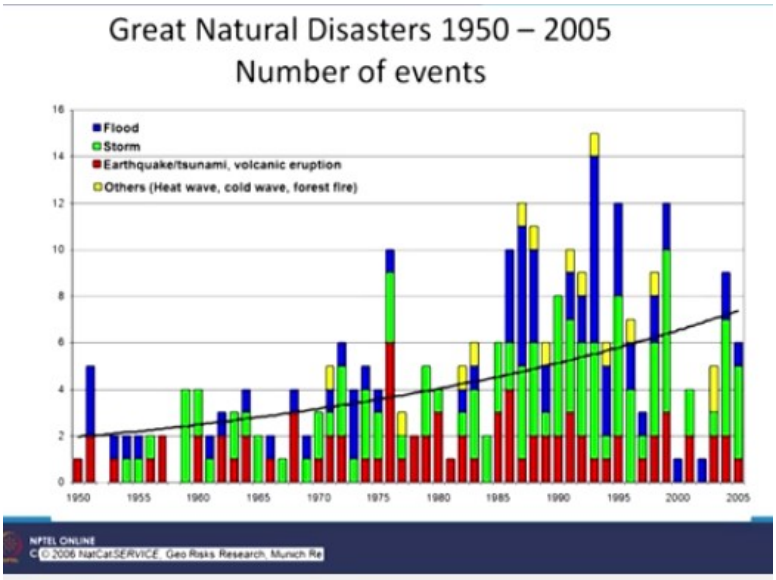

So, also here is another chart you can see from 1950 to 2005, the number of events that flood is increasing, storm also are increasing, earthquake is almost the same as from 1950's to 2005, you cannot see much huge differences but other disasters you can see they are increasing very prominently.

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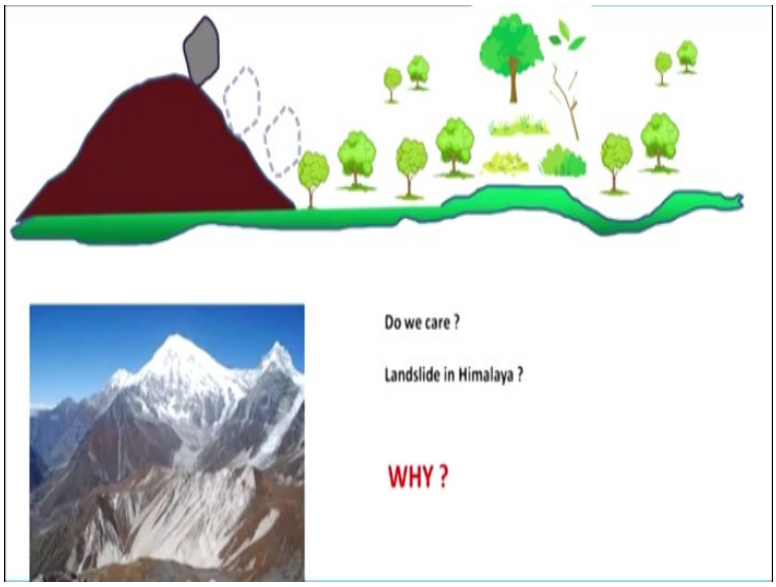

So, we are talking about hazards that this landslide or this stone when it is exposed to heavy rainfall or earthquake, it can have some potentiality to cause human injury or loss or property damage. It may cause, not necessarily that it will cause. Now, as I said that we have avalanches and we have landslides in Himalayas, we do not care why we do not care, if there is an avalanche, if there landslides in Himalaya.

Why, so that is important when we are talking about disaster risk management. When there is an landslide in Mumbai, landslide in Delhi we are concerned about but when there is an landslide in Himalaya, we are not concerned about this, when there is an earthquake in deep sea, we are not very much concerned unless and until the tsunami is coming on the mainland.

