

भारत सरकार  
Government of India  
केन्द्रीय जल आयोग  
Central Water Commission  
बाढ़ पूर्वानुमान प्रबोधन निदेशालय  
Flood Forecast Monitoring Directorate

Tele/ Fax:

011-26106523, 26105274

e-mail : fndte@c.i.n, ffnwc@mail.com

दूसरा तल, दूसरा विंग (दक्षिण), पश्चिमी खण्ड-2,  
रामाकृष्ण पुरम, नई दिल्ली-110066

विषय : दिनांक 24/07/20..... की समाचार की कतरन ( News Clippings ) प्रस्तुत करने के सम्बन्ध में ।

मानसून/ बाढ़ सम्बन्धी समाचारों की कतरन ( News Clippings ) अवलोकन हेतु प्रस्तुत हैं :

संलग्न : उपरोक्तानुसार

हस्ताक्षर  
24/7/20  
( सहायक निदेशक )

उपनिदेशक

निदेशक ( बा.प.प्र. )

कृपया केन्द्रीय जल आयोग की वेब साईट पर अपलोड करने की व्यवस्था करें।

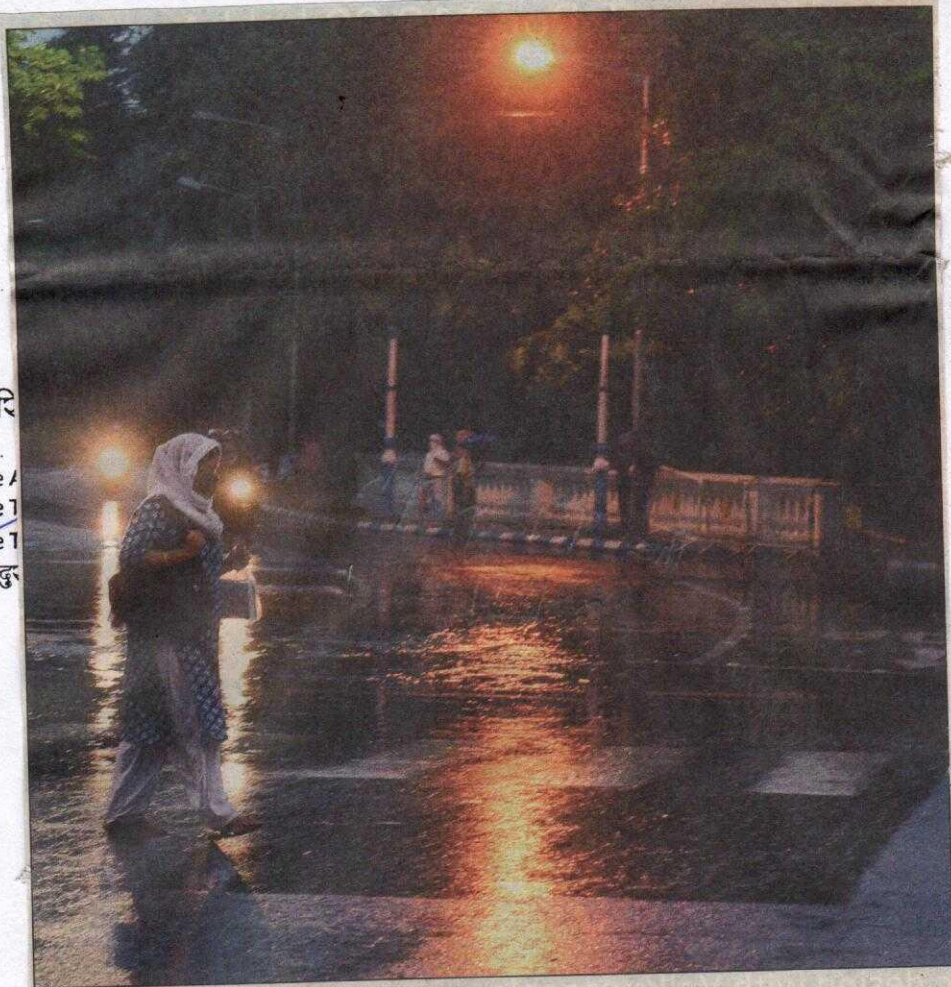
निदेशक ( तकनीकी प्रलेखन )



