

The Times of India- 29- July-2023

# Rain causes Yamuna levels to hover near danger mark

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**New Delhi:** Fresh spells of rain in parts of the city and neighbouring areas led to the Yamuna water level hovering above the danger mark on Friday.

The water level was recorded at 205.35 metres—a notch above the danger level of 205.33 metres. The administration sounded caution but said there was nothing to fear till it reached 207 metres.

“Things are under control. We are always in alert mode but there is nothing to worry till the water level starts reaching around the 207-metre mark,” said Arun Mishra, DM, northeast Delhi.

On Friday morning, the water level stood at 205.66

metres, but receded by the evening.

So far, 27,389 people have been evacuated from low-lying flood-affected areas of six districts, of which 13,786 are staying in 39 camps, including temporary relief camps, schools and community centres. The remaining people who were evacuated have shifted to their relatives’ houses or rented accommodation.

Most of the evacuation has taken place at the Yamuna floodplains in east and northeast Delhi. A senior Delhi government official said, “We are waiting for the water level to stay below the danger mark for some time so that we can start the process of sending people back to the low-lying areas. Currently,

there is too much fluctuation.”

Life came to a standstill in several parts of Delhi after the Yamuna level reached an all-time high in the week starting July 10. Many areas of the city, including Civil Lines, Kashmere Gate, Majnu ka Tila, Badarpur Khadar and parts of Jamia Nagar, were inundated. Water has now been flushed out of these places.

The river’s swelling was primarily due to discharge of water from the Hathnikund barrage, caused by heavy rainfall in some regions of Uttarakhand and Himachal Pradesh. Hourly water discharge from the barrage, which had gone up to 3,60,000 cusec on July 11, is now hovering near 32,000 cusec.

The Business Line- 29- July-2023

# Water bodies are fast vanishing

**WATER FIRST.** The culprit is rampant encroachment, depleting tanks and wells. The Centre and States must stop this

A Narayanamoorthy

**T**he demand for water has been increasing due to the intensification of agriculture and increased economic activities. But the un-utilised water potential available for the future use has been declining at a faster pace across States.

The projections made by the Ministry of Water Resources also show that there is going to be a severe demand-supply gap in water by 2050. So there is a need to increase the storage capacities of the water bodies wherever possible.

But the First Census on Water Bodies released, by the Ministry of Jal Sakthi in February, reveals a rampant encroachment of water bodies in across States. What is the status of State-level encroachment in water bodies and how will this impact water availability?

Per the First Census on Water Bodies, India has a total of 24,24,540 water bodies, of which the majority are ponds (59.5 per cent), followed by tanks (15.7 per cent), reservoirs (12.1 per cent) and the remaining 12.7 per cent are classified as water conservation schemes/check dams/percolation tanks, lakes and others.

As expected, out of the total enumerated water bodies, 97.1 per cent are located in rural areas, and the balance in urban areas. Not surprisingly, the Census of water bodies also reveals that among the total water bodies, 83.7 per cent are in use, while the remaining 16.3 per cent (3,94,500) are not in use on account of "drying up, construction, siltation, destroyed beyond repair, salinity, industrial effluents, etc".

As regards the ownership of water bodies, the Census reveals that about 55.2 per cent of them are owned by private entities, while the remaining 44.8 per cent are under the control of the public sector. Seventy-eight per cent of water bodies are man-made, while the rest are naturally created. Interestingly, the majority of the water bodies are earthen in nature with a construction cost of up to ₹1,00,000.

## ENCROACHMENT STATUS

One of the important revelations of the census is about the data on the level of encroachment of water bodies in

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different States. Although various committees and researchers have underlined the severity of the encroachment in water bodies, none of the agencies have brought out the data on the level of encroachment so far. The census data shows that a total of 38,496 water bodies, mostly ponds and tanks, have been encroached across States.

Since about 93 per cent of the total encroached water bodies are small water bodies (ponds, tanks and lakes), it will be interesting to understand where these small water bodies are located. In terms of absolute numbers, the top five States where encroachment is found to be very high are Uttar Pradesh (15,213), followed by Tamil Nadu (7,828), Telangana (2,748), Andhra Pradesh (2,733) and Madhya Pradesh (1,765).

Interestingly, the four southern States Andhra Pradesh, Karnataka, Tamil Nadu and Telangana together account for about 40 per cent (14,219) of the total encroached small water bodies (Table 1).

In terms of the percentage of water bodies encroached upon to the total number of water bodies in each State, the highest encroachment is found in Delhi (12.34 per cent) followed by Punjab (9.94 per cent), Tamil Nadu (8.17 per cent), Uttar Pradesh (6.32 per cent), Telangana (6.31 per cent) and Karnataka (3.59 per cent).

