

The Times of India- 16- June-2023

# Yamuna Flow 50% Less Than States' Pact On Minimal Flow, Say Experts

## E-Flow In Delhi Stretch 0.48MCM Per Day Against Agreed Quantity Of 0.86

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**New Delhi:** The environmental flow of the Yamuna in Delhi is nearly 50% lower than what was agreed upon by the states that share its water, researchers have said, adding that this inadequacy was consistent over the non-monsoon months and was a cause of pollution.

The environmental flow, or e-flow, is the minimum water a river must have to sustain itself. According to a study by researchers of Delhi University and Jamia Millia Islamia, the e-flow of 0.86 million cubic metres (MCM)/day, agreed upon by the Yamuna basin states in an MoU, is inadequate. According to the team, the river needs an e-flow of about 6.6 MCM/day to avoid algal choking, which is the sign of a diseased river. The current e-flow, the DJB has said, is roughly 0.48 MCM/day, about 50% less than 0.86 MCM/day. The team said that when the MoU is revised in 2025, Delhi should renegotiate for more water.

The researchers pointed out that even when the authorities succeed in maintaining an e-flow of 0.86 MCM/day, the water is largely sewage. "What we are questioning is the MoU of the Upper Yamuna River Board, through which the Supreme Court had mandated



Photos: Piya Bhattacharjee

the minimum flow. According to our study, to keep the Yamuna healthy, we need a minimal flow of 6.6 MCD/day," said pro-

fessor Shashank Shekhar in the department of geology in Delhi University who was part of the study.

Most of the water in the Yamuna in Delhi is diverted from the Hathni Kund barrage. Between Haryana's Hathni Kund

and Sonapat, the e-flow of 0.86 MCM/day is difficult to reach.

"Delhi is dependent on additional water from Haryana to meet its drinking water demand. Where do you think will the additional water come from? The answer is sewage and drainage water that is yet to be treated," an expert associated with monitoring the river said.

Officials pointed out that in downstream Wazirabad, the flow includes water from 28 drains, which is all sewage.

"The problem is during the non-monsoon months when water is diverted to Uttar Pradesh and Haryana for farming.... In Delhi, where the river is the most polluted, downstream Wazirabad is all sewage. Even if there is volume in the flow, it is not good quality water," professor Shekhar said.

He said that at Wazirabad, the presence of water is due to an escape canal. "At the barrage, Delhi takes around 200 million gallons per day, and Haryana is mandated to release some water to maintain a certain level. This flow is maintained through a canal escape upstream of Palla. What we see upstream Wazirabad is not entirely the Yamuna," he said.

"If STPs are able to provide water quality, it might work but this is a utopian dream," he added.

The Tribune- 16- June-2023

# Will seek 7.19% share in Chd, royalty from BBMB projects: CM

PRATIBHA CHAUHAN  
TRIBUNE NEWS SERVICE

SHIMLA, JUNE 15

The state government seems to have toughened its stand after Punjab's opposition to the Central Government's decision to waive the no objection certificate (NOC) condition for the drawing of water by Himachal from BBMB projects for irrigation purpose. It may now seek 7.19 per cent share in other sectors as well.

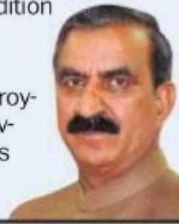
Chief Minister Sukhvinder Singh Sukhu today said, "Himachal will seek its legitimate 7.19 per cent share as per the Punjab Reorganisation Act, 1966 in every sector, be it in Chandigarh or the royalty from BBMB projects."

He added that Himachal was willing to discuss and amicably settle all these inter-state issues.

