

COURSE : DISASTER MANAGEMENT (MA/MSc PART I)

Paper : I

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Topic : Difference Between Hazard & Risk

HAZARD: A **hazard** is an agent which has the potential to cause harm to a vulnerable target. A hazard is any agent that can cause harm or damage to humans, property, or the environment. Hazards can be dormant or potential, with only a theoretical probability of harm. An event that is caused by interaction with a hazard is called an incident.

Zaplatynskiy V. (2013) defines "Hazard" as a subjective concept that refers to the possibility of the circumstances under which the matter, field, information, energy, or both of them may influence the complex system, it would lead to consequences that are, or valued stakeholders (at the level of thinking, feeling or instinct) at a certain stage of development of the perceiver as negative.

Kates (1978) defines environmental hazard as "the threat potential posed to man or nature by events originating in, or transmitted by, the natural or built environment". This definition includes a broader range of hazards ranging from long term environmental deterioration such as acidification of soils and build-up of atmospheric carbon dioxide to communal and involuntary social hazards such as crime and terrorism to voluntary and personal hazards such as drug abuse and mountain climbing. Environmental hazards usually have defined or common characteristics including their tendency to be rapid onset events meaning they occur with a short warning time, they have a clear source of origin which is easily identified, impact will be swift and losses suffered quickly during or shortly after on-set of the event, risk of exposure is usually involuntary due to location or proximity of people to the hazard and the "disaster occurs with an intensity and scale that justifies an emergency response"

Smith states that natural hazards are best seen in an ecological framework in order to distinguish between natural events as natural hazards. He says "natural hazards, therefore, result from the conflict of geophysical processes with people and they lie at the interface what has been called the natural events system and the human interface system." He says that "this interpretation of natural hazards gives humans a central role. Firstly through location, because it is only when people and their possessions get in the way of natural processes that hazard exists."

RISK: Risk is the possibility of losing something of value. Values (such as physical health, social status, emotional well-being, or financial wealth) can be gained or lost when taking risk resulting from a given action or inaction, foreseen or unforeseen (planned or not planned). Risk can also be defined as the intentional interaction

with uncertainty. Uncertainty is a potential, unpredictable, and uncontrollable outcome; risk is a consequence of action taken in spite of uncertainty.

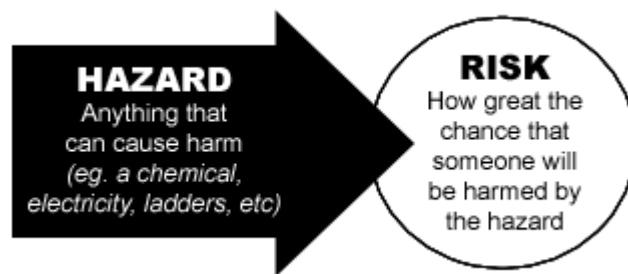
Risk perception is the subjective judgment people make about the severity and probability of a risk, and may vary person to person. Any human endeavour carries some risk, but some are much riskier than others.

Difference between 'Hazard' and 'Risk':

A **hazard** is something that can cause harm, e.g. electricity, chemicals, working up a ladder, noise, a bully at work, stress, etc.

A **risk** is the chance, high or low, that any hazard will actually cause somebody harm.

For example, working alone away from your office can be a hazard. The risk of personal danger may be high. Electric cabling is a hazard. If it has snagged on a sharp object, the exposed wiring places it in a 'high-risk' category.



Risk is defined as the probability that exposure to a hazard will lead to a negative consequence, or more simply, a hazard poses no risk if there is no exposure to that hazard.