Disaster Recovery and Build Back Better
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Lecture – 03
Risk Perception and Disaster Risk Preparedness – Part 2

Hello everyone, welcome to the lecture series on disaster recovery and build back better, we in this lecture discuss about the second part of risk perceptions and disaster preparedness. We already discussed it at some extent so, I will continue that one. I am Subhajyoti Samaddar from disaster prevention research institute, Kyoto University, Japan. So, just for a small introduction for the continuation what we were discussing.

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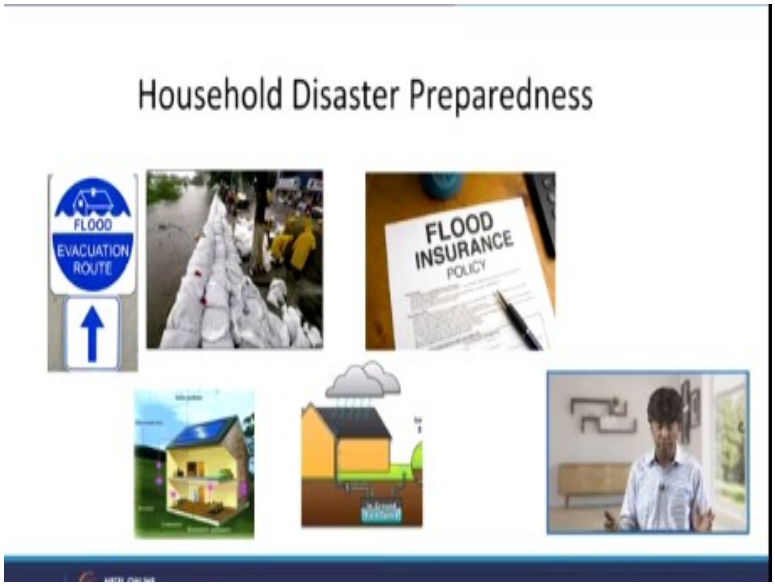

So, we need some small household preparedness mechanism to enhance people's preparedness against the disaster that is for sure, like insurance, like evacuations, like rainwater harvesting.

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What we found that one person say, for too less, so we need to encourage more and more people to for disaster preparedness. So we should encourage more and more people and small, small, small effort could be very gigantic. Now, this process in order to encourage people, we need to understand their mind because we have to communicate with them.

We need to improve our risk communication mechanism in order to improve their preparedness intention, their attitude towards preparedness.

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So, one this side is local government who is trying to promote these preparedness intention, motivations of the common people and other side is the local people.

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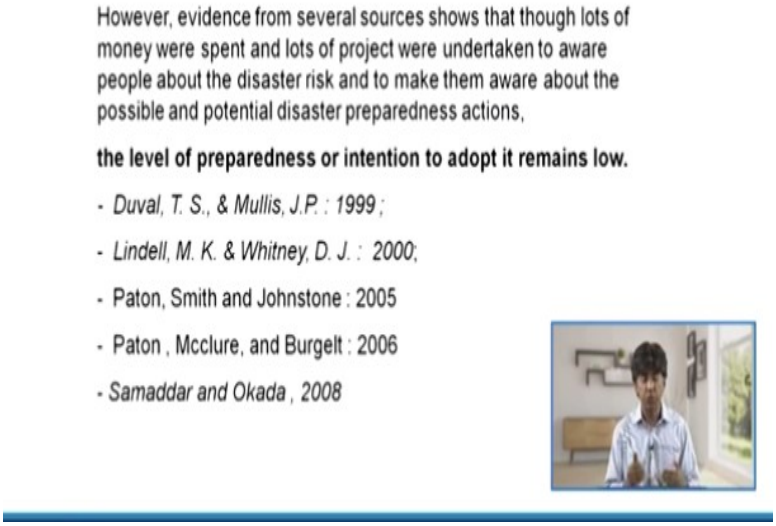

But, what we found that it is really challenging, is really challenging, after spending a lot of money, a lot of time, running a lot of projects, people; the community at risk, they are not very willing to prepared. We would like to know that why it is so, why our conventional risk communication mechanism strategies are not working that is the challenge. So, we found that one side, there is a possibility that people who are estimate their own knowledge, they think, they know everything. So, if disaster happened, they know that it will not happen to me, it would not happen to them, or maybe they are knowing that okay, disaster is coming but I am prepared, the preparedness measures I took enough so, I would not be at risk okay, I would not be impacted. Other one is that the transferring of knowledge, they want to take the responsibility by others like local municipal authority or by the central government on regional government.

