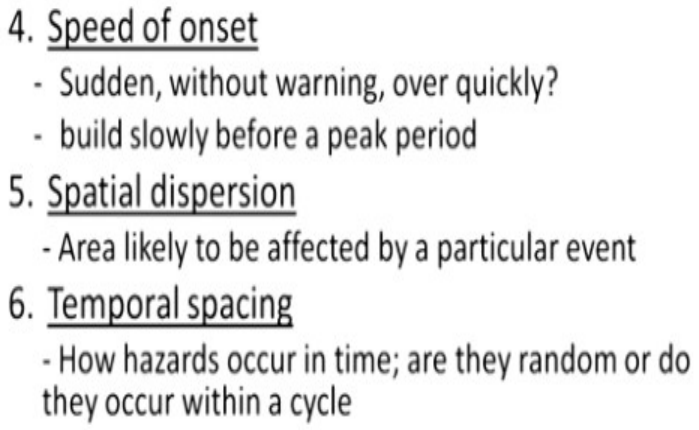

Now, coming another important feature is the speed of onset like, if we consider a flood, it is a flash flood, it is very sudden without warning, very quick or is it a kind of slow process like in case of cyclone, we have much time to predict so, we have; we can prepare our self, we have better early warning system and we can take time but in case of earthquake, we do not have any time, it is very sudden or in case of flash flood, we have less time also consider to other kind of a flood.

Or so, speed of onset is very important and when you are considering the hazards in disaster risk management and the spatial dispersion; area likely to be affected by particular event. And temporal spacing also very important; what time, when and it is happening, are they random, are they occurring in a cyclic process in a recurring process or they are one-time events, so these are important features when we are dealing with hazards.

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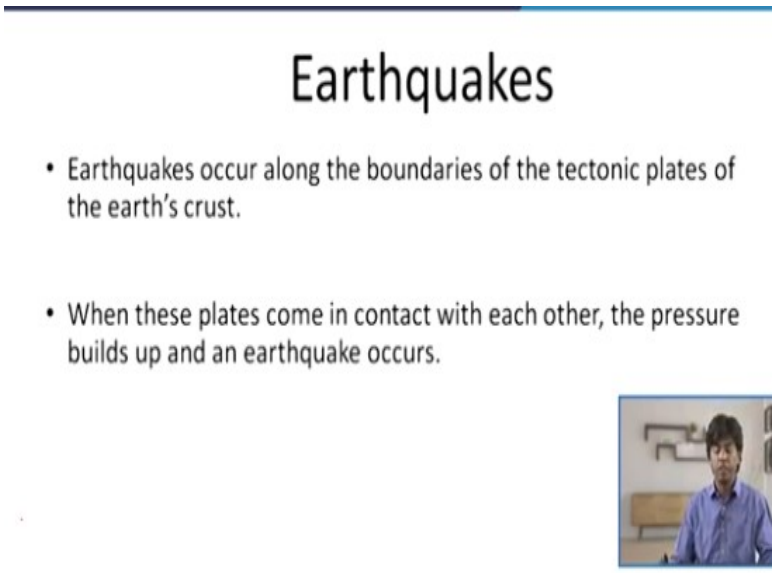

In case of just for an example, maybe we can see that in case of earthquake; earthquake occurs along the boundaries of the tectonic plates of the earth crust. this is one hazard and when this is the source of the hazards and when this happen and this happens, we can see that these plates come in contact with each other and the pressure builds up an earthquake occurs.

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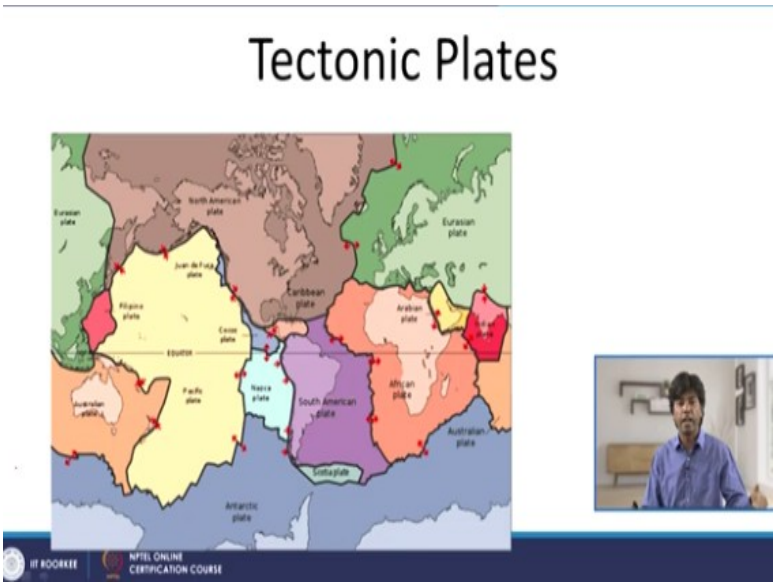

Now, this is just simply a physical event, this is you can see some of the distribution of the tectonic plates in some places and this hazard; this earthquake hazard, we have 3 processes; physical process that can trigger this hazard.

