

# 41% Of City Overexploiting Groundwater, Says Report

Situation Has Improved In Some Areas Like Najafgarh This Yr

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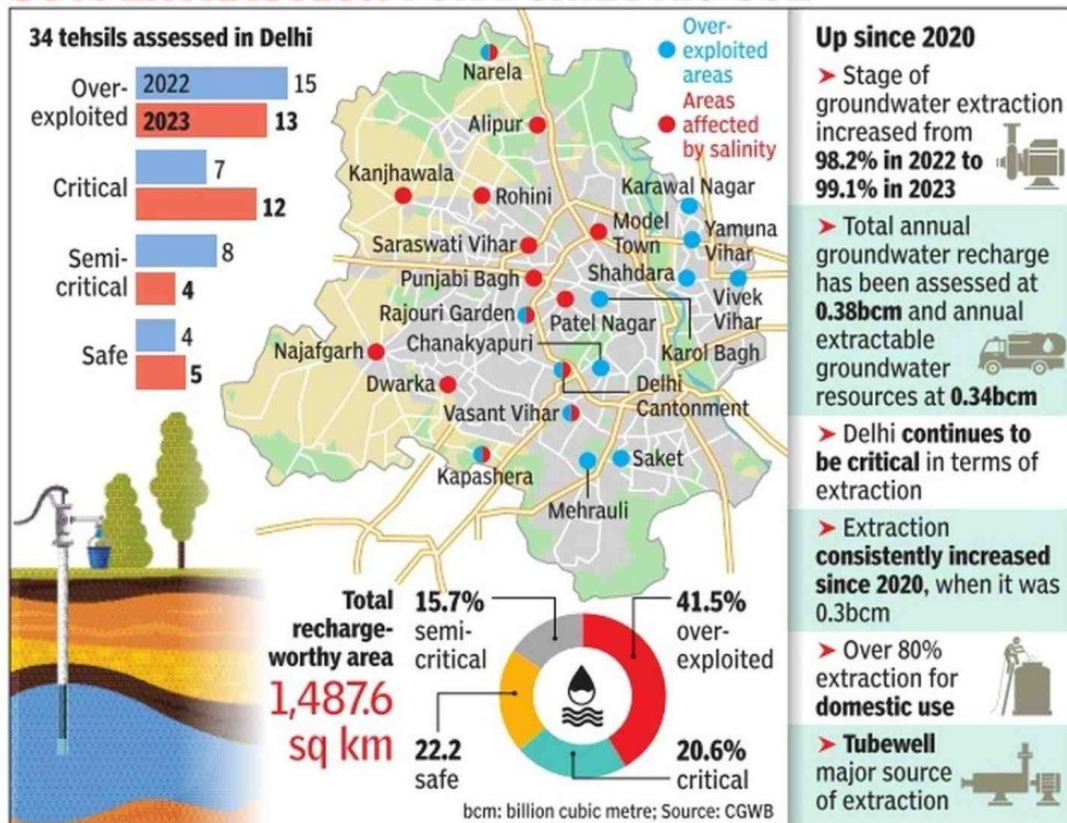
New Delhi: Delhi has been drawing more groundwater than it recharges since 2022. The Central Ground Water Board's assessment found that the total annual groundwater recharge decreased from 0.41 billion cubic metres (bcm) in 2022 to 0.38bcm in 2023, while the annual extractable groundwater resource available decreased from 0.37bcm to 0.34bcm.

A CGWB report said that tubewells remained the major source of water extraction, accounting for over 41% of the city's total area being "overexploited" in terms of groundwater resource use. The imbalance in extraction and recharging has been attributed to a reduction in recharge from rainfall because of lower precipitation in the current assessment year.

"Of the 34 assessment units (tehsils), 13 units (38.2%) have been categorised as 'overexploited', 12 units (35.3%) as 'critical', four units (11.8%) as 'semi-critical', and five units (14.7%) as 'safe'. Similarly, out of 1487.6 sqkm recharge worthy area of the state, 617.3 sqkm (41.5%) are under 'overexploited', 306.4 sqkm (20.6%) under 'critical' category, 233.7 sqkm (15.7%) under 'semi critical' and 330.2 sqkm (22.2%) under 'safe' categories," the report stated.

