

भारत सरकार
जल शक्ति मंत्रालय
जल संसाधन नदी विकास एवं गंगा संरक्षण विभाग
केंद्रीय जल आयोग
जल प्रणाली अभियांत्रिकी निदेशालय



Government of India
Ministry of Jal Shakti
Dept. of Water Resources, RD&GR
Central Water Commission
Water System Engineering Directorate

दिनांक: 21.08.2019

विषय - समाचार पत्रों की कटिंग का प्रस्तुतीकरण।

जल संसाधन विकास और संबद्ध विषयों से संबंधित समाचार पत्रों की कटिंग को केंद्रीय जल आयोग के अध्यक्ष और सदस्य (कार्य योजना एवं परियोजना / अभिकल्प एवं अनुसंधान / नदी प्रबंध) के अवलोकन के लिए संलग्न किया गया है। इन समाचारों की कटिंग की सॉफ्ट कॉपी केन्द्रीय जल आयोग की वेबसाइट पर भी अपलोड की जाएगी।

अंजना
21.08.2019
वरिष्ठ कलाकार

जल प्रणाली अभियांत्रिकी निदेशालय

संलग्नक: उपरोक्त

उप निदेशक, (ज. प्र. आ.) निदे०

विवेक
21/08/2019

निदेशक, (ज. प्र. आ.) निदे०

प्रकाश कुमार
21-08-19

सेवा में,

अध्यक्ष, के. ज. आ., नई दिल्ली

सदस्य (कार्य योजना एवं परियोजना/ अभिकल्प एवं अनुसंधान / नदी प्रबंध) और

जानकारी हेतु - सभी संबंधित केन्द्रीय जल आयोग की वेबसाइट www.cwc.gov.in पर देखें।



News item/letter/article/editorial published on 21.08.2019 in the following newspaper

Hindustan Times	<input type="checkbox"/>	Deccan Herald	<input type="checkbox"/>	Hindustan (Hindi)	<input type="checkbox"/>
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Hindustan Times

Statesman

The Times of India (New Delhi)

Indian Express



Deccan Herald

Deccan Chronicle

The Economic Times

Business Standard



Hindustan (Hindi)

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Heavy rain in hills poses flood threat to Delhi

NEW TREND Analysis of IMD's rainfall data for Delhi since 1950 shows that high-intensity rainfall during monsoon has been decreasing over last two decades

Abhishek Jha

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NEW DELHI: Although high intensity rainfall in Delhi is decreasing, the threat of flooding persists in Delhi because of an increase in high-intensity and extreme rainfall this decade in Uttarakhand and Himachal Pradesh, states through which the Yamuna passes.

The Yamuna river has been flowing above the danger level of 205.3 metres in Delhi since 19 August. Residents of low-lying areas along the river have been asked to move to safer locations as the water level is expected to reach the 207-metre mark by August 21, as per the Central Water Commission's forecast.

If it happens, this will be only the fourth instance of the water level of the Yamuna crossing the 207-metre mark in Delhi since 1978.

It is to be noted that while Delhi's total monsoon rainfall was 966.7 millimetres (mm) in September 1978, the fifth highest since 1950, Delhi has received 274.1mm of cumulative rainfall until August 19 this year, which is only 68% of the long-period average (LPA) rainfall the capital receives until this date.

An analysis of the India Meteorological Department (IMD) rainfall data for Delhi since 1950 shows that high-intensity rainfall during monsoon has been decreasing in Delhi over the last two decades. It is a rise in low-intensity rainfall this decade that has ensured that the total rainfall has not decreased drastically.

HIGH-INTENSITY, LOW-INTENSITY RAINFALL

IMD gives grid-wise rainfall data for India, where each grid is a box covering 0.25-degree latitude and longitude. Delhi consists of two such grids. High-intensity rainfall for Delhi is calculated by adding daily rainfall, if it is greater than 35.5mm, in either of the grids over the total monsoon period (June 1 to September 30) and

dividing it by two.

Low-intensity rainfall can be calculated by a similar calculation for all days with less than 35.5mm rainfall. Extreme rainfall is a subset of high-intensity rainfall where the daily rainfall threshold is 150mm.

