Disaster Recovery and Build Back Better

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Lecture – 17
Information for Disaster Preparedness

Hello everyone, welcome to disaster recovery and build back better lecture series, in this lecture I will discuss about the role of information in disaster preparedness and disaster recovery okay. So, this series; this lecture would be in relationship with another two successive lectures, so please stay tuned and listen the other two lectures after this one, okay.

So, the focus here would be that to make the decision about disaster preparedness that would lead to disaster recovery, okay for the people while make this kind of decision, who are the source of information for individuals, from where they get the information okay. So, this is Bangladesh, and I will first introduce to you the problem; a little problem in Bangladesh and why they need disaster preparedness and what extent and in which context okay.

So, this is Bangladesh, a beautiful country with a lot of greens surrounded by India, most of the part, three sides are surrounded by India with one of the most fertile land and also is this is a beautiful country and but this beautiful country particularly, in the coastal areas, they are under serious threat of drinking water risk and climate change-induced risk kind of disaster.

So, they are facing a very millions and millions of people are battling here, it is a very densely populated country, okay whose one of the most densely populated country, there population is already close to 20 crores so, let us look. So, this area they are suffering from 2 huge slow poisoning environmental and disaster risk, okay is that you are slow poison gradually and nobody is realizing until before 5 years or 10 years.

What is the problem here is that arsenic contamination of groundwater so, arsenic contamination of groundwater you cannot drink the groundwater because it is contaminated by arsenic and you cannot drink surface water because it is saline affected by salinity, is the kind of salty if you get, you will get dysentery, diarrhoea and other health problem.

Well, they have a history like, after the independence in 1971, after the independence from Pakistan, Bangladesh in 1980's, in the early 1980's before that during that time, people used to depend on surface water like river, ponds, canals or lakes for their basically ponds and rivers which for their drinking water need, okay and these surface water also sweet water and people depend on that.

But UNESCO along with the in collaboration with the Japan government, they started to stop not promoting surface waters as a drinking water, they said that they found that it could lead to waterborne diseases like dysentery and diarrhoea and other health issues so, mortality rate was increasing there because people were drinking surface water from ponds and lakes which according to UNESCO and other scientists was contaminated waterborne disease was enormous in this area.

So, what did they do? They started to in collaboration with the UNESCO, the Bangladesh government started to promote these tube wells, which you can see the hand pumps kind of tube well, okay so, these tube wells are not very deep, only 15, 20 meters you can get water and you can use it so, they were hugely promoting tube well water which is cheap and which you can have the access to ground water.

Now, people started to using tube wells and by 1990s after 10, 15 years, promotion of tube well, almost 80% of the rural population of Bangladesh having their drinking water from tube wells, so they were; they used to depend on surface water from ponds and river, then they started to move from surface to tube well; tube well water okay or hand pumps. Now, when the 80% people using this one then the scientists realised that the people now again exposed to another disaster, another risk that is arsenic contamination.

So, if you are drinking arsenic contaminations; contaminated water, then you will be, your health will be severely affected leaving you, making you vulnerable for cancer even, so the one problem that you cannot drink surface water because it was contaminated already, but recently, it is more contaminated by water salinity, it could be sea-level rise, climate change and also some kind of changes of you know, shrimp cultivations.

They are channelising the seawater into mainland areas, so as upland areas; as a result, these areas are also contaminated by water salinity so, drinking water is in crisis, you cannot eat,

you cannot drink surface water because this water is saline, and the groundwater because of arsenic.

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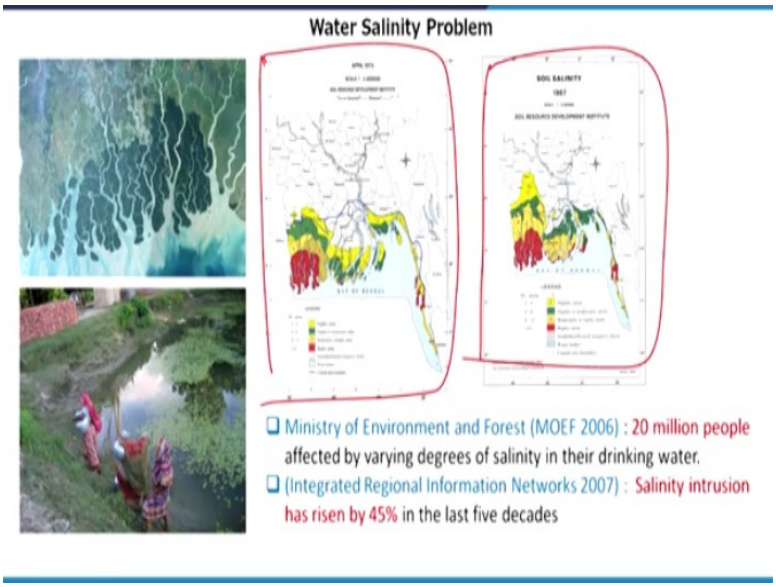

Now, here you can see that a Ministry of Environment and Forests, 20 million people affected by varying degree of salinity in their drinking water okay. Integrated Regional Information Network, 2007 reporting salinity intrusion has risen by 45% in the last 5 decades, 45%, you can see this one in 1973 and 1997, how this is changing, you know water salinity in Bangladesh, is water salinity intrusion okay, so, these all red areas are actually water saline areas.

