

# *INITIAL DAMAGE ASSESSMENT*



***REFERENCE MATERIAL***

## **Glossary**

These definitions are presented here for use specifically with this course. Other authors and organisations may have different variations on definitions of these terms

Those definitions followed by an \* (asterisk), were compiled at the Centre for Research on the Epidemiology of Disasters, and are based on the glossary of terms developed at a workshop organised by the United Nations Disaster Relief Organisation-Department of Humanitarian Affairs in Prague in 1991, as well as on detailed discussions and documents from the World Health Organisation, the World Meteorological Organisation and technical staff of UNDRO. The Scientific Technical Committee of the International Decade for Natural Disaster Reduction has contributed significantly to the formulation of these terms.

### **AFTERSHOCK\***

A smaller earthquake that follows the main shock and originates close to its focus. Aftershocks generally decrease in number and magnitude over time. Aftershocks that follow the main shock have to be considered as the same event as the main earthquake.

### **ACID RAIN\***

A washout of an excessive concentration of acidic compounds in the atmosphere, resulting from chemical pollutants such as sulphur and nitrogen compounds. When deposited these increase the acidity of the soil and water causing agricultural and ecological damage.

### **ATMOSPHERE POLLUTION\***

Contamination of the atmosphere by large quantities of gases, solids and radiation produced by the burning of natural and artificial fuels, chemicals and other industrial processes and nuclear explosions.

### **BUILDING COLLAPSE\***

Entails the sudden falling apart of a building in the absence of any outside force.

### **CHEMICAL EXPLOSIONS\***

Result in violent destruction caused by the explosion of combustible material, nearly always of chemical origin.

### **CHEMICAL POLLUTION\***

A sudden pollution of water or air near industrial areas, leading to internal body disorders which may be fatal, or to external disorders with permanent damage of the skin.

### **CHLOROFLUORO-CARBONS (CFC)\***

A group of chemical compounds used in industry and in the household, of which the excessive and universal use is believed to be one of the causes of ozone depletion, with resulting environmental damage.

### **COMMAND**

The direction of members and resources of an organisation in the performance of the organisation's role and assigned disaster management tasks. Authority to command is established within legislation, by appointment or by agreement within an organisation. Command relates to organisations and operates vertically within an organisation.

### **COMMUNICATION**

The process by which persons attempt to share meaning via the transmission of symbolic messages.

### **CONTINGENCY PLAN**

A plan for possible future situations which are not expected to occur but which may occur. Commonly called a "What if..." plan.

### **CO-ORDINATION**

The process of integrating the objectives and activities of separate work units or functional areas in order to realise the organisation's goals effectively.

### **DAM COLLAPSE\***

May be caused by a shifting of a dam foundation after an earthquake, nearby oil drilling or due to faulty construction. Earth dams are more likely to collapse when excessive rainfall fills the reservoir to overflowing. The excess water then pours over the top of the dam, gradually washing it down and cutting deep channels into it. This weakens the entire structure so that it then gives way entirely. The result of a dam collapse is a sudden release of large amounts of water which sweep over low-lying villages, causing many deaths and injuries.

### **DAMAGE**

Unwanted changes or losses resulting from a natural or man-caused event.

### **DAMAGE ASSESSMENT**

Identification and qualitative and quantitative recording of the extent, severity and location of the effects of a destructive event.

### **DEAD\***

Persons confirmed dead and persons missing and presumed dead as a result of the disaster (official figures when available). Comments: The number of missing is usually not included in the "dead" figure if the source used gives preliminary figures. The figure has

accordingly to be updated as missing persons are determined to be dead. The figure is expected to be exclusive.

### **DECLARATION OF DISASTER**

Official declaration by the authorities of a political-management jurisdiction due to the need for extraordinary action.

### **DELEGATION**

The act of assigning formal authority and accountability to a subordinate for completion of specific tasks/activities.

### **DEVELOPMENT**

The cumulative and lasting increase, tied to social changes, in the quantity and quality of a community's goods, services and resources, with the purpose of maintaining and improving the security and quality of human life without compromising future generations.

### **DIRECT EFFECTS**

Those effects having a direct cause and effect relationship with the event.

### **DIRECT LOSSES**

Adverse effects caused by a disaster, such as the loss of lives, injured, loss of goods and services, and infrastructure damage.

