Prehospital and Disaster Medicine

Disaster Terminology

The terms in this glossary are an alphabetical compilation of definitions from the "Health Disaster Management Guidelines for Evaluation and Research in the 'Utstein-Style'" (see Executive Summary), those provided by Walter Hays, and Debacker, Domres, and de Boer's "Glossary of New Concepts in Disaster Medicine". They are in addition to those selected from the current volume of Gunn's Multilingual Dictionary of Disaster Medicine and International Relief.
They are posted here for discussion in an attempt to evolve a common set of definitions. Your input is requested. The terms are open for comment by email and in the future, by Internet chat.

Gunn definitions appear with a •.

Hays definitions appear with an asterisk (*). The terms in his glossary "are provided to facilitate communication on the scientific, technical, and policy issues of earthquakes, seismic zonation, earthquake risk assessment, and earthquake risk management. Because earthquakes are linked with the hazard, built, and policy environments of a community, the terms are organized in these three categories."

Terms from Debacker, Domres, and de Boer's "Glossary of New Concepts in Disaster Medicine" appear with a †.

All other definitions are from the Health Disaster Management template (see Executive Summary).

Terms in the following list may have multiple definitions (for example, "Disaster" as defined by Hays as well as "Disaster" as defined by the Health Disaster Management template).

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Absorbing capacity:

the buffering ability that enables a society to dissipate the effects of an event. It is a function of the level of preparedness of the society to respond to the event plus the resilience of the population and environment.
Absorbing capacity = resilience + preparedness

*Acceleration:

a force having the units of gravity that denotes the rate of change of the back and forth movement of the ground during an earthquake. Velocity (the rate of the ground motion at a given instant of time with units of cm/s) and displacement (the distance the ground has moved from its rest position with units of cm) are derived from an accelerogram.

*Accelerogram:

the record or time history obtained from an instrument called an accelerometer showing acceleration of a point on the ground or a point in a building as a function of time. The peak acceleration, the largest value of acceleration on the record is typically used in design criteria. The velocity and displacement time histories and the response spectrum are derived analytically from the time history of acceleration.

*Acceptable risk:

the probability of occurrences of physical, social, or economic consequences of an earthquake that is considered by authorities to be sufficiently low in comparison with the risks from other natural or technological hazards that these occurrences are accepted as realistic reference points for determining design requirements for structures, or for taking social, political, legal, and economic actions in the community to protect people and property. See Risk.

•Acid rain
sulphuric acid (H_2SO_4) in the atmosphere, formed by the combination of sulphur trioxide with water, resulting in a relatively stable mist of acid droplets. In excessive concentrations in the air it increases the acidity of the soil and disturbs the pH causing agricultural and ecological damage.
Compare to or see air pollution, transboundary pollution.

•Acquired immunodeficiency syndrome
a highly infectious disease of pandemic proportions, caused by the HIV virus. A person who has the virus is a carrier and can infect others. Spread is by sexual intercourse, by contaminated needles and syringes, transfusions of infected blood, by an infected mother to her unborn child. Spread is unlikely through daily social contact, such as shaking hands. Note: Non-infective immune deficiency can also be acquired from radiation. Synonym: AIDS
Compare to or see HIV, immunodeficiency.

*Active fault:
A fault is active if it exhibits physical characteristics such as historic earthquake activity, surface fault rupture, geologically recent displacement of stratigraphy or topography, or physical association with another fault system judged to be active. When these characteristics are suspected or proven, it is classed as active and judged to be able to undergo movement. See Fault.

Advance planning activities:
collectively called disaster preparedness. Includes 1) strategic planning, 2) contingency planning, and 3) forward planning

†Advanced life support
those invasive measures (such as intubation and ventilation, infundation and thoracic drainage) as to preserve life of ABC-unstable patients.

*Aftershocks:
the long, exponentially decaying sequence of smaller earthquakes that follow a large-magnitude earthquake for months to years, exacerbating the damage. A type of ground failure.

•Aid
free material or financial assistance or other support given to an organization, community or country. Synonym: assistance
Compare to or see donor.

•Air pollution
presence of considerable quantities of gaseous, liquid or solid contaminants in the atmosphere and liable to be harmful to animal, vegetable and human life.

†ALARA
As Low As Reasonably Achievable; concept utilized in relation to intervention levels following the release of dangerous chemical or nuclear materials.

†Alarm procedure
Alerting every party concerned precedes repressive disaster management. Various optical and acoustical means of alarm are possible: flags, lights, sirens, radio and telephone.

†Ambulance support
When disaster strikes a certain (ambulance) region, ambulance support is needed from surrounding regions according to a preplanned scheme.

•Assessment
survey of a real or potential disaster to estimate the actual or expected damages and to make recommendations for preparedness, mitigation and relief action

*Attenuation:
A decrease in the strength of seismic waves and seismic energy with distance from the point where the fault rupture originated. Also referred to as Seismic Wave Attenuation Function.

•Attenuation
Compare with or see disaster mitigation

•Avalanche
sudden slide of a huge mass of snow and ice, usually carrying with it earth, rocks, trees and other debris

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†Basic life support
those non-invasive measures (such as elimination of airway obstruction, cardo-pulmonary resuscitation, hemorrhage control, woundcare, and immobilization of fractures) as to preserve life of ABC-unstable patients.

•Becquerel (Bq)
unit of nuclear activity. 1 Bq represents the amount of radioactive substance where on disintegration occurs per second. (Has replaced the curie.)

•Bilateral cooperation
technical cooperation or assistance given by a donor country to a recipient country, through direct adreement between the two governments without UN or other intermediary
Compare to or see international assistance, technical assistance.

•Biological warfare
the intentional spread of disease in warfare through the dispersal of infective bacteria, rickettsiae, viruses or toxins which cause diseases, such as anthrax, plague, typhoid, brucellosis. There is a UN Convention against biological weapons. Biological and chemical weapons are usually considered together (CBW). Synonyms: bacteriological warfare, biological weapon, BW.
Compare to or see chemical warfare, nuclear war, toxin.

*Blind Fault
a fault system that is not visible at the surface of the ground and can only be detected by using geophysical techniques such as drilling, seismic reflection profiles, gravity profiles, or magnetic profiles.

*Built environment:
the buildings and lifelines (or infrastructure) of the community.

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†Casualty
any person suffering physical and/or psychological damage by outside violence leading to either death, injuries, or material losses only

†Casualty clearing station
collecting point for T1 and T2 victims in the immediate vicinity of the disaster site where further triage and basic and advanced life support can be provided.

†Central holding area
An ambulance assembly location in the filter area from where ambulances either leave to pick-up patients from the casualty clearing station or to leave for one of the neighbouring hospitals according to a victim distribution plan.

•Centre for Research on the Epidemiology of Disasters
a pioneering facility at the School of Public Health, Catholic University of Louvain, for research, study and training in the epidemiology and medical aspects of disasters. A WHO Collaborating Centre. Synonym: CRED
Compare to or see disaster medicine.

†Chain of medical care
The chain of medical care from the disaster site to the hospital bed, along which the patient is medically handled and treated, can be divided into 3 phases: the medical organization at the site, the distribution of patients among neighbouring hospitals, and the organization in the hospitals.

†Chemical lesions
body lesions caused by chemical substances either through external (skin and mucous membranes) or internal (inhalation and ingestion) contamination, or both, leading to a variety of reactions from skin irritation and ventilatory problems to systemic effects and even death.

