

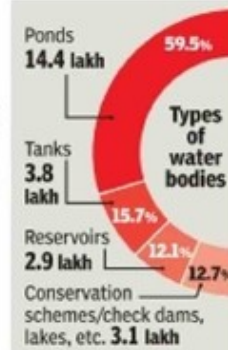
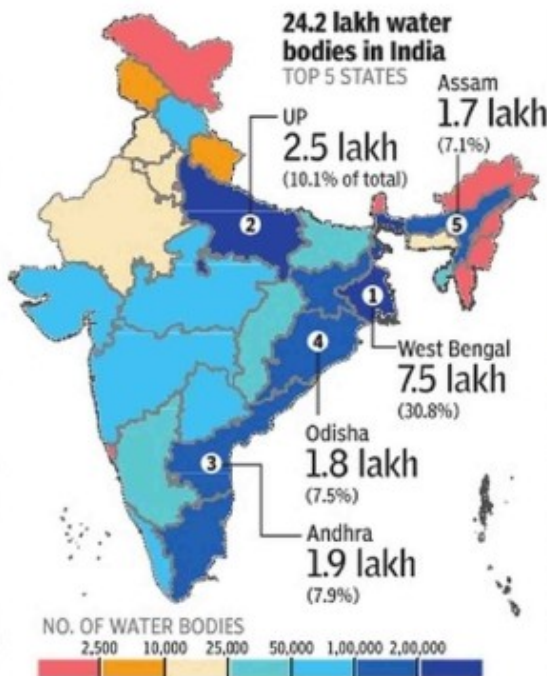
What The First Census Of Its Kind In India Says About The Health And Extent Of Ponds, Lakes And More

# Over 24L water bodies, but 1 out of 6 can't be used

India's first water census was conducted for all states and UTs except Daman & Diu, Dadra & Nagar Haveli, and Lakshadweep with 2017-18 as the reference year. The Union Jal Shakti ministry says the data has been compiled at a time when India "is gradually progressing towards water scarcity due to increasing population pressure and urbanisation". Home to 18% of the world's population, the country has to make do with only 4% of global water resources.

For the purposes of the census, a water body could be natural or man-made and be used for drinking or supporting industrial activities, including fisheries. They could also be linked to religious or recreational functions and groundwater recharge. But the definition excludes rivers, streams, lagoons, as also swimming pools or storage resulting from industrial activities like mining, construction and the like.

West Bengal contains more than 30% of all water bodies in the country, the number only marginally lower than that of the next four states combined.

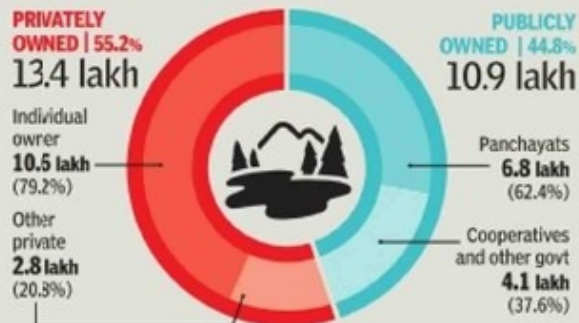


Of the various types of water bodies, the highest number of ponds and reservoirs are in West Bengal while Tamil Nadu accounts for the largest count of lakes. Andhra leads in the number of tanks. Water bodies for conservation purposes have their highest presence in Maharashtra.

## About 4 Out Of 5 Water Bodies Man-made, Majority Privately Owned

Close to 19 lakh water bodies in the country are man-made, accounting for 78% of the total. It was found that the man-made water bodies are mostly earthen in nature that cost up to Rs 1 lakh to dig/construct.

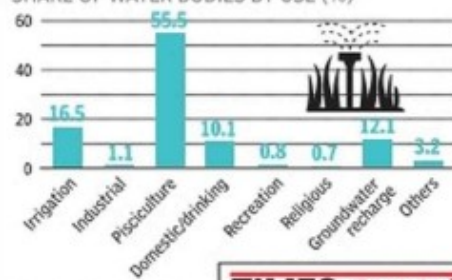
The report also found that more than 55% of all water bodies are under private ownership. Panchayats control the biggest share of publicly owned water bodies, followed by state water resources and irrigation departments with cooperatives, local bodies and other government agencies accounting for the rest. The lion's share of privately owned water bodies are held by individuals.



