

## DROUGHT HIGHLIGHTS DYSFUNCTIONAL ORGANISATION

# It's essential to manage water

Jo Barnes

A LACK of water impacts on every sphere of life. It affects health, economic production, jobs, safety and social stability, to name only a few.

The present drought in South Africa made the slogan of a better life for all impossible to attain in the foreseeable future.

Our economy is already constrained and a lack of sufficient and safe water supplies will directly affect agricultural production, commercial opportunities and manufacturing capacity.

Beyond those direct impacts, the secondary damage may even be greater. It becomes very difficult to keep families healthy, workers in regular employment and children in school when water pollution-related illnesses affect so many people.

The drought highlighted the dysfunctional organisation of South African water supply and demand management. It also provided a convenient and easily identifiable excuse for the poor access to safe water supplies experienced by so many South Africans.

A drought is a weather-related occurrence – one that South Africans know they can expect sooner rather than later. In fact, the present drought has been expected by meteorologists for at least a decade. The El Niño phenomenon associated with drought conditions is a very variable event and its appearance has been expected for at least 10 years.

The government has been alerted to this risk for many years. In future, the expected accelerating changes in climate will make such weather-related crises much more common. It is to be hoped that the lessons learnt from the present crisis will help to improve an unwieldy system that is slow to adapt to new challenges.

In contrast to the major causes of drought, water supply and delivery are mainly management and service issues – man-made if you will. South Africa has a sophisticated system of water transfers and storage to counteract the patchy distribution of rainfall in the country. This system of transfers is now being threatened by poor planning, fragmented and incoherent policies, as well as a lack of maintenance and prevention of water losses. Many of our big storage dams have structural



**PRECIOUS RESOURCE:** The drought has made the slogan of a better life for all impossible to attain in the foreseeable future, says the writer.

Picture: BHEKIKHAYA MABASO

issues, while wastewater treatment and water distribution systems fail over wide areas on a daily basis.

Poor sanitation and improper water service delivery result in very high levels of pollution of our rivers and dams, resulting in excessive amounts of harmful nutrients in dams and increased costs to deliver safe drinking water in urban areas. Failing wastewater treatment infrastructure on its own is a substantial, but potentially preventable, source of pollution. This water pollution increases the risk of adding to the already very high case load of waterborne and foodborne diseases. A worrying aspect is the continuous rise of *E. coli* concentrations in our rivers to unacceptable levels and this situation is deteriorating in spite of governmental assurances that there is no crisis.

A high level of this organism

is a warning that such water is unsafe for human contact. At certain thresholds, such water also becomes unsafe for irrigation of fresh produce or watering of livestock. There is no common sense in polluting rivers only to spend more money and effort downstream to remove pollution to make the water safe.

Unfortunately, it is already too late to avert some of the health-related crises that will accompany a severe shortage of safe, potable water. Food prices are set to increase substantially in the coming months, dropping thousands more families into food insecurity. This will seriously affect the urban poor as their main staple foods are maize and grains.

Families already stressed by HIV/Aids and other chronic health conditions will be disproportionately affected by both the increase in

infection risks and the lack of affordable, nutritious food.

Municipalities are tasked under the present arrangements as implementing agents of water restrictions, which is the main response to the fall in water supplies in urban areas. In reality, this management practice appears to the ordinary homeowner as if the municipality does not apply the restrictions to its own organisation. Phone calls to report leaks are unanswered and the response times to fix leaks are long. A leaking water main can spill more water down the street over the course of a few days than the inhabitants can hope to save over a few months. All these obstacles to co-operation from water users are deepening the crisis of confidence between users and water authorities. Municipalities face their own constraints, but better communica-

tion and more efficient service delivery will go a long way towards getting users on their side.

The other official response in urban areas was to announce a substantial increase in the price of water sold to households. This increase works in a stepwise fashion. The more water that is used, the higher the punitive costs will be. It seems as if this approach was meant more to offset the loss of revenue from falling water sales than to act as a water-saving strategy. This practice sends mixed messages to urban water users. Those who in the past heeded the call to cut usage as far as possible are “rewarded” by higher rates.

One cannot manage what one has not measured. A lot more needs to be done to gather reliable data in sufficient detail to optimise water allocation to competing water users. Weather data is

becoming less detailed as weather stations are being closed down.

The question of how much water will constitute the minimum for economic activities to continue has not even been touched.

The health burden alone of the present lack of stable water supplies makes it imperative for South Africa to use this drought to improve the political and management systems relating to water.

Robert G Ingersoll, the 19th century American lawyer and environmentalist, said: “In nature there are neither rewards nor punishments – there are consequences.”

We are not managing the consequences of this drought at all well.

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