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

Lecture – 02
Risk Perception and Disaster Risk Preparedness – Part 1

Hello everyone, we will discuss, welcome to this lecture series on disaster recovery and build back better. In this lecture, we will focus on risk perception and disaster risk preparedness, I will tell you that why we need. Also to focus on risk preparedness, not only in mitigation and also I will tell you what is the critical role of risk perception when we are trying to promote preparedness.

So, I am Subhajoti Samaddar, from DPRI; Disaster Prevention Research Institute, Kyoto University, Japan.

(Refer Slide Time: 01:14)

We already know that we have many hazards including natural hazards okay, like flood or kind of volcano but also we have many other hazards which are not directly related to disasters but let us look at in a broader perspective, we could have smoking or GMO.

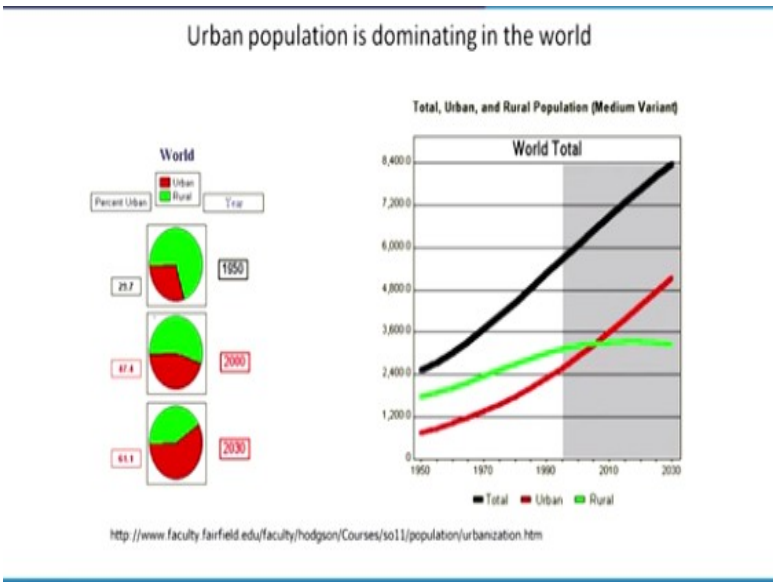
(Refer Slide Time: 01:29)

And then we have some risk, like if you smoke, you are endangering yourself with a lung cancer, or if there is a flood, poor people is affected, vulnerable people would be affected. Also, we could have earthquake and tsunami impacts and triggered Natick, kind of questions like Fukushima, a nuclear power accident so, we have all this risk right, this is accepted.

(Refer Slide Time: 02:02)

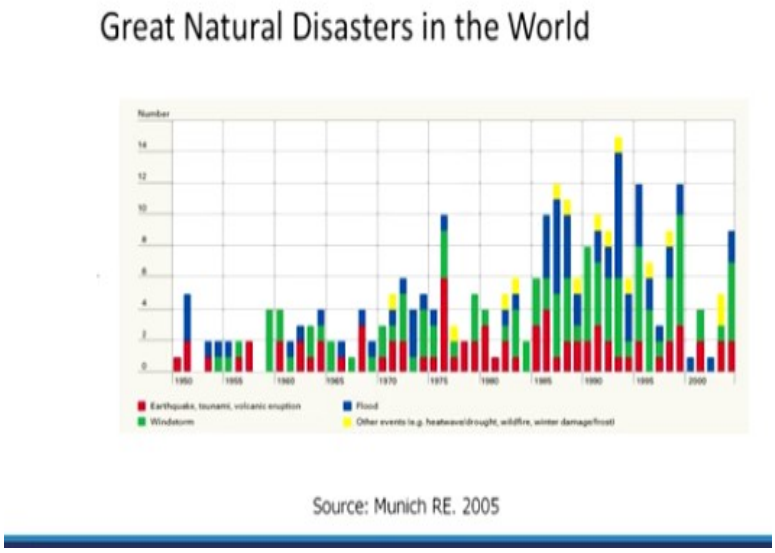
Now, looking at disaster risk, particularly in Asia that is for sure that Asia is one of the hotspot, it is one of the most disaster-prone region in the world. No other region is that much affected by disaster; natural disasters particularly, well you consider earthquake, you consider volcanic eruption, flood; Asia is the most vulnerable, most disaster-prone region in the world.

(Refer Slide Time: 02:37)



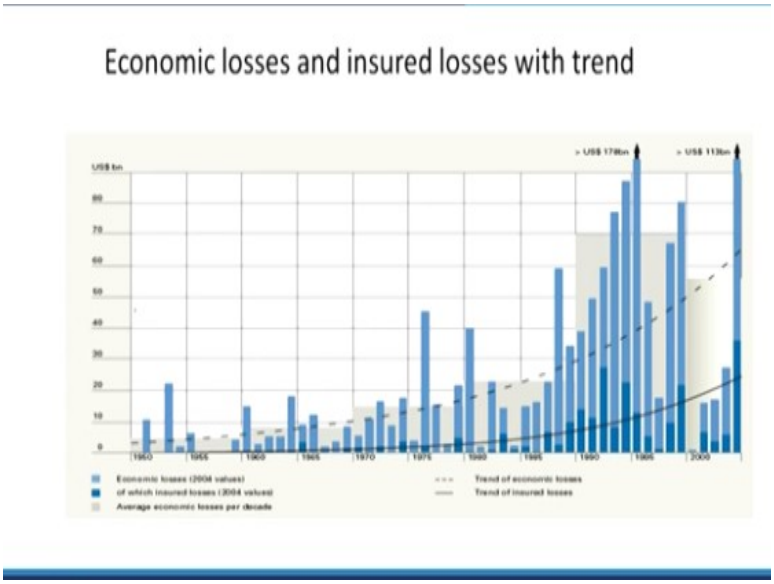
One more thing is that urban population; urban population in the world is dominating. In 1950, it was only 29.7% of total population was urban population, only 29.7. In 2030, it is considered that it will grow as 61.1% that means more and more people are living in urban areas and they are exposed to various kind of disasters.

