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Addressing the critical challenge to our water security

A governance structure to holistically manage the waters commons

At the very core of our entire ecosystem is the location and availability of fresh water on which sustaining lives and human livelihood are fundamentally dependent. One school of thought envisages future wars being fought over steadily depleting water resources, required by humans, other species and vegetation that sustain both. To prevent this situation from deteriorating further to the point that it could become an existential threat for man's survival in whatever geo-space he inhabits, we need to engage in collaborative management of the shared ecological space and resources, particularly fresh water resources that are critically taxed and in a state of alarming depletion today.

A steady growth of population in South Asia has made this region one of the most densely populated globally, with very large numbers subsisting on marginal land. This region, comprising Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka, has, as of 2015, a combined aggregate total of over 1.743 billion, registering a staggering 336 percent increase over a mere 476 million in 1950. It will almost double its present numbers by 2050. Its burgeoning demographic "youth bulge" is a factor of critical importance. South Asia's average percentage of population between ages 15-59 in 2015 was 60.75; in 2050, this average is projected to be 60.88 (ECOSOC 2015). The trend of population growth, unless reversed or brought to a halt, will surely add pressure on already tight food and water supplies.

For a deltaic region like Bangladesh, which is the natural drainage for most of the Eastern Himalayan rivers, a double-whammy effect is already in progress. The sheer increase in

population and the cumulative effects of glacier melts in the Himalayas (Himalayan glaciers have reportedly shrunk from 500,000 square kms coverage to 160,000 square kilometres) and depleted ground water aquifers are already significantly adversely impacting the availability of fresh water supplies.

Bangladesh finds itself in an extremely vulnerable situation in respect to water security, despite being a land of countless rivers comprising three major river basins, of which 54 rivers are shared with India, its immediate upper riparian. An incompletely executed bilateral treaty exists on only one of the shared rivers (The Ganges), while an agreed draft on another remains frozen in a state of suspended animation. Taking a river-by-river approach would leave Bangladesh very vulnerable to the vagaries of nature and the unpredictability of geopolitics. The narrative of sharing, furthermore, is evocative of the partitioning of waters which leads into the realm of contestation. In fact, most of the problems contributing to this situation of increasing water distress may be squarely attributed to The Partition Syndrome of 1947. While segmenting land and territories on terra firma is entirely feasible and achievable, what was forgotten in the heat of inflamed passions at that time was that the principles of partitioning land cannot be applied to the hydrosphere, atmosphere and ecosphere.

In my view, this fallacious thinking was reflected in the formulation of the Constitution of the new Indian Union of 1947, in which sovereignty of the rivers was accorded to the respective states of the Union through which those rivers traversed. This is at the heart of the myriad problems of water sharing that India has struggled with over almost all of its rivers, whether within its domestic sphere or with the post-Partition transnational configuration of those rivers.

The conditions described above pose several challenges today for the entire region. Governments must now cater to overall ecological and environmental security, food security, water security, energy security, employment security, and health security. Additionally, governments also must prepare for unexpected disasters from natural phenomena or threats of disease pandemics breaking out. Ensuring water security and integrity is perhaps the most important of all, water being vital for agriculture, industrial use, fisheries, human consumption, health and sanitation, but addressing this will pose formidable challenges. Towards this end, all governments now have no alternative but to collectively address and treat rivers—and indeed all sources of fresh waters—as Commons.

To move towards putting in place a viable governance structure for collectively and jointly managing their common waters, South Asians must put in place a governance structure to

reasonably manage their shared water commons. In 2010, participating in a dialogue contemplating what South Asia's response would be to the non-traditional scenario likely to buffet the region in 2025 (extrapolating from then existing and known facts and situation on the ground), I had advocated the formation of a comprehensive, multi-bodied architecture of cooperative mechanism that South Asians, I had hoped, would have the common sense to move towards, chastened by an angered Mother Nature and an enraged environment. I repeat that call today, with a greater sense of urgency than ever before, for collective consideration by all South Asians, to come together to put in place a South Asian Water Security Authority (SAWSA).

SAWSA's water security mandate should exercise overall jurisdiction over all types of water bodies, viz. ground water aquifers, surface water, rainwater and even sea water. It should be tasked with monitoring and managing all water resources in the region in a holistic manner to regulate conservation of these resources as well as to prevent abuse or wastage. For managing surface water resources, SAWSA should establish an empowered subsidiary body, namely the Eastern Himalayan River Basins Management Body (EHRBMB), to deal with the Ganges, Brahmaputra, Meghna and related basins. This body will undertake to train the entire course of each river, including its tributaries and distributaries, through building embankments, dredging, creating small-to-medium sized pondage areas to serve not only as reservoirs but also for hydroelectricity generating projects. Where deemed necessary, flood drainage canals will also be excavated to distribute/disperse unexpected seasonal surges of flood waters evenly, with populations in vulnerable areas being properly educated and trained to deal with such events.

Service roads should be constructed along one or both banks along the entire course of a river to the extent possible. Also, each bank should be lined with a belt of several rows of indigenous trees that serve to enhance carbon sequestration areas. Maintenance of these will be done throughout the year on a continuing basis, involving the local population along the course of the river, who will act as guardians of the rivers. This will create a constant bank of employment for the local people, integrate with rural employment schemes that are gender-blind, be more labour-intensive rather than capital-intensive; it will also generate local wealth besides creating a sense of local ownership of the commons as well as ensuring continuous maintenance. As guardians of these rivers, the local communities will comprise an early warning system alerting concerned authorities to the impending risk or dangers to the river and its environ.

South Asians need to come together, for the sake of self-preservation at least, if nothing else, to pacify Nature, arrest and start rolling back the grievous damage that they have thoughtlessly inflicted on the common ecosphere, and to collectively manage, conserve, and restore the health

of their shared river basins for optimum use of their steadily diminishing water resources. We must do it now, not later. Procrastinating on collectively and collaboratively addressing an existential challenge can never be an option for this region ready to burst at its seams.