•Chemical warfare
war in which harmful chemical substances are used with the intention to kill, injure, or otherwise incapacitate humans or to destroy the environment and national economies. The many chemical weapons are grouped in seven main categories in terms of their toxic properties: nerve agents (lethal); pulmonary toxics (lethal); cyanide (lethal); tissue damaging vesicants (mustards, Lewisites, halogenated oximes); psychomimetics; riot control agents (incapacitating); and defoliants. Chemical weapons are internationally outlawed by the 1925 Geneva Protocol. Synonyms: chemical weapon, CW.

•Chernobyl
a town in the Ukraine, U.S.S.R, site of a nuclear reactor that exploded and burned on 26 April 1987, causing extensive radioactive contamination locally and in distant countries, with deaths and agricultural and environmental damage. The exploded reactor has been permanently out of action. The most serious nuclear disaster up to that date, resulting also in extensive revision and strengthening of supervision by IAEA.

•Commission of European Communities
the institutional arrangements bringing together the European Communities with the aim of gradually integrating their economies and moving towards a political unity, with a European Parliament in Brussels. It encompasses the European Economic Community (EEC or Common Market). Has an active programme for disaster relief and assistance to developing countries. Synonyms: CEC, Common Market.
Compare to or see Council of Europe, international assistance.

•Communicable Disease
an infectious condition that can be transmitted from one living person or animal to another through a variety of channels, according to the nature of the disease
Compare to or see infectious disease.

*Community lifelines:
structures and facilities that provide the essential functions of supply, disposal, communication, and transportation in a community. They are also called Infrastructure.

†Community profile
characteristics of the local environment prone to a chemical or nuclear accident: population density, age distribution, roads, railways, waterways, types of dwellings and buildings, and the relief agencies locally available

†Contamination
Accidental release of hazardous chemical or nuclear materials leads to pollution of the environment in which man could be contaminated by these materials, either externally (skin and mucous membranes) or internally (by inhalation or ingestion) or both.

•Contamination
1. Invasion of a person or animal by pathogenic germs (contaminants).
2. Presence of an infectious agent on inanimate articles such as clothes, surgical instruments, dressings, water, milk, food.
3. Transfer and propagation of a contaminant.
Compare to or see infection, radioactive contamination.

•Contingency plan
an anticipatory emergency plan to be followed in an expected or eventual disaster, based on risk assessment, availability of human and material resources, community preparedness, local and international response capability, etc. Synonym: emergency plan
Compare to or see plan.

Contingency planning:
site-specific and recognizes that a disaster could occur at any time.

•Cosmic radiation
beams of very high energy particles (protons, alpha particles and certain heavier nuclei) of solar, galactic or extragalactic origin.
Compare to or see ionizing radiation.

•Council of Europe
organization bringing together, at Strasbourg, 21 States of Europe, to "achieve a greater unity for the purpose of safeguarding and realizing the ideals and principles which are their common heritage and facilitating their economic and social progress." Promotes the European Centre for Disaster Medicine in San Marino. Synonym: CE.
Compare to or see European Centre for Disaster Medicine, Commission of European Communities (CEC).

†Crash team
team comprising a doctor and a nurse specialized in advanced trauma life support and meant for stabilizing seriously wounded victims.

•Creeping disaster

a disaster of insidious onset and slow progress, such as famine, drought, desertification, health deterioration or epidemic, that does not become manifest until damage and suffering reach extensive proportions and need massive emergency response.
Compare to or see slow onset disaster.

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Decontamination
the removal of hazardous chemical or nuclear substances from the skin and/or mucous membranes by showering or washing with water, or out of wounds by rinsing with sterile solutions.

†Definition. Classification. and Scoring of Disaster
From a medical point of view, a disaster needs only two criteria: victims and a discrepancy between the number and treatment capacity. Disasters can then be classified utilizing various parameters; man-made versus God-made, the radius of the disaster site, the number of dead, the number of wounded, the average severity of the injuries sustained, the impact time, and the rescue time. By attributing 0, 1 or 2 to each of them, increasing with intensity, number or time a scale can be produced varying between 0 and 13, which is called the Disaster Severity Scale. See Disaster.

Delayed onset disaster:
includes events that have a prolonged duration.

•Dioxin
the chemical compound 2, 3, 7, 8, tetra chlorodibenzo-p-dioxin, an extremely toxic substance used in manufacturing some herbicides. The harmful effects are very persistent and capable of causing severe illness and chromosomal malformations. A major accident occurred in Seveso. Also known as TCDD.
Compare to or see transboundary pollution, Seveso, man-made disaster, toxicological disaster.

Disaster:
There are many definitions of a disaster, and these definitions have been discussed in detail by Al-Mahari and Keller in a recent issue of Prehospital and Disaster Medicine (Volume 12, number 1, pp). The definitions used seem dependent upon the discipline using the term. Thus, no definition of "disaster" is accepted universally. In the course on Disaster Management published in *Prehospital and Disaster Medicine*, Frederick C. Cuny defined a disaster as: "a situation resulting from an environmental phenomenon or armed conflict that produced stress, personal injury, physical damage, and economic disruption of great magnitude."(1) Perez and Thompson in their series on Natural Disasters, define a disaster as: "the occurrence of widespread, severe damage, injury, or loss of life or property, with which the community cannot cope, and during which the affected society undergoes severe disruption."(2) These definitions note that a disaster disrupts the infrastructure of the society stricken by the event. Furthermore, Cuny stresses that the event resulting in a disaster does not comprise the disaster: it is what results from the event, not the precipitating event itself.
See medical disaster.
See Definition, Classification, and Scoring of Disaster.

*Disaster:
a hazardous event which affects a community in such an adverse way that essential social structures and functions are disrupted. Disasters represent policy failures.

•Disaster
the result of a vast ecological breakdown in the relations between man and his environment, a serious and sudden event (or slow, as in drought) on such a scale that the stricken community need

extraordinary efforts to cope with it, often with outside help or international aid. Synonym: catastrophe
Compare to or see natural disaster, man-made disaster, technological disaster, toxicological disaster, creeping disaster, international assistance.

†Disaster Medicine
the combination of medical and medico-organizational measures undertaken in case of disaster covering the entire range of medical care from the scene of the disaster to the hospital bed.

•Disaster Medicine
the study and collaborative application of various health disciplines--e.g., paediatrics, epidemiology, communicable diseases, nutrition, public health, emergency surgery, social medicine, community care, international health--to the prevention, immediate response and rehabilitation of the health problems arising from disaster, in cooperation with other disciplines involved in comprehensive disaster management.
Compare to or see Centre for Research on the Epidemiology of Disasters (CRED), European Centre for Disaster Medicine (CEMEC), World Health Organization (WHO), military medicine.

•Disaster Mitigation
separate and aggregate measures taken prior to or following a disaster to reduce the severity of the human and material damage caused by it. Compare with or see disaster prevention. See also mitigation.

•Disaster Preparedness
the aggregate of measures to be taken in view of disasters, consisting of plans and action programmes designed to minimize loss of life and damage, to organize and facilitate effective rescue and relief, and to rehabilitate after disaster. Preparedness requires the necessary legislation and means to cope with disaster or similar emergency situations. It is also concerned with forecasting and warning, the education and training of the public, organization and management, including plans, training of personnel, the stockpiling of supplies and ensuring the needed funds and other resources.
Compare to or see emergency, relief, supplies.