### **DISASTER**

A natural or human-caused event which causes intense negative impacts on people, goods, services and/or the environment, exceeding the affected community's capability to respond.

### **DISASTER CONTROLLER**

The person who has been appointed to fulfil the control functions during response or emergency situation.

### **DISASTER MANAGEMENT**

Component of the social system which involves the planning, organising, leading and controlling of activities related to the managing of disasters in any of its phases and stages.

### **DISASTER PROGRAMME MANAGEMENT**

The planning, organising, leading and controlling of a programme of activities related to the disaster cycle in any of the stages.

### **DISASTER SUPPORT PLANS**

Plans that address specific hazards and major emergencies in support of national disaster plans and arrangements.

### **DISASTER TRAINING**

Planned activities and learning experiences designed to develop the capabilities of individuals and organisations involved in all stages of the disaster cycle.

### **DISASTER WARNING SYSTEM**

Methods to alert the community in case of a disaster.

### **DISPLACED PERSONS\***

Refers specially to people who have been displaced but remain within the territory of their own country.

### **DISPLACED POPULATION\***

Persons who for different reasons or circumstances have been compelled to leave their homes. They may or may not reside in their country of origin, but are not legally regarded as refugees. They may be forced out by natural disasters, industrial disasters, international conflicts or strife. There are three sorts of mass movements: exodus, expulsion, and returnees. The displaced populations are listed under the country which received the displaced persons. This type of disaster is always a consequence of another disaster type. The classification will be made by the original cause.

### **EARTH FLOW\***

A mass movement characterised by slow down-slope translation of soil and weathered rock within a landslide.

### **EARTHQUAKE\***

Sudden break within the upper layers of the earth, sometimes breaking the surface, resulting in the vibration of the ground, when strong enough will cause the collapse of buildings and destruction of life and property.

There are two scales for measuring the impact of an earthquake: the Richter scale and the Mercalli scale.

### **EMERGENCY and DISASTER MANAGEMENT**

A collective term encompassing all aspects of planning for and responding to emergencies and disasters, including both pre- and post-event activities. It refers to the management of both the risk and the consequences of an event.

### **EMERGENCY PLAN**

A definition of the policies, organisation and procedures for confronting disasters in all phases.

### **EMERGENCY**

A situation generated by the real or imminent occurrence of an event that requires immediate attention.

### **EPICENTRE**

Point on the earth's surface located above the seismic focal point.

### **EPIDEMICS\***

An unusual increase in the number of cases of an infectious disease which already exists in the region or population concerned. The appearance of a significant number of cases of an infectious disease introduced in a region or population that is usually free from that disease. Epidemics may be the consequence of disasters of another kind, such as tropical storms, floods, earthquakes, droughts, etc. Epidemics may also attack animals.

### **EXPLOSIONS\***

Disasters will only be classified as explosions when the explosion is the actual disaster. If the explosion is the cause of another disaster, the event will be classified as the resulting disaster.

### **EXPOSED POPULATION\***

The total population potentially susceptible to the effects of a hazard.

### **FAMINE\***

Catastrophic food shortage affecting large numbers of people due to climatic, environmental and socio-economic reasons. The cause of the famine may produce great migrations to less-affected regions.

### **FIRES\***

Usually caused by man but may occasionally occur through natural causes; for example, forest fires can be caused by lightning in thunderstorms. Note: when a fire is a result of a natural cause, it will be classified under the natural cause.

### **FLASH FLOOD\***

A sudden and extreme volume of water that flows rapidly and causes inundation, and because of its nature is difficult to forecast.

### **FLOOD\***

Significant rise of water level in a stream, lake reservoir or a coastal region. A flood is a harmful inundation of property and land utilised by man and may be of two types: Slow flood, caused by an increase in the volume of water produced by rain in rivers and lakes over a long period, days or weeks, mainly affecting property such as houses and cattle, and displace the inhabitants from their usual dwelling places. Sudden flood, caused by an increase in the volume of water in rivers and lakes, causing deaths, injuries and violent destruction of property. It may be the result of torrential rain, hurricanes, structural failures such as the collapse of walls of a reservoir or the

embankment of a river proving insufficiently robust to contain the strong flow of water.

