

Deve Gowda finds fault with state govt on Cauvery water issue

Seeks to know outcome of DKS' Makedatu padayatra

BENGALURU, DHNS

Former prime minister and JD(S) supremo H D Deve Gowda has found fault with the state government in tackling the Cauvery water issue.

Speaking to *DH*, the JD(S) patriarch said, "What does the Congress government, which is busy with its guarantee promises, say about the direction in the Cauvery issue?" He was referring to recent direction of the Cauvery Water Regu-



H D Deve Gowda

lation Committee (CWRC) to Karnataka to ensure release of 2.5 tmcft water to maintain environmental flow in River Cauvery in February.

Questioning Deputy Chief Minister D K Shivakumar about his recent statement insisting officials on providing Cauvery water to Bengaluru South Assembly constituency in 3-4 months, Gowda sought

to know from where the water will be lifted.

Warning of drinking water crisis in cities like Bengaluru, Gowda said, "Already there is a water tanker lobby in Bengaluru. Bengaluru city itself needs 14 tmc for drinking water. It is not great to concentrate on only few areas, total storage is a question. Who will fight for it?"

Criticising Shivakumar, he said, "Karnataka irrigation minister took out padayatra to construct reservoir at Makedaatu. But what happened next? What is the outcome? Irrigation minister should show his anxiety on such issues."

He even expressed unhappiness over various political parties not being united in Cauvery issue. "Tamil Nadu is getting what it wants because they are united," he added.

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Rain deficiency 100% in 6 states, 2 UTs, says IMD

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NEW DELHI: At least six states and two Union territories have recorded a nearly 100% rain deficiency in January after a large deficit in December – the two peak winter months for north India — and the season is likely to end on a dry note, weather experts said.

The rain deficiency has come amid spells of dense to very dense fog, and cold day and cold wave conditions over the northern plains for at least two weeks, with experts attributing the lack of winter precipitation largely to the absence of strong western disturbances (WDs) over the region.

North India is seeing a unique situation, experts said, with western disturbances not touching the country at all as they sweep by through more northern latitudes.

Generally, five to seven WDs impact north India between December and January. This winter, however, no active WD has impacted the region.

"The jet stream is also moving north of India. WDs form along with jet stream instability but that instability is not within the Indian region. They are all moving north of India," said M Rajeevan, former secretary, ministry of earth sciences.

On Monday, a WD could be seen in satellite images above the Indian region, when seen on a map. Jet stream winds of 240 to 250 kmph at 12.6km above mean sea level are also prevailing over the plains of North India. This is causing cold air to subside, which in turn is strengthening cold wave/cold day conditions over the region. Similar intensity of jet stream is likely to continue for the next three-four days, the IMD warned.

It is not clear exactly what may be triggering this unusual pattern. "We can see a small system now that is again slightly above India. The westerly jet stream is moving north, which is likely to be a result of global warming or Arctic Sea ice melting. It may be a result of natural variability and north Atlantic oscillation," Rajeevan said, adding that a detailed study of the factors is needed.

The lack of active WDs can also be attributed to El Nino conditions over the equatorial Pacific, the IMD had said in a note on January 17.

"Jet stream winds are very strong. The jet stream, which is north of the Himalayas in summer, moves through slightly lower latitudes in winter. A weaker jet stream indicates higher western disturbance activity. There is cold air incur-

sion from the jet stream," explained DS Pai, senior scientist at IMD.

Under the influence of a fresh western disturbance, light isolated rainfall/snowfall is likely over Western Himalayan Region from January 25 to 28, the IMD said on Monday. "The impact may be limited to higher elevations and may not penetrate the plains," said M Mohapatra, director general, IMD.

In January so far, there has been no rain or snow in Delhi, Punjab, Haryana, Jammu and Kashmir, Ladakh and Chandigarh. Uttarakhand and Himachal Pradesh have recorded 99% rain deficiency.

In December, J&K recorded a 79% rain deficiency; Himachal Pradesh 85%; Uttarakhand 75%; Punjab 70% and Haryana 54%.

