

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

Lecture - 36
Disaster Risk Communication

Hello everyone. We welcome you through these lecture series on disaster recovery and build back better. This lecture is focusing on disaster risk communications. I am Subhajyoti Samaddar from Disaster Prevention Research Institute, Kyoto University and we will talk about disaster risk communications. We know that disaster risk communication is very important because we need to motivate people to take preventive actions or preparedness against disasters.

Let's say evacuations or using flood-resistant building materials, retrofitting the house. So, why people should do it because they need to know that this is the important and I should do it, in order to protect myself from future disasters. Now, who are involved into this process, what is the meaning when there are two parties. One, they want to make increase people risk awareness, another one is the people who are at risk of natural disasters.

Now, these two parties has to interact and there are other parties are also involved. So, this process, we called disaster risk communications. So, let us look into the detail of this entire process, which we call risk communications or disaster risk communications.

(Refer Slide Time: 02:08)

Risk Communication ?

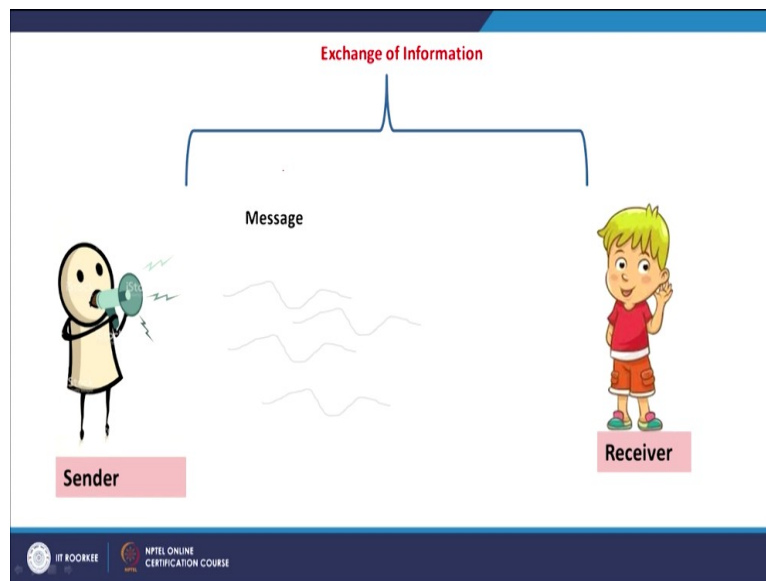
- **Exchange** of information
- **About - ?**





Risk communication, what does it mean when we say risk communication okay.

(Refer Slide Time: 02:14)



So, one in risk communication or in even in disaster risk communications, I am talking in a more, broader perspective, there should be one sender like local government okay. They want you to evacuate and so there is first in the disaster risk communications, we need one sender okay and what they do, they send message informations okay about the risk and what can be done to people.

So, senders, they are sending informations to the people, they are the receivers. So, there should be one sender, one receiver and another important component is the message between. So, sender and receiver they should exchange information, okay, exchange of information is critical between these two parties. So, this is one of the basic components of risk communications.

When we are talking about disaster risk communications, like flood, earthquake, so there should be informations about this. Now, when they are communicating, exchanging informations, two parties, senders and receivers, they are exchanging information but information about what, what kind of information. When you are talking about risk communication, what kind of information they should share, exchange.

(Refer Slide Time: 03:56)




A cartoon by Blake shows two men at a table. One man asks, "How was your vacation?" The other replies, "I'm analyzing it now. The photo only got eight 'likes' but one of them was from someone really influential." To the right, a video feed shows a man in a blue shirt. Below the cartoon, the text "Originally published on Zazzle.com" and "Blake © Don Blum for Mordor" are visible.

Gossip ? Day to Day Life ?






Is it kind of some hot topic of the town like some gossip or just day-to-day life they want to share with each other like the colleagues or the neighbours or some co-workers, co-students they do or is it about my haircut?