Until 2010, both low-intensity and high-intensity rainfall in Delhi were recorded in tandem. They would increase if the total monsoon rainfall increased and decrease when the rainfall was less. This has changed in this decade, as the high-intensity and low-intensity rainfall seem to be diverging.

As a result of this, the average share of high-intensity rainfall in Delhi's total rainfall is the lowest (19%) in this decade, since the 1950s. Values from 2010-18 have been used to calculate this decade's shares. Locations around Delhi — Gurugram, Faridabad, Gautam Budh Nagar, Ghaziabad, Baghpat, Jhajjar and Sonapat — also show the same rainfall pattern.

Before reaching Delhi, the Yamuna crosses Uttarakhand, Himachal Pradesh, Haryana and Uttar Pradesh. Both Uttarakhand and Himachal Pradesh have experienced an increase in high-intensity and extreme rainfall this decade.

Explaining the current rising level of Yamuna in Delhi, an irrigation department official told ANI that water had to be released from the Hathni Kund barrage in Haryana because of heavy rainfall in Uttarakhand.

According to IMD, Uttarakhand received 100.6mm rainfall from August 15 to 19. Himachal Pradesh received 147mm of rainfall in the same period. Uttarakhand went from being 29% deficient from LPA on August 14 to being 23% deficient on August 19. Himachal Pradesh, which was 23% deficient on August 14, became 2% deficient on August 19. If these trends continue, Delhi might have to reconcile itself with being vulnerable to flooding without receiving much rainfall.

Why Yamuna floods Delhi

CHART 1 High intensity rain in Delhi* in decline

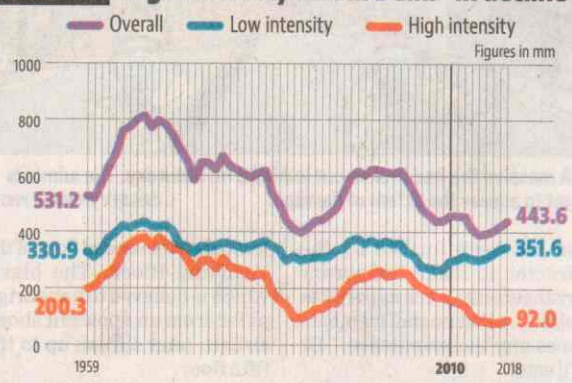


CHART 2A But increasing in Uttarakhand*

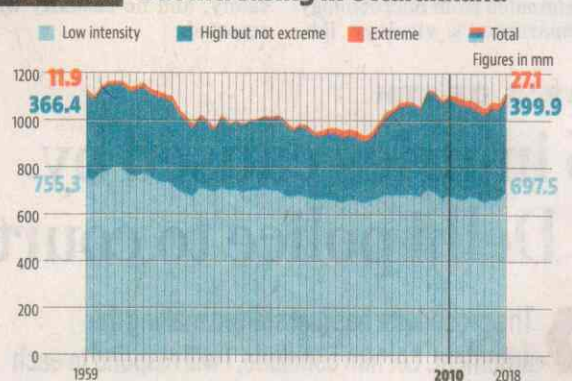
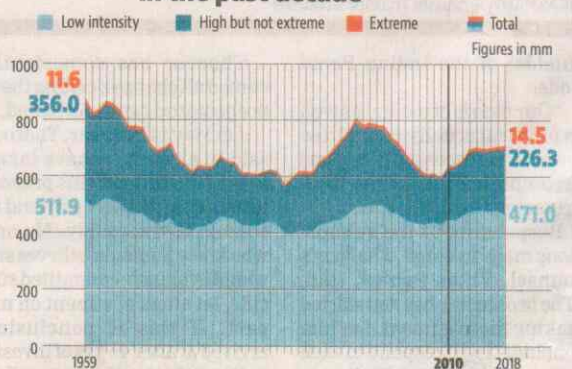


CHART 2B And also in Himachal Pradesh* in the past decade



*10 year moving averages

Source: HT calculations based on IMD data

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16,000 rescued as Yamuna continues to rise

FLOOD THREAT On Tuesday, the river flowed at 206.17m, one point above the danger mark; government continues evacuation and relief

HT Correspondent
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NEW DELHI: The water level in the Yamuna continued to rise on Tuesday and is expected to touch a maximum height of 207.08m by Wednesday afternoon, officials of the flood and irrigation department said.

