A State made Disaster: how Mumbai’s civic body let the rain swallow the city (yet again)

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Despite the July 2005 deluge, the Brihanmumbai Municipal Corporation and other authorities are no better prepared to deal with heavy rain.

By allowing Mumbai to go under yet again on 29th August 2017, the Shiv Sena-led Brihanmumbai Municipal Corporation has shown – if at all any proof was necessary – that it is incapable of managing such a complex city. That the monsoon will see heavy rainfall days is known and the city ought to have been better prepared for it, as is reiterated every year.

Glib excuses about how the rainfall crossed a certain threshold or citing the city’s geography as a reason for the annual chaos will no longer hold. One could argue precisely the opposite: because the city is a peninsula, hemmed in by the sea on two sides, a proper drainage system would have ensured that water does not accumulate in the very same spots, year after year.

In what some weathermen are claiming to be the heaviest rainfall in Mumbai since the July 2005 cloudburst, when 944 mm of rain lashed down in 24 hours, the city received than 298 mm of rainfall between 8 am and 5 pm on Tuesday and the figure for 24 hours is likely to be much higher. Unsurprisingly, the city came to a standstill – people had to wade through waist-high water in some areas, roads were flooded and train services disrupted. This, even as an over two-decade old plan to revamp the drainage system in the city is still only partially implemented.

Down the Drain

In June 1985, after a heavy downpour, the Mumbai municipal corporation appointed British consultants Watson Hawksly to
prepare a plan that would allow the city to tackle up to 50 mm of rainfall an hour. The consultants took eight years to submit their report and the municipal corporation took another 12 years to implement it. The plan was called the Brihanmumbai Storm Water Drainage report, better known by its tongue-twister of an acronym, BRIMSTOWAD. It proposed, among other things, to install pumping stations to drain the roads and to upgrade the city’s British-era drainage system. While many activists were initially skeptical of the plan, the report is now described as a milestone drainage blueprint for the city.

According to the Mumbai Vikas Samiti, a think-tank comprising top retired municipal engineers that was formed after the July 26, 2005 deluge, the consultants examined the network of existing drains and nullahs more than 1.5 m wide and divided it into 121 catchments. In a report released July 2017, on the 12th anniversary of the floods, the Samiti cited how the consultants “studied deficiencies, identified difficulties in cleaning, maintenance, reviewed desilting criteria and prepared a Master Plan for the augmentation of the storm water drainage system”.

The project’s total cost was a modest INR 616 crores, based on 1992 estimates, and was to be carried out over 12 years. By 2017, the municipality had only spent INR 260 crores. “Major recommendations were not carried out, such as those for pumping stations, renovation of old drains, widening of railway culverts, diversion of flow, removal of obstructions of water mains, cables etc. in the drainage system, installation of flood gates, widening and deepening of nullahs etc.” noted the Samiti. “The systematic cleaning of underground drains and desilting of nullahs was also not carried out properly before the onset of the monsoon.”

**Water everywhere**

Drainage networks apart, the city is also blessed with a nature-
gifted flood relief system, by virtue of its many rivers and canals. But, it was only in 2005 that the city seemingly woke up to the fact that the Mithi, far from being a filthy drain draining into the Mahim Bay, was actually a river. It is, in fact, the overflow from the Tulsi, Vihar and Powai lakes, the first two of which originate in the 110 sq km Sanjay Gandhi National Park—all of which give Mumbai its distinct ecological identity.

Mithi river was so badly encroached upon and used as a dumping ground that when Mumbai received 944 mm of rainfall on that fateful July day, three-quarters of it, in five hours between 2:30 pm and 7:30 pm, nature stuck back with fury, leaving death and destruction in its wake.

The Mumbai municipality is dimly aware, if at all, that there are three other rivers in the city proper—the Poisar, Oshiwara and Dahisar—that course through the mega polis like major arteries and deserve to be kept free of filth to allow storm water to drain freely.

According to architect and activist PK Das, whose Open Mumbai exhibition in 2013 mapped the entire city, including its slums and open spaces, Mumbai’s major nullahs form a vein-like network that can extend for an astounding 300 km. These could have functioned effectively to drain water out of the city. But this is a natural legacy that the city authorities have abused, with the reckless sanctioning of building after building, in brazen collusion with builders and venal bureaucrats. By indiscriminately dumping waste in open drains, citizens have also contributed to choking them.

Das has shown, by reviving the Irla nullah in the Juhu Vile Parle Development scheme, how these can prove both functional in absorbing excess rain as well serve as an excellent site for recreation and cultural activities.

Ecologically, the city is also blessed with other natural sponges, such as mangroves, wetlands and salt pans, which soak up water and hence prevent flooding. Over the years, many of these have

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been given away by government authorities to developers to construct supposed affordable housing and the like.

The municipality cannot throw up its hands and claim that it does not have the funds to tackle such torrential rain and floods. It is, after all the country’s richest civic body. First and foremost, the city should upgrade its weather forecasting system. Tuesday’s downpour was not a local phenomenon, but part of a major depression that had set in over the previous couple of days and will travel to Gujarat. The Disaster Management department should put such a system in place at the earliest. After all, the state government spent INR 200 crores on relief during the 2005 floods and citizens bear the cost of dealing with such disasters, which can be predicted with modern-day equipment.

The most shocking demonstration of its incompetence is that the richest municipal corporation in the country, with budgets exceeding that of some states, does spend much money on infrastructure. For 2017-2018, the civic body’s budget is INR 25,141 crores, a 30% reduction from last year’s INR 37,052 crores. But in the last 10 years, of a total budget of INR 2.19 lakh crores, the civic body has reportedly spent only 18%, or some INR 40,000 crores, on creating infrastructure. That amounts to just INR 4,000 crores a year.

To add insult to injury, the corporation reportedly is sitting on INR 61,500 crores of fixed deposits that could have been spent on building infrastructure and improving civic amenities. The interest on this alone would amount to over INR 4,500 crores a year.

After Hurricane Harvey has brought Houston and other parts of Texas to its knees, Mumbai’s authorities should be aware that a threat of a massive cyclone is no longer a distant possibility in the city, as Indian Ocean surface temperatures steadily rise with climate change. Such a calamity could bring far greater destruction than a heavy monsoon downpour. Will Mumbai be prepared?