CASCADE
COMMUNITY SAFETY ACTION FOR SUPPORTING CLIMATE ADAPTATION

Funded by
European Union
Civil Protection
and Humanitarian Aid

FLAGSHIP

Glossary; Selected items from different sources related to climate change risk assessment

Sources:

1. Glossary of climate change acronyms and terms The UNFCCC secretariat (UN Climate Change)
2. Society for Risk Analysis Glossary Updated August 2018
3. Sendai Framework; Open-ended Intergovernmental Expert Working Group on Indicators and Terminology Relating to Disaster Risk Reduction. 1 December 2016
4. Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment. This document benefited from Study Contract No 07.0307/2010/580136/ETU/A3, implemented for the European Commission by Milieu Ltd, Collingwood Environmental Planning Ltd and Integra Consulting Ltd. European Union 2013

A

Abatement
Refers to reducing the degree or intensity of greenhouse-gas emissions.

Adaptation
Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

Adaptive capacity
The ability of a system to adjust to climate change (including climate variability and extremes), to moderate potential damages, to take advantage of opportunities and to cope with the consequences.

Adaptive management
A systematic process for continually improving management policies and practices by learning from the outcomes of previously implemented policies and practices.

Afforestation
Planting of new forests on lands that historically have not contained forests.

Anthropogenic greenhouse emissions
Greenhouse-gas emissions resulting from human activities.

Article 6(3) on appropriate assessment
Article 6(3) of the Habitats Directive requires an appropriate assessment (also referred to as 'Habitats Directive assessment' or 'Natura 2000 assessment') to be carried out where any plans or projects that are not directly linked to the management of that site may have a significant effect on the conservation objectives and would ultimately affect the integrity of the site. Integrity can be defined as the ability of the site to fulfil its function to continue to support protected habitats or species. Annex I to the Habitats Directive includes a full list of protected habitats and Annex II of protected species.

B

Baseline
Description of the present and future state if the project is not implemented, taking into account changes resulting from natural events and other human activities.

BINGO
Business and industry non-governmental organisations.

Biodiversity
The variability among living organisms from all sources including, *inter alia*, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems' (Article 2 of the Convention on Biological Diversity).

Biomass fuels or biofuels
A fuel produced from dry organic matter or combustible oils produced by plants.
These fuels are considered renewable as long as the vegetation producing them is maintained or replanted, such as firewood, alcohol fermented from sugar, and combustible oils extracted from soy beans. Their use in place of fossil fuels cuts greenhouse gas emissions because the plants that are the fuel sources capture carbon dioxide from the atmosphere.

Biodiversity offsets
Measurable project outcomes designed to compensate for significant residual adverse impacts of development plans or projects on biodiversity, after appropriate prevention and mitigation measures are taken.

Birds Directive
Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds [codified version], OJ L 20, 26.1.2010, p.7.

Bunker fuels
A term used to refer to fuels consumed for international marine and air transport.

C

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.

Capacity building
In the context of climate change, the process of developing the technical skills and institutional capability in developing countries and economies in transition to enable them to address effectively the causes and results of climate change.

Carbon market
A popular (but misleading) term for a trading system through which countries may buy or sell units of greenhouse-gas emissions in an effort to meet their national limits on emissions, either under the Kyoto Protocol or under other agreements, such as that among member states of the European Union. The term comes from the fact that carbon dioxide is the predominant greenhouse gas, and other gases are measured in units called "carbon-dioxide equivalents."

Carbon sequestration
The removal of carbon from the atmosphere and its storage in carbon sinks (such as oceans, forests or soil). Carbon sequestration is achieved through physical or biological processes, such as photosynthesis.

Carbon sink
An absorber of carbon (usually in the form of CO_2). Natural carbon sinks include forests and other ecosystems that absorb carbon, thereby removing it from the atmosphere and offsetting CO_2 emissions.

CBD
Convention on Biological Diversity.

CC:TRAIN
Training methodology for assessing vulnerability to climate change.

CFC
Chlorofluorocarbon

CH_4
Methane

Clearing house
A service which facilitates and simplifies transactions among multiple parties.

Climate
Usually defined as the 'average weather', or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities of variables such as temperature, precipitation, and wind, over a period of time. The conventional period of time over which weather is averaged to calculate climate is 30 years, as defined by the World Meteorological Organisation (WMO).