•Disaster Prevention
The aggregate of approaches and measures to ensure that human action or natural phenomena do not cause or result in disaster or similar emergency. It implies the formulation and implementation of long range policies and programmes to eliminate or prevent the occurrence of disasters. Based on vulnerability analysis of risks, it also includes legislation and regulatory measures in the field of town planning, public works and environmental development. Compare to or see prevention.

†Disaster Severity Scale
See Definition, Classification, and Scoring of Disaster.

†Disaster site
area where the immediate impact of the disaster took place. The first duty of the police is to seal down this area by an inner cordon. Outside this cordon a second one can be laid: the outer cordon. The area in between both cordons is then called the filter area, through which at one or two points the disaster site can be reached by rescuers.

•Disinfestation
technique or process used to destroy parasites, insects and other undesirable small animal species such as arthropods or rodents present on the person, on clothing, domestic animals or in the envrionment. Delousing is disinfestation against body lice. Synonym: disinsection
Compare to or see fumigation, pesticide.

•Disinsection
Compare to or see disinfestation.

•Donor
a country, organization, or agency that provides relief or, in different ways, comes to the assistance of a population in disaster.
Compare to or see aid, international assistance, technical assistance

*Duration:
A measure of the length of time the ground shaking exceeds a given threshold of shaking, such as 5 % of the force of gravity. Also, a description of the length of time between the onset and the departure of a natural hazard.

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•Earth flow
mass of water-logged earth, sliding by gravity along a slope at a relatively slow speed of a few kilometers per hour
Compare to or see mudslide.

•Earthquake
the violent shaking of the ground produced by deep seismic waves, beneath the epicentre, generated by a sudden decrease or release in a volume of rock of elastic strain accumulated over a long time in regions of seismic activity (tectonic earthquake). The magnitude of an earthquake is represented by the Richter scale; the intensity by the Mercalli scale.

*Earthquake cycle:
The notion of an earthquake cycle dates back to the hypothesis formulated by H. F. Reid on the basis of his observations in the 1906 San Francisco, CA earthquake. The concept holds that two comparable sized earthquakes rupturing the same segment of a fault will be separated by a period of time long enough to reaccumulate strain in the amount equal to the elastic strain drop in the first earthquake. The stages in the cycle are: 1)a long period of seismic quiescence, except for the aftershocks, following a major earthquake, 2)a shorter period of increased seismicity as elastic strain accumulation approaches the critical strain level, and 3) the next major earthquake as the critical strain level is suddenly exceeded.

*Earthquake hazards:
The physical effects generated in an earthquake (e.g., ground shaking, ground failure, surface fault rupture, regional tectonic deformation, tsunami run up, seiches, and aftershocks).

*Earthquake resistant buildings:
buildings that are sited, designed and constructed in such a way that they are able to resist the ground shaking from large-magnitude earthquakes without collapsing and from moderate-magnitude earthquakes without significant loss of function and with damage that is repairable.

Effect(s):
the consequences of an event. The effects may be single, but most often are multiple and involve multiple basic functions. Any or all of the basic functions of the society affected may become impaired as part of the effects of the impact: 1) Medical services; 2) Public health; 3) Sanitation and water supplies; 4) Food; 5) Shelter/clothing; 6) Energy supply; 8) Public works; 9) Environment; 10)

Logistics/transportation; 11) Security; 12) Communications; and/or 13) Economy. In addition, the structure that provides for Coordination and Control of these functions may become impaired or inoperative. effects may be acute and have a short time course or may have several phases usually described as 1) alert/notification; 2) response and recovery; and 3) reconstruction and rehabilitation. It is important to recognize that there may be primary and secondary effects of an event. Primary effects are those that are a direct result of the event. Secondary effects are those that result from the primary effects or from the responses to the event. Although described as acute, some effects may be ongoing and stretch over long periods of time (e.g., famine, drought, epidemics, complex human emergencies). These effects are functions of the vulnerability of the population and the environment and to the human responses to the impact of the event.

$$\text{Effects} = V_{total} + a_1 z_1 + a_2 z_2$$

where V_{total} is the total, aggregate vulnerability of the population, $a_1 z_1$ are the positive responses, and $a_2 z_2$ are the negative responses. Positive responses produce a positive result (outcome) and negative responses result in a negative outcome.

*Elements at risk:

people, ecosystems, natural resources, the environment, buildings and infrastructure, essential facilities, and critical facilities that are voluntarily or involuntarily exposed to natural and technological hazards.

•Elements at risk

the population, buildings and civil engineering works, economic activities, public services and infrastructure, etc. at risk in a given area.-UNDRO.
Compare to or see risk, risk indicator, risk map.

•Emergency

a sudden and usually unforeseen event that must be countered immediately to minimize the consequences. The term is often used for disaster. With rational planning, emergencies can be tackled more effectively.

•Emergency health kit

basic drugs and medical equipment calculated for the emergency needs of a population of 10,000 people over three months. One prepackaged kit contains 10 identical smaller kits, each for 1,000 persons. Synonym: WHO Emergency Health Kit (the previous name).
Compare to or see stockpile, supplies, World Health Organization.

•Environment

the aggregate, at any given time, of the physical, chemical and biological agents and social factors that can have a direct or indirect, immediate or late effect on living organisms and on human activities

*Epicenter:

The point on the earth's surface vertically above the subsurface point where the fault rupture originated.

•Epicentre

the point or area on the earth's surface immediately above the focus of an earthquake
Compare to or see earthquake, hypocentre.

•Epidemiology

the medical discipline that studies the influence of such factors as the life style, biological constitution and other personal or social determinants on the incidence and distribution of disease. Compare to or see disaster medicine.

†Epidemiology of disaster

Only with a uniform and standard definition, classification and scoring system for (the medical aspects of) disasters is epidemiologic research feasible.

•European Centre for Disaster Medicine

intergovernmental centre established in San Marino under the aegis of the Council of Europe, to promote prevention and mitigation of the effects of natural and technological disasters through research, training programmes and international collaboration, in particular among European countries. Synonym: CEMEC.
Compare to or see Council of Europe, disaster medicine.

Event:

occurs when the hazard is realized or becomes manifest. For the current discussion, it means an occurrence that negatively affects living beings and/or their environment. . Such occurrences have a magnitude and a temporal component. Temporally, they may be either sudden onset or delayed onset and may be acute (short term) or prolonged.

Event Intensity:

a measure of the power or force (magnitude) of the event in relation to the time over which the event occurs and the area over or in which it occurs (Dorland 843).

Event magnitude:

the overall size of the event (e.g., area of drought, number of persons potentially or actually affected, etc.). Magnitude usually expressed as a mathematical quantity.(Ox 820) (i.e., Richter Scale for earthquakes, Safir-Simpson Scale for tropical cyclones).

*Exceedance probablilty:

A term used in probabilistic ground shaking maps. The probability (for example, 10%) that an earthquake will generate a level of ground motion that exceeds a specified reference level during a given exposure time.

*Exposure time:

A term used in probabilistic ground shaking maps. The period of time (for example, 50 years) that a structure or a community is exposed to potential earthquake ground shaking and other earthquake hazards.

