

Disaster Recovery and Build Back Better
Prof. Subhajyoti Samaddar
Department of Disaster Prevention Research Institute
Kyoto University, Japan

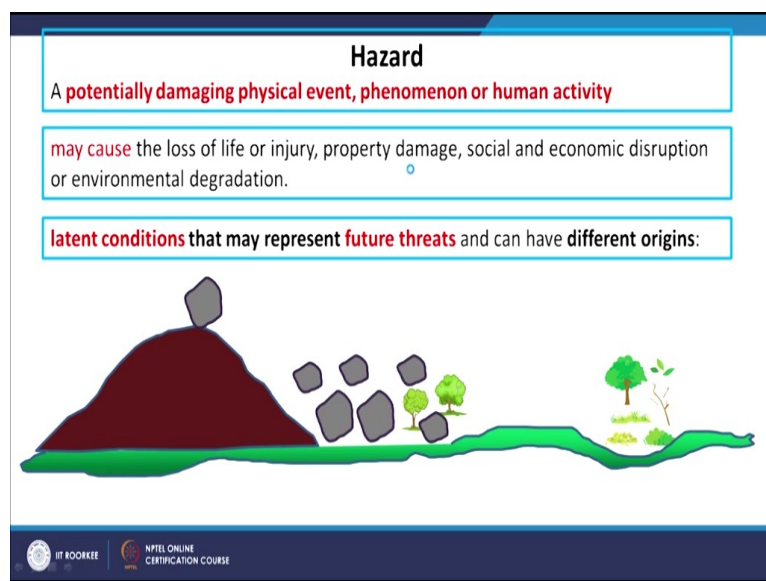
Lecture - 08
Disaster Vulnerability

Hello, hi everyone. This series we are talking on disaster recovery and build back better and you are welcome. This lecture, we will talk on disaster vulnerability, some concepts. I am Subhajyoti Samaddar from the DPRI Disaster Prevention Research Institute, Kyoto University, Japan. Let us look here. For very very long time, disaster was taught, considered that is only a physical event.

If this physical event is bigger, disaster is also big. If this physical event is small, disaster is also small. If this physical event is not there, nobody could expect a disaster. So, as simple the bigger the physical event, the bigger the disaster and the disaster we are facing because of natural and physical events or acts, so it was the focus was much on engineering or technocratic solutions to manage disaster.

But we already know that even this stone coming from this mountain to these foothills, nothing will happen and we are not worried about it. Why?

(Refer Slide Time: 02:16)

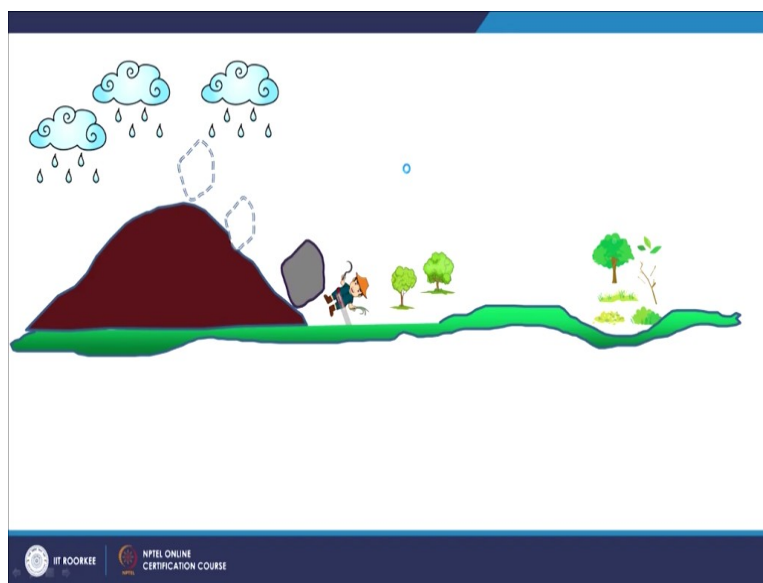


The simple reason is this is just simply a hazard which is potential to cause some effect. It is just a physical, this stone is just a physical event or phenomena, or it could be some human

activity also. It may cause some effect like injury, human loss, property damage, social and economic disruptions or environmental degradations right. And it is latent, it depends on probability, it also depends on from where it is coming from, so it is latent.