## About 4 Lakh Water Bodies Not In Use

At 20.3 lakh or 83.7%, most water bodies in India are in use. But the remaining 4 lakh or 16.3% water bodies are not usable due to low water levels, pollution, encroachment, or excess salinity. The most common use is for pisciculture, followed by irrigation and groundwater recharge. Only 1 in 10 water bodies acts as a source of drinking water.

SHARE OF WATER BODIES BY USE (%)



About 9 in 10 in-use water bodies serve up to 100 people each and just 1.7% are large enough to meet the needs of 50,000 people or more. About 89% of water bodies are used by a single village or town.

**TIMES Special**

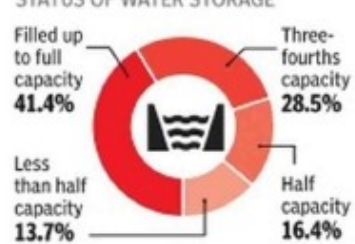


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## Most Water Bodies Never At Full Capacity

A majority of water bodies are not at full capacity. Almost 59% are less than three-fourths full and about 7% had negligible amounts of water. The survey also found that most water bodies have not been at full capacity at any point in the last five years — about 48% were reported as filled up every year.

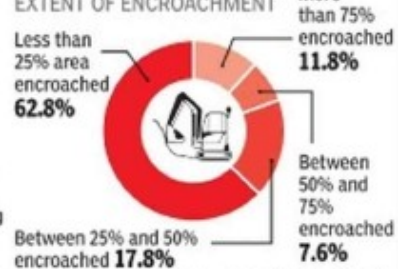
STATUS OF WATER STORAGE



## Close To 40,000 Water Bodies Encroached

The report found that 38,496 water bodies have been illegally encroached upon for human activities like farming and construction. At 95.4%, nearly all the encroached water bodies are in rural areas. Ponds are the most frequently encroached upon water bodies, making up 67.6% of the total, followed by tanks (21%).

EXTENT OF ENCROACHMENT



Note: All figures rounded to first decimal place. Source: Water Bodies First Census Report, Ministry of Jal Shakti

The Times of India- 27- April-2023

# Census: Maha ranks first in water conservation schemes

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**Mumbai:** Maharashtra leads in water conservation schemes, while West Bengal has the highest number of ponds and reservoirs, according to the Centre's Jal Shakti ministry first-ever nationwide water body census report released on Wednesday.

Andhra Pradesh has the highest number of water tanks and Tamil Nadu has the most lakes, the census report stated.

Calling it a "moment of pride" for the state, chief minister Eknath Shinde said: "Maharashtra has implemented the highest number of water conservation schemes in the country. The Mahayuti government is implementing various such schemes to ensure that the people of Maharashtra will not face water problems."

The census, conducted in 2018-19, enumerated more than 24 lakh water bodies across states and union territories, said a statement from the Jal Shakti ministry.

## ENUMERATION BY JAL SHAKTI

Maharashtra is the leading state for water conservation schemes, West Bengal has the highest number of ponds and reservoirs



**97,062 water bodies enumerated in Maharashtra**

**96,343 (99.3%) in rural areas** and **719 (0.7%) in urban areas**



> **96,033** water bodies in Maha are 'in use' and **1,029** 'not in use' due to drying up, siltation, destruction beyond repair etc

> There are **96,488** man-made and **574** natural water bodies

Officials said the objective of the census was to develop a national database for water bodies by collecting information on all aspects, including their size, condition, status of encroachments, use, storage capacity, status of filling up of storage.

In Maharashtra, 97,062 water bodies were enumerated, of which 96,343 (99.3%) are in rural areas and only 719 (0.7%) in urban areas. Aurangabad, Jalna and Nashik were among the top five districts in various uses of water bodies.

Officials said of the 97,062 water bodies in the state, 96,033 (98.9%) are "in use" — most of them used in groundwater recharge followed by domestic/ drinking and irrigation purposes — and 1,029 (1.1%) "not in use" on account of drying up, siltation, destruction beyond repair and other reasons.

There are 574 natural and 96,488 man-made water bodies in Maharashtra. The original construction cost of most man-made water bodies is between Rs 5 lakh and Rs10 lakh.



