



WATER CRISIS IN CAPE TOWN: BRACING FOR 'DAY ZERO'

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(Views expressed in the brief are those of the author, and do not represent those of ISSI)



Cape Town in South Africa is currently facing worst ever drought in its history. Citizens have been asked to save water as much as possible by avoiding unnecessary usage (staying within the average 50 liter usage, saving up to 45%).¹ In order to provide for basic drinking water, city administration is building new desalination plants that will turn sea water into drinking water. South Africa has also revised their budget, setting new funds and undertaken tough decisions with regards to managing the current water crises and avoid 'Day Zero' when all taps of water in the city will be turned off. However, South Africa's drought-stricken Cape Town has pushed back its estimate for "Day Zero", when taps in the city run dry and people start queuing for water, to 2019 from August of 2018, even as data show dam levels rising elsewhere in the country.² On this day, citizens in Cape Town will have to cue at identified sites for the daily allocation of drinking water, and the government will regulate the water supply under proper plans, equipment and security.

¹ <http://resource.capetown.gov.za/documentcentre/Documents/City%20research%20reports%20and%20review/Water%20Outlook%202018%20-%20Summary.pdf>

² <https://www.reuters.com/article/us-safrica-drought/cape-town-day-zero-pushed-back-to-2019-as-dams-fill-up-in-south-africa-idUSKCN1HA1LN>

Based on consumption patterns and scenarios, 'Day Zero' dam level was set at 13.5%, which would provide 3 months' worth of water at a reduced volume supplied of 350MLD.³ However, this day can only be averted if all citizens of Cape Town work together in saving whatever water supplies are left over, and count their luck on upcoming rainfalls.

All this has happened over a period of three to four seasons of continuous drought, as none had predicted such a situation in a city so beautiful under the green mountains, with clouds flowing above. The explanation of this situation lies in global warming, climate change and the consequent variation in temperature and rainfall patterns. Environment Science and climate change predictions are no fiction but an eye-opening reality surrounding us and it is no longer a time far in future when other metropolises in the world would be facing similar situations. However, as apocalyptic as these predictions may sound, it is important to understand their underlying message which stresses the urgency required to deal with such crises.

The water crisis in Cape Town is a product of both hydrological drought (caused by less water in rivers) and metrological (water stored from rains) drought. Meaning that though fall in average rainfall patterns did drastically impact the water levels, but other factors including inadequate storage capacity also proved to be detrimental in causing water crisis. As a result and in order to tackle this situation, heavy capital investment is required in recycling, desalination, utilizing ground water, awareness creation on water conservation and storage capacity.

It has been emphasized by various scholars and scientists that it was the failure of the people of Cape Town in the first place to have not predicted and prevented such a situation from occurring. Secondly, lack of awareness and sensitization among masses about climate change issues and their remedies has also contributed in channeling a late response. Some argue that the dramatic picture painted of 'Day Zero' is to underline the urgency of the matter and to gear the required response, as such a situation may not actually occur given the merits of modern day technology and access to sea water in Cape Town.

However, if one is to take lessons from Cape Town and compare it with one's own city, certain elements require utmost attention. Pakistan is the sixth largest country by

³ Ibid.

population and is also one of the water restrained country.⁴ It's geographical location is in one of the most disaster prone regions and in its recent history, Pakistan has witnessed some natural calamities including the devastating earthquake in 2005 and massive floods in 2010 which prompted a global response.

Islamabad that lies on the foothills of Margalla, is expected to be facing similar challenges with regards to water management. The population of the city is growing at a rate of 5.7 percent, whereby water scarcity is one of the major challenges to growing urbanization in the newly developed sectors of Islamabad. A peak cumulative water production for Islamabad is 84 million gallons per day (MGD), which drops down to 62 MGD in winters. The average demand for Islamabad is 176 MGD, while water shortage of 106 MGD confronts it most of the time of the year, especially during the summer and pre-monsoon season.⁵

Comparing temperatures over 1961-90 and 1990-2010, it is clear that Islamabad Capital Territory has become warmer. Temperatures are projected to continue to increase. Similarly, there has been an increase in the rainfall, but its pattern has varied.⁶ Islamabad is prone to extreme climatic changes and it is necessary to plan and prevent any crises which may root out from severe climate change, further aggravated by growing population and urbanization. Unfortunately, despite several studies available which highlight the extent and possibility of a 'Day Zero' like situation in Islamabad and other cities of Pakistan, the federal government has not been able take adequate measures.

One of the reason for government's non-responsiveness is the lack of funds available for carrying out such huge water conservation and supply projects, as well as lack of capacity in terms of technical resources. However, it is important to realize that the cost of prevention is less than cure. Therefore, certain best practices and lessons learnt from Cape Town and elsewhere should be exercised to counter the effects of global warming and climate change.

In this respect, first and foremost is to create awareness and sensitization among the general masses on the issues of climate change and their possible remedies, starting from pragmatic and basic lifestyle changes administered at a household level. For this purpose,

⁴ <http://www.pide.org.pk/pdf/Working%20Paper/WorkingPaper-30.pdf>

⁵ <http://www.cda.gov.pk/projects/watersupply.asp>

⁶ <http://suparco.gov.pk/downloadables/Climate%20Change%20report.pdf>

water conservation should be included in curriculum and taught to children right from primary level of schooling. Secondly, there is a need for comprehensive futuristic planning based on possible outcomes, and then incremental implementation of these plans starting from budgetary allocations and prioritization. Thirdly, there is a need to pursue the issues of climate change and global warming with utmost urgency, steadfastness and innovation. A long-term policy should be devised and implemented with national consensus, and provinces should take measures for storage and conservations. Desalination and water recycling plants should be built on need based assessment in every province, catering to divisional and district level.

With elections coming in a few months, there is a need to pressurize political parties to include climate change as a policy matter in national debates and in election manifestos. Only through a combined effort of both state and society shall we be able to fight climate change and avert any possible crises.