Climate change
IPCC defines climate change as '... any change in climate over time, whether due to natural variability or as a result of human activity.' The United Nations Framework Convention on Climate Change (UNFCCC) defines it specifically in relation to human influence, as 'a change

of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods'.

CMS
Convention on the Conservation of Migratory Species of Wild Animals.

CO_2
Carbon dioxide

CO_2 equivalent
A metric measure used to compare emissions of various greenhouse gases (GHGs) based upon their global warming potential (GWP). Carbon dioxide equivalents are commonly expressed as 'million metric tonnes of carbon dioxide equivalents (MMTCDE)'.

COP
Conference of the Parties. The supreme body of the Convention. It currently meets once a year to review the Convention's progress. The word "conference" is not used here in the sense of "meeting" but rather of "association". The "Conference" meets in sessional periods, for example, the "fourth session of the Conference of the Parties."

Critical infrastructure
The physical structures, facilities, networks and other assets which provide services that are essential to the social and economic functioning of a community or society.

Cumulative effects
The incremental effects of an action when added to the effects of past, present, and reasonably foreseeable future actions. Cumulative effects result from individually minor but collectively significant actions taking place over a period of time.

D

Deforestation
Conversion of forest to non-forest.

Direct effects - environmental effects directly caused by the preparation, construction or operation of a project in a particular location.

Disaster
A serious disruption of the functioning of a community or a society at any scale due to hazardous events interacting with conditions of exposure, vulnerability and capacity, leading to one or more of the following: human, material, economic and environmental losses and impacts.

> *For the purpose of the scope of the Sendai Framework for Disaster Risk Reduction 2015-2030 (para. 15), the following terms are also considered:*
> - *Small-scale disaster: a type of disaster only affecting local communities which require assistance beyond the affected community.*
> - *Large-scale disaster: a type of disaster affecting a society which requires national or international assistance.*

- *Frequent and infrequent disasters: depend on the probability of occurrence and the return period of a given hazard and its impacts. The impact of frequent disasters could be cumulative, or become chronic for a community or a society.*
- *A slow-onset disaster is defined as one that emerges gradually over time. Slow-onset disasters could be associated with, e.g., drought, desertification, sea-level rise, epidemic disease.*
- *A sudden-onset disaster is one triggered by a hazardous event that emerges quickly or unexpectedly. Sudden-onset disasters could be associated with, e.g., earthquake, volcanic eruption, flash flood, chemical explosion, critical infrastructure failure, transport accident.*

Disaster loss database

A set of systematically collected records about disaster occurrence, damages, losses and impacts, compliant with the Sendai Framework for Disaster Risk Reduction 2015-2030 monitoring minimum requirements.

Disaster management

The organization, planning and application of measures preparing for, responding to and recovering from disasters.

Annotation: 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 subterm; 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.

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.

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.

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

Disaster risk management plan

A document that sets out goals and specific objectives for reducing disaster risks and includes a list of actions needed to accomplish them. It can be prepared by an authority, sector, organisation or enterprise.

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.

Annotation: Disaster risk reduction is the policy objective of disaster risk management, and its goals and objectives are defined in disaster risk reduction strategies and plans.

E

Early warning system
An integrated system of hazard monitoring, forecasting and prediction, disaster risk assessment, communication and preparedness activities systems and processes that enables individuals, communities, governments, businesses and others to take timely action to reduce disaster risks in advance of hazardous events.

Ecosystem services
Ecosystems serve a number of basic functions that are essential for using the Earth's resources sustainably. The Economics of Ecosystem Services and Biodiversity (TEEB) study defines ecosystem services as: 'the benefits people receive from ecosystems'. TEEB also sets out the basis of human dependence on the natural environment. The European-led study builds on the United Nations Millennium Ecosystem Assessment, which defined four categories of ecosystem services that contribute to human well-being:

- provisioning services e.g. wild foods, crops, fresh water and plant-derived medicines;
- regulating services e.g. filtration of pollutants by wetlands, climate regulation through carbon
- storage and water cycling, pollination and protection from disasters;
- cultural services e.g. recreation, spiritual and aesthetic values, education;
- supporting services e.g. soil formation, photosynthesis and nutrient cycling.

