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**CONCEPT OF HAZARD, RISK AND VULNERABILITY**

**Hazard**

The meaning of the word hazard can be confusing. Often dictionaries do not give specific definitions or combine it with the term "risk". For example, one dictionary defines hazard as "a danger or risk" which helps explain why many people use the terms interchangeably.

There are many definitions for hazard but the most common definition when talking about workplace health and safety is:

A hazard is any source of potential damage, harm or adverse health effects on something or someone.

Basically, a hazard is the potential for harm or an adverse effect (for example, to people as health effects, to organizations as property or equipment losses, or to the environment).

Sometimes the resulting harm is referred to as the hazard instead of the actual source of the hazard. For example, the disease tuberculosis (TB) might be called a "hazard" by some but, in general, the TB-causing bacteria (Mycobacterium tuberculosis) would be considered the "hazard" or "hazardous biological agent".

**Risk**

Risk is the chance or probability that a person will be harmed or experience an adverse health effect if exposed to a hazard. It may also apply to situations with property or equipment loss, or harmful effects on the environment.

For example: the risk of developing cancer from smoking cigarettes could be expressed as:

"cigarette smokers are 12 times (for example) more likely to die of lung cancer than non-smokers", or

"the number per 100,000 smokers who will develop lung cancer" (actual number depends on factors such as their age and how many years they have been smoking).

These risks are expressed as a probability or likelihood of developing a disease or getting injured, whereas hazard refers to the agent responsible (i.e. smoking).

Factors that influence the degree or likelihood of risk are:

a) the nature of the exposure: how much a person is exposed to a hazardous thing or condition (e.g., several times a day or once a year),

b) how the person is exposed (e.g., breathing in a vapour, skin contact), and

c) the severity of the effect. For example, one substance may cause skin cancer, while another may cause skin irritation. Cancer is a much more serious effect than irritation.

**Vulnerability**

Vulnerability is the risk that a person, system or object may suffer from imminent dangers, be they natural disasters, economic, political, social inequalities or cultural.

The word vulnerability derives from the Latin vulnerabilis. It is composed of values, which means 'wound', and the suffix- abilis, which indicates possibility; therefore, etymologically, vulnerability indicates a greater probability of being injured.

Vulnerabilities take different forms, depending on the nature of the object of study, its causes and consequences. Front a natural disaster such as a hurricane For example; poverty is a vulnerability factor that leaves immobilized victims unable to respond adequately.

Some synonyms for the word vulnerability are weakness, weakness, susceptibility, risk and threat.

Types of vulnerability-

All things, objects, people and situations suffer from vulnerability to something. Depending on the nature of the weakness, vulnerability types are defined. In this way, specific improvements can be sought for each deficiency.

Some of the most studied vulnerability fields are:

Social vulnerability: helplessness against threats, risks, traumas and pressures due to the social conditions presented by the person or group.See also Social injustice.

Informatic vulnerability: refers to the weak points of a computer system where your computer security does not have necessary defences in case of an attack..

Environmental vulnerability: endemic species, for example, are vulnerable to changes in the natural conditions of their habitat, therefore they are at risk of extinction.

 Economic vulnerability: framed within the social, it is associated with poverty and the inability to generate more economic resources due to the particular social situation.

Food vulnerability: In case of natural disasters, war, war conflicts or serious political crises, for example, it may be difficult to find drinking water or uncontaminated food.

Physical vulnerability: indicates Vulnerability of the population to structures not prepared for natural disasters, such as a hurricane or an earthquake.>