

NATIONAL

As Olympics near, Tokyo flagged as among most disaster-vulnerable cities

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With just over two months to go before the Tokyo Olympics, a new report evaluating environmental and climate-related threats facing the world's urban centers says the capital is among the cities that are most vulnerable to natural disasters.

According to the Cities@Risk outlook released by research firm Verisk Maplecroft on Wednesday, 99 of the world's 100 riskiest cities are in Asia, including 37 in China and 43 in India. The report ranks 576 cities on their exposure to a range of environmental issues.

While Jakarta — plagued by pollution, seismic activity and flooding — topped the list, the report warned that 414 cities across the globe with a collective population of over 1.4 billion “are deemed to be at high or extreme risk from a combination of pollution, dwindling water supplies, extreme heat stress, natural hazards and vulnerability to climate change.”

When looking solely at natural disasters and the impact of earthquakes and typhoons on economies, populations and infrastructure, Tokyo and Osaka — which will be hosting the 2025 World Expo — were listed as high-risk, trailing flood-prone Guangzhou and Dongguan in China.

“The concentration of people in Tokyo and Osaka, coupled with the complicated web of roads, tunnels, overpasses, underpasses and the vast railway and subway networks that cover these cities pose substantial risks if disaster strikes and electricity is knocked out,” said Taishin Yamaguchi, CEO of BCP Japan Co., a company that provides disaster prevention consultations to factories, apartment buildings, schools and other organizations.

When Typhoon Faxai hammered the Kanto region in September 2019, for example, extreme gusts triggered massive blackouts in Tokyo's neighboring Chiba Prefecture, recovery from which took weeks in some regions. Elevated roads and rail bridges that feature prominently in big cities are also dangerous when massive temblors hit, Yamaguchi said.

Japan has been historically prone to earthquakes and late-summer typhoons. Tokyo, in particular, has weathered a 50% increase in typhoons since 1980, according to a study by the Meteorological Research Institute. In response, the capital has constructed dikes and floodgates along rivers and coastlines, and retention basins are being built to manage storm runoff to prevent the flooding. Experts have been calling for efforts to decrease the concentration of people in the nation's largest cities in order to mitigate risks.

(https://cdn-japantimes.com/wp-content/uploads/2021/05/np_file_86961.jpeg)

Ariake Gymnastics Center, the Tokyo 2020 Olympic venue for gymnastics, in Tokyo's Koto Ward | REUTERS

Takayuki Yamaguchi, a consultant at the Japan Research Institute and an expert on civil engineering, said densely populated cities such as Tokyo and Osaka that are crowded with homes and buildings harbor an inherent risk. "In terms of earthquakes, one can imagine congested traffic leading to a gridlock nightmare while damaged buildings and homes could lead to large-scale fires," he says. "But in terms of urgency, risks from water damage may be the most immediate threat we face as global warming leads to extreme weather."

The 2020 version of the White Paper on Disaster Management says the frequency of heavy rain has been steadily increasing over the past few decades, a phenomenon it attributes to global warming.

Tokyo's Edogawa Ward, for example, warns in its hazard map that if the Arakawa or Edogawa rivers running through the ward overflow — or in the event of tidal flooding — floodwaters could reach a depth of more than 10 meters and could remain for one to two weeks, or even longer in some areas. In such a catastrophe, heavy traffic congestion would be expected as people try to escape areas threatened by flooding via bridges, potentially instigating panic.

And in a worst-case scenario, most areas in the low-lying “five wards of Koto” in eastern Tokyo — which includes Koto itself, a ward facing Tokyo Bay that will be hosting Olympics events such as canoeing, swimming and tennis competitions — would be submerged, the report said, affecting 2.5 million people, or over 90% of the entire population of the five wards combined.

(https://cdn-japantimes.com/wp-content/uploads/2021/05/np_file_86962.jpeg)

Ariake Urban Sports Park, the Tokyo 2020 Olympic venue for BMX and skateboarding, in Tokyo's Koto Ward | REUTERS

In its report, Verisk Maplecroft said the “significant danger for many cities is how climate change will multiply weather-related risks. Higher temperatures and the increasing severity and frequency of extreme events such as storms, droughts and flooding will probably change the quality of living and economic growth prospects of a large number of locations.”

The report, a first in a series of risk assessments for cities, said India has 13 of the world's 20 highest risk locations — including Delhi, which is rated as the second riskiest city globally, while Chennai took third place, Agra was 6th and Kanpur came 10th.

“Pollution is the main threat to the health of the country’s huge urban populations, with Indian cities making up 19 of the 20 most at risk in our Air Quality Index,” the report added. It said that combined, China and India account for 286 million of the 336 million people living in cities at extreme risk for pollution.

“With rising emissions driving weather-related risk and populations growing in many cities across the developing world, the risks to citizens, real assets, and commercial operations are only going to rise.”

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