In central Delhi, Karol Bagh was 'overexploited' and Kotwali 'critical'. In east Delhi, none was assessed to be overexploited but Mayur Vihar fell in the 'critical' category. In New Delhi, Delhi Cantonment, Chanakyapuri and Vasant Vihar were 'overexploited'. In North, Narela was 'overexploited' and Model Town, 'critical'. In North-East, Yamuna Vihar

## 80% EXTRACTION FOR DOMESTIC USE



and Karawal Nagar were 'overexploited'. In Shahdara district, Vivek Vihar and Shahdara were 'overexploited' and Semapuri 'critical'.

In south Delhi, Mehrauli and Saket were 'overexploited', while Hauz Khas was 'critical'. In South-East, there were no 'overexploited' areas but Kalkaji, Defence Colony and Sarita Vihar were 'critical'. In South-West, Kapashera was 'overexploited' and Dwarka 'critical'. In West, Rajouri Garden was 'overexploited' and Patel Nagar 'critical'.

An area is 'overexploited' when the extraction of water is over 100%, meaning more water is drawn out than recharged. Extraction between 100% and 90% is 'critical', while bet-

ween 90% and 70% is 'semi-critical'. Less than 70% extraction renders the area 'safe'.

The report said overexploitation of groundwater resources could be due to region-specific reasons. The report said that Delhi was covered by diverse rock types of different geological ages from Pre-Cambrian to Recent, and around 89% comprised alluvium, with groundwater tapped mostly through tube wells. "The north-western part of the country has plenty of replenishable groundwater resources but because of the over extraction beyond the annual ground water recharge, many of these units have become overexploited," it stated, adding that some areas had re-

corded a rise in the water table.

"Yields of tube wells vary from 4 litres per second to 1lps in older alluvial deposits and from 25lps to 55lps in newer alluvium. About 11% of the state is occupied by quartzitic hard rock, where bore wells have a yield of 0.6 to 5 lps," said the report.

The report, however, also stated that the situation of groundwater had also improved since 2022 in some areas like Najafgarh, which was listed under the 'safe' category in 2023 against 'semi-critical' last year. Hauz Khas and Dwarka too showed some improvement, though they still fall in the 'critical' category. They were in the 'overexploited' zone last year.



# ANDHRA AGREES TO TEMPORARILY STOP RELEASE OF WATER FROM NAGARJUNASAGAR

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**Press Trust of India**

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**AMARAVATI:** The Andhra Pradesh government on Saturday agreed to temporarily stop the release of water from the Nagarjunasagar Project (NSP) as a goodwill gesture following a meeting convened by the Union Ministry of Jal Shakti between the state and Telangana, said an official.

The state government took the decision after a request by Department of Water Resources, River Development & Ganga Rejuvenation secretary, Debashree Mukherjee, said the official. She chaired the meeting from Delhi.

Speaking to PTI, Andhra Pradesh irrigation engineer-in-chief, C Narayana Reddy, said: "However, whether the state will permanently cease the release of water is contingent to a favourable outcome from the Krishna River Management Board's (KRMB) decision on the 5 TMC water indent it raised on Saturday in the meeting convened by Mukherjee."

If KRMB declines the crucial request made to meet the drinking water exigencies on December 6, the Andhra Pradesh will go ahead and release water, he said.

Andhra placed the indent for release of 5 TMC water from its allocated share of Krishna river waters through the right main canal of NSP to meet drinking water needs. After the key meeting, the state government said it will continue to deploy police forces on its side of the Nagarjunasagar dam until a decision is taken to implement the notification of the Government of India on the jurisdiction of KRMB.

# Battling water woes in land of tragedy

Survivors of the Bhopal gas leak disaster of 1984 continue to bear the brunt of contaminated groundwater as govt. promises remain unkept

**Nikhil M. Babu**

BHOPAL

**R**ashid Khan, 60, remembers the cold winter night of December 2, 1984, vividly. Sitting around a fire with four friends, his eyes started to burn. People began to shout, “*Gas nikal gayi he* (the gas has leaked).”