The water level in the river had last breached the 207m mark during the 2013 floods, when it touched 207.32m.

By 3pm on Tuesday, the water level at the Old Iron Bridge had touched 206.17m. In 2018, the water level had shot up to 206.05m.

Officials said that this time the water level is expected to touch 207.08m sometime between 1pm and 4pm on Wednesday, before it starts receding.

By 4pm on Tuesday, the Delhi government had evacuated more than 16,000 people from low-lying areas along the river's floodplains.

More than 2,350 tents had been pitched across 48 locations in six districts, through which the river passes. Around 11,000 people have housed in these tents.

The Union cabinet secretary PK Sinha on Tuesday chaired a meeting to review the prevailing flood situation in Himachal Pradesh, Punjab, Haryana, Uttarakhand and Delhi, according to an official statement.

Chief minister Arvind Kejriwal, while speaking on the sidelines of a government program, said, "The situation is under control. The government is closely monitoring the situation. All preparations are going on in full swing."

On Tuesday, the flood water of the Yamuna inundated several low lying areas at Kisan Colony and Yamuna Khadar and entered houses and jhuggis located on the river's floodplains, forcing families to take shelter in government tents.

The cremation ground at Nigambodh Ghat has also got submerged.



■ A view of the surging Yamuna under the Old Iron Bridge. Vehicular traffic was suspended on the bridge on Monday, after the water level breached the danger mark of 205.33m
SANCHIT KHANNA/HT PHOTO

ON TUESDAY, THE FLOOD WATER OF YAMUNA INUNDATED SEVERAL LOW LYING AREAS AT KISAN COLONY AND YAMUNA KHADAR

"We had been asked to move last evening (Monday), but most of us have not packed our belongings yet. Last year also we were asked to pack up and move, but nothing happened after that. This has become a routine exercise. In 2017, we were all moved to the camps so we tied our goats and cows along the Noida Link Road and people stole our livestock and we suffered huge losses. We do not have much to lose, so we will wait till the water enters our houses," said Gayatri Ganesh, a resident of Yamuna Khadar.

Vehicular traffic has already been suspended on the Old Iron Bridge since Monday, after the

water level breached the danger mark of 205.33m. The Northern Railways too on Tuesday reduced the speed of trains, passing over the bridge, to 20km per hour.

"We might have to temporarily suspend the movement of trains on the bridge if the water level increases beyond 206.4m," said the spokesperson of North Railways.

Revenue minister Kailash Gahlot tweeted that he inspected relief camps at Haathi Ghat and Kanchan Colony and interacted with people who have been evacuated and are now staying in relief camps.

"Food packets and drinking water are being supplied to people living in tents. Medical teams are making rounds. Mobile toilets have been set up. The tents are gradually filling up as the water level is rising and more people are being evacuated," said a civil defence volunteer, working in one of the tent sites of Shahdara district.



■ Residents being evacuated from low lying areas after water entered houses and residential areas at Kashmere Gate.
SANCHIT KHANNA/HT

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and documented at WSE Die, CWC.

Flood will help govt pilot project on water conservation

HT-21

HT Correspondent

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NEW DELHI: The surging Yamuna might have temporarily displaced thousands of people but the inundated banks has come as a shot in the arm for the Delhi government, which recently started a pilot project to conserve flood waters to recharge the depleting ground water aquifers on the floodplains.

This is a first-of-its-kind project in the country, which aims to conserve excess water flowing down the river during the monsoon by creating a mega reservoir in the floodplains between Palla and Wazirabad.

"Some of the reservoirs, through which water would percolate down to the aquifers, have already been constructed by digging out top layer soil. They are all inundated now and this would help us. Once the water recedes, we would start ascertaining the rate of percolation. This is the first step of the project," said a senior official of the irrigation and flood control department.

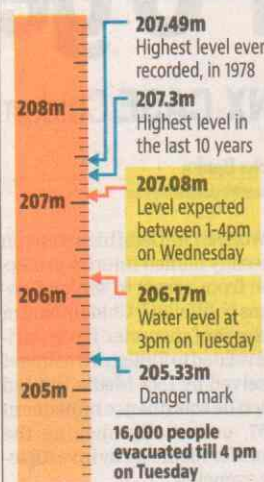
Artificial reservoirs are being created on the Yamuna plains of one metre depth in which flood-water will be collected. This water will gradually recharge and come back to Yamuna through a natural process.