The Hindu- 27- April-2023

# The distribution and utilisation of water bodies in India

The majority of water bodies serve as resources for fish farming

## DATA POINT

### The Hindu Data Team

A government report released last week has thrown light on the number of water bodies in India and what they are used for. The document, which was released by the Ministry of Jal Shakti, is the first such census of water bodies in India. The census has identified 24,24,540 water bodies in India.

Water bodies in this census are defined as any natural or man-made structures used for storing water for various purposes, such as irrigation, industry, fish farming, domestic use, recreation, religious activities, and groundwater recharge. They are classified as tanks, reservoirs and ponds. A structure that collects water from melting ice, streams, springs, rain, or drainage from residential or other areas, or stores water diverted from a stream, nala, or river, is also considered a water body.

As shown in **Chart 1**, ponds comprise 59.5% (1,442,993) of water bodies, followed by tanks at 15.7% (381,805), reservoirs at 12.1% (292,280), water conservation projects such as percolation tanks and check dams at 9.3% (226,217), lakes at 0.9% (22,361), and other types at 2.5% (58,884).

West Bengal boasts of the highest number of ponds and reservoirs; Andhra Pradesh the highest number of tanks; and Tamil Nadu the highest number of lakes. Maharashtra leads in terms of water conservation initiatives. A mobile application designed for this task was used to capture pictures of the water bodies along with their latitude and longitude coordinates. **Map 2** shows the location of the ponds, lakes, tanks, reservoirs and water conservation schemes. Each dot corresponds with approximately 500 such water bodies.

The majority of water bodies serve as resources for fish farming, with their subsequent uses includ-

ing irrigation, replenishing groundwater, and providing water for household and drinking needs. Among the total 20,30,040 utilised water bodies, 55.5% (11,26,830) are dedicated to fish farming, 16.5% (3,35,768) to irrigation, 12.1% (2,44,918) to groundwater replenishment, and 10.1% (2,05,197) to domestic and drinking water needs. The remaining are employed for recreational, industrial, religious and other purposes.

**Chart 3** shows the usage of water bodies across States. In general, the east and the north-east use most of the water bodies for fish farming. More than 50% of the water bodies are used for fish farming in the north-eastern States of Arunachal Pradesh, Sikkim, Tripura, Mizoram, Meghalaya, Nagaland, Assam and the eastern States of West Bengal and Odisha. Over 50% of the water bodies are used for irrigation in Gujarat, Telangana, Karnataka and Jharkhand. In Manipur and Himachal Pradesh, more than 50% are used for drinking. Industrial usage is minimal in all the States. Over 10% of the water bodies in Sikkim are used for recreational purposes. Over 50% of the water bodies are used for groundwater recharge in Uttarakhand, Punjab and Maharashtra.

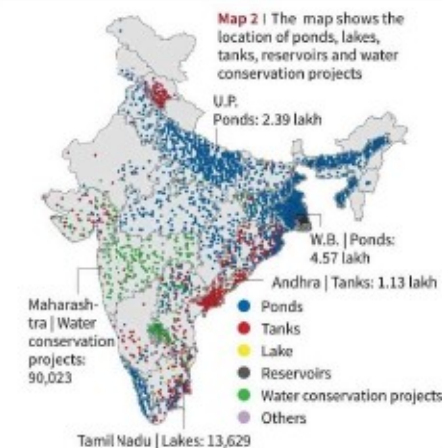
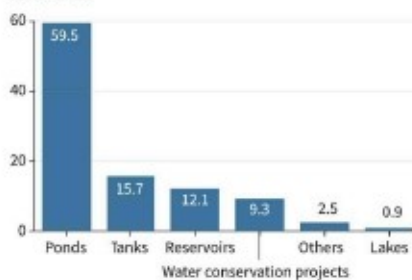
A substantial 97.1% of water bodies can be found in rural regions; only 2.9% are situated in urban areas. Of these, 83.7% are in use, while the rest are non-functional or unused due to factors such as construction, siltation, irreparable damage, and industrial effluents, among others. Of the total water bodies, 55.2% are privately owned; the rest are publicly owned. A significant number (78%) of water bodies are artificially created. A total of 1.6% water bodies have been encroached upon, of which 67.6% are ponds, 21% are tanks, and 4.5% involve water conservation schemes, check dams, or percolation tanks. The remaining 6.9% comprise lakes, reservoirs, and other types of water bodies.