Effort Sharing Decision
A decision that sets annual binding greenhouse gas (GHG) emission targets for Member States for the 2013–2020 period. These targets concern emissions from sectors not included in the EU Emissions Trading System (ETS), such as transport, construction, agriculture and waste.

EIA Directive
Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment [codification], OJ L 26, 28.1.2012. The EIA Directive requires Member States to ensure that projects likely to have significant effects on the environment because of their nature, size or location are subject to an assessment of their environmental effects, before development consent is given.

Emission reduction unit (ERU)
A Kyoto Protocol unit equal to 1 metric tonne of CO_2 equivalent. ERUs are generated for emission reductions or emission removals from joint implementation projects.

Emissions trading scheme and **EU Emissions Trading System (EUETS)**
A market mechanism that allows those bodies (such as countries, companies or manufacturing plants) that emit/release GHGs into the atmosphere to buy and sell these emissions (as allowances) amongst themselves. Emissions mean the release of GHGs and/or their precursors into the atmosphere over a set area and period of time. The European Union Emissions trading system (EU ETS) is based on the idea that creating a price for carbon offers the most cost-effective way to achieve the significant cuts in global GHG emissions that are needed to prevent climate change from reaching dangerous levels.

Environmental limits
Following the publication of the Millennium Ecosystem Assessment, it is widely accepted that ecosystems provide a range of benefits. External pressures (e.g. pollution) may impact ecosystems and diminish ecosystem services. In the long run, the system may reach a tipping/critical point beyond which the reduction in benefit is no longer acceptable or tolerable. Such a critical level can best be described as an environmental limit. There are several frequently used terms that fall within the category of environmental limits, including:

- **Threshold** (also referred to as a biophysical threshold or a tipping point): a tolerance point at which the conditions necessary to maintain a prevailing ecosystem state are exceeded (e.g. pollutant levels may have a small effect until a critical point is reached and the impact becomes significant); and
- **Carrying capacity**: the concept that a particular system could indefinitely sustain a particular intensity of use providing it is at its capacity or use limit, but, beyond this, additional pressure would produce undesirable resource degradation.

European Climate Change Programme
A programme launched by the European Commission in June 2000. Its goal is to identify and develop all the necessary elements of the EU strategy for implementing the Kyoto Protocol.

European Union (EU)
As a regional economic integration organization, the EU is a Party to both the Convention and the Kyoto Protocol. However, it does not have a separate vote from its member states. Because the EU signed the Convention when it was known as the EEC (European Economic Community), the EU retains this name for all formal Convention-related purposes. Members are Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

Evacuation
Moving people and assets temporarily to safer places before, during or after the occurrence of a hazardous event in order to protect them.

Event
The occurrence or change of a particular set of circumstances such as a system failure, an earthquake, an explosion or an outbreak of a pandemic.

F

Fauna
The animals of a particular region or habitat.

Flora
The plants of a particular region or habitat.

Fugitive fuel emissions
Greenhouse-gas emissions as by-products or waste or loss in the process of fuel production, storage, or transport, such as methane given off during oil and gas drilling and refining, or leakage of natural gas from pipelines.

G

Global warming potential (GWP)
An index representing the combined effect of the differing times greenhouse gases remain in the atmosphere and their relative effectiveness in absorbing outgoing infrared radiation.

Green infrastructure
Green infrastructure serves the interests of both people and nature. It can be defined as a strategically planned and delivered network of high quality green spaces and other environmental features. It should be designed and managed as a multifunctional resource capable of delivering a wide range of benefits and services. Green infrastructure includes natural and semi-natural areas, features and green spaces in rural and urban, terrestrial, freshwater, coastal and marine areas. Areas protected as Natura 2000 sites are at the core of green infrastructure.

Greenhouse gases (GHGs)
The atmospheric gases responsible for causing global warming and climate change. The major GHGs are carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O). Less prevalent - but very powerful - greenhouse gases are hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6).

H

Habitats Directive
Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, as amended, OJ L 206, 22.7.1992, p.7.

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.

Hazardous event
The manifestation of a hazard in a particular place during a particular period of time.

Annotation: Severe hazardous events can lead to a disaster as a result of the combination of hazard occurrence and other risk factors.