The peak demand of water in Delhi shoots up to around 1150 MGD during summer. The Delhi Jal Board can produce only around 936 MGD. This results in an acute water shortage.

The ground water in several parts of Delhi is also 'over-exploited'.

"During the monsoon season, at least six lakh cusecs (around 3.5 lakh MGD) of rainwater flows down the Yamuna every day. If we can conserve this water in the river's floodplains, it would help us to solve Delhi's water problem

YAMUNA IN SPATE



for almost a year," Kejriwal had said while laying the foundation stone of the Chandrawal Phase-2 water treatment plant.

Due to farming and other activities, water was unable to go beneath the surface. But there is a layer of sand beneath that which helps water to percolate faster. In this project, the top soil has been removed up to a depth of around one to one-and-half metres to allow faster percolation. "We have set up piezometers in the dug-up reservoirs to ascertain the rate of percolation," said a official of the Irrigation and Flood Control department.

Views of experts in the field of water conservation and recharging vary from whether water percolates at a speed of two metres per day or 10 metres per day.

"The speed of recharging will be measured. The area till which underground water reaches will also be ascertained. This will form the basis of launching the project on a bigger scale next year," chief minister Arvind Kejriwal had said when the pilot project was being launched.



88 VILLAGES

SUBMERGED IN KAPURTHALA DISTRICT ALONE

60 VILLAGES

FLOODED IN JALANDHAR AFTER BREACH IN MANDALA

MONSOON FURY: Despite no rain, agricultural fields remained flooded at Gidderpindi village in Jalandhar district on Tuesday. TRIBUNE PHOTOS: MALKIAT SINGH

1-21

Rainfall subsides, rivers still swollen

Sutlej breaches banks at 3 new spots | Ghaggar level rises by 8 ft in 24 hours

TRIBUNE NEWS SERVICE

JALANDHAR, AUGUST 20

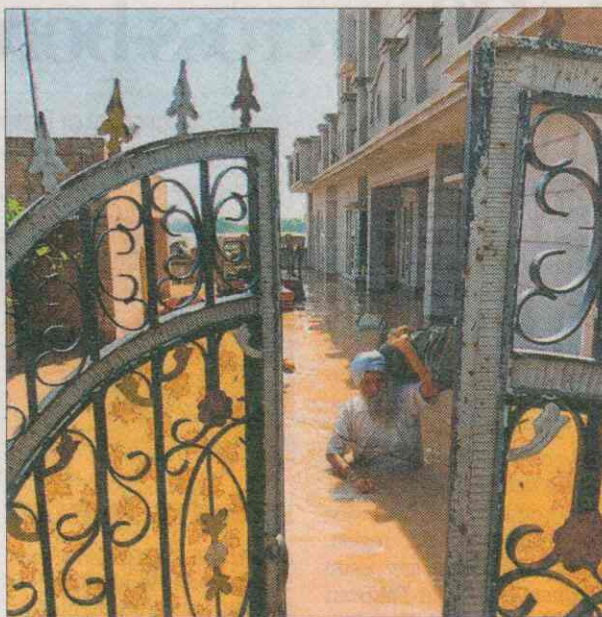
With three more breaches reported — two in Kapurthala at Tibbi (Gidderpindi) and Sarwal villages and one in Mandala, Jalandhar — the Sutlej breaches have escalated to a point where thousands of villagers are forced to spend nights on rooftops.

Over 150 villages in Kapurthala and Jalandhar have been affected by floods of which over 70 are completely submerged. Villagers said in around 80-100 deras (field homes), residents had not been rescued.

In Lohian village alone, 700-800 persons had been stranded on rooftops with no tarpaulins or even clean drinking water.

At Lohian, relief camps set up at Nal village have also been flooded with displaced villagers whose houses had been completely submerged.

Kapurthala DC DPS Kharbanda said: "Due to the river changing course towards Kapurthala, some bundhs could not sustain the pressure of water. However, over 200 persons have been rescued and only 50-



A resident tries to salvage his belongings at Gidderpindi village.