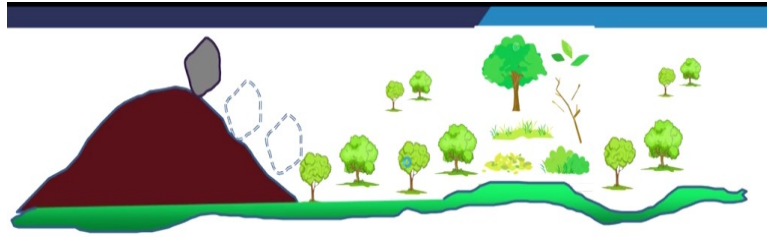
So, we do not care about this physical event phenomena until there is a human being. Like we discussed before in other lectures that if we have avalanches in Himalayas we do not care. If we have earthquake in deep sea, we do not care unless and until the Tsunami comes on Mainland. So, if this human being is not working there in the down at the foothills, then this stone is not considered to be disaster or risky right.

(Refer Slide Time: 03:50)



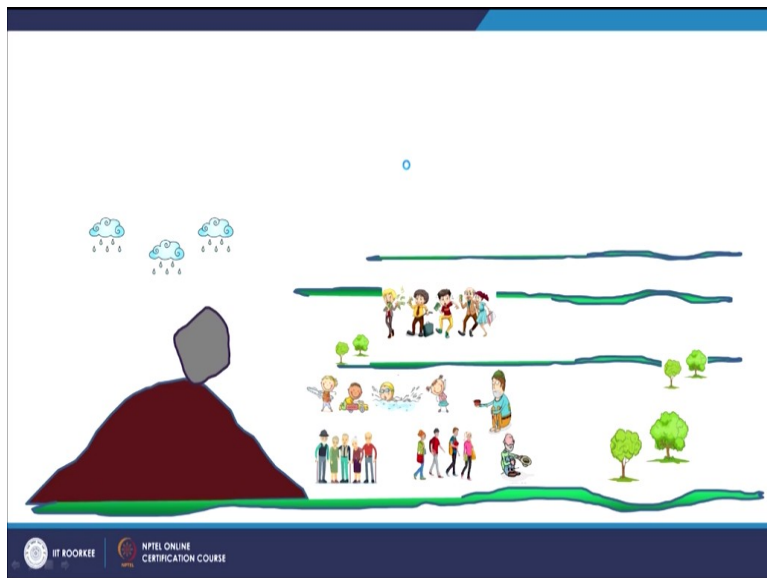
So, if there is a rain, if this human being is working, then there is a possibility that this stone will hit this person. Then, we only are concerned. So, this person is exposed to that kind of hazard, and that is why we have concern to manage that particular disaster or particular disaster risk right.

(Refer Slide Time: 04:09)



If it is like that where he is not here, he is not working, no human being, only forest, then we do not care about it, we do not consider it as risky. It cannot cause any human loss or human effect. That is as simple as.