The meteorological reality has been starkly in contrast to what the IMD predicted on January 1, when it said monthly rainfall for January 2024 over north India was likely to be above normal (>122% of Long Period Average). Monthly rainfall over the country as a whole during January 2024 is also most likely to be above normal (>118% of LPA), the Met department had said.

HT reported on January 13 that the impact of the underlying causes on the next few months is far more worrying — for the of the snowless peaks could portend a warmer spring.

"The transition will not happen immediately. Bare, snowless peaks will absorb solar radiation and whatever little snow cover, if there is snowfall after this can melt easily. That can cause warming in spring season," Pai said.

The absence of active western disturbances and shortage of rain and snow will have implications for the Rabi (winter) crop, experts said.

Rajeevan said while artificial irrigation may be able to protect the winter Rabi crop, including the staple wheat, there could be cause for alarm if dry soil conditions continue.

Precipitation falling as snow is essential for Himalayan glaciers, which in turn feed rivers that are lifelines for downstream population of the Indian subcontinent. The climate crisis has affected the Himalayas, which is noticeable through lower snowfall and higher snowmelt, leading to critical water resource stresses and managements, a 2022 paper by scientists from IMD and Jawaharlal Nehru University published in International Journal of Climatology states.

The paper concluded that WDs are showing a decreasing trend in frequency and intensity in the present and near-future. But in far-future intensity of WDs shows an increasing trend.

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Water resource inadequacy is a challenge we must take head on

India's mitigation plan for climate change should accord high priority to a basic scarcity that may impede economic growth



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The notion of a 'triple planetary' crisis encompassing climate change, pollution and biodiversity loss has become outdated in the face of complexities captured by the relatively new term 'polycrisis.' This modern challenge involves the intertwining of climate change, environmental disruptions, widening social inequalities, pandemic effects and geopolitical polarization. In the context of India's ambitious pursuit of rapid economic growth amid multiple crises, addressing the climate-development nexus is imperative. The impact of climate change and the depletion of resources holds profound implications for the country's growth trajectory, particularly with a burgeoning population and its escalating demands. Amid these considerations, preserving limited natural resources, especially precious water resources, is a critical priority.

At the recently concluded CoP-28 summit held in Dubai under the aegis of the United Nations Framework Convention on Climate Change, countries agreed on the need to "drive water up the climate agenda," focusing on freshwater ecosystems, urban water resilience and water-resilient food systems.

Highlighting the gravity of the situation, data from the World Bank underscores the fact that water scarcity could depress growth in gross domestic product (GDP) by 6-14% across significant regions in Africa, Asia and the Middle East. This shows the link between climate solutions, development initiatives and water-related challenges. For India, integrating water solutions with its climate and development strategies is of paramount importance in navigating the multifaceted challenges posed by the current polycrisis.

India constitutes 18% of the world's population but has access to only 4% of its water resources. This in itself points to an imbalanced demand-supply structure, which has only grown weaker. In the 1960s, the country's bountiful groundwater resources were critical in driving the 'green revolution,' making it a self-reliant food producer. Today, the country's water table is rapidly falling and its aquifers are drying up faster than the rate at which they are being recharged. Declining water tables inevitably lead to a higher cost of pumping and irrigation water turning salty, resulting in over-abstraction and crop-and-revenue losses for farmers, apart from long-term consequences for water availability. Poor water quality and lack of adequate access to sanitation are also significant causes of disease and poor health.

None of this is news anymore for India. In 2019, the central government, with the support of the World Bank, launched Atal Bhujal Yojana, a central scheme worth ₹6,000 crore that aims to tackle India's growing groundwater crisis. While this is a



significant achievement, it still needs to be improved for the country to achieve water security. India can tap the climate-development nexus by conserving and using its water resources smartly, while proactively addressing climate change. With the country's Indo-Gangetic plains getting drier, experts predict that by 2025, north-west India will be subject to severe water stress. Highlighting this crisis's economic ramifications, the World Bank projects that certain regions may witness a staggering 11.5% reduction in GDP growth due to water scarcity by 2050.