दिनांक 22/07/20... को निम्नलिखित

Hindustan Times ( Delhi )  
नवभारत टाइम्स ( दिल्ली )  
The Tribune ( Chandigarh )  
The Hindu ( Chennai )

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A rain-soaked Outram Road on Tuesday evening. Picture by Pradip Sanyal

# City sees rain deficit in rainiest month

DEBRAJ MITRA

**Calcutta:** July, usually the rainiest monsoon month, has so far registered a deficit in Calcutta.

Between July 1 and 20, the city received 192mm of rain compared to the usual quota of 240.8mm in the same period in previous years, a Met official said on Tuesday. The deficit is around 20 per cent.

The monsoon's first month, June, ended with a 30 per cent surplus in the city. As a result, the cumulative rain count till July 20 is still at a nine per cent surplus, the official said.

Compared to Calcutta and the rest of coastal Bengal, the northern districts of Bengal have been caught in heavy rain this monsoon.

Between June 1 and July 20, Jalpaiguri received 1,994mm of rain, Cooch Behar 1,525mm and Darjeeling 1,236mm, according to figures provided by the India Meteorological Department, Calcutta. In comparison, Calcutta has received 573.9mm of rain in the same period, the Met official said.

The reason for the wide

gap — the absence of rain-triggering systems over the Bay of Bengal.

"The absence of a low-pressure area or a cyclonic circulation over the Bay of Bengal means the monsoon trough has seldom passed over south Bengal. The trough has remained stationed over the foothills of the Himalayas for most part of the monsoon so far. The trough is triggering widespread and heavy rain in the northern districts," G.K. Das, director, IMD, Calcutta, said.

The monsoon trough keeps oscillating. When it is over the foothills of the Himalayas, north Bengal and the North-east get rain. When it descends to the northern Bay of Bengal because of a low-pressure system, coastal Bengal receives rain. If the trough descends further, peninsular India gets drenched.

"July usually sees the formation of multiple low-pressure areas over the Bay. But there have been none so far," Das said.

The monsoon last year had seen a similar pattern, but on a different scale. Both June and July 2019 were among the dri-

est in recent years because of the absence of rain-bearing systems over the Bay. July 2019 saw just 160mm of rain compared to July's usual quota of around 400mm. June was drier, registering just 95mm of rain against the usual quota of around 300mm. The monsoon had made a weak arrival, delayed by almost a fortnight.

The monsoon's normal onset date in Calcutta is June 8 with an error margin of four days. This year, the monsoon set foot in Calcutta on June 12, riding on a strong low-pressure system over the Bay of Bengal.

The strong currents ensured sufficient rain in June. July has so far not been dry. "But the rain in Calcutta is because of the formation of local thunderclouds because of the moisture in the monsoon currents from the Bay. A strong system would have brought the trough down and led to heavier rain," Das said.

The city has received heavy rain (over 60mm) this month only on one day, on July 12, when a 150km-long cloud mass triggered heavy rain in the night, flooding several roads in north Calcutta.



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## Minto Bridge underpass could be shut during heavy downpours

Driver's death triggers policy change to prevent a repeat

JATIN ANAND  
NEW DELHI

The death of a 56-year-old driver, who drowned under the waterlogged Minto Bridge last Sunday, has triggered a significant policy decision seeking to prevent similar incidents in future like temporary shutting of the underpass and its vicinity during heavy downpours.

Such a decision will ensure that the underpass of the 87-year-old bridge will have restricted entry when the level of water goes beyond 45 centimetres, or around 1.5 feet. Moreover, a criminal case can be lodged against anyone trying to access it, or its vicinity, in such a condition.

Deputy Chief Minister Manish Sisodia has ordered the Public Works Department (PWD) Executive Engineer concerned to monitor the situation around the Minto Bridge throughout the monsoon, a Delhi government official said.