(Refer Slide Time: 04:13)



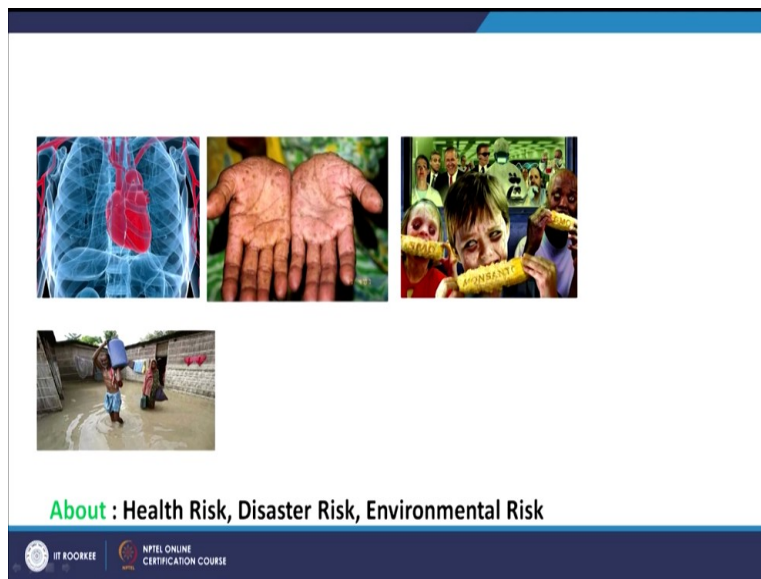
A collage of three images: a man's face, a woman cooking, and a globe with city landmarks. To the right, a video feed shows a man in a blue shirt. Below the collage, the text "IIT ROORKEE" and "NPTEL ONLINE CERTIFICATION COURSE" are visible.

How I would look good, is it about that one or is it about how to cook, what to cook and or my travel plan to Singapore or to Sweden or Switzerland. So, what kind of information they will share is very important to know okay. So, exchange of information when we are talking between senders and receivers, no in risk communications they are not interested about your hairstyle, about your travel plan or about your day-to-day life.

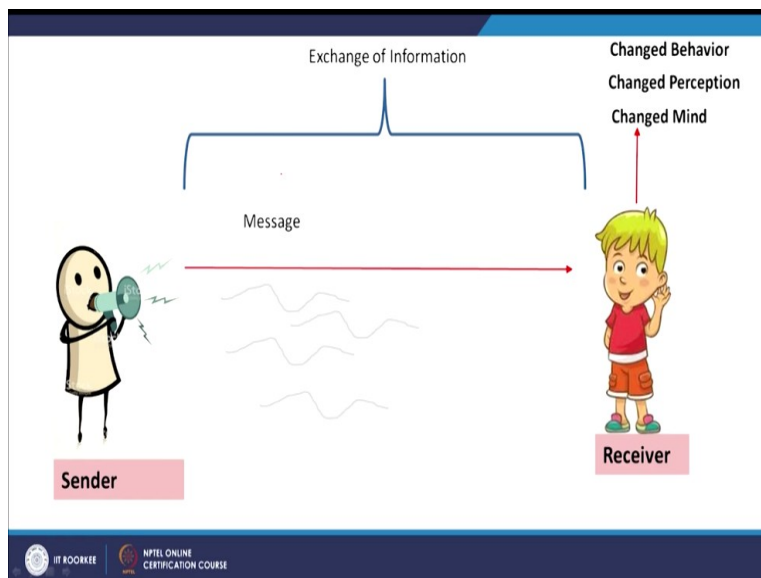
In risk communication, in disaster risk communications, when we say we are exchanging informations, we are directly or indirectly talking about some particular hazards and risk.

(Refer Slide Time: 05:13)



It could be a heart problem, it could be arsenic contaminations of groundwater and that's causing the cancers to the people or it could be flood-related issues or it could be genetically modified food like many people and nowadays exposed to genetically modified food and they are having a lot of health issues or could be Fukushima nuclear plant that was devastated and nuclear accident took place by 2011 earthquake and Tsunami.

(Refer Slide Time: 05:53)



So, we are actually we have senders and they are passing informations to the receivers and they have a message and they have exchange of informations and this exchange of information is about risk but when the senders passing the information, passing the information to the receivers, there is a motive. Do you know what is this motive? What they want to do?