The encroachment in small water bodies is very high in most southern States where the tanks have been an important source of irrigation for centuries (see Figure 1).

## THE IMPACTS

The rampant encroachment in water spread area of the small water bodies reduces storage capacity of the water bodies, resulting in reduced irrigated area. The data available on the area irrigated by tanks in various States reinforces the deleterious impact of encroachment.

For instance, the area under tank irrigation in India has drastically declined from 46.30 lakh hectares (lha) in 1960-61 to 16.68 lha in 2019-20.

Similarly, in Tamil Nadu, the State with the second highest encroachment level, the tank irrigated area declined drastically from 9.36 lha to 3.72 lha during the same period. A similar trend is seen in other Southern States — Andhra Pradesh, Karnataka and Telangana; all these States have a large number of small water bodies.

The reduced availability of water in water bodies due to the encroachment will also reduce the recharging capacity of wells located in the command area. Data available from different minor irrigation censuses show that the number of defunct wells has increased over time possibly due to encroachment.

## States' encroachment of small water bodies (in numbers)

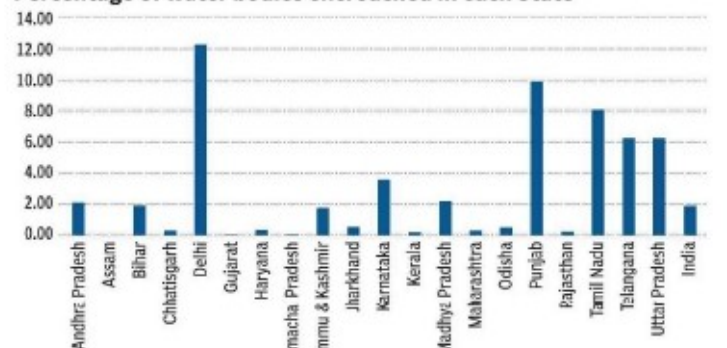
(figures in brackets are percentage to total)

State/UTs	Ponds	Tanks	Lakes	Total
Andhra Pradesh	699 (2.69)	2032 (25.14)	2 (0.12)	2,733 (7.65)
Assam	12 (0.05)	0 (0)	0 (0)	12 (0.03)
Bihar	696 (2.68)	74 (0.92)	32 (1.97)	802 (2.25)
Chhattisgarh	103 (0.40)	4 (0.05)	1 (0.06)	108 (0.30)
Delhi	66 (0.25)	1 (0.01)	0 (0)	67 (0.19)
Gujarat	1 (0.003)	20 (0.25)	0 (0)	21 (0.06)
Haryana	50 (0.19)	0 (0)	0 (0)	50 (0.14)
Himachal Pradesh	2 (0.007)	24 (0.30)	0 (0)	26 (0.07)
Jammu & Kashmir	95 (0.37)	1 (0.01)	1 (0.06)	97 (0.27)
Jharkhand	472 (1.82)	30 (0.37)	5 (0.31)	507 (1.42)
Karnataka	180 (0.69)	708 (8.76)	22 (1.35)	910 (2.55)
Kerala	97 (0.37)	2 (0.02)	0 (0)	99 (0.28)
Madhya Pradesh	1,762 (6.78)	2 (0.02)	1 (0.06)	1,765 (4.94)
Maharashtra	5 (0.02)	9 (0.11)	0 (0)	14 (0.04)
Odisha	570 (2.19)	391 (4.84)	22 (1.35)	983 (2.75)
Punjab	1,565 (6.02)	4 (0.05)	2 (0.12)	1,571 (4.40)
Rajasthan	6 (0.02)	26 (0.32)	2 (0.12)	34 (0.10)
Tamil Nadu	2,805 (10.79)	3,565 (44.11)	1,458 (89.78)	7,828 (21.92)
Telangana	1,540 (5.92)	1,164 (14.40)	44 (2.71)	2,748 (7.70)
Uttar Pradesh	15,168 (58.33)	18 (0.22)	27 (1.66)	15,213 (42.60)
<b>All India (Total)</b>	<b>26,005 (100)</b>	<b>8,082 (100)</b>	<b>1,624 (100)</b>	<b>35,711 (100)</b>

Source: Ministry of Jal Sakthi

CHART 1

## Percentage of water bodies encroached in each State



Therefore, the Centre and States must join hands to curb encroachment in water bodies. The 16th report of the Standing Committee on Water Resources on 'Repair, Renovation and Restoration of Water Bodies' underlined that most of the water bodies in were encroached upon by State agencies themselves. Given the increased scarcity of water, the government must stop the practice of encroaching on water bodies for different purposes.