So, these factors we discussed already can actually increase the low preparedness intention. We also discussed about objective risk and the perceived risk, scientific risk we have and what scientists estimate and the perceived risk; what laypeople think about. Now, we are talking about that risk is actually the probability and the magnitude of an adverse event.

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For one thing that we need more data and we in order to refine our existing knowledge, existing information, existing estimations of a risk. But they are making us telling us that okay in any case, please do not incorporate people's perceptions, lay people's perceptions in disaster risk management that would be itself a disaster. So, what we need to do?

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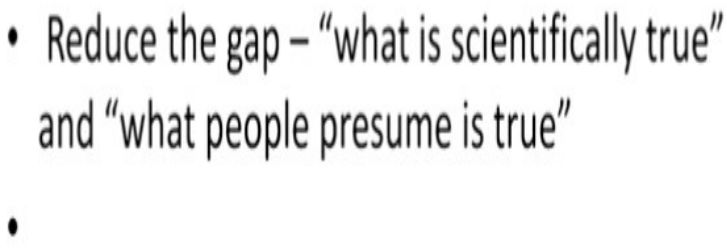

We need to simply reduce the gap, we need to tell people that what they know is not simply true, what we are telling as a scientist, as an expert is true so, our estimation is the right, only then we can enhance people's preparedness so, actually we should know what is right, what is not wrong.

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So, now if the scientists are really saying that, the question is even the scientist can they really measure the risk accurately?

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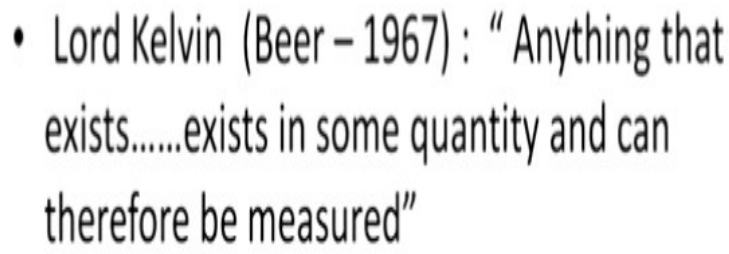

As I said before, this person is saying that anything that exists; exists in some quantity and can, therefore, be measured.

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Like the example they have given that, this road is in danger, so do not be flamboyant, do not try to be hero, you will be at risk.

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This road; left-hand side road is safe; right-hand side road is unsafe.

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But here is the question; which one told me; which one you feel is more risky, going by air or going by road, which one actually more risky? Yes, you were right, I know, most of the people think that going by air is risky than by road. But actually, data is very opposite; aviation is one of the safest medium of transport; mode of transport so, by air is much safer from the point of accident rate or casualty rates than by road.

But people have actually very different perceptions, people want to avoid by air than by road also, when you are talking about estimating data, do we have enough data; if there is some accident, some earthquake happened in Ghana in Western Africa, can we get this data; road accident data, can we get it? No, can we really depend on the statistics that we are coming from many developing countries; basically, no, it is not well documented.

In a country like Germany or Japan or US or UK that is more developed documented data they have, more reliable statistical data they have so, they can have better risk estimation than these countries, so then which one I should believe; the laypeople or the scientist?