If the sender is sending these informations to the receiver, he has a very particular motive when we are talking about disaster risk communication, the motive is the sender wants to change the mind of receiver okay, change his mind, changed perception and changed behaviour. So, the sender, once that receiver should have different perspective, a different behaviour, different attitude, once they would be successfully communicate with them.

So, it's not only a matter of exchange of informations but sender wants to influence the receiver, so it is a purposeful exchange of information, purposeful exchange of informations between senders and receivers.

(Refer Slide Time: 07:18)

- **Purposeful** Exchange of information !!
- I want you to **influence your decision**
 - Your **perception** about risk
 - Your **attitude** on preparedness

So, like media like mass media when they give you advertisement, they want to change you, they want to change your mind, they want to cover you in every way every aspect, they want to brainwash you. This slogan is pretty clear, the intention is very clear, I want you to influence your decision, it's not that I am talking like a gossip or you are not listening to me or we are talking anything.


No, in disaster risk communications I am communicating with you because I have a reason, a purpose and the purpose is very clear that I want to change your mind okay. So, your perception when I say that what I want to change you, what is that, your perception about risk one and also I want to change your attitude about preparedness. Suppose, if there is an evacuation, I first tell you that okay you are at risk because cyclone is coming and you need to evacuate.

So, first I need to tell you that cyclone is coming and that is true and I want to change your decision and then I want you to evacuate from that place okay. So, purposeful exchange of information in disaster risk communication is very important.

(Refer Slide Time: 08:44)

**Purposeful information = different from
NOISE !!**

- **"Message"** : Informer intends to expose the target audience to a system of meaningful signals.
- That may change their perception of the issue or the image of the sender.

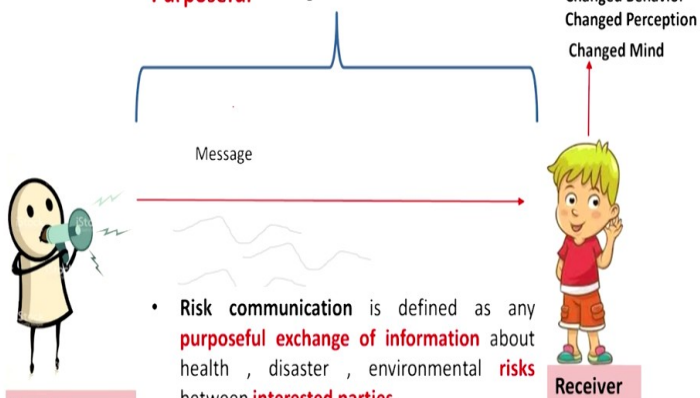


IIT ROORKEE NPTEL ONLINE CERTIFICATION COURSE

Now, purposeful exchange of informations or purposeful informations, they are very different from the noise. When we say message okay, in that case, a receiver or the informer they intend to expose the target audience that is a receiver to a system of meaningful symptoms like I want you to spoon-feed, I want you to change your mind okay, is simply that I want to brainwash you, I want you to do what I think okay. That may change your perception or the image of the sender.

(Refer Slide Time: 09:24)

Purposeful Exchange of Information



- **Risk communication** is defined as any **purposeful exchange of information** about health , disaster , environmental **risks** between **interested parties**.

Sender Receiver

IIT ROORKEE NPTEL ONLINE CERTIFICATION COURSE

So, purposeful exchange of information, so one sender is there and he would like to he or she would like to change the mind of the receiver in the way, they perceived the risk, their attitude about preparedness. So risk communication basically, primarily defined as purposeful exchange of information about some kind of risk. In our context, this is more about disaster risk but it could be health risk, it could be environmental risk, it could be other risk okay so between interested parties.

So, there are two interested parties; one is the sender and one is the receiver, they are affected, impacted by particular disaster or particular risk and they have an information exchange, purposeful exchange of informations and sender wants to change the mind of the receivers okay.

Now, this is the, there are many definitions of risk communications, of course, enormous number of definitions we have but just for simplifications, we can take one which is more relevant for our course.