(Refer Slide Time: 03:13)



You can see this graph also that is showing that how earthquake, flood, windstorm is increasing from 1950 to 2000. That is for sure that flood is increasing and windstorm is also increasing has increasing red, earthquake is relatively similar but great natural disaster in the world are really increasing.

(Refer Slide Time: 03:36)



Also, not only the disasters are increasing, but economic loss and social impacts due to disasters are increasing, here is one you can look at economic losses or insured losses with trend from 1950's to 2000 that is for sure that it is increasing.

(Refer Slide Time: 04:01)

So, what is the trend now? Large catastrophic disaster is more likely to occur, large catastrophic disaster; big disasters like 2011 Japan one which surely is going to increase but that was very extreme. Number of disaster for which some international aid is executed, in 60s and 90s, international aid 1 : 3; 3 times more, economic losses due to disaster in 60's and 90's; 1:9.

Insured loss increased at in higher rate in 60s and 90s; 1:16. That is amazing figures right, so what is happening then, what is actually happening in the real-life? what are the impacts of

disaster, what are these facts, this is a small data I have given you, I can give you a lot more data, but for the considering the time, we may focus on small data, but that data is telling us few points, pretty clearly.

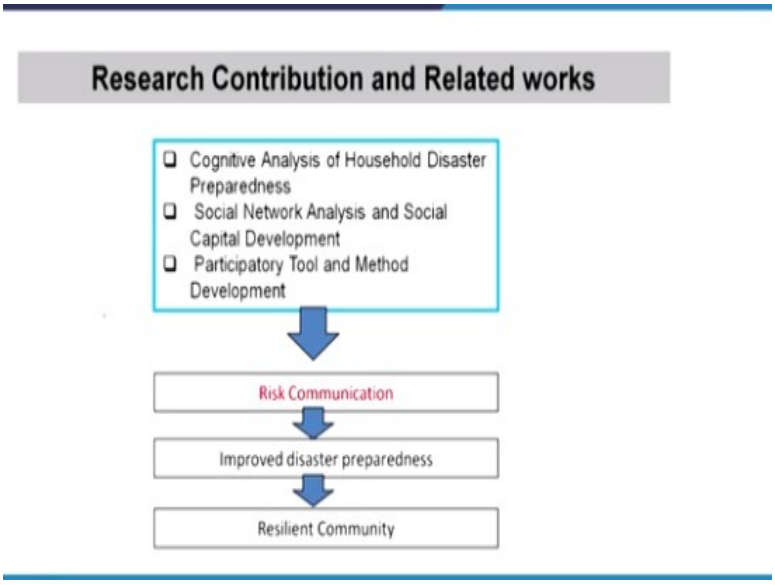
(Refer Slide Time: 05:12)

One is more and more people and buildings and settlements are now being exposed to hazards. More urbanized area we are having more and more populations are living there, concentrated in one pocket and more and more people are at risk, that is for sure, more and more people are exposed. People's capacity, their characteristics, their features, the building characteristics, settlement characteristics, the way it is happening, the unhappiness that unplanned development across the globe particularly in developing countries. Also, in particularly in Asia is, of course, making people more vulnerable than before that is for sure.

But the most important finding is that structural measures; engineering measures are important, but not enough that is for sure, you can build dikes, bridges, dams but you can make a lot of things like that structural measures, but they are very necessary for infrastructure development to protect and mitigate disasters. But that is not enough; the one great example is 2011 Japan or 1995 Kobe earthquake, also in India, we have giving so much effort, like a country which is so prepare like Japan investing so much on infrastructure development. But still it is sure that by structural measures, you cannot simply make communities resilient, nature is more powerful than you. So, if you are ever exploiting the nature, if you are exploit, if you are living where you should not live, then structural measures is not enough.

What do we need to do then? we need to make people, increase people's risk awareness, we need to promote preparedness, small thing that if there is a big disaster, is the tsunami you have to evacuate, no other option, people who are living near the coastal side, they have to evacuate when there is a disaster, but people always do not like that.

(Refer Slide Time: 07:31)



So, what is happening is that we need to focus on preparedness, to promote preparedness and risk governance to the people. So, in order to do that, we have many kind of small countermeasures, not a very big issue like we can promote, we can motivate people to buy flood insurance or we can ask people to evacuate during emergency.

(Refer Slide Time: 08:05)

Or maybe just simple technologies like rainwater harvesting for better water resource management. Or maybe a eco-friendly house, energy-saving house so, these small measures