"A joint team headed by the PWD will also be at the



A joint team headed by the Public Works Department will be at the core of a new SOP where the underpass will be barricaded by the police every time the water level rises above 45 cm

DELHI GOVERNMENT OFFICIAL

core of a new Standard Operating Procedure where the underpass will be barricaded by the police every time the water level rises above 45 cm. Vehicular movement will be restricted and allowed to resume only after water is completely pumped out," said the official.

### Prompt action

"As soon as such a situation arises, the matter will be escalated to higher authorities, including the PWD Minister. If any commuter attempts to access the underpass or the area

cordoned off while pumping the water, the engineer will file an FIR with Delhi Police," the official also said

According to the official, the engineer had been directed to personally monitor the water-logging situation and its disposal through pumping on a 24x7 basis. The official was also directed to ensure that water doesn't get accumulated for a long time, besides coordinating with the civic body and Delhi Police.

In the past the temporary closure of the underpass, one of the gateways between Old and Lutyens' Delhi, occurred on its own due to waterlogging and not as a matter of policy, sources said.

According to an official, the policy of temporary closure of the underpass, instead of complete closure, which had been possible in the past, was no longer possible given the burgeoning vehicular population of the Capital and its critical location in the heart of the city.



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## Monsoon 'normal' in city after rainy week

Jasjeev.Gandhiok  
@timesgroup.com

### WETTEST WEEK

Rainfall in Delhi	
Past 7 Days	
50% above normal	62.4mm actual, 41.6mm normal
In July	
1% below normal	146.1mm actual, 146.9mm normal
Since June 1	
16% below normal	176.6mm actual, 209mm normal

50%, 37% and 64% more rainfall than the normal. While the normal for Safdarjung for the month of July is 210.6mm, it has already received 225mm of rainfall till July 23.

► Continued on P 4

New Delhi: Sustained showers since Sunday, including two days of "heavy" rainfall, have reduced Delhi's monsoon deficit from 55% last week to 16% now, bringing the capital in the "normal" category for the monsoon season, IMD data shows.

Delhi's base station, Safdarjung, has received "excess" monsoon rain with 306.7mm recorded so far against a normal of 215.3mm, which is 42% surplus.

In July, three of Delhi's weather stations — Safdarjung, Palam and Lodhi Road — are in the "excess" category now in terms of rainfall received this month, recording

# Wet spell: 3 districts have now received 'excess' rain

## CITY'S MONSOON DEFICIT WASHED AWAY

Photo: Sanjeev Rastogi

□ No Rain (-100%) □ Large Deficient (-99% to -60%)  
■ Deficient (-59% to -20%) ■ Normal (-19% to 19%)  
■ Excess (20% to 59%) ■ Large Excess (60% or more)

### Station-wise rainfall

Station	Seasonal	Normal	Departure	Departure %
Safdarjung	306.7	215.3	91.4	42
Palam	251.8	233.4	18.4	8
Lodhi Road	320.1	215.3	104.8	49

Station	Monthly	Normal	Departure	Departure %
Safdarjung	225	149.8	75.2	50
Palam	224	164.1	59.9	37
Lodhi Road	246.4	149.8	96.6	64

### Rainfall this month in Delhi



District	Actual rain	Normal rain	Departure %
Central Delhi	119.8	225.3	-47
East Delhi	122	225.3	-46
New Delhi	246.4	175.1	41
North	229.9	191.2	20
North East	141.6	225.3	-37
North West	60.9	181.2	-66
South	208.1	225.3	-8
South West	277.9	221.6	25
West	191.2	229.7	-17

Monsoon deficit wiped out; rain deficit was 55% last week

The capital has seen two 'heavy' rain days since Sunday, pushing Safdarjung, Palam and Lodhi Road stations into 'excess' category

Among districts, New Delhi, North and South West Delhi are all in 'excess' category now

► Continued from P1

Kuldeep Srivastava, scientist at IMD and head of the Regional Weather Forecasting Centre (RWFC) says Delhi generally tends to record good spells of rain towards the end of July, with a good possibility of heavy rain.

"A shift in the monsoon trough had brought intense rain to the region and so far, two days of heavy rainfall has already been recorded. There is a possibility of Delhi recording heavy rain on Saturday as well," said Srivastava. He says Delhi is likely to witness light rain this week, with spells of moderate rain occurring in between.