### **FOCAL POINT (seismic epicentre)**

Point of origin within the earth, where movement comes from and which is the cause itself of the quake.

### **FOOD SHORTAGE OR CROP FAILURE\***

Abnormal reduction in crop yield such that it is insufficient to meet the nutritional or economic needs of the community. This type of disaster is always a consequence of another disaster type and will therefore be classified under the major cause.

### **FOREST/GRASSLAND FIRE\***

Fires in forest or bush grasslands that cover extensive areas and usually do damage. They may start by natural causes such as volcanic eruptions or lightning, or they may be caused by arsonists or careless smokers, by those burning wood or by clearing a forest area.

### **GLOWING AVALANCHES\***

Hot pyroclastic flows formed from freshly erupted magma, with temperatures of up to 1,200 degrees. The pyroclastic flow is formed from rock fragments derived from a volcanic explosion which, when suspended in a cloud of rapidly expanding gas and dust, surges down the flanks of the volcano at speeds of up to several hundred kilometres per hour, to distances often up to 10 km, and rarely as far as 40 km from the event. This is the most dangerous type of volcanic eruption.

### **GROUP**

Set of people who acknowledge a common subject, object or situation of importance.

### **GROUP DYNAMICS**

System of forces within a group that maintains its equilibrium, its behaviour within the environment in which it performs its action, its way of reacting in the face of

external or internal stimuli, suggestions or changes.

### **HAZARD**

The potential for a natural or human-caused event to occur with negative consequences.

### **HAZARD ASSESSMENT**

Determining the nature, severity, and frequency of a hazard; the area likely to be affected; and the time and duration of impact.

### **HAZARD MAPPING**

The process of establishing geographically where certain phenomena are likely to pose a threat to elements at risk.

### **INDIRECT EFFECTS/LOSSES**

Adverse effects or losses that occur as a result of direct loss/effects from a disaster such as impacts on commerce, industry and investment.

### **HOMELESS\***

People needing immediate assistance with shelter. Comments: The definition applies also to displaced populations/refugees to which shelter has to be provided. This figure is necessary for operational purposes. Homeless people are always part of the primary affected population.

### **HURRICANE\***

A large-scale closed circulation system in the atmosphere with low barometric pressure and strong winds with speeds of more than 100 kph; they develop in the doldrums of the tropics and move in an often erratic way towards higher latitudes. Usually accompanied by storm surge and very heavy rainfall.

### **INDUSTRIAL / TECHNOLOGICAL ACCIDENT\***

Accidental release occurring during the production, transportation or handling of hazardous chemical substances.

### **INITIAL DAMAGE ASSESSMENT**

The Initial Damage Assessment is carried out within the first 8-48 hours after a disaster to obtain an initial evaluation of the damage to each sector. The extent of damage is classified and recorded according to pre-defined criteria.

### **INJURED\***

People with physical injuries/trauma/illness requiring medical treatment (therapeutic feeding included) as a direct result of a disaster. Comments: This category will include the severely malnourished as well as victims of radiation exposure and chemical intoxication. The injured are always part of the primary affected population.

### **INSECT INFESTATION OR ANIMAL INFESTATION\***

Pervasive influx and development of insects or parasites affecting humans, animals, crops and materials.

### **INTENSITY (earthquakes)**

Level of destructive effects at the site where measured.

### **INTERVENTION**

Any measure or action aimed at modifying a specific situation. In disasters, it refers to the action aimed at modifying the characteristics of a hazard or the intrinsic characteristics of a biological, physical or social system in order to reduce its vulnerability.

### **LAND DISASTERS\***

Include collisions or derailments of freight or passenger trains or vehicles in towns and in the country

### **LANDSLIDE\***

Downhill sliding or falling movement of dry soil and rock. Landslides are difficult to estimate as an independent phenomenon. It seems appropriate, therefore, to associate landslides with other hazards such as tropical cyclones, severe local storms and river floods. The term

“landslide” is used in its broad sense to include downward and outward movement of slope-forming materials (natural rock and soil). It is caused by heavy rain, soil erosion and earth tremors and may also happen in areas under heavy snow (avalanches).

### **LEAD RESPONSE AUTHORITY**

The organisation that has the responsibility, authority and specialist expertise to lead a response operation for specific hazard or emergency situation.

