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NATECH disasters – destructive potential and classifications

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The different natural hazards triggering technological ones (NATECH) have different destructive potential (here defined as volumes or masses involved in the movements and/or their velocity/energy of the natural process). According to the physical properties of the medium (air, water or solid Earth masses movements or energy – elastic, heat, freeze, etc.) the natural limitations of the consequences they can created are usually observed. All natural phenomena (appearing hazards like anomalies in their effects) have the measuring scales – magnitude, intensity, etc. according their power expression. Frequently the size of the affected area depends of the power of the natural hazardous event. Some of the hazards have only local influence (tornado, avalanches, etc. . .), some can cover larger areas depending on their magnitudes (earthquakes, tsunamis, volcanoes, etc.) and some have even global effects (El Nino, ozone hole, global warming). Summarizing the similarity of the effects, which the different natural hazards can produce and using different physical parameters for arrangement, several classifications have been created about:

- area coverage (based on the destructive potential)
- time duration (based on the velocity and the power of the hazards)
- possibilities of the early warning (based on the sudden appearance and predictability)

All these classifications can serve about the estimation of the affected man-made structures (their numbers, domino effects, etc.) and the possible preventive measures about their safety.

Main hazards included in this study are:

Earthquakes; Landslides (including mud flows, rockfalls, etc.); Storms (incl. rain, snow, hail); Floods (incl. flash floods); Strong winds (typhoons, hurricanes); Volcanic activities (incl. lava flows, ash and gas eruptions, etc.); Tornadoes; Tsunamis (incl. sashes and storm surges); Subsidence and collapses; Thunderstorms and Lights storms; Icing and Frost; Forest (and bush) fires; Avalanches; Droughts; Meteoritic impacts; El Nino; Ozone hole.