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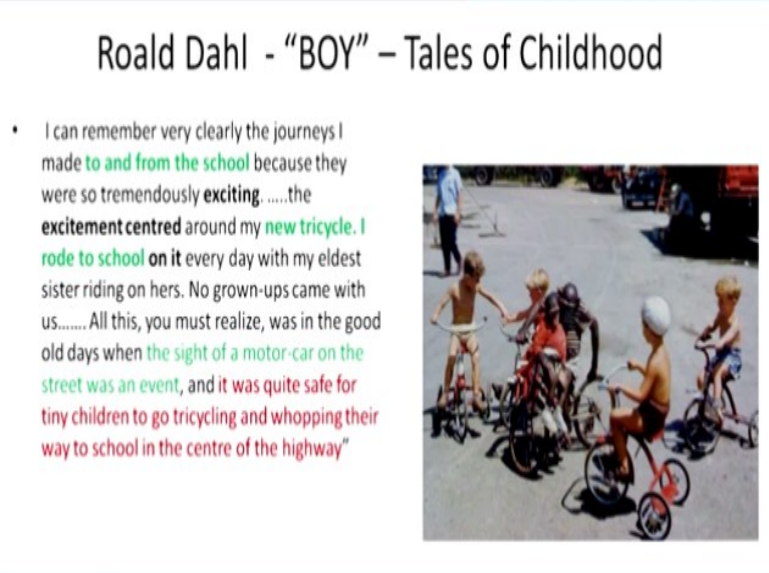

Here is another interesting data, interesting fact, there is a diary written as by Roald Dahl on BOY, the tales of childhood, let us look what he is talking about, it is maybe 80 years before or in 1920's okay. He is saying that I can remember very clearly the journeys I made to and from the school because they were so tremendously exciting, the excitement centred around my new tricycle.

I rode to school on it every day with my eldest sister riding on hers. No grown-ups came with us. All this you must realize, was in the good old days when the sight of motor-car on the street was an event, and it was quite safe for tiny children to go tricycling and whopping their way to school in the centre of the highway.

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So, what is that he is going and coming from school and home by tricycle, not only that he has the experience that he used to go through highways. So, tricycle on highway and that is very enjoyable, very safe. Do you believe in 1920's, the roads were more safer than today, tricycle on road was much safer than today? If it is so, let us that look at data, we told that okay, a road is risky, if there are more casualty.

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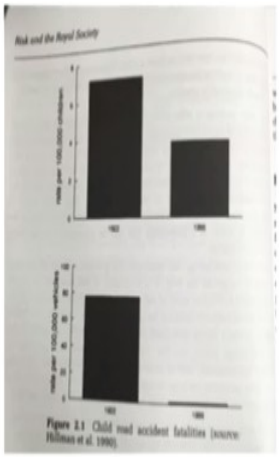

- Road accident of children

1922 Year – 736
1986 Year – 358

The child road death rate per motor vehicle has fallen by about 98 %

But, here is the road accident of children in 1922, every year 736, whereas in 1986, this is only 358, so the child road death rate per motor vehicle has fallen by 98%, unbelievable! But this person is saying that it was tremendously exciting but quite safe, is it really so, then come to believe the scientists or the general people, it is not a matter of believing, but how I have to tell him that scientific estimation is saying a different story?.

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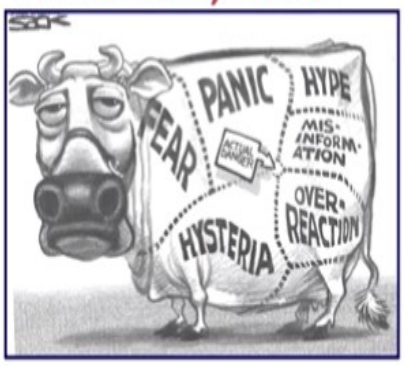

How I can convince him, Mad Cow disease in 2003, you know, somebody said that scientists focus on danger that consumers on the whole cow.

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"In fact, probably getting out of your automobile and walking into the store to buy beef, has a higher probability than you'll be hit by an automobile than ... the probability of any harm coming to you from eating beef."