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†Far-field

Following a nuclear accident on-site, e.g. a nuclear plant, the immediate vicinity is called near-field with a diameter varying between 2 and 20 kilometers, depending on the source strength. The area outside the near-field is called the far-field, where effects are still noticeable after an accident.

*Fault:

A fracture or a zone of fractures in the earth along which displacement of the two sides relative to one another has occurred as a consequence of compression, tension, or shearing stresses. A fault may

rupture the ground surface during an earthquake, especially if the magnitude is greater than M 5.5. The length of the fault is related to the maximum magnitude, with long faults able to generate larger-magnitude earthquakes than short faults. See Active Fault, Blind Fault.

†Filter area
the area between the inner and outer cordon around the disaster site. See disaster site.

†First acts
The first acts of doctors and nurses at the disaster site are Anticipation, Control, Triage, Treatment and Transport (ACTTT).

†First-aid post
collecting point for T3 victims in the immediate vicinity of the disaster site, however separate from the casualty clearing station, as to divide the T1 and T2 flow of patients from the T3 one.

*Focal depth:
The vertical distance between the point where the fault rupture originated and the earth's surface. See Epicenter.

†Forward control point
the point next to the disaster site where the first ambulances to arrive are those to function as a command, coordination and communication post.

Forward planning:
occurs when a disaster is imminent and some details regarding the threat are known to the crisis manager.(Cuny1)

†Friedrich's time
4-6 hours following sustainment of mechanical injuries, T2 victims may become ABC unstable when untreated. It is therefore important to provide first-aid measures within this period of time.

•Fumigation
the process of dispersion of fine gaseous particles of chemical agents used to kill harmful animal species, such as insects.
Compare to or see disinfestation.

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•GLAWARS commission report
the extensive investigation carried out by the Greater London Area War Risk Study Commission on the likely effects of modern warfare on a major metropolitan centre like London. Published under the title "London Under Attack," its conclusions have been found applicable to most modern urban centres. Translated into Italian under the title of "Attacco alla Citta."

•Goal
a defined aim towards which to strive, and the actions taken to achieve it. Example: the goal may be to have an environment that is conducive to health, or to have primary health care available to everybody in a refugee settlement.
Compare to or see objective, plan.

†Golden hour
ABC-unstable victims (T1) should be stabilized as soon as possible, at least within one hour following injury, otherwise they will die.

*Ground failure:
a term referring to the permanent, inelastic deformation of the soil and/or rock triggered by ground shaking. See Landslides, Liquefaction, Surface fault rupture, regional tectonic deformation, Tsunami run up, Seiches, and Aftershocks.

*Ground shaking:
the dynamic, elastic, vibration of the ground in response to the arrival and propagation of the elastic P, S, Love, and Rayleigh seismic waves. Ground shaking, of primary interest to the engineer performing design, is characterized in terms of amplitude, frequency composition, and duration. All structures are vulnerable at some amplitude, period, and duration of ground shaking. Depending upon the available data, ground shaking is quantified in terms of Modified Mercalli Intensity (the least precise) or in terms of ground acceleration, ground velocity, ground displacement, and spectral response (the most precise). Ground shaking can be increased by soil amplification, source directivity, topography, a shallow focal depth, surface fault rupture, and the fling of the fault which is thought to be the cause of the "killer pulse," a long-duration acceleration pulse.

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Hazard
anything that may pose a danger; thus, it is used in this discussion to mean a natural or human-made phenomenon that has the potential to adversely affect human health, property, activity, and/or the environment.

•Hazard
the probability of the occurrence of a disaster caused by a natural phenomenon (earthquake, cyclone), or by failure of man-made sources of energy (nuclear reactor, industrial explosion) or by uncontrolled human activity (overgrazing, heavy traffic, conflicts).-UNDRO
Some authors use the term in a broader sense, including vulnerability, elements at risk and the consequences of risk.
Compare to or see elements at risk, natural hazard, risk, vulnerability.

*Hazard:
a potential threat to humans and their welfare. The earthquake hazard is an example.

*Hazard assessment:
an estimate of the range of the threat from natural and technological hazards to humans and their welfare. The physical parameters used to characterize the earthquake threat include: magnitude, frequency, duration, two-dimensional areal extent, speed of onset, three-dimensional spatial dispersion, and temporal spacing (e.g., the tendency of large-magnitude earthquakes to cluster in time).

*Hazard environment:
the geologic, geophysical, and geotechnical setting of the community that controls where, why, and how frequently earthquakes occur, how big they are, and their severity.

•Health

1. The state of complete physical, mental and social well being, and not merely the absence of disease or infirmity. -WHO
2. The state of an individual or a community free from disabilitating conditions, demonstrating a reasonable resistance to diseases and living in a salubrious environment.

†Hospital Treatment Capacity
the number of T1 and T2 victims, which can be treated in a hospital per hour, according to current medical standards.

•Human immunodeficiency virus (HIV)
the causal organism of AIDS. Synonym: HIV
Compare to or see AIDS, immunodeficiency.

•Hygiene
science that deals with the principles, methods and practical aspects of disease prevention, sanitation and improvement of health. It is usually divided into such fields as personal hygiene, domestic hygiene, food hygiene, industrial hygiene.

†Hygienic measures
those measures as to prevent diseases following a major disaster, because the infrastructure of the stricken area is non- or malfunctioning.

•Hypocentre
the point on the ground vertically beneath an air explosion of a nuclear bomb. Synonym: ground zero
Compare to or see epicentre.

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†Identification of dead
Disasters with "unknown" dead necessitate identification of the bodies or their remains. This is important for the bereaved, not only from an emotional point of view, but also for judicial and insurance purposes. Various medical disciplines are involved in matching ante-and post-mortem findings.

•Immunodeficiency
defective or deficient immunological mechanisms of the body due to insufficiency in one of the components of the immune process or to a defect in the B-lymphocyte or T-lymphocyte systems. Immunilogical deficit may result from infection, as in AIDS, or excessive radiation, as in nuclear war, or toxic substances. Synonyms: immune deficiency, immunological deficit
Compare to or see acquired immunodeficiency syndrome.

•Infection
The entry and development or multiplication of an infectious agent (virus, bacteria, fungus, parasite) in the body of man or animal.
Compare to or see communicable disease, infestation, parasitic disease.

•Infestation
the penetration and development of arthropods and parasites on the body or in clothing.
Compare to or see disinfestation, disinsection, infection, parasitic disease.

•Infectious Disease
Compare to or see communicable disease.

*Infrastructure:
structures and facilities that provide the essential functions of supply, disposal, communication, and transportation in a community. They are also called Community Lifelines.

Insult:
the damage (negative result) resulting from the impact of the event.

*Intensity:
a numerical index denoted by Roman numerals from I to XII describing the physical effects of an earthquake at a specific location on the earth's surface, man, or on structures built by man. These values are determined subjectively by individuals performing postearthquake investigations to determine the nature and spatial extent of the damage distribution. There are no instrumental readings. The most commonly used scales throughout the world are Modified Mercalli Intensity (MMI), developed in the 1930's and named for the Italian author, and the MSK scale, developed in the 1960's and denoted by the first initial of the last name of two scientists of the former Soviet Union and one scientist of the former Czechoslavakia who created the scale. Intensity VI denotes the threshold for potential ground failure such as liquefaction. Intensity VII denotes the threshold for architectural damage. Intensity VIII denotes the threshold for structural damage. Intensity IX denotes intense structural damage. Intensities X to XII denote various levels of destruction up to total destruction. The MMI and MSK scales are essentially equivalent for intensities VII to X. An earthquake has many intensities, but only one magnitude. See Magnitude.

