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Can COP29 Break the Curse of a Dead Well?

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Article Content:

If we rank the top threats that will significantly and negatively affect the way society functions, climate change, water scarcity and cyber security will make it to my top three list. We then combine water scarcity and climate change and the threat multiplies manifolds. A study suggests that nine in 10 global natural disasters are water related.

Depletion of groundwater, one of the most natural sources of drinking water and agriculture, is a major concern. Case in point being Punjab and Haryana losing more than 65 billion cubic meters of groundwater in the last two decades owing to higher demand by industries, agriculture and households. Bottomline is, we are depleting water at a rate that outpaces its natural replenition. The curse of a dead well is upon us!

Correcting the water imbalance

Nature has created a fine water balance on planet Earth. Too much and too little of water are both a problem for human sustenance. Over 2.5 billion people rely on groundwater for their household and occupational needs. As per a report, over 30 per cent of the world's fresh water is in the form of groundwater, of which more than 70 per cent is extracted for agriculture purposes.

Nature's cycle of groundwater depletion caused by human activities is complete when water infiltrates the soil, replenishing groundwater over time, which spans thousands of years. This fine balance is now severely affected by over-extraction for agriculture, industries and households, surpassing natural replenition rates. Climate change has only intensified the imbalance with irregular rainfall and droughts.

India is no different, albeit its reason could be varied. India's Green Revolution in the 1960s, an agricultural movement aimed at achieving food self-sufficiency, succeeded in boosting

crop productivity, reducing food imports reliance and stabilising food supplies, but also brought challenges, including soil degradation, excessive groundwater use, irregular land use patterns, leading to environmental and health concerns.

The Public Distribution System (PDS), originally instituted to ensure every Indian has access to food, influenced farmers to grow water-intensive crops in insufficient conditions. Case in point being Punjab and Haryana becoming the largest suppliers of rice and wheat in India, putting significant strains on ground and surface water in the region.

It is estimated that in the next five years the region will experience high stress levels in groundwater availability, thus affecting millions. India's '*Har Ghar Nai,*' an ambitious mission to provide a working drinking water tap to every household, where 85 per cent of rural drinking water comes from groundwater, will only exacerbate groundwater stress.

Higher human consumption patterns and global demand are not likely to settle down soon. The impact is unsustainable, even threatening human existence. This has led to decreased water security, higher extraction costs, land subsidence, reduced crop yields and long-term environmental and economic harm in the form of displacement and loss of livelihoods, affecting almost 45 per cent of Indians.

To reduce groundwater depletion, the world needs efficient agriculture practices, sustainable water management, rainwater harvesting, crop rotation and citizen engagement in the form of a '*Jan Andolan*' [people's movement]. Additionally, strong regulations, financial investments for water management and technology for water table monitoring are needed as well. Above all, global cooperation is required for helping nations and communities to conserve water for the future. And Conference of the Parties (COP) is a perfect platform for this global cooperation!

Water has been continuously gaining significance in COP's climate change debate. At COP21 in 2015, the Paris agreement brought to attention sustainable water resource management, while COP22 focused on inclusion of groundwater in climate adaptation strategies for food security.

At COP24, the Katowice Rulebook called for better data collection and monitoring of water resources, including groundwater. COP26 in 2021 further focused on the necessity of protecting groundwater to enhance climate resilience, urging nations to develop strategies for sustainable groundwater management.

However, challenges remain in integrating groundwater into broader national climate policies to ensure regulatory and financial commitments for safeguarding groundwater resources in the face of climate change and growing global demand for water.

What Baku Can Do

At Baku, the COP29 Declaration on Water for Climate Action agenda calls upon stakeholders to take integrated approaches to combat the causes and impacts of climate change on water basins and water-related ecosystems, integrate water-related mitigation and adaptation measures in national climate policies, including NDCs and NAPS. The declaration will launch the Baku Dialogue on Water for Climate Action to enhance COP-to-COP continuity and coherence.

From India's perspective, priorities at COP29 should include sustainable water management practices, economic assistance and technology transfer from developed countries to improve infrastructure and address affordability across sectors and demographics. India

should also take the lead in integrating water management in its climate adaptation strategy and promoting global cooperation and dialogue in form of an International Alliance for Water for shared water resources and best practices, especially in the global south.

By championing these issues, India can position itself as a leader in sustainable water management and advocate for recognition of water as a fundamental human right, ensuring equitable access for marginalised and vulnerable communities.