Considering the increased encroachment in small water bodies, the Madras High Court Madurai Bench in its judgment delivered on September 6, 2014 underlined that no approval be given for the layout or building plan on lands located on water bodies.

This should be honoured in letter and spirit. Shockingly, as per the FCWB, a total of 10,95,913 water bodies were never repaired since their creation. The paucity of funds at the State level may be one of the reasons for this.

Therefore, the scheme of Repair, Renovation and Restoration of water bodies implemented during the 11th Plan period should be reintroduced to remove encroachments. Given the increasing variability of rainfall due to climate change, concerted efforts are needed to increase the storage capacity of water by removing the encroachments in water bodies.

The writer is former full-time Member (Official), CACP. Views expressed are personal



The Economic Times- 29- July-2023

# Rains may Dip in August, But Crops won't be Hit: Experts

'Plentiful rains in July have increased moisture content in soil and replenished reservoirs, which will make sure crops are not impacted'

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**New Delhi:** The torrential rain across the country will soon slow down as the monsoon is expected to enter a weak phase from the first week of August.

However, as the soil moisture has risen in July, lesser August rainfall won't negatively impact the crops, said agricultural experts.

"The July rainfall has boosted the soil moisture to healthy levels and so a lull of 15-20 days won't be harmful for the crops," said Tanmay Kumar Deepak, head of research, Agriwatch, an agri research firm that works with over a million farmers across the country.

The excess July rain has replenished reservoirs and can support irrigational activities in the next few weeks, he added.

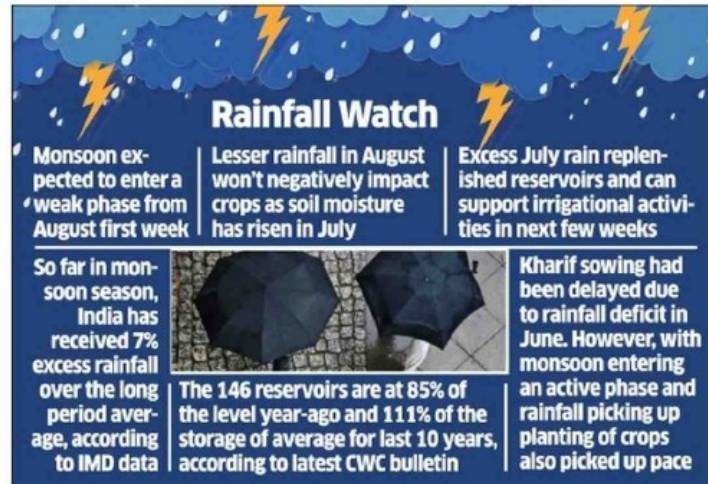
So far in the monsoon season, the country as a whole has received 7% excess rainfall over the long period average, according to data from the India Meteorological Department (IMD).

According to the July 27 bulletin of the Central Water Commission (CWC), the 146 reservoirs are at 85% of the level last year and 111% of the storage of average for the last ten years.

However, 59 out of 146 reservoirs, have water levels at 40% or below.

Kharif sowing had been delayed because of a rainfall deficit in June. However, with monsoon entering an active phase and rainfall picking up planting of crops also picked up pace.

The total area sown in the country is 830.31 lakh hectares as on Ju-



ly 28, almost on par with 832.32 lakh hectares same time last year, according to the latest government data.

## AUGUST RAIN

Intense rainfall is expected to continue for the first few days of August but taper thereafter.

"The rainfall activity is expected to slowdown from August 4 as the monsoon is expected to enter a weak phase," said GP Sharma, President, Skymet, private weather forecaster.

Heavy rainfall across various re-

gions in India reduced the overall rainfall deficiency of the country which stood at 10% at the end of June taking it to excess of 7% by July 28, according to data.

In its Extended Range Forecast issued on July 27, the India Meteorological Department (IMD) said the overall, rainfall activity is likely to be normal to above normal over parts of west central India and adjoining plains of northwest India, Uttar Pradesh and east and northeast India (mainly covering Bihar, northern parts Gangetic west Bengal and Sub-Himalayan west Bengal and Sikkim and Assam and Meghalaya).

"It is likely to be normal over rest of the country, except over east-central India (mainly covering Odisha, Chhattisgarh and Vidarbha) and adjoining northern parts of Peninsular India and west coast of India (including many parts of Maharashtra), where it is likely to be normal to below normal during the week," the IMD said.

## RESERVOIR LEVELS

According to CWC data, 146 reservoirs are at 85% of the last year level and 111% of the average storage for last 10 years