U.S. Agriculture Undersecretary
Japanese import ban on U.S. beef
January, 2006

When because of mad cow disease, when the Japan government ban importing US beef in Japan, the US agricultural undersecretary wrote this quote "in fact, the probably getting out of your automobile and walking into the store to buy beef has higher probability than you will hit by an automobile than, then the probability of any harm coming to you from eating beef".

So, eating beef is less much safer than the probability of the risk you are taking through buying the beef from your automobile, while you are walking from your automobile to the beef shop.

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Peter Sandman

"The risks that upset people are completely different than the risks that kill people."

So, Peter Sandman, on the other hand is saying that risk that actually upset people are completely different than the risks that kill people. The risk that upset people are completely different from than the risk that kill people.

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Can we know the risks we face ?

So, can we know the risks we face, is it possible?

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- Some dangers are known !!
- Some are unknown !!

Well, some dangers are known, some are unknown basically.

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- No person can know everything ?
- Most people cannot be aware of most dangers at most times.

So, no person can know everything, right? I do not know what everything in my life, there is so many things are happening, I do not know about a chemical risk maybe I know little about disaster risk around me, most people cannot be aware of the most of the dangers most of the time. So, no one can calculate precisely the total risk to be faced. So, I have so many risks in life.

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I have health risk, I have job risk, I have financial risk, I have academic risk, flood risk, personal risk. I am not only facing disaster risk, every day is a live risk from my home to office, I take so many risks, accident can happen, you are talking about disaster risk but, I might concern is more about my job risk or my health risk, so which one I should prioritize? which one because I cannot being an individual, I do not know that what will actually happen.

Because my knowledge is very limited and that should be, being an individual I cannot know everything in this world, so we have many risks at life so, we need to prioritize which one to consider, which one to ignore.

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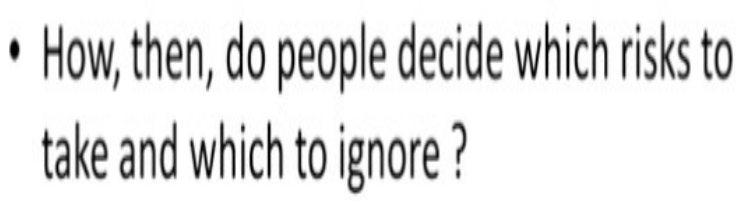

Now, the question is, how then do people decide which risk to take and which risk to ignore?

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Now, coming also the question; are dangerous really increasing, are we really at risk than before?.

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Or, are we are more afraid, which one true? The dangers are increasing, or we are at more risk.

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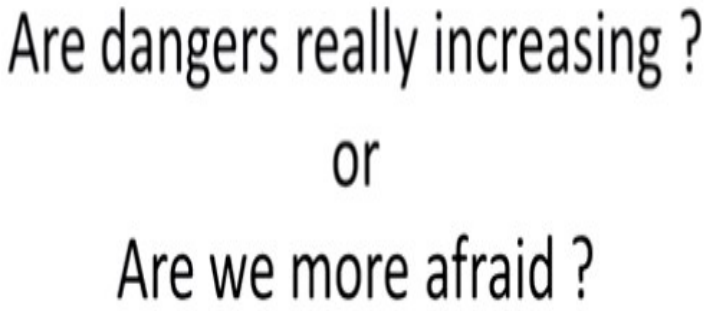

Please consider, maybe I can help a little bit.

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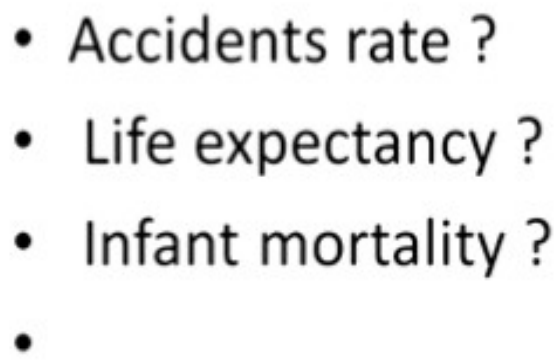

Let us look; accident rate, life expectancy, infant mortality what do you think dangers is increasing? No, we are much safer, accident rate basically decreasing, life expectancy basically increasing and infant mortality rate basically decreasing.

