider the social and economic contexts in which disaster risks occur and that people do not necessarily share the same perceptions of risk and their underlying risk factors.

**Acceptable risk, or tolerable risk,** is therefore an important sub-term: The extent to which a disaster risk is deemed acceptable or tolerable depends on existing social, economic, political, cultural, technical and environmental conditions. In engineering terms, acceptable risk is also used to assess and define the structural and non-structural measures that are needed in order to reduce possible harm to people, property, services and systems to a chosen tolerated level, according to codes or "accepted practice" which are based on known probabilities of hazards and other factors. (Sendai)

**Residual risk:** The disaster risk that remains even when effective disaster risk reduction measures are in place, and for which emergency response and recovery capacities must be maintained. The presence of residual risk implies a continuing need to develop and support effective capacities for emergency services, preparedness, response and recovery, together with socioeconomic policies such as safety nets and risk transfer mechanisms, as part of a holistic approach. (Sendai)

**Disaster risk assessment:** A qualitative or quantitative approach to determine the nature and extent of disaster risk by analysing potential hazards and evaluating existing conditions of exposure and vulnerability that together could harm people, property, services, livelihoods and the environment on which they depend. (Sendai)

*Annotation:* Disaster risk assessments include: the identification of hazards; a review of the technical characteristics of hazards such as their location, intensity, frequency and probability; the analysis of exposure and vulnerability, including the physical, social, health, environmental and economic dimensions; and the evaluation of the effectiveness of prevailing and alternative coping capacities with respect to likely risk scenarios.

**Disaster risk governance:** The system of institutions, mechanisms, policy and legal frameworks and other arrangements to guide, coordinate and oversee disaster risk reduction and related areas of policy. (Sendai)

*Annotation:* Good governance needs to be transparent, inclusive, collective and efficient to reduce existing disaster risks and avoid creating new ones.

**Disaster risk reduction:** Disaster risk reduction is aimed at preventing new and reducing existing disaster risk and managing residual risk, all of which contribute to strengthening resilience and therefore to the achievement of sustainable development. (Sendai)

**Emergency:** A present or imminent event or circumstance that: a) is caused by accident, fire, explosion, technical failure or a force of nature; and b) requires prompt coordination of action or special regulation of persons or property to protect the health safety or well-being of a person or community or to limit the damage to property, significant Indigenous cultural sites or the environment; or c) any other situation prescribed by the Lieutenant Governor in Council. (EMBC)

**Emergency management:** Used, sometimes interchangeably, with the term “disaster management,” particularly in the context of biological and technological hazards and for health emergencies. While there is a large degree of overlap, an emergency can also relate to hazardous events that do not result in the serious disruption of the functioning of a community or society. (Sendai)

*Annotation:* In Canada, including in BC, the term “emergency management” is used as an overarching term for the systems and processes used for preventing or reducing the impacts of emergencies on communities. Emergency management is conceptualized in four phases: mitigation, preparedness, response and recovery. EMBC’s recommended definitions of each phase is provided in this terminology document.

**Exposure:** The situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas. (Sendai)

*Annotation:* Measures of exposure can include the number of people or types of assets in an area. These can be combined with the specific vulnerability and capacity of the exposed elements to any particular hazard to estimate the quantitative risks associated with that hazard in the area of interest.

**Hazard:** A process, phenomenon or human activity that may cause loss of life, injury or other health impacts, property damage, social and economic disruption or environmental degradation. (Sendai)

**Indigenous Knowledge:** The understandings, skills and philosophies developed by societies with long histories of interaction with their natural surroundings. For many Indigenous Peoples, Indigenous Knowledge informs decision-making about fundamental aspects of life, from day-to-day activities to longer term actions. This knowledge is integral to cultural complexes, which also encompass language, systems of classification, resource use practices, social interactions, values, ritual and spirituality. These distinctive ways of knowing are important facets of the world's cultural diversity. (IPCC)

**Local authority:** Local authorities are defined in the EPA as: a) for a municipality, the municipal council; (b) for an electoral area in a regional district, the board of the regional district; or c) for a national park, the park superintendent. Including a Treaty First Nation whose Final Agreement defines it as a local authority, an appropriate body within the Stikine, or a group of willing First Nations, municipalities and/or electoral areas that wish to form a unified local authority for the purposes of undertaking some or all emergency management functions. (EMBC)

**Mitigation (of climate change):** A human intervention to reduce emissions or enhance the sinks of greenhouse gases. Note that this encompasses carbon dioxide removal options. (IPCC)

