

Water for all

World Water Day, which is observed on March 22, passed without much fanfare in Pakistan. Ironically, Pakistan is among the most water-stressed countries in the world and already faces a serious crisis in this regard. Rapid urbanisation, population growth, industrialisation and climate change have driven up the demand for water. The gap between demand and supply is ever-expanding and millions of people are facing a serious shortage of water. This has affected the livelihood of a large number of people; negatively impacted the environment; and increased the number of local-level conflicts.

Pakistan has already been included among the water-stressed countries of the world and will soon encounter a significant amount of water scarcity due to population growth. If a country's water availability falls below 1,000 cubic metres, then it will be rated as a water-scarce country. Until 2010, Pakistan's water availability was around 1,223 cubic metres. The development of water resources and the use of technology, high-yielding crop varieties and fertilisers have increased agricultural productivity for a short period of time. However, crop yields are now declining as water productivity has diminished. The water productivity for cereal crops in Pakistan is almost one-third of what it is in India and one-sixth of what it is in China.

Given Pakistan's reliance on a single water source – River Indus and its tributaries, Chenab and Jhelum – the availability of water is highly varied. A large amount of water is available in summer and only a small amount is left to be used for the rest of the year. Risks associated with climate change are likely to further aggravate the existing fluctuations in supply. In addition, there is a vast geographical disparity as several parts of the country are not connected to canals.

The dearth of adequate and safe drinking water has led to a public health emergency, with most people drinking from polluted sources. Water is essential to human health and a fundamental right. In Pakistan, huge

disparities exist in the level of access to drinking water facilities. These disparities are based on geography and income.

High levels of arsenic; contamination of water from pesticides and fertilisers in shallow ground water; and the pollution of surface water are only some factors that result in the poor quality of drinking water. Most of the water supply in urban centres such as Karachi has been left to private tankers who often steal public water and sell it for private benefits. This is becoming a thriving business that runs at the expense of human rights. One of the major challenges emanating from the political economy is the inequity of water distribution within canal-command areas that exists in varying degrees in different provinces. Unlike other provinces, Sindh is facing an endemic challenge of unfair canal water distribution that is linked to large landholdings, which are often deeply tied to political power and control over the bureaucracy. Inequality in distribution might worsen in the future as demand increases, leading to rural distress and chaos. This problem is widely acknowledged but seldom addressed.

An equally important but rarely discussed challenge is environmental degradation. These include waterlogging; salinity; damage to river ecology; poor watershed management; and the drying up of wetlands. Being at the lower end of River Indus, Sindh disproportionately suffers environmental costs. Soil degradation due to waterlogging and salinity; the pollution of wetlands and fresh water canals; and the degradation of the Indus Delta are a few examples. Around 3.5 million acres of land have been lost since 1980 due to seawater intrusion.

Over the years, the systematic institutional decline has led to poor water governance. For around two decades, there has been a gap in the enforcement of water laws and regulations. In addition, lower levels of investment in operation and maintenance; rent-seeking behaviour; and the lack of skilled human resources have posed a series of governance-related challenges. Institutional reforms that were introduced with the support of the World

Bank a quarter century ago are also in limbo. The hybrid institutional arrangement has created inter-departmental tension while unnecessary political involvement has affected departmental efficiency.

As the pressure on available water resources increases, there is a need for more investment to ensure that availability is increased and the available resources are used more efficiently. However, existing financial arrangements are unsustainable and are mostly arranged through loans. The O&M budget for the canal irrigation system; flood control; drainage; and urban water infrastructure is inadequate. The recovery of water charges is contributing towards one-fifth of the O&M cost of the canal irrigation system. The contribution is even lower in the case of urban water.

The laws that our British colonial masters introduced to regulate and manage water glaringly excludes women and the landless. These laws give exclusive water rights to landowners – which, in a majority of the cases, are men. They have not been altered since Independence. Although women and the landless are directly affected by water policies/ laws and distribution, they have no say in the governance.

The unavailability of drinking water increases the burden on women to travel long distances and fetch water. Similarly, the unequal distribution of canal water disproportionately affects the landless as they put in their labour and share of input. However, limited water availability decreases agricultural productivity. This consequently affects their income and throws them into a spiral of debt. Not having any role in water governance, women and landless are seldom interested in efficient water use.

There are already frequent water-related conflicts in urban areas regarding access to either drinking water or irrigation water. Often inter-provincial water conflicts emerge and challenge provincial harmony. Transboundary water conflicts with India and Afghanistan are likely to have repercussions on local conflicts. These conflicts might worsen as the pressure on resources increases. This affects peace and harmony among different communities,

which is vital for development and prosperity.

These challenges require a systemic response. However, they also provide an opportunity for the political leadership and other stakeholders to devise a courageous vision for water. The new vision must redefine social and environmental purposes of this vital natural resource; serve all people; and meet environmental needs. It must also consider human health and distributional equity among different sectoral users and within canal-command areas by giving equal weight to environmental services as a precondition. It is now necessary to create an appropriate institutional and policy framework for the equitable distribution of resources. Efforts must be made to ensure that this framework is capable of dealing with the water challenges of the 21st century. Moreover, officials must be equipped to enforce laws. Water is more than a matter of engineering. It is linked with politics, society and culture. Therefore, a new vision must be devised that accounts for the multidimensional aspects of water.

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