## Charted waters

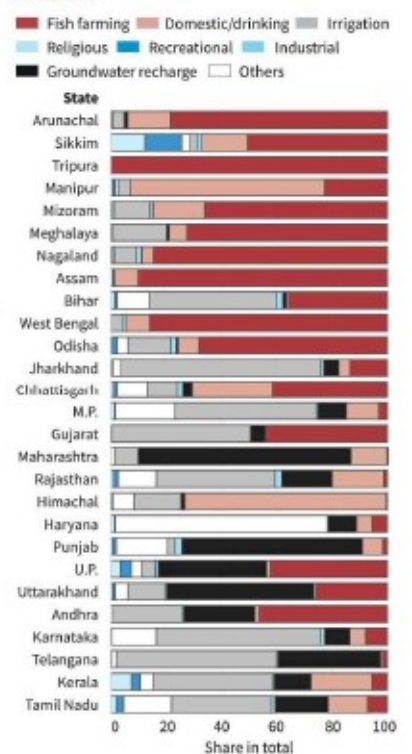
The charts and maps are based on the data collated from the first census report of water bodies released by the Ministry of Jal Shakti and the Department of Water Resources, River Development and Ganga Rejuvenation Minor Irrigation (Statistics) Wing



**Chart 1** | The chart shows the types of water bodies (in %) across India



**Chart 3** | The chart shows the usage of water bodies (in %) across States



The Hindu- 27- April-2023

# Mahanadi row: experts question timing of Chhattisgarh's release of water into river

**Satyasundar Barik**  
BHUBANESWAR

A controversy has erupted over Chhattisgarh's release of Mahanadi water into the lower catchment area of the river system. Water experts and political leaders in Odisha have accused the neighbouring State of attempting to mislead the Mahanadi Water Disputes Tribunal led by former Supreme Court Justice A.M. Khanwilkar.

According to Water Resource Department of Odisha, Chhattisgarh has opened 20 gates at Kalma Barrage through which 1,000-1,500 cusecs of water is flowing into Mahanadi in Jharsuguda district - a rarity as Chhattisgarh hardly releases water during non-monsoon season.

Bhakta Ranjan Mohanty, Engineer-in-chief (water resource), said gates were opened keeping the scheduled visit of Justice Khanwilkar this week. He would take stock of water availability in command areas of Mahanadi in Odisha.

Odisha has long been objecting to Chhattisgarh's management of Mahanadi river water in the upper catchment area. During the past couple of decades, Chhattisgarh has built several barrages restricting flow of water in the lower catchment (Odisha). The non-availability of water in Mahanadi during non-monsoon season has affected rabi crops and reduced drinking water availability.



Odisha has long been objecting to Chhattisgarh's management of Mahanadi river water in the upper catchment area. FILE PHOTO

Following a complaint filed by Odisha with the Ministry of Jal Shakti under Section 3 of the Inter-State River Water Disputes (ISRWD) Act, the Mahandi Water Disputes Tribunal was formed in March 2018. The tribunal has been asked to submit its report by December 2025.

State Planning Convergence Minister Rajendra Dholakia alleged that when Chhattisgarh faces floods in the upper catchment area during monsoon, it opens gates without any intimation to Odisha, but is reluctant to release water during non-monsoon season.

He said the tribunal would take note of Chhattisgarh's attempt to deceive it.

Water experts in Odisha, however, said it would not be easy on the part of Chhattisgarh to misrepresent actual position in Mahanadi system as there was enough documentary evidence to show the water was completely managed by Chhattisgarh on its side.