HFC
Hydrofluorocarbons

I

Indirect effects/impacts
Effects/impacts that occur away from the immediate location or timing of the proposed action, e.g. quarrying of aggregates elsewhere in the country as a result of a new road proposal, or as a consequence of the operation of the project (see also secondary effects).

ISO
International Standards Organization.

K

Kyoto Protocol
The Kyoto Protocol was adopted at the Third Session of the Conference of the Parties (COP) to the UNFCCC in Kyoto (Japan) in 1997. It contains legally binding commitments. Countries included in Annex B of the Protocol (most OECD countries and Economies in Transition countries) agreed to reduce their anthropogenic emissions of GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) by at least 5 % below 1990 levels between 2008 and 2012.

L

Land use, land-use change, and forestry (LULUCF)
A greenhouse gas inventory sector that covers emissions and removals of greenhouse gases resulting from direct human-induced land use, land-use change and forestry activities.

Leakage
That portion of cuts in greenhouse-gas emissions by developed countries -- countries trying to meet mandatory limits under the Kyoto Protocol -- that may reappear in other countries not bound by such limits. For example, multinational corporations may shift factories from developed countries to developing countries to escape restrictions on emissions.

M

Maladaptation
An action or process that increases vulnerability to climate-change-related hazards. Maladaptive actions and processes often include planned development policies and measures that deliver short-term gains or economic benefits, but increase vulnerability in the medium- to long-term.

Maximum sustainable yield (MSY)
Maximum sustainable yield (MSY) is the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.

Mitigation
In the context of climate change, a human intervention to reduce the sources or enhance the sinks of greenhouse gases. Examples include using fossil fuels more efficiently for industrial processes or electricity generation, switching to solar energy or wind power, improving the

insulation of buildings, and expanding forests and other "sinks" to remove greater amounts of carbon dioxide from the atmosphere. Mitigation can also be the lessening or minimizing of the adverse impacts of a hazardous event.

N

N_2O
Nitrous oxide

National adaptation programmes of action (NAPAs)
Documents prepared by least developed countries (LDCs) identifying urgent and immediate needs for adapting to climate change.

Natura 2000
An EU-wide network of nature protection areas established under the Habitats Directive. The aim of the network is to ensure the long-term survival of Europe's most valuable and threatened species and habitats. It is comprised of Special Areas of Conservation (SAC) designated by Member States under the Habitats Directive and Special Protection Areas (SPAs) designated under the Birds Directive.

No-regret measures
'No-regret' measures are activities that yield benefits even in the absence of climate change. In many locations, implementing these actions constitutes a very efficient first step in a long-term adaptation strategy. For example, controlling leakages in water pipes or maintaining drainage channels is almost always considered a very good investment from a cost–benefit analysis point-of-view, even in the absence of climate change. Improving building insulation norms and climate-proofing new buildings is another typical example of a no-regret strategy, since it increases climate robustness and any additional cost can be paid back within a few years. Once no-regret measures have been identified, it is important to know why they are not yet implemented. Reasons can include: (i) financial and technological constraints; (ii) lack of information and transaction costs at the micro-level; and (iii) institutional and legal constraints. These obstacles can be addressed through adaptation planning, as a first step in a long-term adaptation strategy.

Non-governmental organizations (NGOs)
Organizations that are not part of a governmental structure. They include environmental groups, research institutions, business groups, and associations of urban and local governments. Many NGOs attend climate talks as observers. To be accredited to attend meetings under the Convention, NGOs must be non-profit.

"No-regrets options"
Technology for reducing greenhouse-gas emissions whose other benefits (in terms of efficiency or reduced energy costs) are so extensive that the investment is worth it for those reasons alone. For example, combined-cycle gas turbines -- in which the heat from the burning fuel drives steam turbines while the thermal expansion of the exhaust gases drives gas turbines -- may boost the efficiency of electricity generating plants by 70 per cent.

P

PFC
Perfluorocarbon

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.

> *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.*

Prevention - activities and measures to avoid existing and new disaster risks.

