Should we consider this is as risky? more risky so, these illustrations I am giving you just to explain that what is the meaning of hazard exposure and vulnerability and how these 3 components define risk in our case, it is kind of disaster risk.

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So, here are 3 scenarios; 3 pictures you can see in the left hand side; a landslide happened somewhere where no people are there, no settlements are there so, this is considered to be less risky in another place there are people but not that densely populated settlement, we consider to be more risky or more disastrous than the previous one. In the extreme right, we have another one which is an urban area and disaster landslide took place and more casualty and losses are reported.

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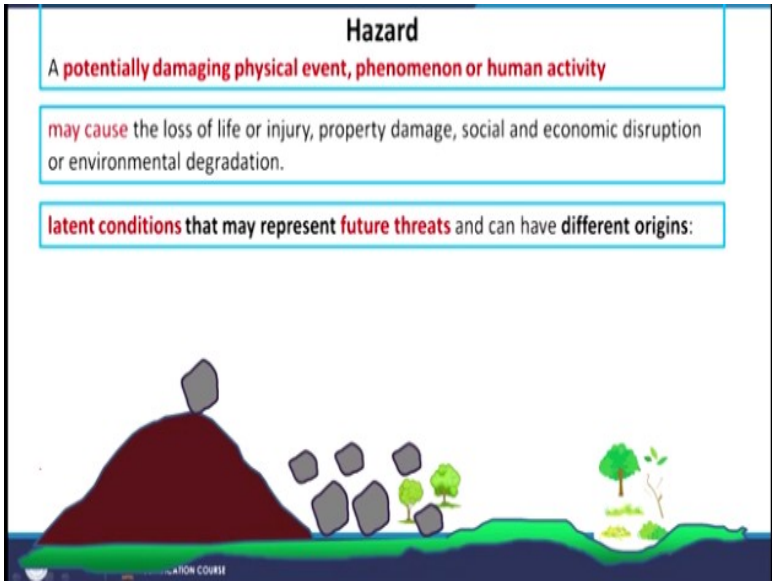

Now, this one is considered to be risky and with this stone can fall, if we have rainfall; heavy rainfall or if we have earthquake, then it will come and hit this place so, it has some kind of conditions; some latent conditions that may trigger some threat in future and can have different origin, it could be earthquake, it could be a landslides, it could be heavy rainfall.

So, hazard is defined as a potentially damaging physical event phenomena or it could be human activity that has some latent conditions that may represent future threats and can have different origin but also it may cause the loss of life of injury, property damage, social and economic disruption and environmental degradation. So, hazard which is a potential damaging physical event and phenomena or human activity which can cause in future may cause some loss of life, injury and property damage and social and economic disruptions.

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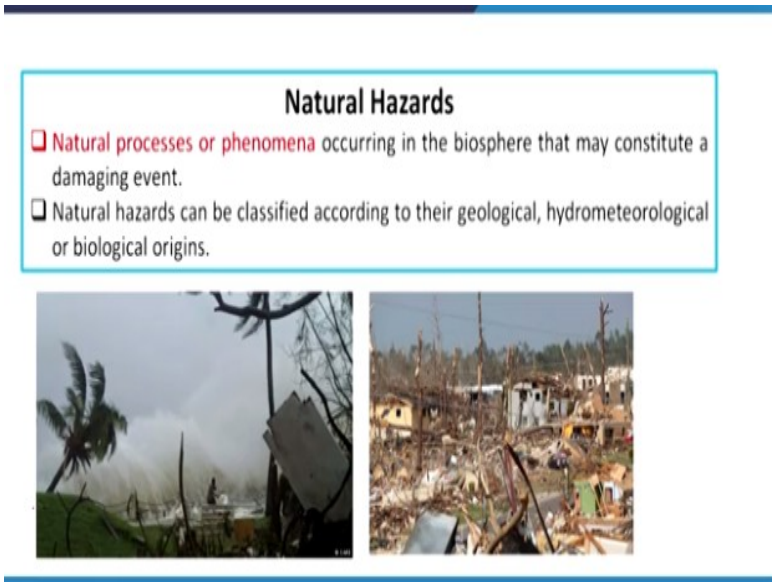

And it has different origins like, we have natural hazards which are trigered from natural process or phenomena occurring in the biosphere that may constitute damaging event. Natural hazards can be classified according to their geological, hydro-meteorological and biological origin.