Intensity
a measure of the power or force (magnitude) of the event in relation to the time over which the event occurs and the area over or in which it occurs (Dorland 843).

•Intensity (seismic)
the degree of shaking or of vibrations, signifying the intensity of an earthquake as measured numerically on the Mercalli scale

•International assistance
assistance provided by one or more countries or international and voluntary organizations to a country in need, usually for development or for an emergency. The four main elements of assistance within the international community are:
(a) The intergovernmental agencies--United Nations, Common Market
(b) non-governmental organizations
(c) the red cross, and
(d) bilateral agreements.
Compare to or see bilateral cooperation, donor, non-governmental organization, Red Cross, technical assistance.

†Intervention levels
levels of radiation or concentrations of chemicals in the environment. These levels determine the measures to be taken in the measure zone and can be regarded as aids to decision-making.

†Iodine prophylaxis
Radioactive iodine is often an important component of radioactive isotopes to be discharged into the atmosphere after a nuclear accident. Stable iodine prevents the absorption of radioactive iodine in the thyroid gland provided it is administered beforehand.

•Ion
an originally neutral atom which has become electrically charged by losing or acquiring electrons. Loss of an electron results in a positive ion (cation), and acquisition in a negative ion (anion).
Compare to or see ionizing radiation, ionosphere.

•Ionizing radiation
any electromagnetic radiation that, when passing through matter, can produce ions. Includes X-rays, alpha-, beta-, gamma-rays, neutrons, protons.
Compare to or see ion, cosmic radiation, radiation injury, kerma.

•Ionosphere
the zone of the atmosphere, from about 70 km to 500 km, in which charged particles, ions and electrons are formed by photo-ionization under the effect of the sun's radiation.

•Kerma
acronymic term for Kinetic Energy Released in Matter, the measure of intensity of ionizing radiation at a given place. The dose is expressed in grays.
Compare to or see ionizing radiation.

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•Landslide
a massive and more or less rapid sliding down of soil and rock, causing damage in its path
Compare to or see avalanche, mudslide.

*Landslides:
the most common and wide spread type of ground failure; consists of falls, topples, slides, spreads, and flows of soil and/or rock on unstable slopes.

*Liquefaction:
occurs mainly in young, shallow, loosely compacted, water saturated sand and gravel deposits when subjected to ground shaking; results in a temporary loss of bearing strength. See ground failure.

*Loss:
a range of adverse consequences impacting communities and individuals (e.g., damage, loss of economic value, loss of function, loss of natural resources, loss of ecological systems, environmental impact, health deterioration, mortality, morbidity).

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*Magnitude:
a numerical quantity, devised by the late American Professor, Charles F. Richter, in the 1930's and denoted by Arabic integers with one decimal place accuracy (for example 7.8) to characterize earthquakes in terms of the total energy released after adjusting for difference in epicentral distance and focal depth. Magnitude differs from intensity in that magnitude is determined on the basis of instrumental records; whereas, intensity is determined on the basis of subjective observations of the damage. Measured on a logarithmic scale, magnitude is open ended theoretically, with the two

largest magnitude earthquakes to date being the M 9.5 Chile earthquake of 1960 and the M 9.2 Alaska earthquake of 1964. Moderate-magnitude earthquakes have magnitudes of 5.5 to 6.9; large-magnitude earthquakes have magnitudes of 7.0 to7.9; and great-magnitude earthquakes have magnitudes of 8.0 and greater. The energy increases exponentially with magnitude. For example, a magnitude 6.0 earthquake releases 31.5 times more energy than a magnitude 5.0 earthquake, but (31.5) (31.5) or approximately 1,000 times more energy than a magnitude 4.0 earthquake.

Magnitude
the overall size of the event (e.g., area of drought, number of persons potentially or actually affected, etc.). Magnitude usually expressed as a mathematical quantity.(Ox 820) (i.e., Richter Scale for earthquakes, Safir-Simpson Scale for tropical cyclones).

•Magnitude of earthquake
the "size" of an earthquake, expressing the amount of energy released in the form of elastic waves as measured by a seismograph, on a scale such as Richter's.

•Man-made disaster
a disaster caused not by natural phenomena, but by man's or society's action, involuntary or voluntary, sudden or slow, directly or indirectly, with grave consequences to the population and the environment. Examples: technological disaster, toxicological disaster, desertification, environmental pollution, conflict, epidemics, fires.
Compare to or see disaster, natural disaster, technological disaster.

†Mass casualty
The definition of disaster implies a discrepancy between number of victims and its treatment capacity. This does not necessarily means a mass casualty situation, in which case the number of victims is overwhelming.

Mass casualty event:
may have the same magnitude in terms of human life and suffering, but does not destroy the infrastructure of the society. Examples of mass casualty events include epidemics, complex human emergencies, etc. The impact of such events is close to or even may exceed that of disasters, but the infrastructure remains intact and mechanisms can be developed within the infrastructure to cope with the circumstances.

†Measure zone
the zone where measures are to be taken in case of nuclear or chemical accidents. The community profile and the source strength determine these zones.

†Mechanical lesions
Mechanical impact on the human body creates injuries like wounds, lacerations, fractures, bleedings (internal and external) and concussions. Mechanical lesions also include burns.

†Medical coordination
In the chain of medical care, coordination between its phases and in each phase between doctors, nurses and paramedics, is of paramount importance. Simplification and standardization of materials and methods utilized is therefore a prerequisite.

Medical disaster:
definition adopted by the World Health Organization and the United Nations as established by Gunn: "the result of a vast ecological breakdown in the relationships between man and his environment, a serious and sudden (or slow, as in drought) disruption on such a scale that the stricken community needs extraordinary efforts to cope with it, often with outside help or international aid."(3) This

definition also indicates that it is the impact on society that constitutes the disaster, not the event that is the disaster.

Medical Disaster:
The most common medical definition of a disaster used is an event that results in casualties that overwhelm the health-care system in which the event occurs. A health disaster often is considered a medical disaster. However, a health disaster infers impaired public health (see Basic Functions, page) while a medical disaster is related to the health care or break in health care to individuals (see page) resulting from the event. The Task Force broadened this definition to: Any event that results in a precipitous or gradual decline in the overall health status of a community with which it is unable to cope adequately.

†Medical Disaster Preparedness
The medical preparedness in the chain of medical care is determined by personnel, materials, and methods. With the aid of this basic concept medical disaster preparedness can be expressed in a figure ranging from 1 to 5.

†Medical Rescue Capacity
The number of victims that could be rescued and stabilized at the disaster site per hour by doctors, nurses and paramedics.

Medical Severity Index
The ratio between the number of victims times the average severity of the injuries sustained and the treatment capacity in the chain of medical care. When this ratio is larger than 1 the event can be considered a disaster.

†Medical Transport Capacity
The number of victims that could be transported to and distributed between the hospitals surrounding the disaster site, per hour.

•Military medicine
the art and science of medicine, including in particular, critical care, emergency surgery and traumatology as applied to mass casualty situations, battlefront conditions and the needs of soldiers Compare to or see disaster medicine, biological warfare, chemical warfare, nuclear warfare, triage, GLAWARS Report, WHOPAX Report.

