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Copenhagen: How to flood-proof a city

[Adapting to Climate Change](#)[Urban Planning and Design](#)Author(s): **DW Planet A**Featured Region(s): **Europe**Featured Cities: **Copenhagen**

A major flash flood hit Copenhagen in 2011 after a cloudburst event, causing damage and disruption costing DKK 5 billion (around EUR 1 billion). A quarter of sanitation workers fell sick, and one died. More cloudburst events have impacted the city in the years since, each time overwhelming the conventional stormwater system.

The 2011 flood prompted Copenhagen to reimagine how to manage water, and the city has become a leader in flood mitigation. This 10-minute video by DW Planet A looks at Copenhagen's Cloudburst Management Plan, which was adopted in 2012 and is around halfway through implementation (estimated at 20 years). The plan combines green and grey infrastructure. It is replacing concrete and asphalt with softer, 'spongier' surfaces to better manage water on the surface, reworking parks like Enghaveparken to store excess water, and building an expanded series of tunnels, separate from the sewage system, to store water safely before it moves into the harbour – which is popular for swimming. Total costs to date are nearing EUR 2 billion. The investments are mostly financed through a levy on residential and commercial water bills, and are expected to save billions in damages from cloudburst events in years to come. Watch the video to hear more from Jan Rasmussen, Director of the Cloudburst Management Plan, and Jes Clouson-Kaas, Project Manager for the stormwater tunnels and Enghaveparken projects.

Copenhagen: How to flood-proof a city



English



The video also mentions similar efforts in: Beijing, where the focus is on retaining water; Zhengzhou, which has begun building green roofs and rain gardens; and Chennai, Mumbai, Kochi, which face annual flooding during the monsoon and water shortages for the rest of the year.



English

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