**Making sense of the water crisis**

[Amir Hussain](https://www.thenews.com.pk/writer/amir-hussain)

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Are we moving towards a thirsty tomorrow? Independent studies and expert opinion have revealed that a country with an abundance of water resources is now on the verge of being severely affected by a water scarcity.

South Asia has 1,500 million acre-feet (MAF) of the world’s share of fresh water supply. As the largest countries of South Asia, Pakistan and India share approximately 800 MAF of the total fresh water flow in the region. Pakistan shares around 145 MAF of the total regional water supply from rainfall and glacial melts during the year, which exceeds its total requirement of 40 MAF.

However, the country only has a water storage capacity of 16 MAF. Our water storage capacity is dwindling due to the silting of existing water reservoirs of Tarbela, Mangla and Warsak. The gap between the supply and demand of water is increasing in light of the growing agricultural, industrial and social requirements. In reality, Pakistan has more water than its current needs, but it hasn’t been able to utilise it efficiently.

With its current water storage capacity, Pakistan can only sustain itself for 30 days, which is a comparatively short duration. The US has enough reservoirs to supply water for 900 days without any interruptions. Even India has the capacity to supply water for 193 days to a population that is much larger than Pakistan’s population.

We have a long story to tell about our self-inflicted miseries that are being crystalised in the protracted spells of droughts, starvations and deaths. We are proud to have the world’s largest irrigation system. But our canals are drying up, exposing us to extreme levels of food insecurity and mass starvation.

While the impending water crisis is alarming, we don’t seem to be taking it seriously. We didn’t take matters seriously when we were warned of our depleting gas reserves some 30 years ago. Since we didn’t make any plans to conserve them, we now have to import natural gas. Water is neither an importable commodity nor does it have any alternatives. We have no other option but to conserve our water resources and put them to efficient use to avert imminent threats to our survival in the foreseeable future.

Water conservation is not only vital for agricultural and human consumption, but it is also necessary to generate cheaper and green energy in the country so that we can attain competiveness in our industrial growth. Our agricultural and industrial sectors are dependent on the availability of water.

The first step should be to conserve water resources. The next step is to modernise irrigation technology to control 70 percent of water losses. With increased surface temperatures, glaciers have already started to melt at a much faster pace than their natural rate. This climate-induced change has resulted in floods. This trend is likely to continue for many years before glaciers begin to recede and rivers start drying up.

We have not only failed to manage surface water, but our underground water sources are also declining rapidly due to irresponsible extraction and the sheer lack of governance.

There is no aquifer regulation framework in Pakistan to govern the extraction of underground water. Although the Barrage Act of 1870 is still in force, it doesn’t encompass the substantial misuse of underground water sources. Even if there is a water policy at the provincial level, it hasn’t been implemented – especially in drought-prone regions like Balochistan. The water table is dropping significantly, with an alarming annual rate of one metre in Islamabad, 0.5 metres in Lahore, and six metres in Balochistan, with a depletion rate of between 12 percent and 15 percent of total aquifers on an annual basis. Around 95 percent of water from the Indus Basin is directed towards agriculture even though we require not more than 30 percent of the amount that is currently being used for this purpose. At least 70 percent of this water – 110 MAF – has been wasted, given the total volume of outputs from our current agricultural practices. The desertification of thousands of acres of arable land has resulted in the loss of biodiversity in the coastal belt owing to sea intrusion as the river delta has dried up with an alarming waste of 110 MAF of water.

We have failed to harness water towards effective use in our economy, which translates to losses worth $70 billion on an annual basis and is equivalent to 23 percent of our GDP. It is, therefore, not only water management that needs to be modernised, but investment is also required to improve the efficiency of our irrigation system.

The new government must undertake a series of consultative policy dialogues among all provinces to emphasis the need to address the country’s water emergency. Let’s put aside controversial and undoable options like the Kalabagh Dam and look towards bigger and better options of water conservation, such as Bhasha, Dasu, Bunji and 40 other potential projects that were recommended by the Energy Planning Group of Planning Commission as early as 1991. While these recommendations have already been made part of Wapda’s Vision 2025, they now need to be enforced.

If we concede that water is a matter of survival for our generations, we must then jettison the baggage of parochial and territorial politics to build a prosperous, peaceful, pluralistic and inclusive Pakistan for all. We have substantial knowledge of our hydrological potential, which has also been reflected in Wapda’s Vision 2025. We need to articulate a national perspective to execute the vision. If we initiate work on 40 projects in Azad Jammu and Kashmir, Khyber Pakhtunkhwa and Gilgit Baltistan in line with Vision 2025, we will be able to store sufficient water to meet our national hydrological needs.

Blaming India for our water crisis won’t serve any purpose until we express the political intent to conserve water. We will never be able to negotiate our terms on the basis of the Indus Waters Treaty until we develop a convincing strategy to store our available water resources and put them to good use. India has exploited the legal instruments of the Indus Waters Treaty. This treaty needs to be renegotiated through bilateral talks and through our performance in terms of hydrological management to convince the international community that we are serious about effectively utilising our water resources.

Water conservation and management has been reduced to a polemical debate over the Kalabagh Dam in Pakistan. This debate revolves around two diametrically opposed contentions for and against the construction of the dam, with equivocal political interpretations of technical issue. Amid political interpretations and engineered semantics, the impending water crisis has received limited attention from policymakers in our country. We don’t seem to have an overarching policy framework to knit together these divergent views into a constructive national narrative that could help build a national consensus on water issues.

The cynical debate around the Kalabagh Dam shows that our national imagination doesn’t go beyond dam-specific concerns to consider questions of governance and the structural issues of the water crisis. What are the policy choices and options that the new government can exercise? How do we inculcate a national approach to the water crisis rather than a territorial one?

Do we really need big dams or are there any viable, short-term and cost-effective options to address the water crisis? These are some of the key questions that the next part of this article will explore in the context of cutting-edge regional and global debates on the water crisis. The next article will explore the alternatives to the conventional wisdom about the water crisis – especially the governance issues related to water politics in Pakistan.

To be continued

The writer is a freelance columnist based in Islamabad.

Email: ahnihal@yahoo.com