Mitigate:
to lessen or decrease the seriousness of the process to which the word is applied. Mitigate is the action verb and mitigation is the result of this action.

*Mitigation:
a range of policy, legislative mandates, professional practices, and social adjustments that are designed to reduce or minimize the effects of earthquakes and other natural hazards on a community. Mitigation measures implemented over the last 20 years have included: 1) land use planning and management, 2 engineering codes, standards and practices, 3) control and protection works, 4) prediction, forecasts, warning, and planning, 5) recovery, reconstruction, and planning, and 6) insurance. See also disaster mitigation.

•Mitigation
compare to or see disaster mitigation.

†Mobile medical teams
Instead of bringing the patient to the hospital, the hospital comes to the patient for whom mobile

medical teams are created in order to stabilize the patient on the spot. This could shorten the treatment delay.

Modification:
the aggregate of all approaches and measures to modify the intensity of the event that would have occurred without human intervention. Thus, through human activities, the intensity and/or magnitude and/or the time course of the resulting event either may be augmented (increased) or attenuated (decreased).

•Mudslide
Synonym: mud slide
Compare to or see earth flow.

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•Natural Disaster
a sudden major upheaval of nature, causing extensive destruction, death and suffering among the stricken community, and which is not due to man's action. Hovever, (a) some natural disasters can be of slow origin, e.g. drought, and (b) a seemingly natural disaster can be caused or aggravated by man's action, e.g. desertification through excessive land use and deforestation.
Compare to or see disaster medicine, man-made disaster.

*Natural hazard:
a potential threat to humans and their welfare caused by rapid and slow onset events having atmospheric, geologic, and hydrologic origins on solar, global, regional, national, and local scales (e.g., floods, severe storms, earthquakes, landslides, volcanic eruptions, wild fires, tsunamis, droughts, winter storms, coastal erosion, and space weather).

•Natural hazard
the probability of occurrence, within a specific period of time in a given area, of a potentially damaging phenomenon of nature.-UNDRO
Compare to or see hazard.

†Near field
See far field. Concept used after a nuclear accident.

•Non-governmental organization
a private, international, not governmental organization (as distinct from an inter-governmental organization), constituted as a single association or as a federation of various national organizations, without governmental or state ties. The most important NGOs are given consultative status with the United Nations or its specialized agencies and are active in disaster work. Synonym: NGO
Compare to or see voluntary agency.

•Nuclear Activity
the number of spontaneous nuclear disintegrations within a radionucleotide at any given time. The old unit of activity, the curie (Ci) has been replaced by the becquerel.
Compare to or see becquerel.

†Nuclear lesions
body lesions caused by external exposure to radiation and internal of external contamination with

radioactive material. Radiation exposure can effect part of the body or the whole body. External contamination effects skin and mucous membranes, while internal contamination leads to systemic effects or effects on specific organs (e.g. the thyroid).

•Nuclear war
war in which nuclear weapons-as opposed to conventional explosive devices-are used. Like conventional bombs, nuclear weapons produce extensive blast and fire damage, but to an infinitely higher degree. Furthermore, the immediate power of a nuclear explosion is increased by the following factors: intense radiation at the time of the explosion, lasting for about one minute; intense heat and light from the fireball, lasting a few seconds; local radioactive fallout; and a strong electromagnetic radiation. Later effects add to the devestation. The nuclear bomb used on Nagasaki was 2200 times more powerful than the largest conventional weapon used in World War 2.
Synonym: atomic war.

•Objective
the end result that a programme seeks to achieve. For example, the objective of community education for disaster preparedness can be defined as ensuring that people in risk areas will want to be less vulnerable, know how to act in case of disaster, do what they can individually and collectively at the time of the emergency, and do the necessary before the emergency so that they can be prepared for it.
Compare to or see goal, plan.

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*Paleoseismology:
A field of study based on geologic techniques developed in the 1980's to extend the historical record of earthquake activity on a specific fault system or areas exhibiting prehistoric liquefaction through trenching and age dating to chronicle either the periods of deformation of the rocks or liquefaction episodes in past earthquakes. The technique can extend the record back in time several thousand years, much longer than the record of instrumental seismicity.

•Panic
acute and overwhelming sense of fear and dread, usually of sudden onset and most often self-limiting and of short duration, from a few seconds to hours, the accompanying restlessness resulting in an urge to escape. A frequent but not lasting phenomenon following disasters and major emergencies.

•Parasitic Diseases
infections, infestations and other disease states caused by parasites of animal origin. Some examples common in disaster situations are amoebiasis, intestinal worms, schistosomiasis, malaria, trypanosomiasis, scabies, pediculosis.

•Pesticide
chemical compound used for killing organisms that are dangerous, undesirable, or a nuisance to man, animals or plants. They are named according to their action, such as: fungicide, herbicide, insecticide, molluscicide, nematocide, ovicide, rodenticide, virucide. (The suffix -cide means which kills.)

•Plan
a pre-established course of action which, when implemented, is expected to lead to the attainment of

the expected ends and objectives. An orderly set of decisions on the ways and means of achieving the impact and objectives sought.
Compare to or see goal, objective.

†Plans, procedures and protocols
a well thought-out and fixed way of acting in order to reach a certain goal. Written down as plans, procedures, and protocols.

*Policy environment:
the forum and the process for making decisions about plans, laws, and practices to reduce unacceptable risk to people, property, and infrastructure in the community and strategic plans to implement them over time.

†Post-traumatic stress syndrome
following a period of intense stress (like in disaster) a person may encounter short or long term psychic disorders varying among other things from anxiety, insomnia, feelings of guilt, irritability, and concentration problems.

Preparedness:
the aggregate of all measures and policies taken by humans before the event occurs that allows mitigation of the impact caused by the event through responses to the impact of the event. Preparedness includes warning systems, evacuation, relocation of dwellings (e.g., for floods), stores of food and water, temporary shelter, energy, management strategies, disaster drills and exercises, etc. . Contingency plans and responses are included in the preparedness in the sense used in this document. As preparedness increases, the ability of the society to absorb the event and mitigate the impact (damage) is augmented as a dependent variable of the level of preparedness.

*Preparedness:
a range of policies, legislative mandates, professional practices, and social adjustments that are used by individuals, businesses, organizations, communities, and Nations to plan for emergency response, recovery, and reconstruction after a damaging earthquake.

•Preparedness
compare to or see disaster preparedness

Prevention:
the aggregate of approaches and measures taken to ensure that human actions or natural phenomena DO NOT cause or result in the occurrence of an event related to the identified or unidentified hazard. (Gunn) It does not mean decreasing the severity or intensity of the event. See also disaster prevention.

•Prevention
compare to or see disaster prevention.

†Prevention
Primary prevention of disaster is possible through technical, organizational and judicial means. Secondary prevention implies the optimal management of disaster itself. Tertiary prevention combats the complications of disaster. The better secondary prevention, the less tertiary prevention is needed.

•Primary health care
essential health care made universally accessible to individuals and families in the community by means acceptable to them, through their full participation and at a cost that the community and country can afford. It forms an integral part both of the country's health system, of which it is the

nucleus, and of the overall social and economic development of the community.-WHO
Synonym: PHC.

•Public health
the discipline in health sciences that, at the level of the community or the public, aims at promoting prevention of disease, sanitary living, laws, practices and a healthier environment.
Compare to or see health, hygiene, primary health care.