Additionally, it needs no further elaboration that water insecurity will inevitably impact food and livelihood security across the country. Beyond agriculture, water scarcity will significantly affect India's quest for sustainable development by having an adverse impact on energy, health and infrastructure. For instance, under the current structure of India's power sector, water is a critical component, and a growing economy and industrial boom will intensify water management challenges. Tried-and-tested development pathways are not only carbon-intensive but also resource-intensive. India is, therefore, confronted with a significant developmental challenge. How do we overcome this to achieve resilient growth and sustainable prosperity?

The policy ecosystem should adapt to accommodate shifts in the Earth's ecosystems. It is time for the country to eliminate perverse subsidies, improve water use efficiency, strengthen water

governance and ensure sustainable financing for water infrastructure through appropriate cost recovery. Financing for efficient infrastructure is critical since, currently, large sums are being diverted towards drought relief, both honest and rigged. In 2023 alone, the Centre released ₹7,532 crore to states affected by heavy rains and associated natural disasters.

Better planning and sustainable use of limited water resources should become integral to climate adaptation at all levels. In 2023, Kerala set an example by being the first state in the country to pass a water budget to analyse its distribution and bridge gaps between demand and supply. While localized planning and community solutions are necessary, more is needed to address issues in the long-term; comprehensive planning is vital at the level of the river basin and possible interconnections between different basins. Top-down planning and bottom-up implementation are the way forward. In the context of policy tools, driving water up the priority order of India's National Adaptation Plan is critical.

In the backdrop of extreme weather events, depleting natural resources and drying up of fertile land, India is already in the grip of a severe water crisis that could spiral into a social, political and economic crisis over the years. We are perhaps only a short time away from adding water stress to the list of multiple crises facing the world today. We must rise quickly to meet the challenges that worsening water security throws up.

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A more scenic Taj Mahal and cleaner Yamuna soon, using treated Delhi water

Nikhil M. Babu

NEW DELHI

A joint project of the city government's Delhi Jal Board (DJB) and the Centre's National Mission for Clean Ganga (NMCG), the Okhla plant is touted to be the largest STP in the country with a treatment capacity of 564 million litres per day (MLD).

According to official data, the Yamuna water leaving Delhi at present is highly polluted, with the level of faecal coliform (microbes from human and animal excreta) nearly 640 times "the desirable limit".

To dilute these pollutants and increase the Yamuna's flow in Uttar Pradesh, the authorities plan to release about 200 cusecs of treated water at the upcoming Okhla plant into the nearby drain at Abul Fazal enclave, which feeds directly into the river.

At the existing STP in Okhla, the treated water is released into the nearby Agra canal, instead of be-

ing directly released into the Yamuna, and used for irrigation purposes in some districts of Haryana and Uttar Pradesh.

NMCG Director General G. Asok Kumar said the new plan could bring a "noticeable improvement" in the level and quality of water in Mathura and Agra.

"Tourists will be able to enjoy the Taj Mahal better with a cleaner Yamuna flowing behind it," he told *The Hindu*.

'By January-end'

"Of the 564 MLD, 180 MLD [of sewage treatment at the new STP] is expected to be operational by January-end. We plan to release this treated water into the Yamuna from February. By May, 564 MLD will be operational and we will be put entire treated water into the river. As a result, around 200 cusecs of clean water will flow into the Yamuna [in U.P.]," Mr. Kumar said.

According to a DJB offi-

cial, the board had approved this plan last year, but there were some issues with the U.P. government in implementing it due to the existing Central rules. However, the rules were recently tweaked to facilitate the flow of treated water from Delhi into the Yamuna, the official added.

Another DJB official said, "The treated water from [the new plant in] Okhla will be better than that of many existing STPs in Delhi. This clean water will bring more oxygen into the river and increase its self-cleaning capacity."

The water treated at the upcoming plant will have a biochemical oxygen demand (BOD) of 10 milligram per litre.

BOD indicates the amount of dissolved oxygen consumed by bacteria and other microorganisms while decomposing any organic matter present in a sample of water.

The lower the BOD level, the better the quality of the water sample.