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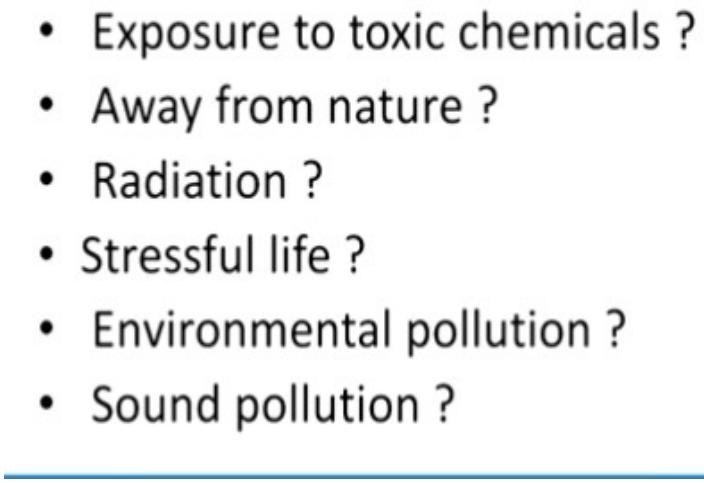

But, on the other hand, we are more exposed to toxic chemicals and we are far away from nature than before, right, we are more and more exposed to radiation than before so, these risks are increasing. Also, our stressful life is increasing, environmental pollution definitely is increasing, sound pollution is increasing at least in India, it is increasing for sure, so there was a survey conducted public policy and risk on 4 kinds of risk.

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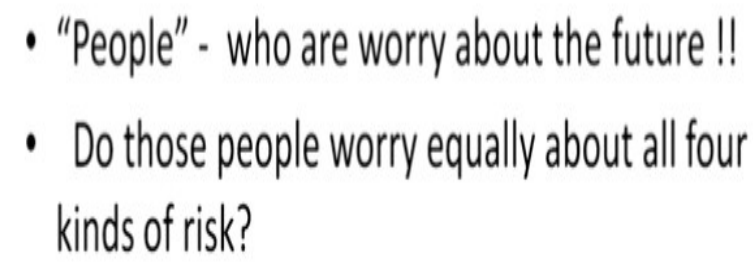

One is the Foreign Affairs, and the crime, pollution, and the economic failure. People who worry about the future, do those people worry equally about all kind of risk.

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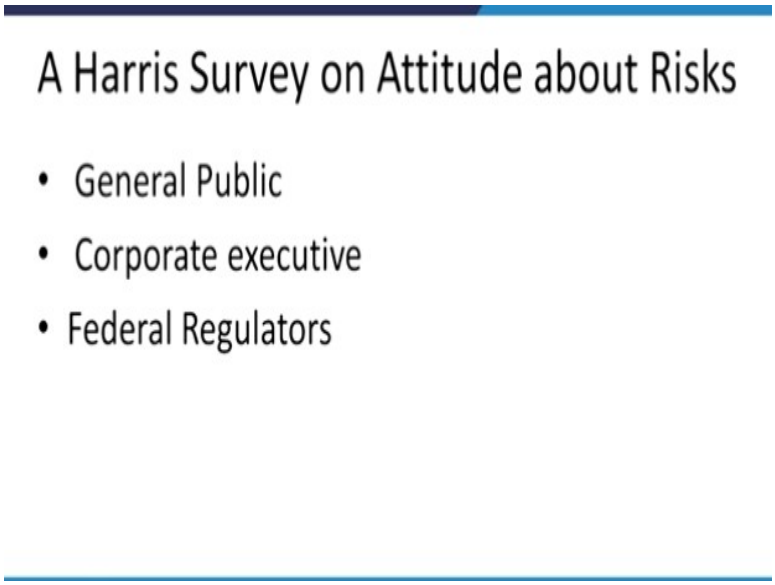

Three kind of people were interviewed; general public, corporate executives, and federal regulators.