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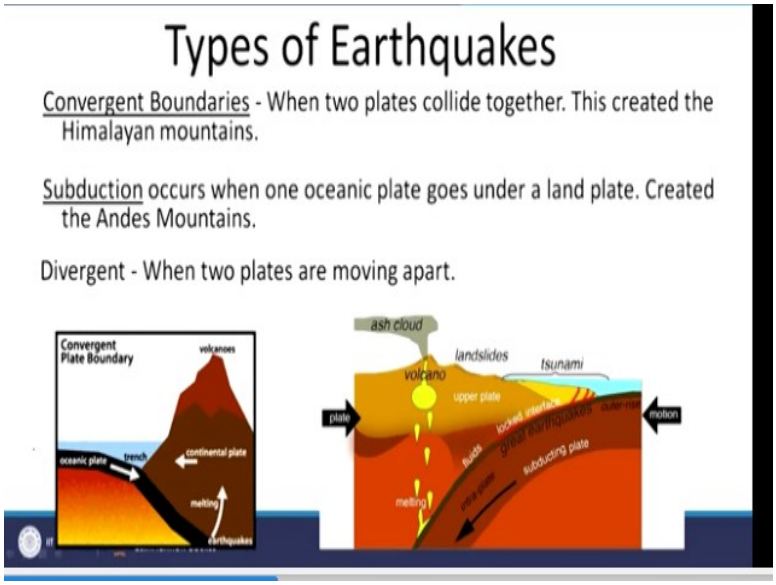

One is that convergent boundaries; when two plates collide together this created the Himalayan mountain so, one way of the event of earthquake that can happen when two plates are colliding each other. Another was is the subductions; there is when one oceanic plate goes under the land plate and created the this kind of earthquake. And another one is the divergent one, when two plates are moving apart, this can also cause earthquake. And this is we call divergent region.

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Now when we are talking about hazards, can we avoid hazard? No, historically hazards were there, it is there and it will remain. So, we cannot avoid hazard basically.

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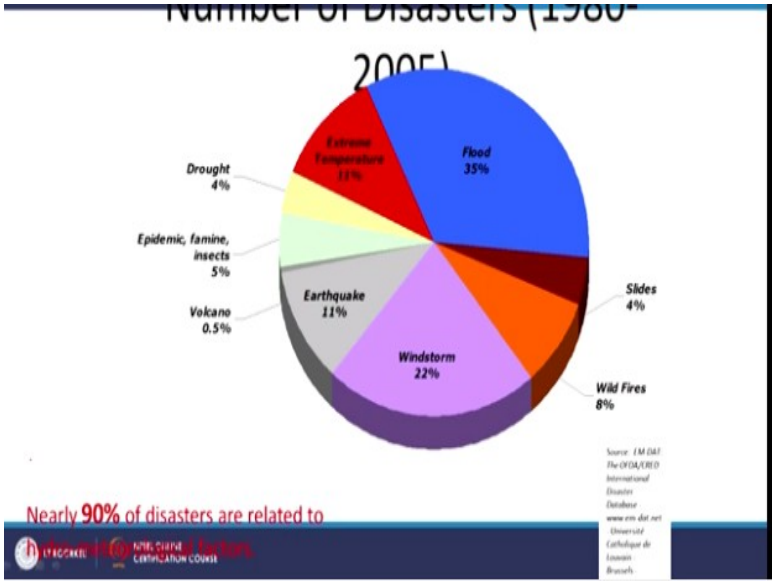

Now, looking into the disaster; number of disasters from 1980's to 2005, you can look as I told also before, it is the flood that is the most reported disastrous event. 35% of the all disasters are from 1980 to 2005 are flood disasters. Another one is also big share is the wind storm, earthquake is only 11%, an extreme temperature is 11%, so overall 90% of disasters are related to hydro-meteorological disasters, that is very important finding.