### **LIFE LINES**

Public services that provide water, dispose sewers, supply power, communications and transportation. They receive this name not because they provide life support, but because they are linear systems, which are vulnerable to different events and in different magnitude.

### **MAGNITUDE (earthquakes)**

Measurement of the energy released at the focal point or epicentre, calculated by tracing the effect of seismic waves on a device known as seismograph, situated at a particular distance from the epicentre.

### **MINE COLLAPSE OR A MINE CAVE-IN\***

Takes place in an excavation below the earth's surface. In a cave-in, parts of the overlying rocks fall down and tunnels are blocked.

### **MINE EXPLOSIONS\***

Occur when natural gas or coal dust reacts with the air.

### **MITIGATION**

Measures taken to reduce the loss of life, livelihood and property by disasters, either by reducing vulnerability or by modifying the hazard, where possible.

### **NATIONAL DISASTER CO-ORDINATOR (NDC)**

A person who has been appointed as the focal point to co-ordinate the combined

disaster management programmes of their country.

### **NUCLEAR EXPLOSIONS OR THERMONUCLEAR EXPLOSIONS\***

Accidental release of radiation occurring in civil nuclear facilities, exceeding the internationally established safety levels.

### **ORGANISATIONAL PLANS**

Plans prepared by organisations and agencies in support of the national plan and for the protection of their assets and staff.

### **ORGANISATIONAL CHART**

A chart which illustrates organisational levels, the name of the units of each level and the relationships to each other.

### **ORGANISATIONAL STRUCTURE**

The way in which an organisation's activities and resources are divided, organised and coordinated.

### **OIL POLLUTION\***

Pollution of oceans, lakes or rivers. This results from the discharge of hydrocarbons (often petroleum or crude oil) from tanks, tankers or pipelines during transportation or storage. Oil spills are accidental discharge often resulting from storms or collisions. Oil pumping is intentional discharge from flushing the holds of tankers. Oil slicks are generally small discharges on the water's surface. Black tide are substantial deposits on tidelands from oil spills or dumping.

### **PLAN**

The statement of goals and objectives, and the resources, strategies and activities needed to achieve the goals and objectives.

### **PLANNING**

The phase of the management process consisting of the formulation of goals and objectives and the determination of strategies and activities to achieve them.

### **POLICY**

A general statement or understanding that guides thinking in decision making; the essence of a policy is the existence of discretion, with limits, in guiding decision making.

### **POLLUTION\***

Degradation of one or more elements or aspects in the environment by noxious industrial, chemical or biological wastes, from debris or man-made products and from mismanagement of natural and environmental resources.

### **POPULATION AT RISK\***

Population whose life, property and livelihood are directly threatened by a hazard.

### **POST DISASTER ASSESSMENT**

The process of conducting post impact survey's of an affected community for the purpose of determining damage and assessing needs.

### **POWER SHORTAGE\***

Total or partial disruption of electrical power for an extended period causing significant damage to services and normal livelihood.

### **PREPAREDNESS**

Measures taken to reduce to the minimum level possible, the loss of human lives and other damage, through the organising of prompt and efficient actions of response and rehabilitation.

### **PREVENTION**

Measures taken for the purpose of preventing natural or human-caused phenomena from causing or giving rise to disasters or other emergency situations.

### **PRIMARY AFFECTED POPULATION\***

People requiring immediate assistance during an emergency situation. Comments: Immediate assistance means meeting basic "life-line" needs, such as

food, water, shelter, sanitation and immediate medical assistance. This information has to be available as soon as possible for the launching of appeals. For epidemics, all persons who have contracted the disease and fallen ill but have not died from it will be considered as primary affected. It is important to distinguish "primary affected" populations from the following categories of populations concerned by the disaster:

### **Secondary affected population\***

People who at a certain point will require long-term social and economic assistance as a direct consequence of a disaster situation. Comments: The assistance could include agricultural support (e.g. seeds and tools), housing and infrastructure rehabilitation, environmental clean-up and medical rehabilitation. The category of "secondary affected" population includes the "primary affected" population.

### **PROGRAMME**

A single use plan that covers a relatively large set of organisational activities and specifies major steps, their order and timing, and responsibilities for each step.