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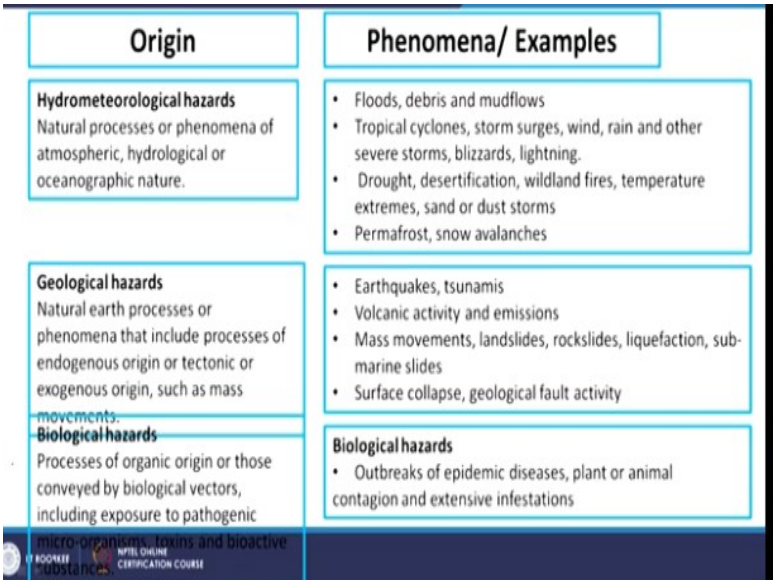

Let us look here, we are talking in the origin and the phenomena; one origin is hydro-meteorological hazards and the phenomena's are flood, debris and mudflows, tropical cyclones, storm surge, wind, rain and other severe storms, lightning. Also, we have drought, desertification, wildland fires, temperature extremes, sandstorms or we have more snow avalanches so, these are all considered as hydro-meteorological hazards.

We have also geological hazards, these are considered to be natural earth process or phenomena that include processes of endogenous origin or tectonic or exogenous origin such as mass movement, let us look at the phenomena of geological hazards. They are like earthquake, tsunami, volcanic activity, emissions, surface collapse, geological fault activity, mass movement, landslide, rock slides, liquefactions, all are considered to be geological hazards.

We have also biological hazards like, outbreaks of epidemics or some kind of animal contaminations or extensive infestations, these are considered to be biological hazards.

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TECHNOLOGICAL HAZARDS

Danger associated with technological or industrial accidents, infrastructure failures or certain human activities which may cause the loss of life or injury, property damage, social and economic disruption or environmental degradation, sometimes referred to as anthropogenic hazards. Examples include industrial pollution, nuclear release and radioactivity, toxic waste, dam failure, transport, industrial or technological accidents (explosions, fires, spills).

ENVIRONMENTAL DEGRADATION

Processes induced by human behaviour and activities (sometimes combined with natural hazards) that damage the natural resource base or adversely alter natural processes or ecosystems. Potential effects are varied and may contribute to an increase in vulnerability and the frequency and intensity of natural hazards. Examples include land degradation, deforestation, desertification, wildland fires, loss of biodiversity, land, water and air pollution, climate change, sea level rise and ozone depletion.

We are also not very related to here, but we can also consider some technological hazards can happen through disasters and also some environmental degradations which can also cause disasters. In case of technological hazards like, if there is an earthquake or heating an oil refinery, it can also cause technological hazards or even if we are exposed to heavy metals, hazardous materials, this should be considered as technological hazards.

Similarly, we have environmental degradations; we are not going to discuss in detail of these. But just to give you a brief idea about the types of hazards in natural disasters.

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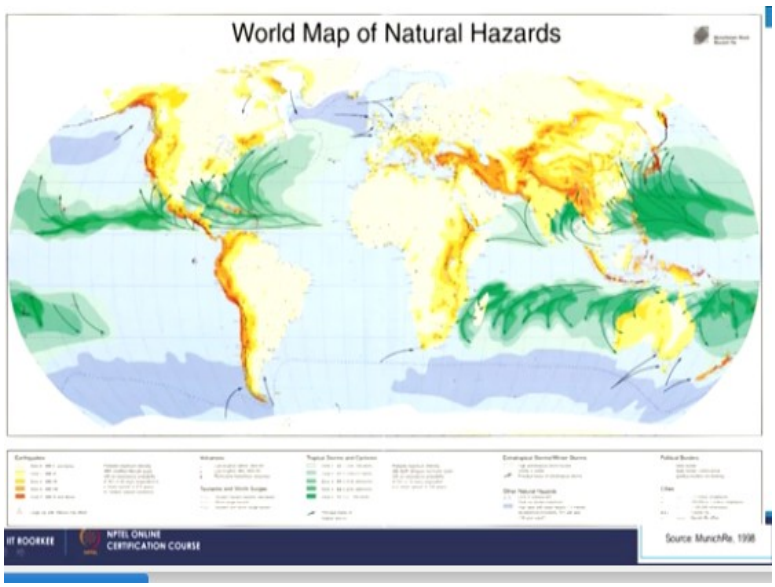

Here, the map that showing the distribution of natural hazards let us look more maps on these.