In terms of district data, at least three of Delhi's districts — New Delhi, North Delhi and Southwest Delhi are now in the "excess" category. Northwest Delhi however continues to suffer the most, recording only

## PWD: No traffic on roads leading to Minto Bridge if water level above 45cm

Days after a 56-year-old man drowned in rainwater accumulated at the Minto Bridge underpass in central Delhi, the Public Works Department (PWD) has decided to barricade roads leading to the spot if the water level rises above 45 centimetres during rain, an official said on Thursday. The department also warned of filing an FIR against those not following traffic restrictions to be imposed during heavy rain.

The official said the department has issued an office memorandum directing officials concerned to monitor the water situation under the colonial-era bridge round the clock during the rainy season and ensure proper pumping arrangements so that there is no waterlogging.

60.9mm of rainfall this season, a "large deficit" of 66%. Central, East and Northeast districts are also in deficit, IMD data showed.

The IMD ranges categorizes rainfall between -19% and 19% as "normal", between -59% and -20% as "deficient" and between -99% and -60% as "large deficient" on its index.

The capital had received 67.6mm of rainfall at Safdar-

jung on Wednesday, while Palam had recorded 81.2mm in a 24-hour duration. Lodhi road also recorded 71.9mm of rainfall on Thursday. Rain is classified as 'heavy' when it is above 64.4mm in a 24-hour period.

Forecast for Friday shows light rain is likely to occur in the capital, with a maximum and minimum of 34° and 24° C, respectively, met officials said.



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## Floods claim 91 lives in Assam; 3 deaths reported from Bihar

**HT Correspondents**  
• letters@hindustantimes.com

**GUWAHATI/BETTIAH/NEW DELHI:** Four more people died in rain-related incidents in Assam on Thursday taking the total number of those killed in rain-related incidents this season to 91, even as Bihar reported three deaths due to drowning.

According to an Assam State Disaster Management Authority (ASDMA) bulletin, one death each was reported from Bongai-gaon, Kokrajhar, Morigaon and Golaghat districts. Over 28 lakh people in 26 of the state's 33 districts continue to be affected. Over 47,000 displaced people are taking shelter at 456 relief camps. Rescue personnel evacuated 1,102 persons stranded by floods on Thursday.

In Bihar's Bettiah, three bodies were recovered from different parts of East Champaran as villages in Raxaul, Sikarohana, Bettiah, Bagaha and Pakari-dayal sub-divisions continued to be flooded.

In Chakiya sub-division, body of a 35-year-old man was recovered from Dhanauti river. Parsuram Paswan was visiting his field when he drowned, said police. In Gokhala village, the



■ Residents move to a safer place from a flood-affected area in Muzaffarpur, Bihar, on Thursday.

PTI

body of an 11-year-old boy was recovered from a pond. In Chir-raiya, a four-year-old girl drowned in a roadside ditch at Balapur village, said police.

"As the water has entered several houses, we are running community kitchens at three places in Nautan, Bairiya and Chanpatiya blocks," said Bettiah sub-divisional magistrate Vidhyanath Paswan.

At least twelve villages in Banjariya blocks were inundated after an embankment on Tilawe river breached on Wednesday, said an official.

### FLOODS HIT 2.4 MN KIDS IN INDIA, SAYS UNICEF

An estimated 2.4 million children have been affected by the floods in India, the UNICEF said on Thursday, calling for immediate support to address the challenges. In a statement, UNICEF said, "In India, over 6 million people across Bihar, Assam, Odisha, Gujarat, Maharashtra, Madhya Pradesh, Kerala, Uttarakhand, Uttar Pradesh and West Bengal have been affected by the floods, including an estimated 2.4 million children," it said.

(With Agency Inputs)



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# 3 days, 7 cave-ins: Capital's roads fail to withstand heavy rain spells

## CRACKING UNDER PRESSURE

Traffic, already moving at snail's pace due to the rain, slowed further

Soumya Pillai and Ashish Mishra  
\* letters@hindustantimes.com

**NEW DELHI:** Just three days of heavy rain in the national capital have caused cave-ins on sections of at least seven major roads in the city, further slowing traffic that was already moving at snail's pace due to the showers and floods.

