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CAPE TOWN'S WATER CRISIS: GOVERNANCE HINDRANCES IN THE AGE OF CLIMATE CHANGE

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Since 2015, three straight years of drought with seriously dry winters have affected various areas in South Africa. In several cities meteorological drought (scarcity of rain) translated into hydrogeological drought (reduction of the amount of water that falls into rivers) and into water shortage¹. In winter 2017, the worst drought on record was registered and the dams that provide water to Cape Town did not fill up as expected. Since then, Cape Town has faced a real water crisis and risked shutting off most water taps to homes and businesses. Local government addressed severe water shortage as an emergency. The scarcity of rain was not unexpected, but forecasts had not been as dramatic as reality. For several months, since the end of 2017, Cape Town residents have believed they are on the eve of a disaster. While the city of Cape Town was trying to find ways to cope with the

water crisis, Cape Town's situation has been discussed worldwide: the pictures of middle-class Capetonians queuing to fill containers at natural sources and trying to limit their daily consumption translated the worst nightmares for Western cities into reality.

The city of Cape Town captures most of its water in six major dams (Theewaterskloof, Voëlvllei, Berg River, Wemmershoek and Steenbras Upper and Lower dams). The Theewaterskloof dam on the Sonderend River is the largest one and provides about half of total water storage². All dams are subject to evaporation, but the Cape Town area can also count on Table Mountain, that captures the warm ocean breeze and creates local rain. Although the municipality of Cape Town had previously thought about other ways to im-

¹ P. Wolski, hydrologist, University of Cape Town, interviewed by Cape[Town] Etc., 18 January 2018.

² Department of Water and Sanitation, Cape Town River System State of Dams, 12 March 2018.

⁶ See R. Davis, #CapeWaterGate: In the end, what was Day Zero all about, *Daily Maverick*, 14 March 2018.

prove water supply, such as desalination, the exploitation of spring water, the use of groundwater and water recycling, none of these solutions have been implemented yet: some of them were considered too expensive, and others were not found to be really effective.

The reasons for this water crisis are not completely clear: some analysts affirm that the Cape Town water shortage is not only due to the droughts and to structural inadequacy, but also to the fact that the demand for water has increased due to a growing population and economy. On the contrary, others state that Cape Town's water demand has been more or less stable for the last fifteen years, as City authorities have implemented measures to keep it at an average level and, indeed, the City has actually won several international water management awards. Since the beginning of the drought, the municipality has implemented new strategies for water restriction, increasing water fees for high users and lowering water pressure. The "Think Water" campaign, the first official campaign for water consumption awareness, was launched in November 2016. On 15 November 2017, Cape Town Mayor Patrice de Lille explained that, in case the total dam level should fall to 13.5%, the city would reach "Day Zero", namely the day in which communal water collection points would be activated and most taps would be shut off until the beginning of the rainfall season. "Day Zero" was then a terrifying but fluctuating date, depending on dam storage and water consumption: at that stage "Day Zero" was estimated to take place on 13 May 2018, but the date was later postponed to June and then to August 2018.

In February 2018, Level 6b restriction was applied, preventing residents from irrigating with municipal drinking water or using borehole

water for outdoor purposes. In addition, water pressure had been progressively reduced. Citizens have been exhorted to engage in actions to lower the City's water consumption, reaching the target of 450 million litres a day. This means using less than 50 litres of water per person per day; a severe limitation, considering that in 2011 Capetonians consumed 182 litres per person per day³[3]. In order to monitor water usage, the City has even released maps that enable people to check water usage at residential addresses, making it possible to spot water misuse.

For several months Capetonians were forced to a daily countdown that would lead to "Day Zero". Then, on 7 March 2018, Mmusi Maimane – leader of the Democratic Alliance (DA), the party which governs both Cape Town and the Western Cape – declared that "Day Zero" was officially put off to 2019.

During the water crisis, the City authorities tried to reduce water consumption without halting economic activities. Despite the emergency, all around Cape Town wine production continued in order to prevent an ensuing economic crisis. The water crisis was, indeed, sensibly reduced when the agricultural season came to an end and the use of municipal water in farming greatly decreased. However, the "water versus wine" contradiction was not the only one characterising Cape Town's crisis.

While residential areas were experiencing water shortage for the first time, trying to buy and stockpile both raw and treated water, other areas have been living in Day Zero for many years⁴. Indeed, the inhabitants of 437

³ M. Jacobsen, M. Webster and K. Vairavamorthy (Eds.), *The future of water in African cities. Why waste water?*, The Word Bank, 2013.

⁴ Z. Timbela, Alternative information and development centre,

informal settlements, about 146,000 households, use only 4.7% of Cape Town water while the formal residences use 55.6%⁵. Water consumption limits and communal water stations are daily life for shack dwellers, who fetch tap water from community stands and use communal toilets lacking a proper sewage system. Ironically, while local authorities decided to use "Day Zero" as a communication strategy in order to sensitize citizens on the importance and preciousness of water and to make them accept consumption restrictions⁶, hundreds of Capetonians that live each day in water shortage were excluded from the political debate.

The same kind of exclusion has been echoed by the international media that, since the be-

ginning of the crisis, have been publishing videos and interviews to show how middle class Capetonians were coping with the transformation of their city into a "third world" metropolis. Because of their supposed affinity with the most Westernised African city, Western analysts have looked at the Cape Town water crisis with a mixture of fear and worry, with the same astonishment and bewilderment of somebody waking up from a terrible nightmare. Most of them did not seem to realise that Cape Town's water crisis wasn't a nightmare, but a meaningful case study: Cape Town's situation can teach us a lot about urban governance of natural resources, prevention and redistribution in an age of climate change and growing inequality.

interviewed in *How Cape Town's Residents Are Surviving the Water Crisis - For Now*, National Geographic, 12 March 2018.

⁵ Data Statistic South Africa 2013 and J. De Villiers, "Informal settlements use a fraction of Cape Town water", *News24*, De Lille, 23 February 2017.

⁶ See R. Davis, #CapeWaterGate: In the end, what was Day Zero all about, *Daily Maverick*, 14 March 2018.