> *Annotations: Prevention (i.e., disaster prevention) expresses the concept and intention to completely avoid potential adverse impacts of hazardous events. While certain disaster risks cannot be eliminated, prevention aims at reducing vulnerability and exposure in such contexts where, as a result, the risk of disaster is removed. Examples include dams or embankments that eliminate flood risks, land-use regulations that do not permit any settlement in high-risk zones, seismic engineering designs that ensure the survival and function of a critical building in any likely earthquake and immunization against vaccine-preventable diseases. Prevention measures can also be taken during or after a hazardous event or disaster to prevent secondary hazards or their consequences, such as measures to prevent the contamination of water.*

Probability
The classical interpretation applies only in situations with a finite number of outcomes which are equally likely to occur: The probability of A is equal to the ratio between the number of out**.**

Proxy indicator
Indirect measure that approximates or represents a phenomenon in the absence of a direct measure.

Public
One or more natural or legal persons, and, in accordance with national legislation or practice, their associations, organisations or groups. (EIA Directive)

Public concerned
The public affected or likely to be affected by, or having an interest in, the environmental decision making; for the purposes of this definition, non-governmental organisations promoting environmental protection and meeting any requirements under national law are included.

Public Participation
Principle or practice expressing that the public has a right to be involved in the decision-making process.

P(A) = Number of outcomes resulting in A /Total number of outcomes.

R

Reconstruction
The medium- and long-term rebuilding and sustainable restoration of resilient critical infrastructures, services, housing, facilities and livelihoods required for the full functioning of

a community or a society affected by a disaster, aligning with the principles of sustainable development and “build back better”, to avoid or reduce future disaster risk.

Recovery
The restoring or improving of livelihoods and health, as well as economic, physical, social, cultural and environmental assets, systems and activities, of a disaster-affected community or society, aligning with the principles of sustainable development and “build back better”, to avoid or reduce future disaster risk.

REDD
Reducing Emissions from Deforestation and Forest Degradation.

Reforestation
Replanting of forests on lands that have previously contained forests but that have been converted to some other use.

Rehabilitation
The restoration of basic services and facilities for the functioning of a community or a society affected by a disaster.

Reservoirs
A component or components of the climate system where a greenhouse gas or a precursor of a greenhouse gas is stored. Trees are "reservoirs" for carbon dioxide.

Residual effects
Effects that remain after mitigation action.

Residual risk
The disaster risk that remains in unmanaged form, even when effective disaster risk reduction measures are in place, and for which emergency response and recovery capacities must be maintained.

> *Annotation: 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.*

Resilience
The ability of a system to reduce the initial adverse effects (absorptive capability) of a disruptive event (stressor) and the time/speed and costs at which it is able to return to an appropriate functionality/equilibrium (adaptive and restorative capability).

Resilience metrics/descriptions
Probability that a system can restore functionality to its pre-disaster level (or higher) within a specified time or probability that the system is able to sustain operation when exposed to some types of risk sources or events (which can be more or less accurately defined).

Response
Actions taken directly before, during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.

Retrofitting - reinforcement or upgrading of existing structures to become more resistant and resilient to the damaging effects of hazards.

Annotation: Retrofitting requires consideration of the design and function of the structure, the stresses that the structure may be subject to from particular hazards or hazard scenarios and the practicality and costs of different retrofitting options. Examples of retrofitting include adding bracing to stiffen walls, reinforcing pillars, adding steel ties between walls and roofs, installing shutters on windows and improving the protection of important facilities and equipment.

Risk
The possibility of an unfortunate occurrence.

Risk acceptance
An attitude expressing that the risk is judged acceptable by a particular individual or group.

Risk analysis
Systematic process to comprehend the nature of risk and to express the risk, with the available knowledge. Risk analysis is often also understood in a broader way, in particular in the Society for Risk Analysis (SRA) community: risk analysis is defined to include risk assessment, risk characterization, risk communication, risk management, and policy relating to risk, in the context of risks of concern to individuals, to public and private sector organizations, and to society at a local, regional, national, or global level.

Risk assessment
Systematic process to comprehend the nature of risk, express and evaluate risk, with the available knowledge.

Risk avoidances
Process of actions to avoid risk, for example, not be involved in, or withdraw from an activity in order not to be exposed to any risk source

Risk awareness
Having an understanding of the risk (the risk sources, the hazards, the potential consequences, etc.)

