

# ISAS Brief

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## Pakistan's Water Woes

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While energy shortages, economic stagnation, terrorism, and religious intolerance remain in the spotlight – water shortages, warns the South Asia scholar Anatol Lieven, “present the greatest future threat to the viability of Pakistan as a state and a society”.<sup>2</sup> Regrettably, the Pakistani discourse on the subject remains in a state of delusion and thus misdirected.

Pakistan's per capita water availability has declined from 5,000 cubic meters (m<sup>3</sup>) in the 1950s to less than 1,500 m<sup>3</sup> in 2009, according to a Woodrow Wilson Center report published that year. Pakistan is expected to become water-scarce (the designation of a country with annual water availability below 1,000 m<sup>3</sup> per capita) by 2035; though some experts project that this may happen by 2020, if not earlier, adds the report.<sup>3</sup>

Currently Pakistan provides about 1,000 m<sup>3</sup> of water per capita – about the level of Ethiopia and Libya. The United Nations is expected to downgrade Pakistan from 'water stressed' to 'water scarce' country by 2030. At this rate of depletion by 2025, Pakistan's water shortfall could be five times the amount of water that can presently be stored in the existing reservoirs.

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<sup>2</sup> Woodrow Wilson International Center for Scholars, Asia Program, Washington D.C.: Running on Empty: Pakistan's Water Crises, edited by Michael Kugelman and Robert M. Hathaway, 2009, p 5.

<sup>3</sup> Ibid p.5

“The country is heading towards acute water crises”,<sup>4</sup> confirms Qamar-uz-Zaman, who served as head of Pakistan Meteorological Department for several years.

Given Pakistan’s increasing scarcity of water and the mutual proclivity to blame the other, concluded a 2009 CIA report, “the likelihood of conflict between India and Pakistan over shared river resources is expected to increase”.<sup>5</sup>

“No specific evidence [is] brought forth so far that India is actually obstructing the flow or is diverting the waters”,<sup>6</sup> concedes Ahmer Bilal Soofi, the former caretaker law minister. And yet, Pakistani media and politicians blame India for controlling the flow of water to the detriment of Pakistan. Such a course merely blinds the policy makers and the public to the impending crisis that is of Pakistan’s own making and to which there is a no short-term solution.

## **Indo-Pak Indus Treaty**

Paradoxically, India and Pakistan resolved the contentious water issue in 1961 through the Indus Water Treaty in only 14 years. Pakistan’s own four provinces took 44 years after independence to sign the Water Apportionment Accord in 1991. Notwithstanding the Accord, water remains a highly contentious issue, effectively stalling the building of any new reservoirs in the last 40 years.

Most disturbingly Pakistan’s politicians are oblivious to the fast-depleting resource. Senior bureaucracy, cocooned in its comforts, is unmindful of the gathering storm, leaving the field open to chauvinistic and often misleading rhetoric in Pakistan’s dime-a-dozen talk shows.

Historically, with plenty of water shaping the wastage culture, its management and distribution have always been an important but a neglected process in much of Pakistan. Punjab – the land of five rivers, comprising of 62 per cent of Pakistan, leads in this waste culture.

There are several reasons for this reduced water availability in Pakistan, some of which are admittedly natural.

Pakistan’s population is ballooning. Climate change is making glacial water supply uncertain. Reduced snowmelts lead to less water in the system sometimes. Rainwater is wasted for lack of catchment and storage reservoirs – water that could be stored for future usage. Illegal logging and removal of forest cover have denuded Pakistan’s rangelands, thus causing annual flash floods that result in heavy collateral damage.

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<sup>4</sup> *The Dawn* 31 July 2012. Khaleeq Kiani – Pakistan may face water crises, warn experts.

<sup>5</sup> IPRI Journal XII No.1, Winter 2012. Khalid Chandio – Water Scarcity: Pakistan and Regional Perspective, p.135

<sup>6</sup> *The Dawn* 20 February 2010, Ahmer Bilal Soofi – Water war with India?

In addition to the waste, Pakistan is also contaminating its water, which reduces its usability. Untreated industrial and domestic effluent is being discharged into rivers; while [because of] unregulated use, pesticides from farms find their way into streams and ground water.

Pakistan's existing water storage infrastructure is ageing and is unable to cope with the rising demand. The holding capacity of the three main dams, constructed during 1960s and 1970s, has declined by a third due to sedimentation, effectively wiping out one dam. This leaves Pakistan with water storage capacity of just about 30 days, while India can store for about 200 days. Plans for building new storage dams have fallen prey to narrow provincial chauvinism.

Pakistan is estimated to lose 13 million cusecs of water every year into the sea.<sup>7</sup> Some experts, especially from Sindh province, argue that much of this flow is necessary to prevent saline seawater intrusion into the land. This seawater encroachment damages land otherwise suitable for agriculture up to 100 km inland during periods of reduced river flow.<sup>8</sup>

## **Water-Use Patterns**

While water availability has declined, the way Pakistanis use water has not, resulting in large-scale depletion and degradation of the resource base. Life-style changes and the increasing numbers in domestic helpers are adding to the wastage. People, who do not pay, waste water by leaving taps running for laundry, washing outdoor areas, car washing, showering and dishwashing. Industrial pollutants and household waste released into water channels contaminate water. The household usage is now almost all on fixed-charge basis – meaning excessive wastage. A regulatory framework to prevent water wastage is non-existent.

When the developing world, on average, uses 70 to 75 per cent of its water for agriculture, Pakistan uses nearly 90 per cent, according to a 2010 Woodrow Wilson Center report. With barely 10 per cent left for drinking, household usage, sanitation and industrial purposes, no wonder that a third of the people in the country do not even have access to safe drinking water.

From within its usage for agriculture Pakistan wastes two-third of its water by following archaic agricultural practices, says Dr. Qamar-uz-Zaman former head of Pakistan's meteorological services. Since many influential landowners are also powerful politicians benefitting from the status quo, they resist all attempts to change – only to maintain some of

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<sup>7</sup> IPRI Journal XII No.1, Winter 2012. Khalid Chandio – Water Scarcity: Pakistan and Regional Perspective, p.133

<sup>8</sup> Proceedings, International Conference on “Sindh, the Water Issue and the Future of Pakistan”, The World Sindhi Institute, Washington, DC, 9 November 2002 – An Overview of the History and Impacts of the Water Issue in Pakistan - Altaf A. Memon, Ph.D.

the lowest productivity rates in the world per unit of water and per unit of land. Improving the efficiency of usage for agriculture cannot be over-emphasised.

Recovering only 24 per cent of its annual overhaul and maintenance (O&M) cost Pakistan's canal water irrigation system is financially unsustainable. The rest of the money for O&M comes in subsidies, disclosed a Planning Commission report.<sup>9</sup> This low cost to the user breeds wastage and thus is a national loss.

Pakistan's poor policy-choices include underinvestment in basic infrastructure. Excessive use of water in agriculture and wastage has exacerbated a bad water situation which has reached alarming levels.

With availability falling Pakistan's water scarcity is a ticking time bomb. Pakistan needs to add storage capacity, prevent water wastage and devise better methods of management of this increasingly-scarce resource. The situation, if not tackled on war-footing, will affect agricultural production, industry and exacerbate inter-provincial disharmony in Pakistan.

The shortages will adversely affect relations with India – in this case the upper riparian state with which relations, at best, are based upon mistrust. Perhaps India and the world community could come forward in the interest of regional harmony and help Pakistan prepare for this looming crisis.

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<sup>9</sup> *The Dawn*, Planning Commission warns of a water crisis, Javed Mirza, 30 June 2012