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So, now if it is not a barren land or a forest, but some people are working there, then do we care now? Like, it can cause that this rainfall because of the rainfall, this landslide will take place and it may hit this person and he will be injured and property loss will be reported. Yes, we concern because this person is there and earlier he was not there.

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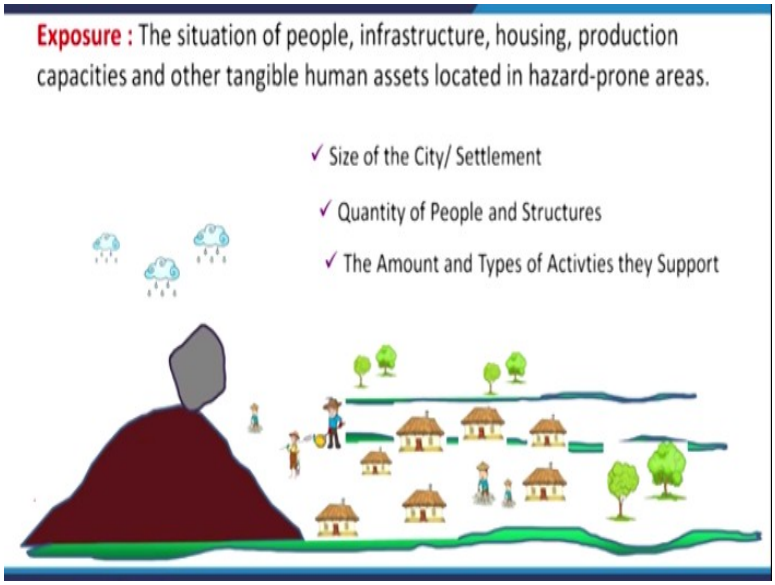

So, the presence of this person is very important. So, it is not only this person but if we have more settlements, more houses, more people we care more right, maybe here you look, we

care more and more because the simple reason is that more and more people and settlements, houses, buildings are there. So, this one we are calling as exposure; the situation of people, infrastructure, housing, production capacities and other tangible human assets located in hazard-prone areas.

So, if these people, these houses are not there, we do not care about the hazard disasters, we do not consider them as risky, we consider this landslide as risky because people, properties, buildings, infrastructures they are exposed to that potential hazard. So, how many people are exposed, who are exposed, these are important in disaster risk management. So, when we are talking about the exposure, the size of the city or the settlements and where this hazard will take place is one important component of exposure.

Another one is the quantity; how many people or structure or buildings are exposed to the hazard, another one is the amount and type of activities they support. Like, if they are engaged in agricultural sectors, if they are engaged in business sector or industrial sectors, they have different exposure, if they are engaged in an industrial sector, small properties are exposed to hazards, then compared to in agricultural sectors.

And also in a city areas where diverse occupations are there, people are also densely populated so, their property is also concentrated compared to in the villages areas. So what kind of activities, amount and type of activities are going so, these also defined that how many and what extent people are exposed to a particular hazard. It also matter that if this hazard would take place at day time, when people are not working, people are working outside, people are not at their home. Or maybe night time when people are sleeping so, at day time of course, we have less people are exposed to hazards compared to night time, at night time people are sleeping and which are very close to hazardous areas, so they are more exposed to these hazards. Compared to village areas, if it is in urban sectors like, in case of big cities; in metropolitan cities compared to a small village; yes, more and more people and properties are exposed.