Risk characterisation, risk description
A qualitative and/or quantitative picture of the risk; i.e., a structured statement of risk usually containing the elements: risk sources, causes, events, consequences, uncertainty representations/measurements (for example probability distributions for different categories of consequences – casualties, environmental damage, economic loss, etc.) and the knowledge that the judgments are based on.

Risk communication
Exchange or sharing of risk-related data, information and knowledge between and among different target groups (such as regulators, stakeholders, consumers, media, general public).

Risk evaluation
Process of comparing the result of risk analysis (see Risk analysis) against risk (and often benefit) criteria to determine the significance and acceptability of the risk.

Risk insurance
Type of insurance that is taken out against risk.

Risk management
Activities to handle risk such as prevention, mitigation, adaptation or sharing It often includes trade-offs between costs and benefits of risk reduction and choice of a level of tolerable risk.

Risk metrics/descriptions
The combination of probability and magnitude/severity of consequences.

Risk mitigation
Process of actions to reduce risk.

Risk perception
Person's subjective judgement or appraisal of risk.

Risk policy
A plan for action of how to manage risk.

Risk prevention
Process of actions to avoid a risk source or to intercept the risk source pathway to the realization of damage with the effect that none of the targets are affected by the risk source.

Risk reduction
Same as risk mitigation: Process of actions to reduce risk.

Risk regulation
Governmental interventions aimed at the protection and management of values subject to risk.

Risk retention
Acceptance of the potential benefit or gain, or burden of loss, from the risk (no insurance or transfer of the risk).

Risk sharing or pooling
Form of risk treatment involving the agreed distribution of risk with other parties .

Risk source or risk agent
Element (action, sub-activity, component, system, event, etc.) which alone or in combination with other elements has the potential to give rise to some specified consequences (typically undesirable consequences).

Risk tolerance
An attitude expressing that the risk is judged tolerable.

Risk trade-offs (Risk-risk trade-offs)
The phenomenon that intervention aimed at reducing one risk can increase other risks or shift risk to another population or target.

Risk transfer
the process of formally or informally shifting the financial consequences of particular risks from one party to another, whereby a household, community, enterprise or State authority

will obtain resources from the other party after a disaster occurs, in exchange for ongoing or compensatory social or financial benefits provided to that other party.

> *Annotation: Insurance is a well-known form of risk transfer, where coverage of a risk is obtained from an insurer in exchange for ongoing premiums paid to the insurer. Risk transfer can occur informally within family and community networks where there are reciprocal expectations of mutual aid by means of gifts or credit, as well as formally, wherein governments, insurers, multilateral banks and other large risk-bearing entities establish mechanisms to help cope with losses in major events.*
> *Such mechanisms include insurance and reinsurance contracts, catastrophe bonds, contingent credit facilities and reserve funds, where the costs are covered by premiums, investor contributions, interest rates and past savings, respectively*

Risk treatment
Process of actions to modify risk.

S

Safe
Without unacceptable risk.

Safety
Interpreted in the same way as safe (for example when saying that safety is achieved). The antonym of risk (the safety level is linked to the risk level; a high safety means a low risk and vice versa). Sometimes limited to risk related to non-intentional events (including accidents and continuous exposures).

Scoping
The process of determining the scope and level of detail of an EIA, including the environmental effects and alternatives which need to be considered, the assessment methods to be used, and the structure and contents of the environmental report.

Screening
The process of deciding whether a project requires an EIA.

SEA Directive
Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, OJ L 197, 21.7.2001, p.30. The SEA Directive requires that the environmental effects of a broad range of plans and programmes (PPs) are assessed and taken into account while PPs are still being developed. The public must be consulted on the draft PP and environmental assessment, and their views must be taken into account.

Secondary effects
Effects that occur as a consequence of a primary effect or as a result of a complex pathway (see also indirect effects).

Secure
Without unacceptable risk when restricting the concept of risk to intentional acts by intelligent actors.

Security
Interpreted in the same way as secure (for example when saying that security is achieved). The antonym of risk when restricting the concept of risk to intentional acts by intelligent

actors (the security level is linked to the risk level; a high security level means a low risk and vice versa).

Sensitivity
The degree to which a system is affected, either adversely or beneficially, by climate-related stimuli. The effect may be direct (e.g. a change in crop yield in response to a change in the temperature) or indirect (e.g. damages caused by more frequent coastal flooding due to rising sea levels).

