

TOP SEARCHES: Amruta Fadnavis Shiv Sena Fire in Mumbai Floods in Mumbai Mumbai rains

‘Risk of 26/7-like deluge could double in future’

TNN | Jul 23, 2018, 02:07 IST

  A- A+

RMSI is a global GIS consultant focused on assessing natural hazard risks, including flood, earthquake, and cyclones. It provides such assessments to insurers—nine general insurance companies in India—and also works with government and international agencies. Pushendra Johari, the head of Risk & Insurance at RMSI, has over twenty years of experience including with the US Federal Emergency Management Agency (FEMA). He spoke to Vaishnavi Chandrashekhar:

Q: What is a flood risk assessment?

A: A flood risk assessment tells us that if a once-in-100-year rainfall event or a once-in-10 year event happens, then this is the kind of flooding we may see. We have to distinguish between waterlogging, which is a localized and perennial problem, and flood risk. Waterlogging happens when there is high tide or drains aren't working well. It can happen even when there is not a lot of rain if the drains are clogged with, for example, sand from construction in an area.

Q: Do your models show an increase in flood risks?

A: Yes. The amount of rainfall is not necessarily changing but the amount in a given period of time is. When I was young, we used to see a steady amount of rain through the entire week. Now we have a lot of rain in a short burst. When it pours for a few hours, there's clogging. When it pours heavily for a few days, we are likely to have flooding.

Q: Do you integrate climate change into the model?

A: We keep evaluating how the model has performed and if there is change in rainfall patterns, we change the model. Another way is to look at climate change projections but there are some 18 [climate change] models each with different results. So which one do you believe? After 2005, we did do an analysis for OECD, where we were asked to remodel the 2005 Mumbai flood event for a climate change scenario. We found that the chances of such an event could double in the future. This indicates climate change is increasing extreme events.

Q: How often do you update your model?

A: Whenever there is a new flood, we test our models. In Chennai, for example, we had teams on the ground after the 2015 floods, checking the high water marks and comparing it to our model. This year, we updated our flood risk because some pin-codes are changing, either there is more construction in the area or more rainfall.

Q: Where do you see a lot of change?

A: In Mumbai, there is not a lot of change. High risk areas continue to be high. We hear there are some mitigating measures being carried out in Bandra-Kurla Complex and we will see if that has a mitigating impact in the future. Chennai has seen a huge change. Twenty to thirty years back, it had 100-odd waterbodies that acted as sinks for excess water, now there are 29-30 waterbodies left. And that is what is changing that city's flood risk.