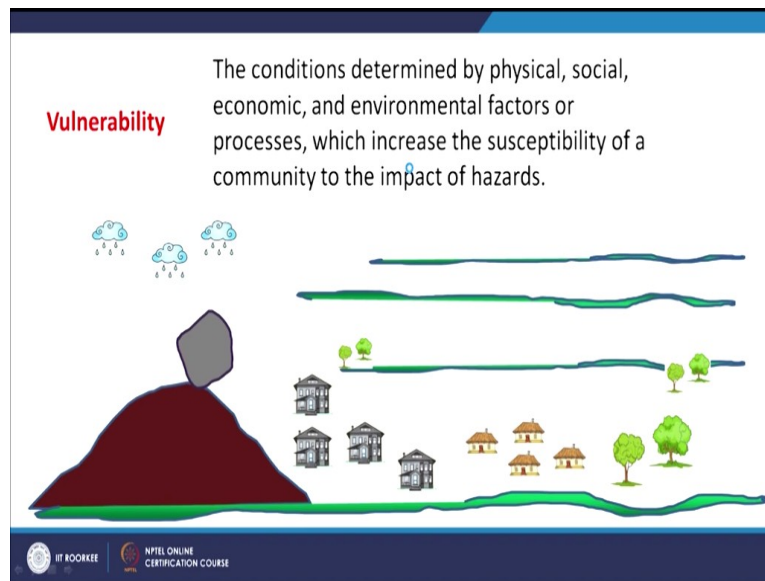
(Refer Slide Time: 04:32)



Now, it is not that how many people are exposed, but it also depends that who are they, what are their characteristics, are the young, are they old, are they kid, are they poor, are they rich. So, their human characteristics also matter when we are talking about disaster risk right. If they are poor than rich, they are more vulnerable than rich. If they are old senior citizen, they are more vulnerable than young people.

If they are kids, they are also vulnerable than other common people, so the characteristics of these people that matter right.

(Refer Slide Time: 05:25)



Also, it matters that what kind of settlements, who are, how their buildings are there, it is a kutcha house, pucca house, wooden house, stilt house, concrete house. So, these characteristics of the buildings and population, they do matter, that how and what extents this stone can actually affect this place. This could be human loss; it could be other socio-economic loss or property damage right.

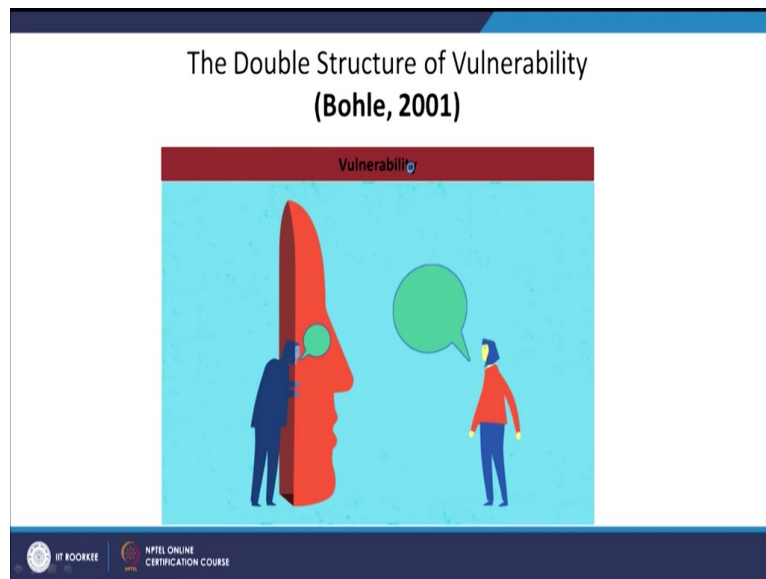
So, vulnerability is that a condition that determined by physical, social, economic environmental factors or process which increases at what extent. This particular object that is exposed to a particular hazard will be impacted. If I kick someone, then somebody can resist it, somebody cannot resist it because he is weak. So, even though I can force someone, I can just kick someone, but its impact depends not only on my capacity but also whom I am kicking.

Somebody can resist that one, somebody cannot resist that one, it depends on their characteristics also. So, if I am hit by an earthquake, it depends on my capacity, on my conditions, my characteristics that how I can resist the shock. So, disaster risk is we already know, is already agreed decisions that it is the 3 critical components.