Outside his current house in Devaki Nagar, about one km from the Union Carbide India Ltd. (UCIL) factory premises, Mr. Khan is now worried about another threat: the groundwater that he and the people in the densely populated area around use. “I still get dizzy every two or three days, and it lasts for two to three minutes. I sweat and get anxious,” Mr. Khan said.

In what was one of the greatest tragedies of the previous century, a deadly methyl isocyanate leakage from the plant in 1984, killed 5,479 people, temporarily disabled 35,455, and injured over five lakh, as per government estimates. Over the years, studies have found groundwater in different residential areas outside the factory contaminated with heavy metals and other toxic substances, which could lead to cancer



The Union Carbide Factory in Bhopal. A. M. FARUQUI

and other diseases. Now, experts say there are chances of the contamination spreading.

This is because hundreds of tonnes of toxic waste dumped by the UCIL within its factory premises from 1969 to 1984 and 11 lakh tonnes of contaminated soil have not yet been cleared by authorities, despite court orders and warnings, officials confirmed. In this soil is about one tonne of mercury, as per a government-commissioned study in 2010. There is also nearly 150 tonnes of underground dumps.

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## **Battling water woes in land of tragedy**

The government has recommended funds only for the disposal of 337 tonnes of waste, collected 18 years ago and stored in a shed in the factory.

Mr. Khan's area is not part of the 42 areas around the factory where a Supreme Court-appointed Monitoring Committee is looking into the drinking water supply after groundwater contamination was found.

Devaki Nagar started getting piped water from the Narmada about a decade ago, but when they run out, they draw water from a borewell nearby. "We still use borewell water for bathing, washing utensils, cleaning, and all other purposes. The piped water comes once a day and that too only for 20 minutes. In summer, there are many days without piped water," Mr. Khan said, adding that they are forced to drink water from the borewell when they run out of piped water.

With activists complaining to the Supreme Court of groundwater contamination spreading, the Madhya Pradesh government has, over the last 15 years, increased the number of areas around the factory that they provide safe drinking water to, from 14 to 18 to 22 to 42, following court orders and studies. The government has also sealed hand pumps and tube wells so that residents do not have access to contaminated water.

### **Contamination spreading**

Professor Indumathi M. Nambi, in the civil engineering department at IIT Madras, was appointed by the Supreme Court to check the water contamination in the area. She tested 20 samples of water outside the factory premises in 2018 and told the court in an affidavit: "The ongoing contamination of soil and groundwater in Bhopal is a technologically challenging problem that calls for immediate attention. The problem involves contamination by an array of highly toxic chemicals and heavy metals that over several decades have seeped to great depths over a wide area." She told *The Hindu* that the groundwater contamination is most likely to spread, as long as the toxic waste in the factory premises is not removed.

A few government studies though, have not found any groundwater contamination outside the factory.

# SC to Bihar: clear encroachments near the Ganga

## NEW DELHI

The Supreme Court has ordered the Bihar government to clear illegal constructions from the floodplains of the Ganga, especially in and around Patna. The order came on an affidavit filed by Bihar identifying 213 unauthorised constructions near the river.

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# SC directs Bihar govt. to remove encroachments near the Ganga

The plea contended that the National Green Tribunal failed to note the fact that a clean Ganga is essential to meet the domestic water needs of the 5.5 lakh population of Patna as the groundwater has been contaminated with arsenic

**The Hindu Bureau**  
NEW DELHI

**T**he Supreme Court has ordered the Bihar government to clear unauthorised constructions from the floodplains of the Ganga, especially in and around Patna.

The order came on an affidavit filed by Bihar identifying 213 unauthorised constructions near the river. The State said it was taking measures to remove the encroachments

## Eco-fragile floodplains

A Bench of Justices Aniruddha Bose and Augustine George Masih directed the State government to file an affidavit informing it about the removal of identified illegal structures.

“The State shall also ensure no further construction takes place adjacent to the Ganga particularly in and around the city of Patna,” the Bench directed.

The top court was hearing a plea filed by Patna resident Ashok Kumar Sinha against the June 30, 2020, order of the National Green Tribunal dismissing his plea against illegal con-



**River intrusion:** The plea filed that the illegal constructions and encroachments on the floodplains of Ganga are creating tremendous amounts of waste and noise and generating sewage. PTI

structions and permanent encroachments on the eco-fragile floodplains.

