

News

DELUGE

# 'Flood-hit Chennai ignored the 2015 alarm at its own peril'

Vinson Kurian | Thiruvananthapuram | Updated on November 17, 2021



Needs to work on its defences as if there's no tomorrow, says consultancy RMSI

Chennai's failure to adopt and implement mitigation

measures to manage critical conditions created by floods, even after the first alarm went off loud and clear in 2015, has been exposed six years down the line.

Authorities should have realised that there was no space to release city's floodwater, pointed out Pushpendra Johari, Senior Vice-President, Sustainability, at consultancy RMSI.

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### Early warning system

There has been no plan to have early warning flood forecasting systems as revealed by the height of flood water in different locations. Neither was there any published plan on mitigating and reducing the impact of an upcoming flood event.

Johari points to the absence of an urgent action plan for implementing high-resolution flood forecasting systems that could pinpoint the best potential water level estimates across locations. Strict measures should also be taken to improve the stormwater drainage system and remove encroachments on water bodies and drains.

Excerpts from an interview:

### Floods this year have more or less coincided with the COP26 in Glasgow. What are the key takeaways for Chennai, a coastal city?

The COP26 ended with national pledges that put the world on a track of 2.4 Deg Celsius rise in temperature. So now, a 1.5 Deg Celsius rise is no longer the best-case scenario, as published by an IPCC report earlier.

Ocean waters are going to take up considerable parts of coastal cities such as Chennai. The Chennai and Thiruvallur districts will be the most impacted in Tamil Nadu.

According to RMSI research, many residential buildings situated along the coast in the low-lying Mullima Nagar, Ennore and Talanguppam as also a few buildings at the Chennai Port Trust, Bharathi Dock building, Gospel Church and businesses along the coast risk being potentially affected by inundation due to increase in sea-level rise. This threat will be further amplified due to the increasing intensity of cyclones and depressions.

### What is the grace period that you allow Chennai to buck up or else?

We already got the first alarm in the 2015 floods. Unfortunately, we have no more time left to act and should work on a deadline as if there's no tomorrow.

Chennai has not since witnessed as large a flood event as of 2015, but there has been an alarming rise in the occurrence of flood-like situations after 2015. The city must work on its defences on priority and complete them on a mission mode.

### What best can be done best in the short-to-medium term and just in time for the next monsoon?

A detailed flood risk assessment at the city level should be done to identify flood hotspots. Based on the identification of potential locations, the government should plan temporary mitigation options around these hotspots.

Temporary flood protection measures like inflatable water bags, water gates and flood gates should be deployed in areas that are expected to be inundated to reduce the flood impact.

Chennai needs an efficient flood forecasting system with a high-resolution digital elevation model that embeds a Decision Support System. This will help anticipate what heights water levels could rise a few days before the flood occurs. Such a system will drastically reduce the impact of floods in the city.

The detailed flood risk assessment will also guide on the long-term action plan considering :

- o Improvement in the stormwater drainage system of the city
- o Flood zoning on city-scale to implement new construction guidelines
- o Removal of existing encroachments on water bodies and drains in the city

RMSI points out that generally, during this time of the year, low-pressure systems over the Bay of Bengal bring heavy rainfall over the coastal areas accompanied by thunderstorms. Due to the lower speed of lateral movement of these systems, they stay for a much longer, causing widespread rainfall, often leading to floods.