(Refer Slide Time: 10:53)

The slide is titled "Definition of Risk Communication" in a large, bold, black font. Below the title, there are two bullet points: "• Risk communication is defined as any purposeful exchange of information about health or environmental risks between interested parties." and "• More specifically, risk communication is the act of **conveying or transmitting information between parties about ?**". Below the second bullet point, in small text, it says "(Covello, Slovic and von Winterfeldt, 1986)". At the bottom of the slide, the word "Contents?" is written in a red, stylized font. The slide has a dark blue header and footer. The footer contains the IIT ROORKEE logo and the text "NPTEL ONLINE CERTIFICATION COURSE".

Definition of Risk Communication

- Risk communication is defined as any purposeful exchange of information about health or environmental risks between interested parties.
- More specifically, risk communication is the act of **conveying or transmitting information between parties about ?**

(Covello, Slovic and von Winterfeldt, 1986)

Contents?

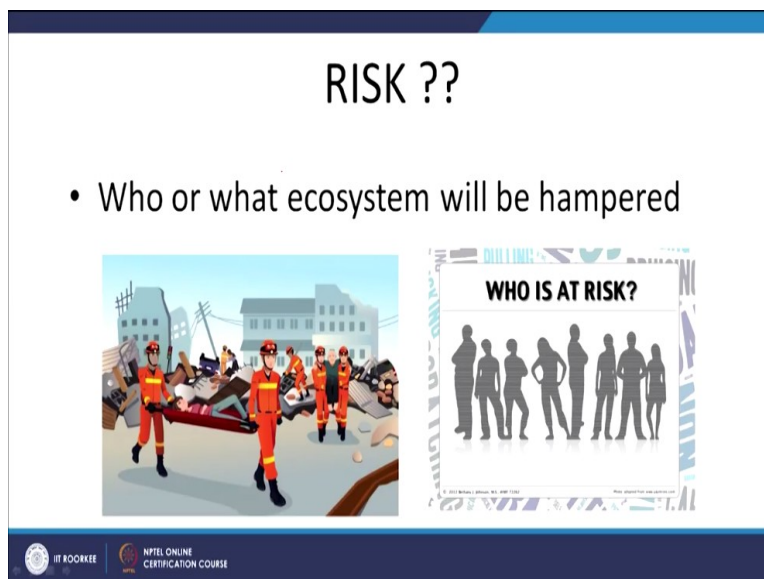
IIT ROORKEE NPTEL ONLINE CERTIFICATION COURSE

And here, we took that was given by Covello, Von, Slovic and others in their study and they are saying that risk communication is defined as any purposeful exchange of information about health, environmental risk between interested parties. In our case, as I said it's not only environmental risk or health risk, it's also disaster risk. More specifically, risk communication is the act of conveying, is an act of conveying or transmitting information between parties.

So, it's an act of conveying some meaningful informations between two parties but when we are talking about that they are purposeful exchange of informations, okay. They are doing it, senders and the receivers. What they are talking about, what are the contents of that exchange of informations that we also like to know, in risk communications but what they are really talking about.

Let us look. When we are talking about risk, risk is a very funny word, very-very funny word; people want to know that who is at risk, what ecosystem will be hampered?

(Refer Slide Time: 12:11)

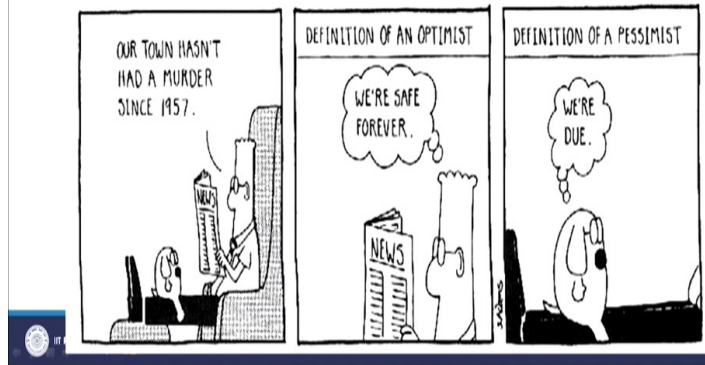


The slide is titled "RISK ??" in large, bold, black letters. Below the title is a bullet point: "• Who or what ecosystem will be hampered". There are two images side-by-side. The left image shows several rescue workers in orange uniforms carrying a person on a stretcher through a city street with damaged buildings. The right image is a poster titled "WHO IS AT RISK?" showing silhouettes of a diverse group of people. At the bottom of the slide, there is a dark blue banner with the IIT ROORKEE logo and the text "NPTEL ONLINE CERTIFICATION COURSE".

