IAGUAS, CDMX!

The comings and goings of water define Mexico City, a mile-high metropolis sprawled across three dry lake beds. The city floods in the wet season and thirst during regular droughts. CDMX, as the city of 21 million styles itself, pumps

more water from the aquifer below it than it replenishes: the city sank some 12 meters in the last century and may sink another 30 meters before hitting rock bottom. Scientists predict that climate change will exacerbate these problems. But residents are taking charge of water—and their climate futures—in a variety of ways that promise to buoy the city's hydraulic balance and perhaps promote equitable access to safe drinking water.—Lucas Laursen

UNDERGROUND DRATNAGE

TOTAL RAINFALL WILL DECLINE

SINKING FEELING

The IPCC projects that total daily rainfall in the region (in mm) will fall. ■Historical ■Projected 2.2 Many Mexico City residents cannot rely 2.1 on the faucets in their homes for water. In 2020, the city spent more than \$4 million on water trucks, and residents spent 1.8 around \$187 million on bottled water 1.7 INDIGENOUS TECH: CHINAMPAS BUT WHEN IT DOES RAIN, IT WILL POUR The indigenous Mexica fenced in and The IPCC projects stronger bursts of rainfall (in mm) in any given five-day window, a proxy for storms and flooding. filled lake areas, creating waterlogged farms to feed their island city. A collective of researchers, city planners, and ■Historical ■Projected farmers is adapting the approach to filter water for irrigation and reduce demand for aquifer water.

Rainwater helps recharge the aquifer, but the city's drainage network takes most of it to a

neighboring state for treatment, never to return.

MAP OF CLIMATE RISK from 0 to 10 2 - 3.9 Mexico City 4 - 5.9 6 - 7.9 8 - 10 National Autonomous University of Mexico researchers have estimated REFORESTATION Azcapotzalco the risks Mexico City will face from climate change. The state of Mexico is refor-High temperatures will esting the slopes above the affect all municipalities, but city, which should help capwater will make its mark ture rainwater and minimize too: landslides in Gustavo landslides Hidalgo A. Madero and flooding in during the Iztapalapa drive their risk more frequent higher than their neighbors'. and intense Magdalena Contreras and storms now Benito Milpa Alta enjoy the least ered by clirisk, thanks to their low inci-Álvaro mate change dence of flooding. Magdalena INFILTRATION Xochimilco ROOFTOP RAIN CAPTURE The city has built public spaces such as the Parque Bicentenario, which boasts The nonprofit Isla Urbana Tlalpan volcanic soil. Its porous has built more than 20,000 ground directs rainfall to the subsidized rooftop rain capaquifer, heading off floodture systems, focusing on ing, reducing subsidence, neighborhoods with the least preventing damage to infraaccess to potable water. structure, and replenishing the drinking water supply.

Report

23