*Public policy:
a plan, a rule, professional practice, or a way of acting that has the force of law. Public policy is designed to manage the unacceptable risk that is the result of being exposed over time to the occurrence of one or more of the
earthquake hazards. When implemented over periods of 20-30 years or more, seismic safety policy is expected to reduce unacceptable risk. The policy options encompass: a) stop increasing the risk to elements that will be exposed in the future to natural and technological hazards, b) start decreasing the risk to existing elements already at risk from natural and technological hazards, and c) continue to plan for the inevitable event. The measures to implement these policies include:mitigation and preparedness.

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•Radiation injury
somatic and genetic damage to living organisms caused by ionizing radiation
Compare to or see immunodeficiency, ionizing radiation.

•Radioactive Contamination
the undesireable presence of radioactive material in the air, in man, or on any substance.
Compare to or see radioactivity, contamination.

•Radioactivity
the phenomenon of spontaneous disintigration in a nuclide accompanied by the emission of ionizing radiation.
Compare to or see nuclear activity, ionizing radiation.

•Red Cross
Red Cross, or International Red Cross, general terms used for one or all the components of the worldwide organization active in humanitarian work. The official overall name is the International Red Cross and Red Crescent Movement, which has 3 components.
1. International Committee of the Red Cross (ICRC): acts mainly in conflict disasters as neutral intermediary in hostilities and for the protection of war victims. Guardian of the Geneva Conventions.
2. League of the Red Cross and Red Crescent Societies (LRCS): international federation of the National Societies, active in non-conflict disasters and natural calamities.
3. The individual National Red Cross or Red Crescent Society of every country.
Please see comment about this definition.

*Regional tectonic deformation:
changes in elevation over regional distances; is a feature of earthquakes having magnitudes of 8 or greater. A type of ground failure.

•Relief
assistance in material facilities, personal needs and services given to needy persons or communities, without which they would suffer

Resiliency:
pliability, flexibility, or elasticity to absorb the event. Resiliency is offered by types of construction, barriers, composition of the land, (geological base), geography, bomb shelters, location of dwelling, etc. As resiliency increases, so does the absorbing capacity of the society and/or the environment. Resilience is the inverse of vulnerability.

*Response spectrum:
a graph of the output of a mathematical model which shows how an idealized ensemble of lightly damped, simple harmonic oscillators representing a complete spectrum of short (short periods of vibration) to tall (long periods of vibration) buildings will respond to a particular dynamic ground motion accelerogram. The accelerogram is used to excite the ensemble into vibration in the 0.05-10 seconds period range, the range of interest to engineers. The concept of the response spectrum is used in building codes and the design of essential and critical structures.

Risk:
the objective (mathematical) or subjective (inductive) probability that the hazard will become an event. Factors (risk factors) can be identified that modify this probability. Such risk factors are constituted by personal behaviors, life-styles, cultures, environmental factors, and inherited characteristics that are known to be associated with health-related questions.

*Risk:
the probability of loss to the elements at risk as the result of the occurrence, physical and societal consequences of a natural or technological hazard, and the mitigation and preparedness measures in place in the community.

•Risk
the expected number of lives lost, persons injured, damage to property and disruption of economic activity due to a particular natural phenomenon, and consequently the product of specific risk and elements at risk. -UNDRO.
Compare to or see elements at risk, hazard, natural hazard, vulnerability.

*Risk Assessment:
an objective scientific assessment of the chance of loss or adverse consequences when physical and social elements are exposed to potentially harmful natural and technological hazards. The endpoints or consequences depend on the hazard and include: damage, loss of economic value, loss of function, loss of natural resources, loss of ecological systems, environmental impact, deterioration of health, mortality, and morbidity. Risk assessments integrate hazard assessments with the vulnerability of the exposed elements at risk to seek reliable answers to the following questions:
1. What can happen?
2. How likely are each of the possible outcomes?
3. When the possible outcomes happen, what are the likely consequences and losses?

•Risk indicator
descriptor that briefly denotes a risk that may cause a disaster
Compare to or see risk map, disaster prevention.

*Risk Management:
the public process of deciding what to do when risk assessments indicate that risk, or the chance of loss, exists. Risk management encompasses choices and actions for communities and individuals

(i.e., prevention, mitigation, preparedness, recovery) which are designed to: a) stop increasing the risk to future elements that will be placed at risk to natural and technological hazards, b) start decreasing the risk to existing elements already at risk, and c) continue planning ways to respond to and recover from the inevitable natural and technological hazard, including the imponderable extreme situation or catastrophic event.

•Risk map
cartographic representation of the types and degrees of hazards and of natural phenomena that may cause or contribute to a disaster
Compare to or see risk indicator, vulnerability study.

Risk Marker:
an attribute of the hazard that is associated with an increased probability that an event may occur and can be used as an indicator of an increased or increasing risk that the event will occur.

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*Seiches:
standing waves induced in lakes and harbors by earthquake ground shaking. A type of ground failure.

*Seismic zonation:
a public policy tool to link earthquake risk assessment and earthquake risk management, with the objective being to identify, delineate, and highlight those geographic areas of a community where investments in expanded risk assessment and specific mitigation measures and regulations are needed to mitigate, prevent, or reduce the community's perceived unacceptable risk. When fully implemented, seismic zonation is the link between earthquake risk assessment and earthquake risk management. It requires three kinds of activities that build upon the current state-of-the-art and the continually evolving understanding of science, technology, and public policy. They are:

1) Development of hazards maps for use in a risk assessment. These maps characterize aspects of the hazard environment that contribute to the risk. They are constructed by integrating information and databases on the characteristics of the earthquake source, regional seismic wave propagation paths, and the local site. The maps are typically based on probabilistic concepts and depict the hazards of ground shaking, ground failure, surface fault rupture, regional tectonic deformation, and tsunami wave run up, and the aftershock sequence during a specified exposure time.

Simultaneously with the development of hazards maps, information on the perceived vulnerabilities and expected performance of the community's built environment in a damaging earthquake is integrated and formatted for use in a risk assessment.

2) Applications of information management techniques (i.e., GIS) and analytical models (i.e., analytical models such as HAZUS) to assess the risk to elements of the built environment exposed to the earthquake hazards of ground shaking, ground failure, surface fault rupture, regional tectonic deformation, tsunami wave run up, and the aftershock sequence. The products of a risk assessment include statements on the risk, which can be classified by the community policy makers and stake holders through a consensus process into two categories: acceptable risk and unacceptable risk.

3) Enactment, adoption, enforcement, and implementation of community-specific public policies and professional practices that will increase a community's earthquake resistance and mitigate, prevent, or reduce unacceptable risk

*Seismicity:
earthquake activity, as measured in terms of number of events, their magnitude, distribution, and frequency.

•Seveso
a village near Milan, Italy, site of a chemical plant which, in July 1976, accidentally discharged the toxic compound Dioxin, causing severe illness and toxic manifestations among the surrounding population, with extensive environmental damage.
Compare to or see Dioxin, technological disaster, toxicological disaster

†Sheltering
The extent to which a shelter can protect potential victims from exposure to ionizing radiation and contamination with radioactive material depends on its location and type. Exposure is at a maximum level in the open air and at a minimum in a cellar of a concrete building with a ventilation filter.

•Sheltering
action that consists of providing asylum or provisional lodgings to an individual or group.