The Telegraph- 27- April-2023

## NOT FOR ALL

**T**he ministry of jal shakti has released India's first water bodies census, a comprehensive database of ponds, tanks, lakes, and reservoirs in the country. It was conducted in 2018-19, enumerating more than 2.4 million water bodies across India. The exercise is significant given the growing water crisis: India is the 13th most water-stressed country in the world owing to climate change. The census found that 97.1% of these water bodies are in rural areas and used primarily for pisciculture or agricultural purposes, ensuring that most of them cannot be used for human consumption. The adverse impact of this on girls and women must be noted: they are forced to travel long distances or stand for hours in long queues for potable water, leaving them with much less time for other important tasks such as attending school or other income-generating activities. With nearly 7,50,00 water bodies, West Bengal appears to be the richest in terms of access to water. But it is also the state with the second-highest number of villagers who do not have access to safe drinking water in India. Furthermore, Bengal is failing to protect this critical resource. Unabated encroachments on the dwindling natural ecosystem — Calcutta's disappearing wetlands and waterbodies are a case in point — on account of the nexus between the real estate industry and the powers that be that are profiting from rapid urbanisation are a common occurrence.

The significance of this database thus cannot be overstated. With details on the size, encroachment status and storage capacity of the water bodies, it could help policymakers arrive at informed decisions on matters as diverse as urban planning, restoring ecosystems, and rural employment generation schemes. The data can also be used to address additional, overlapping, sociological challenges. There is, for instance, a discernible link between water and the potential for social unrest. Around 55% of India's water bodies are privately owned, choking their access to marginalised communities such as the backward castes. Such conflicts are expected to worsen as the water crisis explodes. Water is one of the most important public resources, directly affecting the right to life. The Supreme Court has consistently reiterated the importance of the fundamental right to water as a public resource. But the reality is grimmer. The information yielded by the survey must be used to institute a humane and democratic culture of consumption of a basic resource.

Hindustan- 27- April-2023

# चिंताजनक: बड़े शहरों में पानी जा रहा पाताल



विशेष

## ■ रामनारायण श्रीवास्तव

नई दिल्ली। देश में बड़े पैमाने पर भूजल के दोहन से पानी पाताल में जा रहा है। स्थिति ऐसी है कि दिल्ली, गाजियाबाद और फरीदाबाद सहित अन्य प्रमुख शहरी क्षेत्रों में भू-जलस्तर 20 मीटर से नीचे चला गया है। हालांकि शहरी विकास मंत्रालय ने इस संकट से निपटने के लिए अमृत मिशन शुरू किया है, लेकिन उसका परवान चढ़ना अभी बाकी है।

**दिल्ली के हालात खराब :** 2020 के आंकड़ों के मुताबिक, दिल्ली की 34 मूल्यांकन इकाइयों में से 17 अतिदोहित, सात गंभीर, सात अर्धगंभीर



इन शहरों में सबसे ज्यादा गिरावट

जिन शहरों में भूजल स्तर 20 मीटर से नीचे चला गया है, उनमें कोलकाता, हैदराबाद, अहमदाबाद, देहरादून, लखनऊ, कानपुर, वाराणसी, आगरा, गाजियाबाद, मेरठ, प्रयागराज, ग्वालियर, लुधियाना, अमृतसर, चंडीगढ़, कोयंबटूर, विशाखापत्तनम, विजयवाड़ा, वडोदरा, जयपुर, जोधपुर भी शामिल हैं।

और तीन सुरक्षित श्रेणी में है। हालांकि 2017-2022 के बीच अतिदोहित इकाइयां 22 से घटकर 17 रह गई हैं। फरीदाबाद पूरी तरह भूजल पर

50

प्रतिशत जल शहरों का आता है भूजल स्रोतों के जरिए

500

शहरों में केंद्र सरकार ने शुरू किया था अमृत मिशन

## देश में भूजल का उपयोग

1. वैश्विक जल निकासी की 25 प्रतिशत खपत अकेले भारत में होती है
2. भूजल सिंचाई की 67 और पेयजल की 80 प्रतिशत जरूरतों को पूरा करता है
3. दिल्ली, हरियाणा, पंजाब और राजस्थान सौ प्रतिशत तक भूजल की निकासी करते हैं
4. उत्तर प्रदेश, तमिलनाडु, कर्नाटक, चंडीगढ़ और पुडुचेरी साठ से सौ प्रतिशत तक भूजल पर निर्भर

पर निर्भर होने की कगार पर हैं। इनकी क्रमशः 71% और 80% जरूरतों को भूजल से पूरा किया जा रहा है।

**आश्रित :** अमृतसर और फरीदाबाद जैसे शहर पूरी तरह से भूजल पर निर्भर हैं। गाजियाबाद और देहरादून जैसे शहर भी अब पूरी तरह से भूजल