The plea contended that the tribunal passed the order without examining the detailed particulars of the violators encroaching upon the Ganga floodplains in Patna submitted

by the appellant.

## ‘Risk to life’

“The illegal and unauthorised constructions and permanent encroachments on the floodplain of Ganga are creating tremendous amounts of waste, noise and generating vast quan-

tum of sewage,” the plea filed through advocate Akash Vashishtha said.

“They are aggravating the risk to life and property of the dwellers occupying the surroundings since every year, the areas stated in preceding paras go down under flood waters. The il-

legal constructions were obstructing the natural course of the river,” it said.

## Environmental impacts

The plea said they were causing deleterious environmental impacts on the rich biodiversity and destroying the habitat and, thereby, the very survival of dolphins, a Schedule I species under the Wildlife (Protection) Act, 1972, on the stretch.

The plea stated that the tribunal failed to note the fact that a clean Ganga river was vital and essential to meet the drinking and domestic water needs of the 5.5 lakh population of the city as the groundwater in the district was contaminated with arsenic.

“A massive 520 acres of ecologically sensitive Ganga floodplain, stretching from Nauzer Ghat to Nurpur Ghat, in Patna, have been usurped. This stretch is prone to recurrent floods every year. A multi-storey building, belonging to the Takhat Shri Harmandir Sahib, has further come up since 2017 and parts, thereof, are still under construction,” the plea said.

# TS-AP water row: Centre plans to bring NSP and Srisaillam under KRMB purview

**M. SRINIVAS I DC**  
HYDERABAD, DEC. 2

In a bid to resolve the clash between Telangana and Andhra Pradesh over utilising water from the Nagarjunasagar Project (NSP), the Union ministry of jal shakti (MoJS) is seriously exploring the possibility of bringing the Nagarjunasagar and Srisaillam dams under the purview of the Krishna River Management Board (KRMB).

A decision to this effect is expected to be taken at a meeting convened by the ministry in New Delhi on December 6. MoJS secretary Abhiram Kumar said on Saturday that the NSP review meeting would be conducted under the chairmanship of the secretary, water resources, river development and Ganga rejuvenation. However, it is not clear if the new Telangana government will be in place by the date of the meeting.

At the dam itself, AP had closed one gate of the right main canal but its police was still in place. The CRPF had taken over the area that the TS police were controlling, but were yet to be deployed on the AP side till last reports came in. The AP police are still on the dam, and their barricades have not been removed, sources said.

The agenda includes discussion with the two states on the transfer of NSP and Srisaillam project, along with all related appurtenances and structures, to KRMB. Towards this, secretary Kumar urged Telangana Chief Secretary A. Shanti Kumari and her AP counterpart K.S. Jawahar Reddy, along with officials from the CRPF, which has taken over security at the dam, Central Water Commission (CWC) and KRMB, to be physically present at the meeting.

On Saturday, Telangana irrigation and command area development (I&CAD) department engineer-in-chief (general) C. Muralidhar in a letter to the board

chairman urged the KRMB to take necessary steps to immediately restore status quo as on pre-November 28, as decided in the virtual meeting held under the chairmanship of the secretary, ministry of home affairs.

As per information received from the chief engineer, NSP, the Telangana police had withdrawn from the site and the CRPF had taken over control of various points on the project in accordance with the decision taken at Friday meeting on status quo.

But, AP has not taken a similar action and the AP state police have not been withdrawn. Further, the head regulator of the right main canal was still open and water was continuing to flow into the canal, albeit illegally, Muralidhar said. He sought the board's intervention to maintain status quo and stop the illegal drawl of water to the right main canal.

Meanwhile, during a meeting with AP irrigation department officials on Saturday, the MoJS asked them to first withdraw police forces from the site.

Sources in KRMB said that AP continued to draw 3,600 cusecs of water every day.

According to sources in the Telangana irrigation department, AP's move last week had nothing to do with the state's drinking water needs.

The sources said that the AP government was under intense pressure from farmers in Guntur, Krishna and Prakasam districts where standing crops, including chilli, which is grown mostly in Guntur district and in some areas of Prakasam, require water for irrigating crops.