†Simplification
Simplification of medical procedures saves time so that more attention can be paid to the seriously wounded victims; e.g. large wounds should be disinfected and covered and in a later stage closed with plastic and reconstructive surgery.

•Slow disaster
disaster, usually natural, the beginnings of which are slow, sometimes imperceptible until the full effect is felt, as in poor crops leading to drought and famine. Synonym: creeping disaster
Compare to or see disaster, natural disaster.

*Soil amplification:
Soils have a period-dependent effect on the ground motion, increasing the level of shaking for certain periods of vibration and decreasing it for others as a function of the "softness" and thickness of the soil relative to the underlying rock and the three-dimensional properties of the soil/rock column.

*Soil/structure resonance:
a physical phenomenon increasing the potential for destructiveness that results when the input seismic waves causes the underlying soil and the structure to resonate, or vibrate at the same period.

*Source directivity:
a phenomenon that increases ground shaking at a site. It results from the directional aspects of the fault rupture that cause most of the energy to be released in a particular direction instead of in all directions.

†Standardization
Standardization of medical procedures, like the administration of drugs, antibiotics, analgesics and anticoagulants in the chain of medical care avoids errors, simplifies the transfer of medical information in this chain and is more economic.

•Stockpile
a place or storehouse where material, medicines and other supplies needed in disaster are kept for emergency relief. Examples: UNDRO warehouse in Pisa, UNIPAC in Copenhagen.

Strategic planning:
consists of preparing the organization to respond to disaster threats in locations that are not specified and not immediately threatened.

•Stress
any strain, anxiety, psychological shock or excessive pressure that disturbs the smooth functioning of a person or organism (and by extension, a group). Disasters are stressful events.
Compare to or see panic.

Sudden onset disaster:
includes events lasting seconds to days.

•Supplies
Compare to or see stockpile.

*Surface fault rupture:
a phenomenon that increases ground shaking at a site. Refers to the physical phenomenon of the rupturing fault breaking the surface of the ground, instead of stopping beneath the ground surface, and releasing more energy on the side of the fault that is moving than on the stationary block.

Susceptibility:
the degree of ease by which a person or a population is affected by a given phenomenon. In the context of the Guidelines, susceptibility and vulnerability will be used interchangeably.

†Sweeping triage
the first triage at the disaster site in order to locate the most seriously wounded T1 victims.

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•Technical assistance
the system of providing assistance, on a bilateral or multilateral basis, through technicians, experts, teachers or equipment, to a developing country. Synonym: technical cooperation.
Compare to or see international assistance, bilateral cooperation.

•Technological disaster
man-made disaster due to a sudden or slow break-down, technical fault, error or involuntary or voluntary human act that causes destruction, death, pollution and environmental damage.
Compare to or see disaster, man-made disaster.

*Technological hazard:
a potential threat to humans and their welfare caused by technological factors (e.g., chemical release, nuclear accident, dam failure). Earthquakes and other natural hazards can trigger technological hazards.

•Toxicological disaster
serious environmental pollution and illness caused by the massive accidental escape of toxic substances into the air, soil or water, and to man, animals or plants.
Compare to or see dioxin, man-made disaster, Seveso, technological disaster.

•Toxin
substance secreted by certain living organisms, capable of causing harmful (toxic) effects in the receiving organism.

•Transboundary pollution
pollution and pollutants that have been produced in one country and that have passed international boundaries through water or air to other countries, causing pollution. The effects can be mitigated only through international agreements as the damage is caused outside the boundaries of the victim country. Synonym: transfrontier pollution
Compare to or see acid rain, Chernobyl.

•Triage
selection and categorization of the victims of a disaster with the view to appropriate treatment according to the degree of severity of illness or injury, and the availability of medical and transport facilities.

•Tsunami
an oceanic tidal wave generated by an under-water upheaval such as earthquake or volcanic eruption. The waves move out in all directions over 100 miles, causing great destruction.

*Tsunami run up:
a type of ground failure that results when the long period ocean waves generated by the sudden, impulsive, vertical displacement of a submarine earthquake reaches low lying areas along the coast.

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•United Nations
the supreme intergovernmental world body established in 1945 with the purposes of 1. Maintaining international peace and security, 2. Developing friendly relations among nations, 3. Solving international problems through international cooperation, and 4. Harmonizing the actions of all nations for these common ends. The UN acts through various mechanisms, such as Specialized Agencies, e.g. WHO; Centres, e.g. Human Rights; other constituted bodies, e.g. UNHCR; committees, e.g. Disarmament; funds, e.g. UNICEF; major programmes, e.g. UNDP; peace keeping forces, e.g. UNIFIL; institutes, e.g. UNITAR, etc. UNDRO is responsible for the direction and coordination of the UN response and capability in natural and other disasters. The General Assembly has designated the 1990s as the International Decade for Natural Disaster Reduction.

†Victim
Casualty with sustained lesions of mechanical, chemical or nuclear nature or combinations.

†Victim Distribution
Victims should be transported to and distributed among neighbouring hospitals according to their hospital treatment capacity, while the nearest hospital should be avoided, since walking T3 victims will overcrowd this one. For this a preplanned victim distribution plan is required.

•Voluntary agency
a non-profit, non-governmental, private association, maintained and supported by voluntary contributions. Among its activities, assistance in emergencies and disasters is notable. ICVA, the International Council of Voluntary Agencies, represents their federation. Synonyms: VOLAG, voluntary organization

Compare to or see international assistance.

Vulnerability:
the susceptibility of the population to the type (nature) of the event.
In this way, vulnerability represents the susceptibility of an individual or population to injury or contagion.(Dorland 1849) or from Gothenberg Group 1: the degree of possible/potential loss to a given element at risk resulting from a given hazard at a given intensity. Thus, it is the inverse of resiliency.

*Vulnerability:
the potential loss in value of an element at risk from the occurrence and consequences of natural and technological hazards. The factors that influence vulnerability include: demographics, the age and resilience of the built environment, technology, social differentiation and diversity, regional and global economies, and political arrangements. Vulnerability is a result of flaws in planning, siting, design, and construction.

•Vulnerability
the degree of loss to a given element at risk, or set of such elements, resulting from the occurrence of a natural phenomenon of a given magnitude and expressed on a scale from 0 (=no damage) to 1 (=total loss). -UNDRO.
Compare to or see elements at risk, hazard, natural hazard, risk, risk indicator, risk map.

•Vulnerability study
study and investigation of all the risks and the hazards susceptible to cause a disaster
Compare to or see disaster, hazard, prevention, risk indicator.

•WHOPAX report
abridged designation for the Report of the WHO Management Group on the Role of Physicians and Other Health Workers in the Preservation and Promotion of Peace, published under the title "Effects of Nuclear War on Health and Health Services." It concludes that "the only approach to the treatment of health effects...is the prevention of nuclear war."
Compare to or see World Health Organization, nuclear war, GLAWARS report.

•World Health Organization
the health arm of the United Nations, aiming at "the attainment by all peoples of the highest possible level of health". Coordinates efforts to raise health levels worldwide and promotes the development of primary health. Besides multiple public health programmes and actions, it is engaged in disaster preparedness and relief both at headquarters and at six Regional Offices, and coordinates the health sector of any UN involvement in major emergencies. Has compiled the Emergency Health Kit.
Synonym: WHO
Compare to or see Emergency Health Kit, primary health care, public health, United Nations, WHOPAX Report.

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