Sukhu said this after Punjab Chief Minister Bhagwant Mann opposed the Central

## PUNJAB'S OPPOSITION THE TRIGGER

- The state government toughens stand after Punjab opposed the Centre's decision to waive the NOC condition for the drawing of water by Himachal from BBMB projects for irrigation purpose
- Sukhvinder Sukhu has been demanding royalty from BBMB projects so as to raise revenue for the cash-strapped state, which is under a debt of ₹75,000 crore



Government's decision to waive the NOC condition for Himachal for using water from BBMB projects for irrigation purpose. Sukhu has been demanding royalty from the BBMB projects so as to raise revenue for the cash-strapped state, which is under a debt of Rs 75,000 crore.

The issue could also become a sore point between Himachal and Punjab like the earlier decision of the Congress government to impose water cess on 172 hydroelectric projects, which both Punjab and Haryana had opposed.

Government officials cit-

ed a letter written by Gourav Jasuja, Deputy Director, Union Ministry of Power, to the BBMB Chairman and the Chief Secretaries of Punjab, Haryana, Himachal and Rajasthan on June 15. They said that the matter had been examined and settled. "We are well within our right to draw water for irrigation purpose, as per our 7.19 per cent share, upheld even by the Supreme Court," said a senior government official.

It has been reliably learnt that no state actually knows how much water is being drawn for irrigation pur-

pose. The Jal Shakti Department is getting the exercise done so as to ascertain the quantum of water Himachal is drawing for irrigation purpose.

"The matter has been examined and it has been decided that the BBMB may do away with the present mechanism of an NOC with the condition that the cumulative withdrawal by Himachal is kept below their analogous 7.19 per cent share in power, as decided by the Supreme Court," the letter from the Union Ministry of Power reads.

The letter also mentions that "the BBMB shall only carry out a technical feasibility study for the drawing of water by Himachal for supply for irrigation purpose. If it involves engineering structures of the BBMB then convey the necessary technical requirements to Himachal within 60 days of the receipt of such a request".



Millennium Post- 16- June-2023

# Water conservation a priority for CM Khattar

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## OUR CORRESPONDENT

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**CHANDIGARH:** Water conservation is a priority for Haryana Chief Minister Manohar Lal Khattar as the state has a long list of initiatives specifically focussing on saving water for the next generation starting with 'Mera Pani-Meri Virasat' scheme launch as part of the Biennial Integrated Water Resources Action Plan (2023-25).

Concerned about water conservation for future generations, the chief minister gave the concept of 'Mera Pani-Meri Virasat' scheme which garnered appreciation at different forums. Under the scheme, the chief minister aims to motivate the farmers to switch to other alternative crops in paddy-dominated districts and interacted with the farmers of all the 10 paddy-dominated districts of the state.

Consequently, the farmers on 1.5 lakh acres of land adopted other crops instead of paddy and for this, they are being given financial assistance

at the rate of Rs 7,000 per acre. In the year 2023-24, a target has been set of bringing 2 lakh acres of area under other crops in place of paddy. Apart from this, now the farmers are also moving towards direct-seeded rice, which will save water.

Meanwhile, the chief minister recently launched the Biennial Integrated Water Resources Action Plan (2023-25). The total water availability in the state is 20,93,598 crore litres, while the total water demand is 34,96,276 crore litres, leaving a water gap of 14 lakh crore litres. This action plan aims to bridge this gap for the next two years.

Also, a two-day 'Water Conclave' was organised recently in Panchkula in the direction of water conservation, in which administrative secretaries and experts working on water conservation from India and abroad participated. The main objective of the conclave was to discuss an integrated water resource management strategy and approach in the wake of depleting groundwater levels.

Millennium Post- 16- June-2023

# Nearly 29,000 people hit by floods in Assam

*Lakhimpur is the worst hit with over 23,500 people affected*

## MPOST BUREAU

**GUWAHATI:** The flood condition in Assam deteriorated on Thursday with nearly 29,000 people reeling under the deluge across three districts of the state due to incessant rain, an official bulletin said.

According to the daily flood report of the Assam State Disaster Management Authority (ASDMA), more than 28,800 people are hit due to floods in Dhemaji, Dibrugarh and Lakhimpur districts.