ADMN TO PLUG GAPS, LOCALS CALL IT EYEWASH

- While the Jalandhar administration said breaches would be plugged with the Army help, Mandala, Janian, Janian Chahal and Kapurthala villagers said the announcement was eyewash
- After repeated calls to officials went 'unanswered', Janian and Madala villagers deployed JCBs and trolleys to plug breaches

100 men have stayed back. We are providing full aid and relief to those stranded and also bringing in teams to plug breaches."

Jalandhar DC Varinder

Sharma said: "The Chief Minister has given a go-ahead for deploying three helicopters to airdrop food and water supplies to villagers stranded at Lohian."

SANGRUR, AUGUST 20

Within the last 24 hours, the water level in the Ghaggar has risen from 737 feet to 745 feet. With 750 feet being the danger mark, local residents fear the seasonal rivulet, which has not been repaired for quite some time, may flood the area again.

"The Punjab Government has not repaired the embankments of the Ghaggar for some time hence the flood threat looms large over many villages. We have not received any financial compensation for the losses we suffered last month after a breach in the Ghaggar. The state government must take steps to prevent reflooding of our area," said Surinder Singh, a farmer from the Moonak area of Sangrur.

In July, floods had damaged standing crops over 10,000 acres in Bhundar Bhaini, Surjan Bhaini, Salemgarh, Phullad villages and surrounding areas.

"Till Monday morning, the level in the Ghaggar was around 737 feet. On Tuesday, it rose to 745 feet. Some senior officers said they feared that the water level was likely to cross the danger mark

on Tuesday night.

"Like us, residents of many villages have started strengthening the embankments of the Ghaggar to prevent a breach. We request Chief Minister Capt Amarinder Singh to look into the matter," said Harmanjit Singh, another resident of Salemgarh village.

The state government had submitted a proposal to the Central Water Commission (CWC) for taming of the Ghaggar six years ago. In March 2019, the CWC had ordered a feasibility study by an independent agency like Central Water & Power Research Station, Pune. Amarinder Singh during his visit to flood-affected areas of Moonak on July 23 had announced that he would urge the Centre to give the clearance to the phase II of the river project from Makror Sahib to Karail."

"The CM is taking all required steps to prevent floods in the state. He is getting daily feedback on the Ghaggar. Today I visited water-affected villages and directed officers concerned to speed up relief operations," said Vijay Inder Singla, Cabinet Minister, after visiting villages. — TNS

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Centre to study flood-hit States

Under new Ministry rules, team to visit affected areas even before State memo

SPECIAL CORRESPONDENT
NEW DELHI

An Inter-Ministerial Central Team (IMCT) under the Home Ministry will soon visit 11 flood-affected States, including Kerala and Assam, to assess the damage. The Ministry has changed rules and from now on, the IMCT will visit the affected areas even before receiving a memorandum from the State concerned.

The other States that will be visited by the Central team are Meghalaya, Tripura, Bihar, Uttarakhand, Himachal Pradesh, Gujarat, Rajasthan, Maharashtra and Karnataka.

Criticism by Kerala

On Tuesday, Kerala's Finance Minister Thomas Isaac took to Twitter to criticise the Union Home Ministry of allocating "zero" funds



Water-logged: People wading through a flooded area on the banks of the Yamuna in Delhi on Tuesday. ■ REUTERS

to Kerala.

"Home Ministry approves ₹4,432 crores from National Disaster Response Fund for the flood-affected States. Share of Kerala, the worst affected, is zero!" Mr. Isaac said on Twitter.

A senior Home Ministry official said the Central team would soon visit other flood-affected States, including Kerala.

In the combined rescue operations in the States affected by floods, landslides etc. during the current monsoon season, the NDRF, Army, Air Force, Navy and Coast Guard have rescued and shifted to safer places more than 1,53,000 people.

'Constitute immediately'

"The IMCT will henceforth be constituted immediately

in the aftermath of any natural calamity of severe nature, which will visit the affected areas in the State so as to have first-hand assessment of damages caused and relief work carried out by the State administration. The IMCT will again visit the State after submission of the memorandum for detailed assessment of the damage and relief operations conducted for making final recommendations for allocation of additional funds," the Home Ministry said in a statement.

At present, the IMCT visits the affected State only once, after the receipt of the memorandum from the State. The Centre has also approved release of over ₹4,432 crore to Odisha, Karnataka and Himachal Pradesh for the damage caused by natural calamities in these States during the last financial year.