When you are saying that you are at risk because of the flood, because of the earthquake in this city, people do not want to believe you. They said that what do you mean that I will be in fact, who is who are I okay, who are you. So, you have to define that who, what extent this and this settlement and these people will be affected. Like, so people have different perceptions about risk, so that's why it is very important to know.

(Refer Slide Time: 12:48)

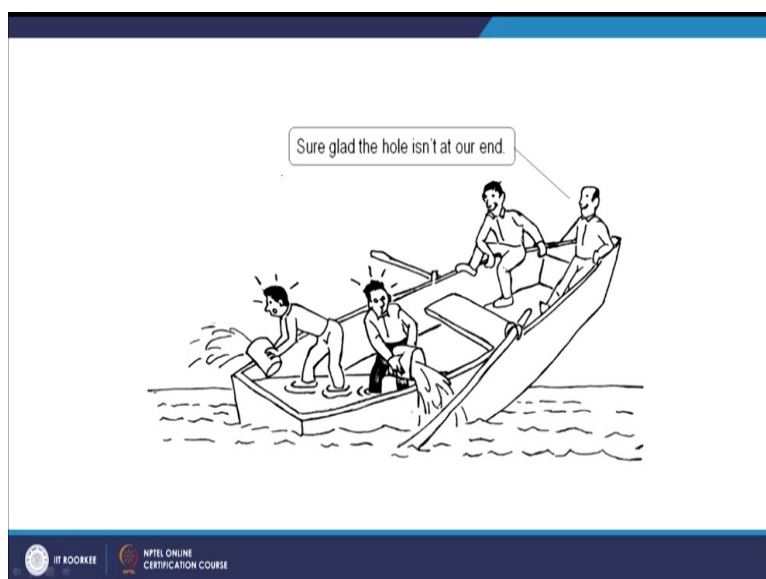
Risk perception



Like, if there is a news that our town has not had a murder since 1957, there could be this news, simply this news or this idea of risk, people have two different perspective. The first person, if you look into the middle one, definition of an optimism of looking into this. We are safe forever, okay. So, he believes that we are safe forever because that our town has not had a murder since 1957.

So, reasonably enough to assume that we are safe enough but on the other hand a pessimist thinks that we are do, that means something is coming here, right that maybe next is me. So, they are looking in a very negative way. So, the stimulus is there, the same but two people have two different perspective or interpretations of the event of the stimulus. Similarly, in case of risk people have very different mindset of different way of thinking.

(Refer Slide Time: 13:55)