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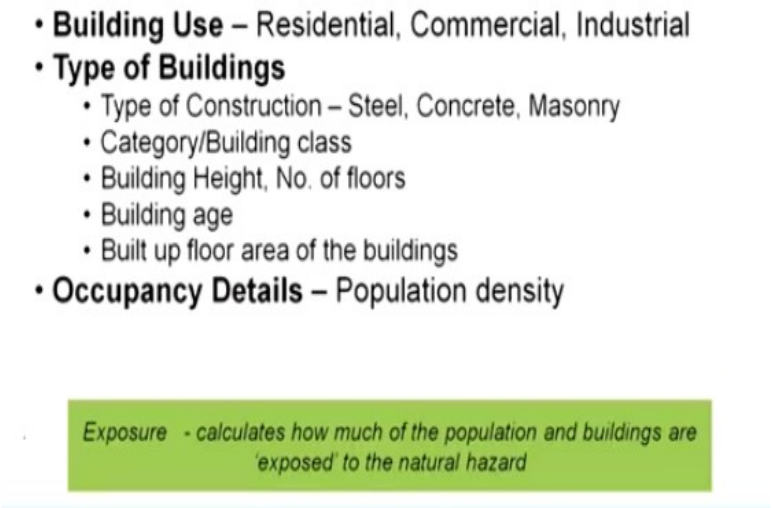

So, when we are talking about exposure, maybe these are indicators, we can define how many, what extent, who are exposed. Let us say, building use; residential, commercial, industrial, they define that how many people, what extent, what type of people are exposed to disasters. Also, the types of buildings; the type of constructions or building height, if they are all taller building more people are exposed to hazards or in a building edge or built-up floor areas of the buildings.

So and also it depends on the occupancy details, we have to take like the population density, who are the owner of these houses and buildings.

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So, exposed to hazards; it depends on how many people and the buildings are exposed to a hazard. Now, when we are talking about hazard and exposure so, if we say that okay, this

much of people are exposed to this disaster, is it enough to define a disaster? I mean when we say that okay this much of people are exposed to a landslide, a particular hazard, can we say that hazard and exposure, they will decide the degree and the type of disasters, is it enough definition to quote that hazard multiplied by exposure will decide the magnitude of the disaster or the degree of disaster?

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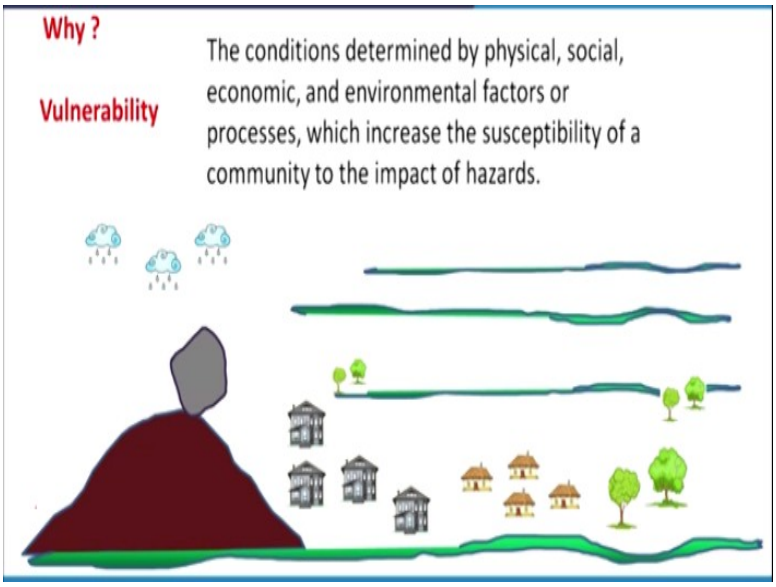

Like, it is not only that how many people, how many buildings are exposed, but what are their characteristics, what are their features also define that what extent they are potentially at risk. If in a place that is prone to landslides or potentially to have a landslide, like this one you can see and maybe in this village, the all people living there are old people; senior citizens above 65 years old.

So, if there are only senior citizens or maybe only children are there, only kids so, of course they are more vulnerable, more exposed and more at risk, this place we consider to be more risky. And so, young people is less so, if a community is comprised by only old people, no young people, then we consider that this community is at risk than a community which has more younger population.

Or if the people who are exposed they are only poor, they are more at risk, they are more vulnerable and if a rich people who have better economic capacity, we consider to be that they are less risk. This also depends on what kind of houses or buildings are there like, if we have Kutcha houses and mud houses and you have concrete houses, it also wood houses, these also define that one extent, people will be impacted with these hazards.