### **PROJECT**

A group of activities within a programme, together with a clear definition of objectives, a specific source of financing and a definite timetable.

### **RECONSTRUCTION**

The medium and long term repair of physical, social and economic damage and the return of affected structures to a condition equal to or better than before the disaster.

### **REFUGEES\***

According to international legislation, persons having a well-founded fear of persecution for reasons of race, religion, nationality, membership of a particular social group or political opinion mostly outside the country of nationality and

unable to return or avail themselves of the protection of that country. Includes mass exodus of peoples for reasons of conflict and natural disasters moving outside their country of origin.

### **REHABILITATION**

The restoration of basic services and the beginning of the repair of physical, social and economic damages.

### **RESPONSE**

Actions carried out in a disaster situation with the objective to save lives, alleviate suffering and reduce economic losses.

### **RISK**

The probability that loss will occur as the result of an adverse event, given the hazard and vulnerability.

### **RISK MAP**

A graphic representation of the distribution of the types and intensity of effects a particular event may cause in relation to the degree of vulnerability.

### **SEA DISASTERS\***

Ships may sink in a storm, explode, burn, crash into each other, crash into an iceberg or rock, capsize, or vanish without explanation. Note: sea disasters caused by conflict are classified under Conflict. Oil slicks are classified under Industrial/technological.

### **SIMULATION EXERCISE**

A representation of reality with information and activities designed to train or test individuals or groups on processes and actions.

### **STORM\***

Atmospheric disturbance involving perturbations of the prevailing pressure and wind fields, on scale ranging from tornadoes (one km across) to extra tropical cyclone (2,000-3,000km across).

### **STORM SURGE\***

A sudden rise of sea as a result of high winds and low atmosphere pressure; sometimes called a storm tide, storm wave or tidal wave (this name indicates waves caused by the tidal action of the moon and the sun in the same way as regular ocean tides. It is often erroneously given to tsunamis). Generally affects only coastal areas but may intrude some distance inland

### **STRUCTURAL COLLAPSE\***

The disaster type "structural collapse" is used when the structure collapse results independently, without any outside force. If the collapse is due to an outside force such as an earthquake, tornado, or explosion, then it is classified under the initial causal factor.

### **SUPPORTING INFRASTRUCTURE**

Things provided to sustain the existing quality of life in a community. These are provision of access (road, footpath, track) and services (potable water, electricity, communications, sewerage disposal, sanitation).

### **SYSTEM**

A set of grouping of things connected, or interdependent and interacting, so as to form a complex unity; a whole composed of parts in orderly arrangement according to some plan.

### **TARGET POPULATION\***

The group of people to whom relief services and supplies are provided.

### **THUNDERSTORM\***

A large cumulus cloud on which localised centres of electrical charge have developed.

### **TORNADO\***

Localised and violently destructive windstorm occurring over land. Characterised by a long funnel shaped cloud composed of condensation and

debris extending to the ground and marking a path of greatest destruction.

### **TRANSPORT ACCIDENTS AIR DISASTERS\***

Involve violent impacts of aircraft which transport passengers or freight.

### **TROPICAL STORM\***

Formed over open seas and is characterised by extreme wind damage, intense downpours of rain, wave storms at sea, severe coastal wave action, marine flooding, riverine flooding, lightning and thunderstorms.

### **TSUNAMI AND TIDAL WAVE\***

Series of large sea waves generated by sudden displacement of sea water (caused by earthquake, volcanic eruption or submarine landslide); capable of propagation over large distance.

### **URGENCY**

The relative imperativeness, pressing importance, or need to respond to a situation.

### **VICTIM**

A person who has suffered great harm to his/her physical or psychic integrity, goods and/or individual and collective services.

### **VOLCANIC ERUPTION\***

Discharge of fragmentary ejecta, lava and gases from a volcanic vent. The most common consequences are displacement of population, temporary food shortage and volcanic ash landslides called lahar.

### **VULNERABILITY**

The extent to which a community's structure, services or environment is likely to be damaged or disrupted by the impact of a hazard.

### **VULNERABILITY ASSESSMENT**

The process of assessing a community's vulnerability and likely damage that could be incurred from the impact of a given hazard.

### **WARNING**

The notice or signal issued indicating specific precautions should be taken because of the probability or proximity of a dangerous event.

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