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So as I said that during the late 1970's or in the beginning of 1980's, the Bangladesh government supported by the United Nations Children's Fund, UNICEF initiated a mass

project installing shallow tube well; STWs is in short and to provide safe drinking water to the rural population suffering from number of waterborne diseases such as diarrhoea, cholera due to contamination of drinking surface water, okay.

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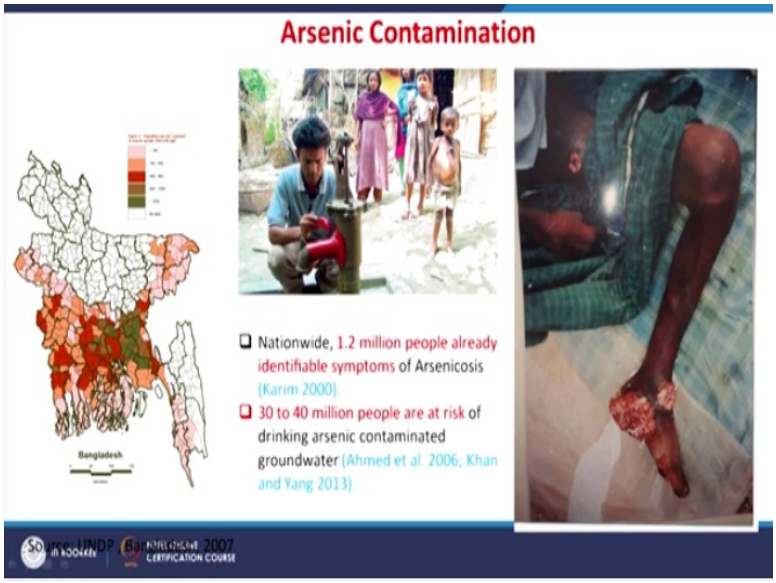

Now, more than 80% Bangladeshi population depends on tube well for drinking water, okay. Now, this is they are affected by water arsenic contaminations, 1.2 million people of Bangladesh already recognised identifiable symptoms of arsenic, okay and 30 to 40 million people are at risk indirectly or directly because they are drinking arsenic-contaminated water, it is not a small number, 30 to 40 million population.

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Then what is the solution for this? You can see water but you cannot drink water, there are lot of water, they do not have the water scarcity as such because it is a coastal area, you can see

water every day, you can see water, but you cannot drink water neither surface water, neither ground water, what is situation?

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Some people came up with idea community-level water supply ponds and filter system, okay so, it was like you are collecting the pond water and then with some kind of filtering, sand filter kind of system, then it is aggregated and then coming to clear water but there is a lot of maintenance issues, and which is not working very well, it is called PSF; pond sand filter.

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But people are finding that this is not really working at all to provide drinking water, there is another solution to provide water filter to the people which would work some extent not badly to provide a better water though scientists are not very sure that it can really reduce the

arsenic, eliminate arsenic but still it is not very bad, but are they affordable; the people in coastal Bangladesh are one of the most poverty striking people, okay.

They are really, really, really poor, a large number of populations are very poor, can they afford to have these filters this is a question; the big question, right. So, people are saying now that okay, we need alternative drinking water in this area.

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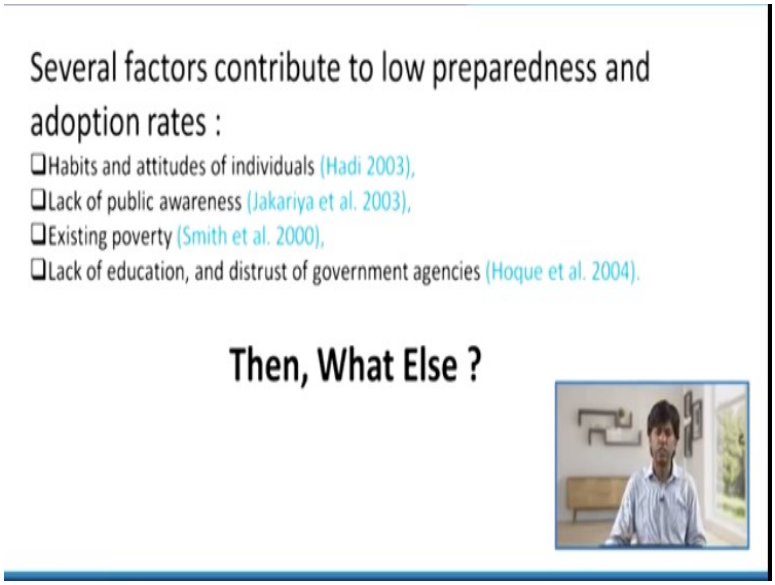

The scientists found that people are not very encouraged, not very motivated to have these alternative drinking water, right. So, people saying that the several reasons are there, people have a habit and attitude kind of problem, people became used to with this what they are drinking, they would say no my father and my forefathers, my grandfathers, my grand-grandfathers, they all are living here, they are drinking the same water.

They did not have any problem, they lived 70 years, 80 years without any much issue, why should I bother, I am used to it, I become resilient so, do not worry about me, oh, this is one perspective. Another perspective is similar line that is people saying that they have lack of awareness, maybe they do not know, they used to it, they do not realise the seriousness, severity and vulnerability of this disaster.

Another one is the existing poverty; people are really poor, they have so many problems in life, their entire livelihood is at risk, all households they are at risk from the poverty perspective, income perspective, economic perspective. So, when they are every day at crisis