**Mitigation (of disaster risk):** The phase of emergency management in which proactive steps are taken to prevent a hazardous event from occurring by eliminating the hazard, or to reduce the severity or potential impact of such an event before it occurs. Mitigation protects lives, property, cultural sites, and the environment, and reduces vulnerabilities to emergencies and economic and social disruption. (EMBC)

**Preparation:** The phase of emergency management during which action is taken to ensure readiness to undertake emergency response and recovery. It includes, but is not limited to, hazard, risk, and vulnerability assessment, planning, resource planning, volunteer management, training, exercises, public/stakeholder education, and continuous improvement. (EMBC)

**Preparedness:** The knowledge and capacities developed by governments, response and recovery organizations, communities and individuals to effectively anticipate, respond to and recover from the impacts of likely, imminent or current disasters. (Sendai)

*Annotation:* Preparedness action is carried out within the context of disaster risk management and aims to build the capacities needed to efficiently manage all types of emergencies and achieve orderly transitions from response to sustained recovery.

Preparedness is based on a sound analysis of disaster risks and good linkages with early warning systems, and includes such activities as contingency planning, the stockpiling of equipment and supplies, the development of arrangements for coordination, evacuation and public information, and associated training and field exercises. These must be supported by formal institutional, legal and budgetary capacities. The related term "readiness" describes the ability to quickly and appropriately respond when required.

**Recovery:** The phase of emergency management during which action is taken to re-establish social, cultural, physical, economic, personal and community well-being through inclusive measures that reduce vulnerability to emergencies, while enhancing sustainability and resilience. It includes taking steps to repair a community impacted by an emergency and restore conditions to a level that could withstand a potential future event or, when feasible, improve them to increase resilience in individuals, families, organizations, and communities. (EMBC)

Three stages of recovery: short term (days to weeks), medium term (weeks to months), and long term (months to years).

**Resilience:** The ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management. (Sendai)

**Response:** The phase of emergency management during which actions are taken in direct response to an imminent or occurring emergency in order to prevent, limit and manage impacts. Response includes the initiation of plans and actions to support recovery and may include deployment of registered volunteer resources. (EMBC)

**Risk:** The potential for adverse consequences where something of value is at stake and where the occurrence and degree of an outcome is uncertain. In the context of the assessment of climate impacts, the term risk is often used to refer to the potential for adverse consequences of a climate-related hazard, or of adaptation or mitigation responses to such a hazard, on lives, livelihoods, health and wellbeing, ecosystems and species, economic, social and cultural assets, services (including ecosystem services), and infrastructure. Risk results from the interaction of vulnerability (of the affected system), its exposure over time (to the hazard), as well as the (climate-related) hazard and the likelihood of its occurrence. (IPCC)

**Vulnerability:** The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards. (Sendai)

## BOX A: DATA AND DATA MANAGEMENT TERMINOLOGY

*Prepared by Sahar Safaie, Sage On Earth Consulting*

**Closed data:** Data that requires a specific licence for each use negotiated on a case-by-case basis.

**Data (vs. information):** Data are individual facts and figures presented in machine-readable formats such as .shp, .xls, .csv, or similar. Once data are organized and presented in a given context to make it useful, it becomes information.

**Data management:** Data management governs the process by which data are gathered from participating entities, the technical and quality standards to which new data will be produced, how data will be stored and maintained, and how the output data will be shared with users.

**Data management platform:** A data management platform is a software platform used for collecting and managing data. It allows unifying data and breaking down silos, giving access to a wider range of audiences, providing continuity in data production and use.

**Hazard data:** Data on geospatial distribution, probability, and intensity of hazard events.

**Open data:** Data that can be freely used, reused, and redistributed by anyone, subject only (at most) to the requirement to attribute and share-alike.

**Post-disaster damage and loss data:** Data on intensity and characteristics of various impacts from a certain event.

**Post-disaster event data:** Data on intensity, date, and location of a certain event.

**Risk data:** Data on geospatial distribution, possibility, and intensity of impact from events.

**Risk data, provincial or regional:** Regional or sub-regional risk data and information are produced using harmonized methodologies and provide information that allows for comparing risk levels between municipalities.

**Risk data and information governance:** Effective and efficient production, sharing, and use of risk information in policy and planning for disaster risk reduction. Good risk information governance includes regulatory and accountability frameworks, collaboration mechanisms, capacities, and incentives for production and use of risk information.