Lakhimpur is the worst hit with over 23,500 people affected, followed by Dibrugarh with more than 3,800 people and Dhemaji with almost 1,500 persons, it added.

Till Wednesday, nearly 21,000 people were affected by floods across two districts of Assam. The administration has launched three relief distribution centres in the Lakhimpur district, but no relief camp has been started as of now.

At present, 25 villages are under water and 215.57 hectares of crop areas have been dam-



Citizens are seen at a submerged house with floodwater at Bagribari, in Baksa district, on Thursday

PTI

aged across Assam, ASDMA said. Massive erosions have been witnessed in Biswanath, Bongaigaon, Dibrugarh, Jorhat, Lakhimpur, Morigaon, Sonitpur and Udalguri districts, the ASDMA said.

Some places in Cachar and Kamrup Metropolitan reported incidents of landslides due to heavy rainfall.

Embankments, roads, bridges and other infrastructure have been damaged by flood waters in Lakhimpur, Goalpara, Biswanath, Dhemaji, Baksa, Dima Hasao and Karim-

ganj districts. No river is flowing above the danger mark in Assam as of now, it added.

The Guwahati-based Regional Meteorological Centre (RMC) on Wednesday had predicted heavy rainfall activity over the Northeastern region during the next five days.

For three days, the RMC had issued 'Orange Alert', followed by 'Yellow Alert' for the subsequent two days.

'Yellow Alert' stands for watch and be updated, while 'Orange Alerts' implies be prepared for action. WITH AGENCY INPUTS



Financial Express- 16- June-2023

# Water reservoirs at comfortable levels, except southern region

**Storage at 94% of last year's level, but 120% of 10-year average**

**SANDIP DAS**  
New Delhi, June 15

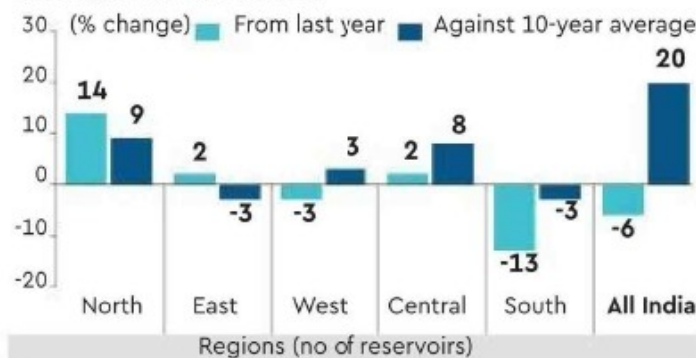
**WATER TABLES IN** India's reservoirs have dropped to a level 6% below last year's record-high, amid lingering concerns over heat waves in many parts of the country and sluggish progress of monsoon rainfall so far.

However, no large impact of this on the Kharif crops is anticipated at present, as the stored water is still much above the 10-year average, and is seen to be sufficient to irrigate the rain-fed swathes of the agriculturally important regions.

However, if the monsoon turns out to be below average, as predicted by private forecaster Skymet, the eastern region could face water scarcity and crop damage.

According to the Central

## CURRENT LEVELS



Source: CWC, as on June 15, 2023

Water Commission data, water level of the country's 143 reservoirs stood at 49.99 billion cubic metres (bcm) on Thursday, which is 27% of their combined capacity.

A year ago, the water available in these reservoirs was 51.26 bcm, and the average of the last 10 years was 39.83 bcm. "Current water level of reservoirs was 94% of the live storage of the corresponding period of last year and 120% of storage of the average of the last 10 years," the CWC stated.

Of the reservoirs whose water levels are monitored by the CWC, 112 are located in the west, central and southern regions.

In the Southern regions,

water levels have dropped below last year as well as last 10 year-average level.

However water levels in major dams in eastern regions especially in West Bengal, Bihar, Jharkhand and Odisha, have been just above last year's level however less than last 10 year-average level. In these states, a large segment of the crop area is still rainfed.

