Tidsskriftet Tidsskrift for Den norske legeforening

The Garden City of India

EDITORIAL

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What do war, climate change and extreme weather events have in common? They threaten the access to clean water.

Photo: Einar Nilsen

As the UN marked World Water Day on 22 March (1), residents of Bengaluru were queuing up to fill their buckets. Asia's Silicon Valley, with its 14 million inhabitants, is the third largest city in India. Over the past three decades, high population growth, extensive urbanisation with plush office buildings and towering apartment complexes, coupled with inadequate water infrastructure, have plunged the state of Karnataka's capital city into its most severe water crisis since the establishment of a fort on the Mysore plateau by local ruler Kempegowda in 1537, marking the city's foundation (2).

The UN's sixth Sustainable Development Goal (SDG) is to ensure access to safe water, sanitation and hygiene for all by 2030 (1). It is unlikely that this goal will be achieved. On the contrary, it is predicted that over five billion people could lack access to clean drinking water by 2050, compared to the current two billion (3). This is not only due to an insufficient water supply but also to nitrogen pollution of waterways from sources such as agriculture and urbanisation.

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Where does the water in Bengaluru come from? Formerly known as the 'City of Lakes', Bengaluru boasted 262 such water bodies in 1961. Of the approximately 100 lakes remaining, over 90 % are on the verge of dying (4). The foul-smelling green clouds hanging over the lakes are caused by toxic algae. The fish have died from hypoxia – and don't even think about swimming in the water, never mind drinking it. The population gets its drinking water from the River Kaveri, over 80 km away, and from groundwater wells. The El Niño effect in 2023 led to less rainfall than usual. The water level in the Kaveri basin dropped, and wells dried up. Among the poor in the outskirts of Bengaluru, water tankers are now a lifeline, but this comes at a cost. Despite the government's attempts at regulation, water prices have been rising.

The drought in Bengaluru, often referred to as the 'Garden City of India' for its lush vegetation and pleasant climate, mirrors the water crisis in Cape Town six years ago (5). The South African tourist gem on the Atlantic Ocean was on the brink of Day Zero – the day that the city would have become the first in the world to run out of water. Like Bengaluru, Cape Town's water sources and wetlands have been depleted. During a three-year drought, the levels in the dams supplying the city were in danger of dropping below a critical level. The most vulnerable parts of the population were hit the hardest. Under the apartheid regime's racial segregation, parts of the population were forced to live in townships, which still exist to this day. Overall, the townships account for less than 5 % of Cape Town's water consumption. Most of the houses – or shacks – have no running water, showers or toilets, and the residents are thus among the 3.5 billion people in the world without access to the necessary sanitation and hygiene.

According to the World Economic Forum, water crises are one of the greatest global threats to public health, alongside weapons of mass destruction, lack of action on climate change and extreme weather events (6). The causal link between a shortage of clean water and gastrointestinal infections is all too apparent in conflict zones. In Yemen, attacks on the main water supply to Hodeida led to one of the worst cholera outbreaks in recent history, with over one million reported cases. In Aleppo and Idlib, two war-torn regions of Syria enduring years of conflict, the destruction of water supplies is linked to the increased prevalence of waterborne diseases. Alarm bells are also ringing in Bengaluru, where there are reports of cholera and multiple hospital admissions for various types of acute gastroenteritis (7).

> ***«By 2030, global demand for freshwater will exceed supply by 40 % due to population growth, climate change and human intervention in ecosystems»***

It is not without reason that the UN has chosen water for peace and prosperity as this year's theme (1). Under international humanitarian law, the use of water as a weapon of war is illegal, and it has major short- and long-term consequences for public health. Nevertheless, this strategy is employed in numerous conflicts, most recently in Gaza (8). Competition for scarce water resources can create long-running tensions between countries and ethnic groups, potentially *triggering* a war in a worst-case scenario (1). For more than a century, Karnataka has been embroiled in a dispute with the neighbouring Tamil Nadu state over who should have access to the water from the River Kaveri, which is a lifeline for both states (2).

By 2030, global demand for freshwater will exceed supply by 40 % due to population growth, climate change and human intervention in ecosystems (9). As highlighted by the UN, international cooperation and transboundary water agreements will be crucial for ensuring peaceful coexistence (1). These agreements, combined with technological solutions for purifying and distributing water, give us hope that we can solve the polycrisis we are facing. However, things will get worse before they get better; Bengaluru's monsoon season is still weeks away.

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Publisert: 22 April 2024. Tidsskr Nor Legeforen. DOI: 10.4045/tidsskr.24.0199