"Fifteen tmc ft (thousand million cubic feet) of water to meet drinking water needs of AP has been approved. Of these 5 tmc ft have been released and another 5 tmc ft is slated for release next month and the last phase in April. If

AP wanted to meet its drinking water needs urgently, Telangana would have had no objection as the state could take from its already allocated quota. Instead, AP came and did this deliberately just when Telangana's official machinery was busy with the Assembly elections," the sources

said.

"The KRMB too did not act with alacrity and despite the availability of a board member in the city, some low-level officials were dispatched to the dam to check and submit a ground report. Meanwhile, AP is continuing to release water," they added.



# गंगा नदी से सटे क्षेत्रों में न हो कोई नया निर्माण : सुप्रीम कोर्ट शीर्ष अदालत ने बिहार सरकार को दिया आदेश

नई दिल्ली। सुप्रीम कोर्ट ने बिहार सरकार को यह सुनिश्चित करने का निर्देश दिया कि गंगा नदी के किनारे, खासकर पटना व उसके आसपास कोई नया निर्माण न हो।

शीर्ष अदालत ने राज्य सरकार से गंगा नदी के बाढ़ क्षेत्र में चिह्नित अवैध निर्माण को हटाने के लिए किए गए कार्यों के संबंध में हलफनामा भी पेश करने को कहा। जस्टिस अनिरुद्ध बोस व जस्टिस ऑगस्टीन जॉर्ज मसीह की पीठ ने कहा, सुनवाई के दौरान बिहार सरकार के वकील ने बताया कि गंगा नदी के बाढ़ क्षेत्र में 213 अवैध निर्माण चिह्नित किए गए हैं। अवैध निर्माण व अतिक्रमण को हटाने के लिए कदम भी उठाए गए हैं। अगली सुनवाई के दौरान राज्य सरकार की



तरफ से हलफनामा देकर यह बताया जाए कि अवैध निर्माणों के खिलाफ क्या कार्रवाई की गई। यह हलफनामा मुख्य सचिव की तरफ से दाखिल किया जाना चाहिए। शीर्ष अदालत ने यह आदेश पटना के रहने वाले अशोक कुमार सिन्हा की तरफ से शीर्ष अदालत में दाखिल याचिका पर सुनवाई के दौरान दिया। सिन्हा ने 30 जून, 2020 के राष्ट्रीय हरित अधिकरण (एनजीटी) के आदेश को सुप्रीम कोर्ट में चुनौती दी है। ब्यूरो



# उच्चतम न्यायालय ने कहा बिहार सरकार सुनिश्चित करे, गंगा के आसपास और निर्माण न हो

नई दिल्ली, 2 दिसंबर (ब्यूरो)।

उच्चतम न्यायालय ने बिहार सरकार को यह सुनिश्चित करने का निर्देश दिया है कि गंगा नदी से सटे क्षेत्रों खासकर पटना और उसके आसपास कोई और निर्माण न हो। न्यायमूर्ति अनिरुद्ध बोस और न्यायमूर्ति आगस्टीन जार्ज मसीह की पीठ ने राज्य सरकार को गंगा के डूबक्षेत्र में निर्मित अवैध संरचनाओं को हटाने के बारे में एक हलफनामा दायर करने का निर्देश दिया। पीठ ने कहा कि बिहार सरकार के वकील ने जानकारी दी है कि सरकार ने पटना और उसके आसपास गंगा नदी से सटे 213 अनधिकृत निर्माण की पहचान की है और इन अतिक्रमणों/निर्माणों को हटाने के लिए कदम उठाए गए हैं।

पीठ ने कहा कि 5 फरवरी, 2024 को राज्य एक हलफनामा दायर करके इस अदालत को इन अनधिकृत संरचनाओं को हटाने में हुई प्रगति की जानकारी दे। बिहार के मुख्य सचिव यह हलफनामा दायर करें। राज्य यह भी सुनिश्चित करे कि गंगा नदी से सटे (इलाकों) विशेषकर पटना शहर और उसके आसपास कोई और निर्माण न हो। शीर्ष अदालत 30 जून, 2020 के राष्ट्रीय हरित अधिकरण के आदेश के खिलाफ पटना के निवासी अशोक कुमार सिन्हा द्वारा दायर याचिका पर सुनवाई कर रही थी।