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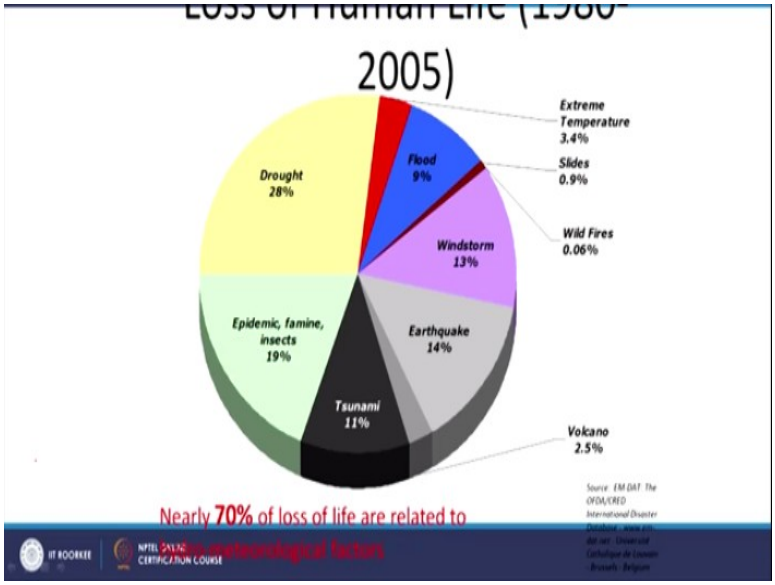

Also, when we are looking into the loss of human life from 1980 to 2005, we can see that nearly 70% of loss of life are related to hydro-meteorological factors. So, hydro-meteorological disasters are very critical, particularly when we are looking into developing countries or underdeveloped countries. Here you can see that 28%, drought is the reason of human loss in 28%.

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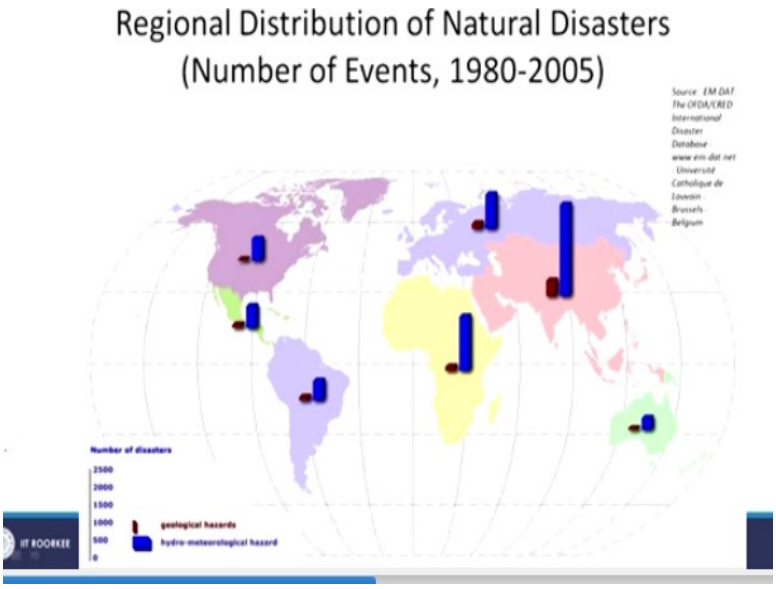

Similarly, flood 9%, earthquake is only 14%, here is the regional distribution of natural disasters from 1980 to 2005. You can see that Asia is one of the biggest source of disaster, it is one of the hotspot compared to any other region, when we are talking about disasters. And it is the hydro-meteorological particularly, the flood and drought which play a big share of the all disasters and disaster impacts.

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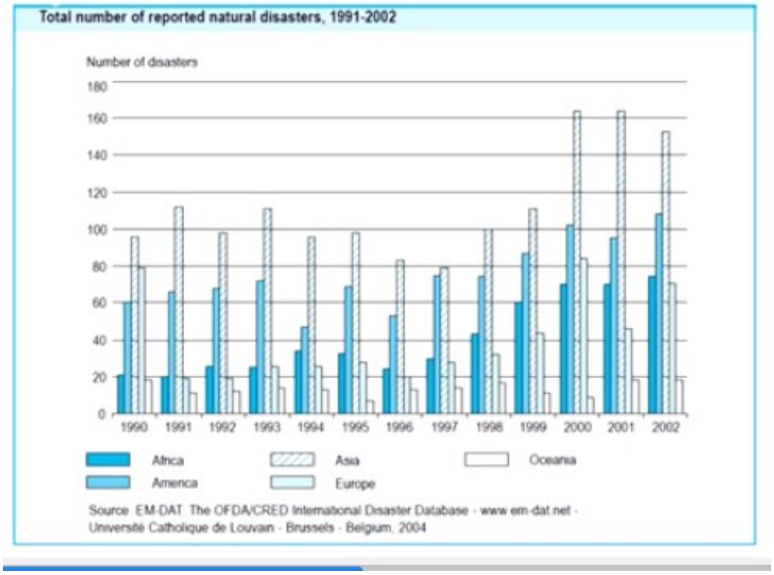

Here is also you can see from 1991 to 2002, the growth of disasters. So, actually it is increasing in all continents particularly in Asia, so in 1990's and 2002, you can see in Asia's, these disasters are actually more and more reported and more and more human losses and property damage are reported.

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