One is the hazard; of course, that should be there, a latent physical event that may cause some potential damage, also the exposure; some people and settlements should be exposed to that hazard, and the vulnerability; the conditions and the characteristics of the people or the

settlements they are exposed to that hazard. So, disaster in general is considered to be the function of these 3 components as it is very clear.

(Refer Slide Time: 07:55)



Now when we are talking about disaster vulnerability, this is nothing a new concept. For last two decades, it has been discussed at a length, but the problem is to put this idea into practice or to improve disaster risk management strategies or disaster risk reduction strategies and policies. We need to know clearly what is the meaning of disaster vulnerability, what kind of characteristics would define disaster vulnerability.

So far, we have so many definitions are there. We have very rarely agreed to reach any consensus decisions. So, scientists, practitioners, planners, they have different opinion about the definition of disaster vulnerability, its indicators, its parameters. So, therefore, it is critical to look into some of the critical, theoretical aspect, conceptual aspect of disaster vulnerability that how they are defining disaster vulnerability.

Here, in this lecture, we will focus on these two such prominent early theories or concepts on disaster vulnerability. The first one is the double structure of vulnerability. It is by Bohle in 2001. So, they are looking disaster vulnerability from 2 aspects. They are saying disaster, not disaster vulnerability only but, vulnerability is there is a two components, two important components are there.

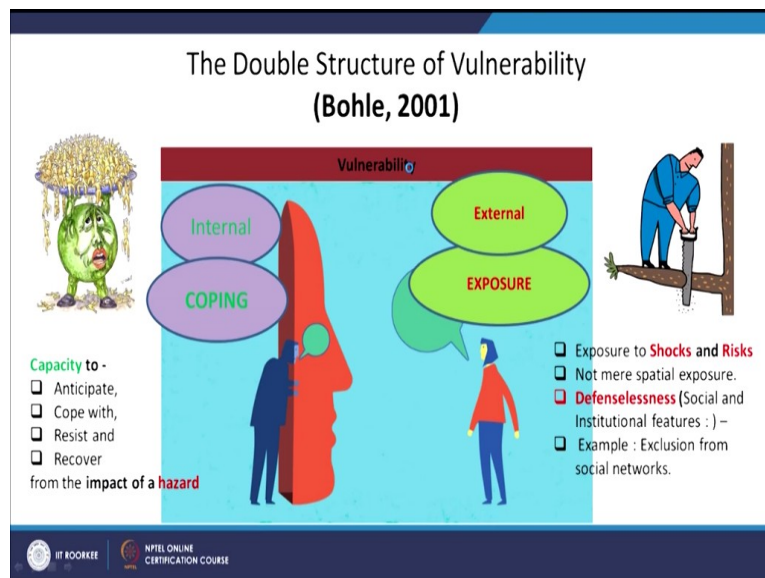
One is internal component, another one is external component when we are talking about someone's vulnerability. What is the internal component? Internal component is the coping

component,, and then what is the coping component? It is actually my capacity that how I can resist bounce back or can absorb the shock of a particular event. So, my capacity to anticipate that something will come, something will happen and to cope with.

If something will happen, what extent I can overcome that problem, that risk or that danger and how I can absorb the shock, the resist. If something happened, I can resist what extent. Like poor people, they cannot resist financially, but maybe rich people can resist. If someone's shop, a very rich person has a business, it is affected by disaster, he can easily recover from that because he has greater capital.

That a person who depends on agriculture or maybe a landless labor, after the disaster, he is not affected, but also it is very difficult for him to bounce back because he has no money or maybe a small shop owner. Once his house or his shop is affected by disaster, it takes a long time for him to run the business again because he has very little money. So, how I can resist that one also or recover that one also matter.

(Refer Slide Time: 12:09)



So, this is my capacity to anticipate, cope with, resist and recover from the impact of hazard is the defining idea of coping, and this is my internal, this depends on individual internal characteristics or communities own characteristics. It is not an exogenous variable, but there is also, so these components are much in someone's hands, in a group's hands or communities they can control this one.