Polavaram project: HC reserves verdict in case filed by Navayuga

Both sides argue over cancellation of the contract

SPECIAL CORRESPONDENT
AMARAVATI

The High Court on Tuesday reserved judgment in a case filed by Polavaram project contractor Navayuga Engineering Company Limited (NECL) challenging the Andhra Pradesh government's termination of its contract.

Justice D.V.S.S. Somayajulu heard the arguments and reserved the orders.

'Image hit'

Former Advocate General Damalapati Srinivas, representing NECL, said the sudden cancellation of the contract had adversely

impacted the image of the company. The government was unfair to the company, the advocate argued, and asked the court to order the government to continue the contract. Mr. Srinivas said the company did not violate the contract in anyway while executing the work. The government had done injustice by cancelling the contract of a company that was doing work expeditiously and calling for reverse tendering, he argued.

The company challenged the cancellation of the contract without showing any proper reason. He told the

court that work on the hydel project was delayed because A.P. Genco failed to identify the land for the power plant in time and not because of any lapse on its part.

The government pleader argued that the company should have approached the arbitrator if the government cancelled the contract, but it directly approached the High Court, which was most inappropriate. The government pleader also argued that there were enough grounds for cancelling the contract and requested the court to permit reverse tendering in the project.

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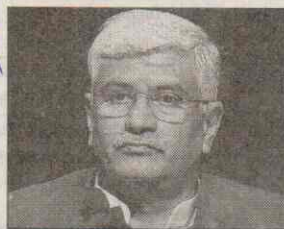
and documented at WSE Dte, CWC.

Work to stop water from flowing into Pakistan has started: Govt

DEVENDRA PANDEY
MUMBAI, AUGUST 20

THE CENTRE has started the process of stopping water from flowing into Pakistan without breaking the Indus Waters Treaty said Jal Shakti Minister Gajendra Singh Shekhawat Tuesday in Mumbai, adding that the process has already begun to secure the water by building a diversion.

"If you are talking about our top priorities, then *aane wale samay mein Pakistan jaane wale pani ko kaise roka ja sakta hai, uspe kaam chalu hai* (work has begun on how to stop water that flows into Pakistan). I am talking about the water which is going to Pakistan, I'm not talking about breaking the Indus Treaty," said Shekhawat. Asked to elaborate, he said, "The water which is excess and going to Pakistan, how can we stop that water? There are some reservoirs and rivers which are outside the catchment



Gajendra Singh Shekhawat

area. We will divert that channel so we can use that water in the lean season and monsoon season. Today, all our reservoirs are full but we can use that water (which is going to Pakistan) and divert it to the Ravi river."

Shekhawat's remarks come more than a fortnight after the Centre moved to scrap the special status granted to Jammu and Kashmir and bifurcated the state into two Union Territories, which has prompted protests from Pakistan.

Shekhawat also said that

dams were built "not only to generate hydroelectricity" but for use in the "lean season".

Incidentally, former Water Resources Minister Nitin Gadkari had made similar comments in the wake of the Pulwama terror attack on February 14. Then, Gadkari had said that the government had decided to "stop" the waters in the three "eastern rivers" of the Indus basin from flowing into Pakistan, and instead divert the flow to supply waters to "our people in Jammu and Kashmir and Punjab".

The waters of three eastern rivers of the Indus basin — Ravi, Sutlej and Beas — have been assigned entirely for use by India under the 1960 Indus Waters Treaty with Pakistan. The three western rivers — Indus, Jhelum and Chenab — are supposed to flow "unrestricted" to Pakistan under the treaty, though India, being the upstream country, is allowed to use the waters in a "non-consumptive" manner.

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Rashtriya Sahara	<input type="checkbox"/>	Dainik Bhaskar			

TN water crisis: Govt instructs all buildings to install RWH systems

STATESMAN NEWS SERVICE
CHENNAI, 20 AUGUST

A government which has been denying water crisis in the capital city of Chennai and several other parts of the state, is now realising the harsh reality and taking last-ditch efforts to overcome the challenges created partially due to its lack of vision and apathy.

Tamil Nadu government has now set a three-month deadline for private, government, educational institutes and buildings to set up state-approved rainwater harvesting (RWH) systems.