West Bengal, the biggest rice producing state in the country, has irrigation coverage of only 51%, which may be impacted if monsoon rains become deficient. The India Meteorological Department predicted rainfall at 96% of the long period average, while precipitation between 96-104% is treated "normal."

Business Line- 16- June-2023

SK Sarkar

India has shifted from an age-old "state-centered" decision-making model in the water sector to a "market-determined" paradigm. Independent regulators are positioned to restructure the water sector with an emphasis on institutional reforms, a demand-responsive approach, and community participation in the management of water resources.

Maharashtra took the lead to establish an independent water regulator in 2005 with Punjab being the latest in 2020. States such as Uttar Pradesh, Andhra Pradesh, Arunachal Pradesh, and Madhya Pradesh are in various stages of undertaking such regulatory reforms in the sector.

Water is a finite resource. There is a spatial and temporal variation of water resources in India. Thus, Given the rising demand for water, conservation efforts are extremely essential, an aspect also considered by the governments while positioning water regulators in the States.

#### INITIATIVES IN MAHARASHTRA

In Maharashtra the water regulator is expected to ensure that a "tail to head" irrigation is implemented by the concerned agencies through equitable allocation of water, water entitlement is measured volumetrically to control its wasteful use, water saving technology is adopted by cultivators, water quality is preserved by implemented and adopting "polluters pay" principle, water charges are based on full recovery of cost of irrigation management, resources maintenance is ensured, etc.

The Maharashtra water regulator in its various water tariff orders proposed incentives/disincentives for ensuring water conservation. In the agricultural sector on adopting 'Drip/Sprinkler system', the 2018-20 tariff rate was only 75 per cent of the applicable rate; for private lifts (irrigation) unmetered use, the water tariff is 1.5 times the floor rate per individual; for domestic use, for recycling of treated wastewater, 60 per cent applicable rate is considered if water is reused for irrigation; for industrial use, if water demand is reduced by at least 25 per cent through recycling and reuse, the water tariff is 75 per cent of the applicable rate.

#### PUNJAB INITIATIVES

In Punjab, the groundwater is over-exploited (in 80 per cent blocks). The water regulator in Punjab under section 15(2) of the Punjab Water Resources (Management and Regulation) Bill 2020 is mandated to issue directions for restrictions on the utilisation of groundwater, ensure optimal use of surface water for irrigation (industrial or domestic use), undertake efficient use of water and minimise wastage or misuse of water through its recycling and reuse, undertake water conservation and



GN RAO

groundwater recharge including rain water harvesting, etc.

Following the above mandate, the water regulator issued a Direction in January 2023 called "Punjab Ground Water Extraction and Conservation Directions 2023". The Direction aims to improve the "water balance" by promoting and ensuring water conservation by various users. All users (especially industries) permitted to extract groundwater, are required to pay volumetric extraction charges, which are then utilised in part for water conservation.

Additionally, all users have the option of conserving water themselves with the regulator's approval, and can in turn earn "water conservation credits" in monetary terms from the regulator. A user may opt to implement water conservation measures either within the unit or outside their jurisdiction in different groundwater assessment blocks. Such a user is provided water

**The Maharashtra water regulator mostly deals with conservation in surface water while the Punjab regulator deals with groundwater extraction for industrial use.**

# Regulatory initiatives for water conservation

**FINITE RESOURCE.** Schemes for water conservation must involve consultation with stakeholders, policymakers and water managers

conservation credit which entitles them to a rebate in groundwater extraction charges.

Regarding reuse of treated wastewater, such water volume is considered for calculating "water conservation credit". Under special circumstances, when a user releases such water into surface water bodies, this water earns credits up to 50 per cent of value so treated and discharged.

The Direction also provides water conservation limits for earning credits. For example, if a unit situated in the 'orange zone' of ground water assessment blocks, extracts 300,000 cum (cubic meter) per year, it can earn a maximum "water conservation credit" to the tune of ₹16.14 lakhs per annum, and to that extent, the groundwater extraction charges are reduced.