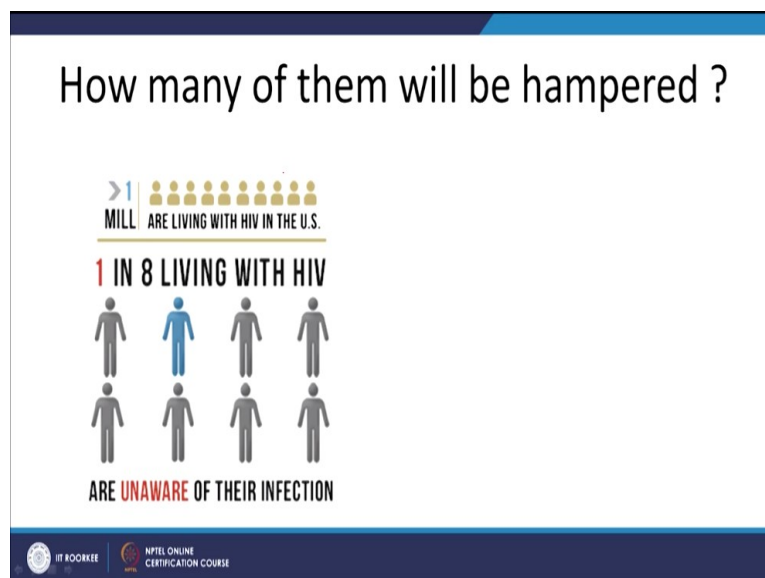


Here, look into this in this picture okay, you can see this boat is at risk but the person in the other end thinks that we are not safe, he is in the same boat, but he thinks that okay I am not at risk because the hole is not at my side, is in the other end. So, if something happened, I will not be exposed, I will not be impacted okay. So, who will be impacted, how will be impacted is very important for people.

So, when we are saying that the exchange of informations, what is the meaning of content of that, what kind of content they should discuss, of course, they are talking about risk but what is, what component of risk they are talking about, so that's we are talking okay. So, how many people, we will want to know that we were talking that earthquake is coming, flood is coming in your cities but I want to know that how and how many of us will be affected by that.

If you have given a cyclone warning, people want to know is it the entire city that will be affected or is it any particular neighbourhood or particular ward that will be affected, particular settlements will be affected in a city, in a village, in a province. So, is that how many of them will be affected is very important to tell people when we are communicating risk.

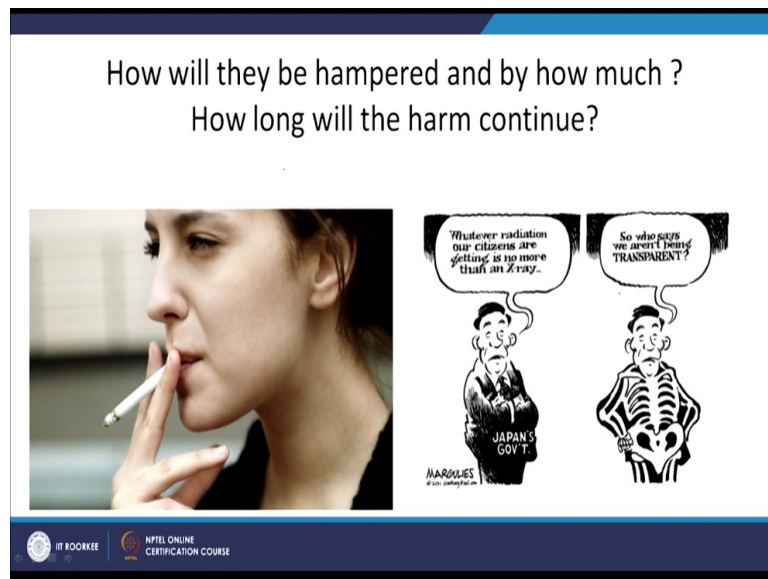
(Refer Slide Time: 15:28)



Here is a very interesting data, very interesting data. Of course, it is not related to disaster but it's saying that 1 in 8 living with HIV in US they don't know, they don't know that they are infected. So, can you believe it? So, 1 in 8 living with HIV, they don't know that they are

infected. So, how many people will be affected, what extent is a critical important message risk communication should provide.

(Refer Slide Time: 16:03)



And not only how many or what extent but people want to know, that how that will hamper me okay, what extent that this will continue, like she may be smoking, well I am giving examples is not only in disaster context, it will help us to understand the broader perspective of understanding the risk and risk communication. So, she is smoking. So, maybe we can discourage her not to smoke.

Now, the question is when we are communicating hard to quit smoking, she is under the impression that okay I know many people who are smoking but they are fine but I know many people who are not smoker but they are affected by cancer. So, it is not necessarily that only those who are smokers they will be affected by cancer but also those who are nonsmoker can also affected by cancer right.

So, how people take this data, this fact and interpret them is a critical question. So, when we are communicating risk, it is very important to tell people what extent, how extent they will be hampered by disasters okay. So, how will they be employed and how much and how long will the harm continue is important. In this cartoon, you can look that talking about the radiation issues that whatever radiations our citizen are getting is no more than an x-ray.

So, somebody may be talking about Fukushima or other nuclear accident and they may be worried about the radiation impact and so these government people, Japan government