Wanted: An urban flood management plan for Mumbai

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Mumbai was paralyzed by heavy rain this week. This sentence could be written at least once – perhaps twice or thrice – during any monsoon.

When rain-induced shutdown or disruption has become an annual feature of life in the city, when people die after hitting potholes or get crushed by falling tree branches, when the infrastructure makes its citizens so anxious and afraid to venture out during a drizzle even, it means Mumbai's ability to face a natural disaster and its resilience to bounce back after that stands severely compromised.

What we witness every monsoon, are the collapse and disintegration of an urban system and its governance. What we need is an urban flood management plan. It could be the heaviest rainfall in four years, or the highest in a particular month in the last decade, or the season's heaviest. The quantum of rain does not really matter. What does is that, beyond a minimum pitterpatter, Mumbai's systems — natural and human-made — to tackle the monsoon, fail miserably, and tall promises made by political leaders are washed away in torrential downpours.

Mumbai's breakdown, though starkly visible, becomes a bad memory the following week or month. And life goes on till the next flood.

Have climatic changes occurred? Indeed, the pattern of rainfall across the city, the number of times extreme rain events happen during a year, the level of precipitation, all point to

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definite changes in the city's climate, especially during the monsoon. The study of the last decade's rainfall patterns has shown some trends.

The National Disaster Management Authority has stated that urban flood peaks have increased from 1.8 to eight times, and flood volumes have risen by up to six times. But, it would be foolish and myopic to trace Mumbai's rain-induced paralysis only to climate change.

This has been compounded by an inexcusable administrative apathy and, even more fundamentally, by the failure of the political-bureaucratic class to develop a comprehensive, long-term and inclusive urban flood management plan or system. It desperately needs one.

This goes beyond the dozen-and-a-half agencies – primarily the Brihanmumbai Municipal Corporation and the Mumbai Metropolitan Region Development Authority – playing the classic blame game.

We are marooned in the rain, we suffer unimaginable disruptions and delays in regular rhythms of life, fellow Mumbaiites die, all because those in charge of Mumbai have not yet figured out two key things: that extreme rain events are likely to occur every monsoon and that urban flood management is now a thing.

Instead of a comprehensive flood management system, what Mumbai has seen in the last decade is reactive, short-sighted, transient and tech-driven responses. There has been some improvement in how authorities respond to a flood, an upgrade of the storm-water drainage system, attempts to clean up Mumbai's rivers (especially the Mithi), desilting of arterial carriageways including the railway lines that keep Mumbai running, identification of chronic flooding spots, use of water suction pumps, grills on manholes and so on.

These are flood mitigation strategies. They do not make a complete flood management plan. Such a plan needs to be far-sighted, proactive and inclusive of all aspects of Mumbai. It would involve a long and hard look at land- use planning and construction laws, assess the health of physical infrastructure and plan its upgrade ahead of time (rather than react after say, a bridge has collapsed), augment the carrying capacity of the city's natural drainage channels rather than allow construction over them, and most importantly, respect the natural eco-system of an island city.

To evolve such a plan, a wide array of people from urban planners, flood management experts, urban governance specialists, citizens' groups, politicians, and bureaucrats would need to brainstorm together.

It is not enough for the BMC to assure the Bombay High Court, as it did this year, that it "was prepared to tackle all natural calamities this monsoon". Those who govern Mumbai now have to give us a comprehensive urban flood management plan, preferably one that strategizes for the next 30 years. But I'm not betting on this.

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