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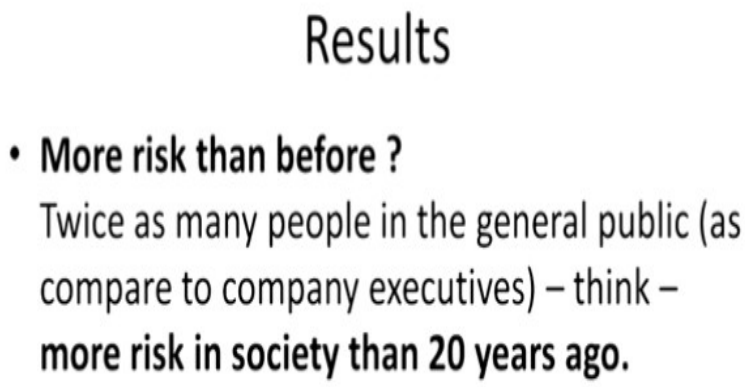

What result we have found, is risk increasing than before? Twice as many people in the general public compared to so, general public twice compared to company executive, think more risk in society than 20 years ago.

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What about domestic political instability; 61% both public and executive, they believe that we have more risk today than before. Whereas the bureaucrats or the government officials, public officials, 44% of them agreed with this statement, they do not believe domestic political instability is increasing.

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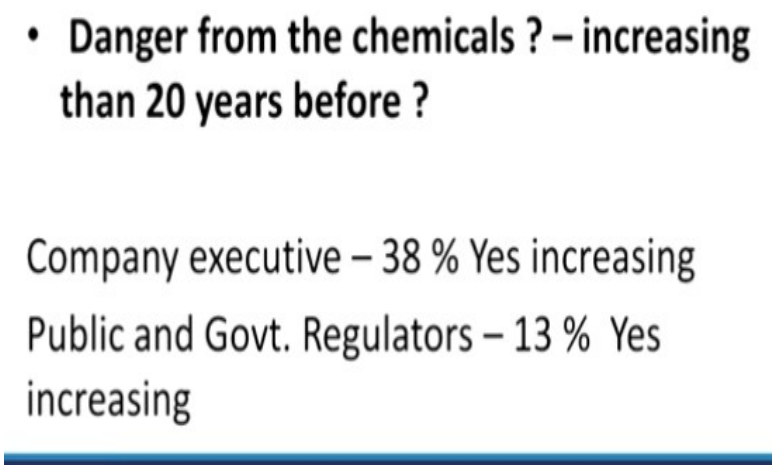

Dangers from chemical? Increasing than 20 years before? Company executives - they believe 38% say yes and public and government regulators; 13 % said yes increasing.

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Economic risk than before - 10% government employees public officials, they said yes, 41 % of company executive said yes.

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So, people have different perspective in about understanding risk, how we have to encourage them for the preparedness then, not only that risk but also about countermeasures, this person if we ask someone that okay, flood is coming, please evacuate. He is in under great dilemma whether to evacuate or not, maybe risk is coming, maybe flood is coming but I simply cannot make that decision why?

Because, I really do not know the effect of evacuation, is it really effective? or is it not effective? well, what are the merits of evacuation, what are the demerits of evacuation is not very clear to me. So, if now, if even if I accept that there is a risk, I cannot; I am not very sure that my decision to evacuate would be an effective countermeasure. So, he may think initially that evacuation is not an effective measure.

So, this is his own cognitive mechanism, in which individual collect and process informations and develops the perception of risk, but it is also possible that, he first said that I do not want to evacuate because this is not effective, evacuation is not a right measure to protect myself from flood. Now, if he does not believe it, we cannot improve; encourage him to take preparedness action.

But, it is possible that he has a lot of friends and they believe that, evacuation is an effective measures, and they told him that okay, believe us evacuation is an important component and this guy is a social animal, he is influenced by others so, he dropped his initial idea and he joined them and started to evacuate.