Just a day after parts of roads slumped in two vital stretches in central and south Delhi

— Ashoka Road and Mahipalpur bypass— another section of NH-48 leading to Mahipalpur and a portion of the service lane near the Rajouri Garden main market caved in on Thursday morning.

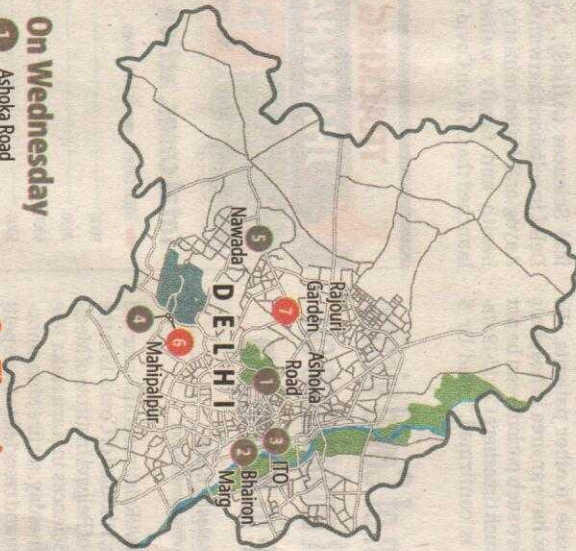
Delhi traffic police officials said that with two portions on the Mahipalpur route affected, traffic on Thursday was severely hit. Traffic from NH-48 towards Mahipalpur bypass, which is under the jurisdiction of National Highways Authority of India (NHAI) and the Central Public Works Department (CPWD), and that coming from Vasant Kunj towards the airport, on both sides of the carriageway, was diverted on the day, as a result.

CPWD minister Satvender Jain did not respond to requests for comment.

On Tuesday, traffic on and around Bhairon Marg came to a standstill after a section of the primary connection between central and east Delhi caved in, forcing traffic police to divert traffic.

## CAVED-IN ROADS

Experts say that damaged sewage and drain lines beneath roads were a primary factor for cave-ins



### On Wednesday

- 1 Ashoka Road
- 2 Bhairon Marg
- 3 ITO intersection (on the turning towards the skywalk)
- 4 Section on Mahipalpur bypass
- 5 Below Nawada Metro station

### On Thursday

- 6 Portion of NH-48 leading towards Mahipalpur
- 7 Rajouri Garden market (near foodpark leading towards Metro station)

Since Tuesday, such incidents have also been reported from ITO in Central Delhi and Nawada in West Delhi. In the three days since then, Delhi has seen 12mm

of rain. But why do such cave-ins take place? Senior officials of the city's road-owning agencies—the Public Works Department (PWD),

Delhi Development Authority (DDA), National Highways Authority of India (NHAI), and the four municipalities (east, north and south Delhi municipal corporations and the New Delhi Municipal Council) said these are recurrent incidents every monsoon, and attributed cave-ins to damaged water or sewer pipelines beneath roads. Experts added that shoddy quality control during construction compounded the problem.

A PWD official said a small portion of Rajouri Garden market road caved in due to sewerage leakage. "The leakage was attended to promptly and fixed. The portion is cordoned off and will be repaired soon," the official said.

Officials said there was a similar problem at Ashoka Road on Wednesday afternoon. Officials of the New Delhi Municipal Council (NDMC), under whose jurisdiction Ashoka Road is, said there was a leakage in a sewer line passing beneath the road, which led to the incident. "A small portion caved in because of a leak in the underground sewer line. Our engineering team is working to repair the sewer line and the road on priority," NDMC spokesperson RN Singh had said Thursday.

NHAI and CPWD did not respond on the details of the cave-in on Mahipalpur bypass and NH-48.

Estimates from the traffic police show that over the last five

years, the most complaints of roads caving in have come from central Delhi, which experts said was because most underground systems in the area were laid during British rule, and have not been replaced since.

A large portion of Bhairon Marg, just a few metres away from the present cave-in, had slumped in 2016. Sections of Ashoka Road have caved in at least thrice in the last two years, official records confirmed.