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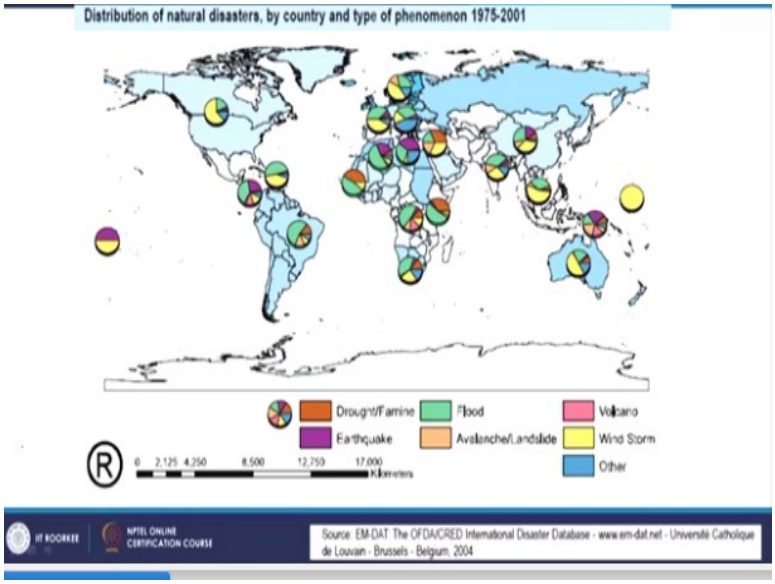

This one is the distribution of natural disasters by country and type of phenomena from 1975 to 2001. If you look into this distribution, you can see that the flood; this is one of the most reported disasters from 1975 to 2001.

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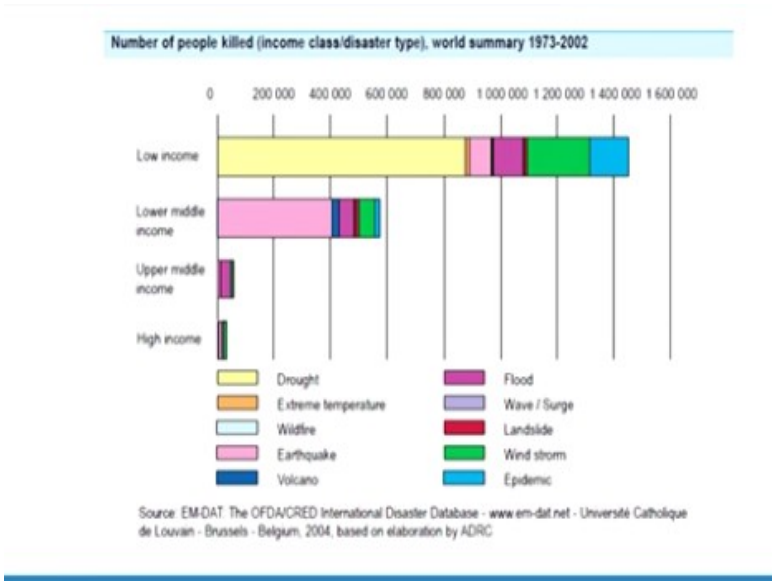

Go to next slide; if you look into the disaster distributions, different kind of disasters or hazards in different countries, the most affected people and killed are in low-income countries and the least the high-income countries. So, poorer the countries, poorer the communities, poorer the societies, they are more affected by disasters than the prosperous developed nations and societies and communities.

So, low-income countries you can see that most they are affected by drought and also their flood, in case of lower-middle-income group countries, you can see that these they are

affected mostly by the flood, and the other bigger contribution of human losses came from flood and also from epidemic.

Now, hazards; when we are talking about hazards, we have to consider few characteristics of the hazards or features when we are talking about disaster recovery or disaster risk management.

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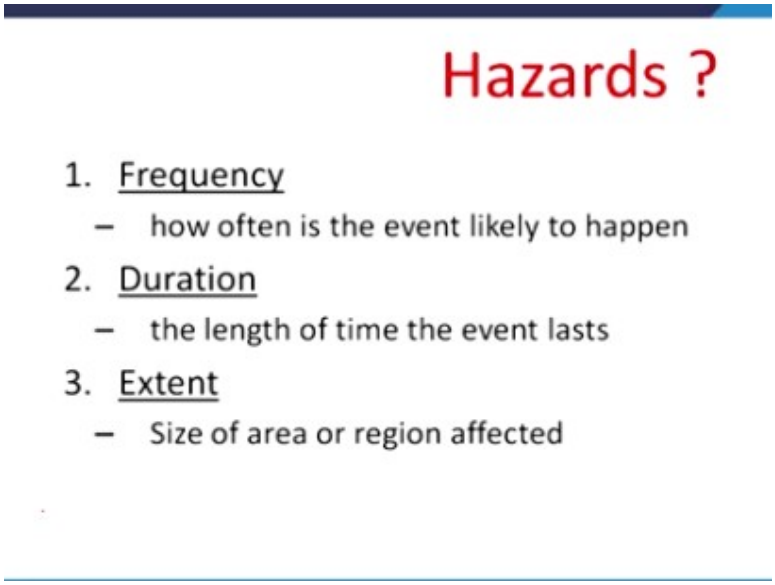

One is the frequency of the hazards; how often is the event likely to happen, and then is the duration of the hazard; the length of time that when it happened how long it continued, an extent; the size of the area where it took place, it is in a village or in a town, what extent, what geographical area it is covering so, these are important components of hazards will dealing with disaster risk management.

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