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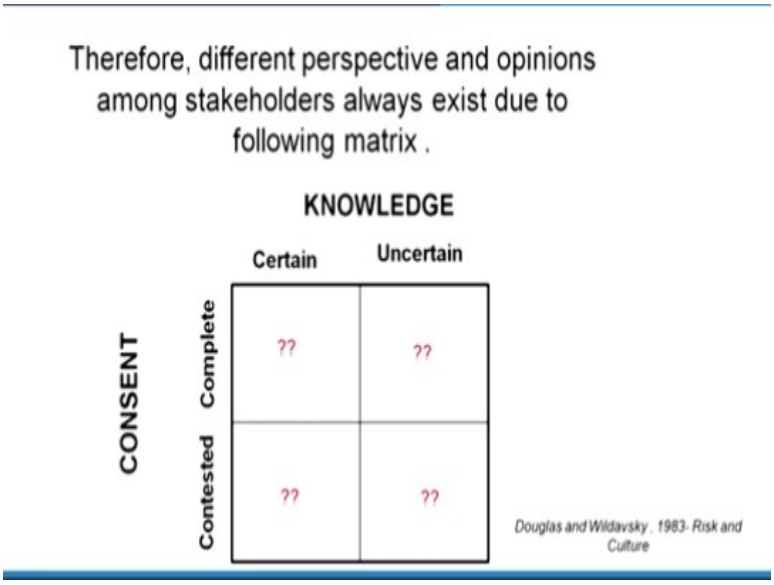

So, we have this context one is the knowledge, one is the consent; in knowledge, we have risk sometimes certain, sometimes uncertain. In case of consent, that is what actions to be taken is sometimes we agreed with each other, sometimes we do not agree with each other so, contested and complete, when knowledge is uncertain, but consent is complete, decision making is difficult.

When knowledge is sudden, but consent is uncertain or contested, it is also difficult that I know flood is coming. But, I do not know which actions to be taken, evacuations or not evacuate or to prepare for a flood preparedness in other way, which one would be affected, I do not know. So, knowledge is known sudden but what to do consent is contested or it could be that also both are actually contested.

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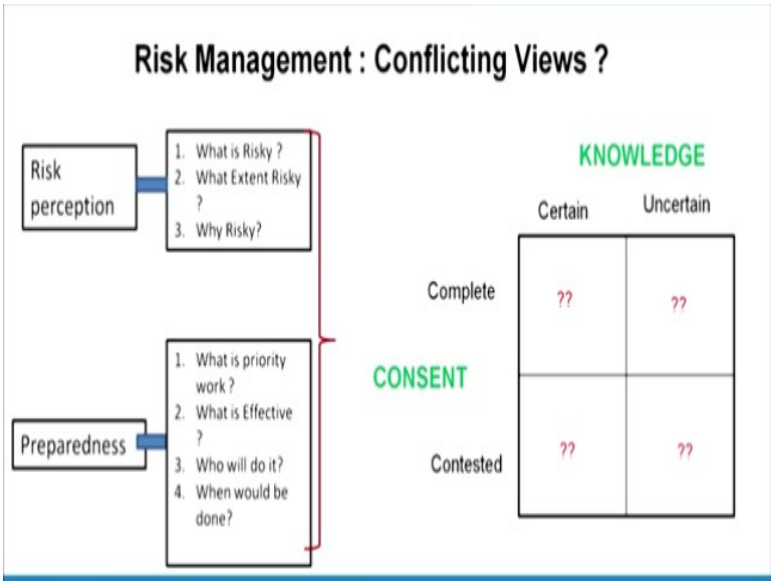

Some knowledge are uncertain, and also consented. So what is risky, what extent something is risky, why risky is important for people to know. And also we need to know the preparedness; what is the priority work, which one I should do first, what is effective, who will do it, and when would be done so, these components should be included when we are talking about a disaster preparedness.

And how to work on, how to send a message, encourage people to take preventive actions against disasters and that we will look into so.
Thank you very much.