#### FUTURE AGENDA

Maharashtra water regulator mostly deals with water conservation in surface water while Punjab regulator deals with groundwater extraction for industrial use. In Punjab out of the total groundwater availability of 35.78 billion cubic meter (bcm), 34.56 bcm are used for irrigation.

Thus, water conservation in the irrigation sector should be a prime concern in the State. However, this is a politically sensitive subject.

In Maharashtra, the groundwater

crisis has deepened over the years, and the worst affected are the underprivileged, women, and landless small and marginal farmers. Out of the total available water resources of 196 bcm, 163 bcm comes from surface water, and 33 bcm comes from groundwater. Thus, Maharashtra too warrants groundwater conservation through regulatory efforts.

On the whole, there is an urgent need for undertaking water conservation by water regulators in all sectors including agriculture (industrial or domestic). Regulatory initiatives for water conservation especially through the use of "water conservation credits" as in Punjab, should be undertaken by all the water regulators.

Water use is significant in agriculture. But water use efficiency is very low compared to international standards in this sector. Regulators should guide users using a framework of model 'water saving schemes' developed in consultation with stakeholders, policymakers, water managers, and more.

Community participation and women's involvement are a must for water conservation. Political commitment to water conservation should be the priority at all levels.

The writer is Distinguished Fellow at TERI, and former Secretary, Ministry of Water Resources



Amar Ujala- 16- June-2023

# बांधों के निर्माण में तेजी, पर जलाशयों में घट रहा पानी

चिंताजनक : जलवायु परिवर्तन और आबादी बढ़ने से जलाशयों पर बढ़ा दबाव

अमर उजाला नेटवर्क

नई दिल्ली। गत 20 वर्षों के दौरान नए बांधों के निर्माण की वजह से वैश्विक स्तर पर जलाशयों की कुल भंडारण क्षमता में इजाफा तो हो रहा है लेकिन जलाशयों में मौजूद पानी की मात्रा लगातार घट रही है। इंटरनेशनल रजिस्टर ऑफ लार्ज डैम्स के मुताबिक वर्तमान में दुनियाभर में 58,713 बड़े बांध हैं, जिनमें से 4,407 भारत में हैं। अमेरिका में इनकी संख्या 9,263 और चीन में सबसे ज्यादा 23,841 है।

अंतरराष्ट्रीय जर्नल नेचर कम्युनिकेशन्स में प्रकाशित टेक्सास ए एंड एम यूनिवर्सिटी के अध्ययन के मुताबिक यदि वैश्विक स्तर पर देखें तो कृत्रिम जलाशय पानी की बढ़ती मांग को पूरा करने के लिए काफी महत्वपूर्ण हैं, लेकिन जिस तरह से जलवायु परिवर्तन हो रहा है और आबादी बढ़ रही है इसकी वजह से जलशयों पर दबाव भी बढ़ता जा रहा है। शोध के मुताबिक भारत में



जिस तरह से आबादी बढ़ने के साथ पानी की मांग बढ़ रही है उसके कारण पैदा होने वाले तनाव को बड़े बांधों के जरिए भी दूर नहीं किया जा सकता। इसमें कोई शक नहीं की भारत के बड़े बांधों और जलाशयों ने जल प्रबंधन में अहम भूमिका निभाई है लेकिन इस बात से इन्कार नहीं किया जा सकता कि इनकी वजह से पर्यावरण को भी भारी नुकसान पहुंचा है।

प्रति वर्ष 0.82% की दर से घट रहा जलाशयों का जलस्तर

वैश्विक स्तर पर जलाशयों की कुल भंडारण क्षमता सालाना 27.82 लाख क्यूबिक मीटर प्रति किलोमीटर प्रति वर्ष की दर से बढ़ रही है, लेकिन जलाशयों का भंडारण 0.82 फीसदी की दर से प्रति वर्ष घट रहा है। गिरावट की गणना कुल भंडारण क्षमता के अनुपात में की गई है।