SF_6
Sulphur hexafluoride

Short-term effects
Effects that may occur during construction stage of a development, e.g. the increased traffic going to and from the site during the construction period.

Significant effects
Effects that are significant in the context of the project, i.e. a function not just of magnitude or size of effect, but of the nature, sensitivity and scale of the receptor.

Sink
Any process, activity or mechanism which removes a greenhouse gas, an aerosol or a precursor of a greenhouse gas from the atmosphere. Forests and other vegetation are considered sinks because they remove carbon dioxide through photosynthesis.

"Spill-over effects" (also referred to as "rebound effects" or "take-back effects")
Reverberations in developing countries caused by actions taken by developed countries to cut greenhouse-gas emissions. For example, emissions reductions in developed countries could lower demand for oil and thus international oil prices, leading to more use of oil and greater emissions in developing nations, partially off-setting the original cuts. Current estimates are that full-scale implementation of the Kyoto Protocol may cause 5 to 20 per cent of emissions reductions in industrialized countries to "leak" into developing countries.

Stakeholder involvement (in risk governance)
The process by which organizations or groups of people who may be affected by a risk-related decision can influence the decisions or its implementation.

Structural and non-structural measures
Structural measures are any physical construction to reduce or avoid possible impacts of hazards, or the application of engineering techniques or technology to achieve hazard resistance and resilience in structures or systems. Non-structural measures are measures not involving physical construction which use knowledge, practice or agreement to reduce disaster risks and impacts, in particular through policies and laws, public awareness raising, training and education.

> *Annotation: Common structural measures for disaster risk reduction include dams, flood levies, ocean wave barriers, earthquake-resistant construction and evacuation shelters. Common non-structural measures include building codes, land-use planning laws and their enforcement, research and assessment, information resources and public awareness programmes. Note that in civil and structural engineering, the term "structural" is used in a more restricted sense to mean just the load-bearing structure, and other parts such as wall cladding and interior fittings are termed "non-structural".*

Sustainable development
Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Synergistic effects
Effects that interact to produce a total effect greater (or less than) than the sum of the individual effects.

T

Technology transfer
A broad set of processes covering the flows of know-how, experience and equipment for mitigating and adapting to climate change among different stakeholders

Threat/Risk source
Commonly used in relation to security applications (but also in relation to other applications, for example the threat of an earthquake)

U

UN
United Nations

UNCCD
United Nations Convention to Combat Desertification.

UNCED
United Nations Conference on Environment and Development.

UNCTAD
United Nations Conference on Trade and Development.

Uncertainty
Imperfect or incomplete information/knowledge about a hypothesis, a quantity, or the occurrence of an event.

Uncertainty metrics/descriptions
A subjective probability.

Underlying disaster risk drivers
Processes or conditions, often development-related, that influence the level of disaster risk by increasing levels of exposure and vulnerability or reducing capacity.

> *Annotations: Underlying disaster risk drivers —also referred to as underlying disaster risk factors —include poverty and inequality, climate change and variability, unplanned and rapid urbanization and the lack of disaster risk considerations in land management and environmental and natural resource management, as well as compounding factors such as demographic change, non-disaster risk-informed policies, the lack of regulations and incentives for private disaster risk reduction investment, complex supply chains, the limited availability of technology, unsustainable uses of natural resources, declining ecosystems, pandemics and epidemics.*

UNDP
United Nations Development Programme.

UNECE
United Nations Economic Commission for Europe.

UNEP
United Nations Environment Programme.

UNFCCC
United Nations Framework Convention on Climate Change.

UNIDO
United Nations Industrial Development Organization.

V

Vulnerability
The degree to which a system is susceptible to, or unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate variation to which a system is exposed, its sensitivity, and its adaptive capacity.

Vulnerability metrics/descriptions
As for risk, but conditional on the risk source or event (load):

- Expected loss given a failure of a single component or multiple components
- Expected number of fatalities given the occurrence of a specific event
- Expected system loss under conditions of stress

W

WEOG
Western European and Others Group (United Nations regional group).

WHO
World Health Organization.

WMO
World Meteorological Organization.

WSSD
World Summit on Sustainable Development.

WTO
World Trade Organization.