Sarvagya Srivastava, former engineer-in-chief of PWD, said many old utilities in Delhi such as water and sewer lines are laid beneath roads, and that whenever there is damage to these utilities, water seeps in, and the lower soil layer becomes soft.

"Before constructing a road, the water or sewerage pipelines should be shifted to a multi-utility duct or underneath a footpath or to the side. But at many places in Delhi, roads are built on these utilities due to a shortage of space. So, when these utilities leak, the water makes the soil soft and after some time, with continuous load portions of the road collapse," Srivastava said.

Sewa Ram, a professor at School of Planning and Architecture (SP A), said that apart from leakage in utilities, another cause for such incidents is "bad engineering" while laying roads. "If the lower layers are not compacted properly, the chances of a road cave-in increase," Ram said.



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## Showers over past 4 days lower Delhi's rain deficit to 16%

HT Correspondent  
letters@hindustantimes.com

**NEWDELHI:** Safdarjung, Palam and Lodhi Road stations in Delhi have already recorded 50%, 37% and 64% rain in excess for July. The monsoon deficiency (since June 1) which was 29% on July 21 reduced to 16% on Thursday, according to data with India Meteorological Department (IMD).

An excess of 19% to a deficiency of 19% is considered the normal range by IMD, so Delhi is not categorised as rain-deficient anymore.

Most of the rainfall which helped cover a massive monsoon deficiency of 52% (as on July 16) was recorded in the past four days between the evening of July 18 and July 22.

"The heavy and moderate spells of rain received within four days helped cover the deficiency. Since July 1 though, Delhi has received rain in 20 or 21 days but it has been extremely light or trace rainfall at most," said Kuldeep Shrivastava, head, regional weather forecasting centre.

But now rainfall over north-west India, including Delhi, will reduce significantly with the western end of the monsoon trough moving northwards. "The monsoon trough is moving to the Himalayan foothills and the wind direction has changed to north-westerly over north-west India. Even in the hills there is no wind convergence as such. So, there will be very light rain in the hills and northern plains, if at all. Around July 26, the monsoon trough will start shifting, bringing a lot of rain to north-west India," added Shrivastava.

## face to face

AK GOSAIN, Professor, Civil Engg, IIT Delhi

## 'Rainwater can't flow out as drains choked'

**NEWDELHI:** Delhi is losing its capacity to handle monsoons, even when it is rain-deficient. This is mainly because Delhi has a drainage master plan from 1976 that does not factor in the construction boom in recent years. **AK Gosain**, professor of civil engineering at IIT Delhi, who submitted a drainage master plan to Delhi government in 2017, tells **Jayashree Nandi** that Delhi can see a calamity anytime. **Edited excerpts:**

**Why does it flood in Delhi even after a few short spells of rain?**

First, paved area in Delhi is on the increase. The run-off from paved area is far higher than natural areas. For example, for one unit of rain, a paved area will generate 95% of run-off compared to 50% for a natural area. With a rise in paved area, we are seeing a rise in the volume of water that needs to drain. Second, in Delhi we get rain for four months; the drains are supposed to be dry for the rest of the year.

But no drain is ever dry. They carry sewage instead. Third, stormwater drains need to be cleaned at least biannually or rainwater cannot flow freely.

**Ten houses collapsed near ITO after heavy rain on Saturday. Was the rain that bad?**

The drain was choked. It should have been de-silted. Water level kept going up, eventually washing away houses. We need to check if they were authorised. And why were they constructed on a drain?

There are also some locations like Minto Bridge which get flooded every time. Yes there are many locations like that, which are in a depression. These cannot drain naturally. The water has to be pumped out immediately.

**What happened to the Drainage Master Plan your team submitted to the Delhi government?**

We have completed our job and its up to the government. The plan captures all the issues with flooding and drainage I have mentioned.

**There are constructions on the Yamuna flood zone or 'O' zone. Does that affect the city's capacity to handle rain?**

If the floodplains are constricted, then the level at which water will pass through will be higher. So when there is a big flood, embankments will breach and there will be calamity. Also, if the water level in the river is high, all the drains flowing into it will be surcharged and there will be backflow.