■ अध्ययन में वैज्ञानिकों ने 1999-2022 के बीच 7,245 जलाशयों के भंडारण का अनुमान लगाने के लिए उपग्रहों से प्राप्त आंकड़ों की मदद ली। इस अध्ययन में भारत के लगभग 45 बड़े बांधों को शामिल किया गया।

■ देश के जल शक्ति मंत्रालय की ओर से कराई गई जलाशयों की पहली गणना के अनुसार जलाशयों पर अतिक्रमण भी बड़े बांधों के गिरते जल स्तर के लिए जिम्मेदार है। गांवों में 37,007 जलाशयों पर अतिक्रमण है, जबकि शहरी क्षेत्रों में 1,784 बड़े जलाशय ऐसे हैं जो अवैध कब्जों का शिकार हैं। यानी देश में 38,791 जलाशय ऐसे हैं, जिन्हें लगभग पूरी तरह हड़प लिया गया है।

Hindustan- 16- June-2023

# मध्य प्रदेश सर्वश्रेष्ठ राज्य बना

## राष्ट्रीय जल पुरस्कार

नई दिल्ली, विशेष संवादादता। साल 2022 के लिए राष्ट्रीय जल पुरस्कार से मध्य प्रदेश को सर्वश्रेष्ठ राज्य के रूप में सम्मानित किया जाएगा। ओडिशा के गंजाम जिले को सर्वश्रेष्ठ जिले के रूप में चयनित किया गया है। सर्वश्रेष्ठ उद्योग का पुरस्कार बरौनी ताप विद्युत केंद्र, बेगूसराय बिहार को और कॉर्पोरेट सामाजिक दायित्व (सीएसआर) गतिविधियों के लिए सर्वश्रेष्ठ उद्योग का पुरस्कार हिंदुस्तान कम्यूटर्स लिमिटेड (एचसीएल) टेक्नोलॉजीज लिमिटेड, नोएडा को प्रदान किया जाएगा।

उपराष्ट्रपति जगदीप धनखड़ शनिवार को चौथे राष्ट्रीय जल

- ओडिशा का गंजाम सर्वश्रेष्ठ जिला, एचसीएल नोएडा होंगे पुरस्कृत
- उपराष्ट्रपति जगदीप धनखड़ चौथे राष्ट्रीय जल पुरस्कार प्रदान करेंगे

पुरस्कार प्रदान करेंगे। जल शक्ति मंत्रालय के बयान के अनुसार, मंत्रालय ने 11 श्रेणियों में 41 विजेताओं की घोषणा की है। इसमें सर्वश्रेष्ठ राज्य का पुरस्कार मध्य प्रदेश को दिया जाएगा जबकि सर्वश्रेष्ठ जिले का पुरस्कार ओडिशा के गंजाम जिले को प्रदान किया जाएगा। प्रत्येक पुरस्कार विजेता को एक प्रशस्ति पत्र और एक ट्रॉफी के

साथ-साथ कुछ श्रेणियों में नकद पुरस्कार से सम्मानित किया जाएगा।

सर्वश्रेष्ठ उद्योग का पुरस्कार बरौनी ताप विद्युत केंद्र, बेगूसराय, बिहार को मिलेगा और सर्वश्रेष्ठ स्वयं सहायता समूह (एनजीओ) का पुरस्कार अर्पण सेवा संस्थान, उदयपुर, राजस्थान को मिलेगा। सर्वश्रेष्ठ जल उपयोगकर्ता संघ का पुरस्कार संजीवनी पिपाट सहकारी मंडली लिमिटेड, नर्मदा, गुजरात को दिया जाएगा और कॉर्पोरेट सामाजिक दायित्व (सीएसआर) गतिविधियों के लिए सर्वश्रेष्ठ उद्योग का पुरस्कार हिंदुस्तान कम्यूटर्स लिमिटेड (एचसीएल) टेक्नोलॉजीज लिमिटेड, नोएडा, उत्तर प्रदेश को प्रदान किया जाएगा।