According to state Municipality and Administrative Minister SP Velumani, people who refuse to comply with the state government, would be liable for government action.

This decision comes after an audit conducted by the state government found that at least five lakh buildings in the state did not have rainwater harvesting systems within its building. In all 14 municipal corporations and 121 municipalities were surveyed in the state this year and the figures were released at a press conference on Monday.

The late J Jayalithaa, as chief minister of the state had ordered this measure during her stint in 2003 and mandatory RWH design (Rain Water Harvesting system) was needed for legal approval of any building in the state after that. But when Chennai, which consists of more than two lakh buildings in its 200 wards across the city, was surveyed for compliance to harvesting systems, in 60,461 buildings rain water harvesting system for each building was not found and along with that 37,131 buildings needed maintenance.

Similarly, in municipal

corporations and municipalities apart from Chennai, 15 lakh 89 thousand buildings have been inspected. Of these 10.19 lakh buildings have been ordered to renovate their rainwater harvesting systems and 4.98 lakh buildings have been issued notices to install new rain water harvesting systems.

The government plans to further inspect 31 lakh 96 thousand buildings by November this year. The enormous gap in non compliance of RWH system has been attributed to the blatant violation of rules by builders conniving with the officials.

Schools asked to spread water conservation awareness

PTI
NEW DELHI, 20 AUGUST

The Delhi government has directed schools in the national capital to conduct awareness activities for students on water scarcity and importance of conserving water resources.

"Recent studies and reports by various agencies and institutes have indicated scarcity of water resource is increasing day by day in most parts

of the country. In order to mobilize the community at large regarding the importance of conserving water resource, 'Jan Andolan' for various activities related to water conservation will be held in each school on August 23," the Directorate of Education (DoE) said in a letter to schools.

Students of all schools from class 6 onwards have to be roped in as "awareness ambassadors" to carry out

mass awareness creation and community education activities including rallies, nukkad nataks, plantation drives, workshops and seminars as part of "Jal Shakti Abhiyan".

"All works and projects which are to be undertaken under Jal Shakti Abhiyan to be geotagged and data or pictures before and after of the same are to be taken and a record of the same is to be maintained at school level," the DoE letter said.

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Statesman	<input type="checkbox"/>	Deccan Chronicle	<input type="checkbox"/>	Nav Bharat Times (Hindi)	<input type="checkbox"/>
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and documented at WSE Dte, CWC.

In just 18 days of Aug, extreme rain touches 5-year high

Neha.Madaan
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Pune: The country has seen 1,204 instances of very heavy to extremely heavy rainfall in the first 18 days of August alone, the highest for any monsoon month in the last five years for which such data was made available. This is twice the number recorded in August 2018.

The India Meteorological Department (IMD) calculated the very heavy to extremely heavy rainfall frequency during 24-hour periods for its 3,500 stations spread across India. It found that August 2019 has so far seen the maximum instances when stations received more than 120mm and 210mm rain.

Real time rainfall data is monitored at all 3,500 stations. IMD officials said "very heavy" rain means showers in the range of 115.6mm-204.4 mm, while "extremely heavy" rainfall event is when a station receives 204.5mm or more in 24 hours. India's monsoon performance this



YAMUNA STILL RISING: Women wade through flood waters in Delhi. At 9pm, Tuesday, Yamuna was at 206.4m, over 1m above the danger mark, and rising | P 4

year has so far been "normal", but huge swathes of the country have witnessed very high rainfall in spurts that have caused flooding and devastation.

According to the data, 914 very heavy to extremely heavy rainfall events were recorded in July this year, which too was highest since 2015.

► Continued on P 14

IMD: 2-fold rise in extreme rain instances in Aug

► Continued from P 1

Arvind Kumar Srivastava, head of the Climate Research Division, Climate Research and Services, IMD Pune, told **TOI** that the 2019 monsoon got active after June 22-23, when heavy rainfall wiped out the high monsoon deficit in various districts within a few days.

"Although there haven't been many deep weather systems during the monsoon till now, the pressure gradient over the west coast was fairly steep. This was mainly because of a significant and consistent positive north-south temperature gradient, the dynamical forcing needed for strong pressure gradient to maintain copious monsoon flow. This, coupled with circulations over the Bay of Bengal, may have caused widespread rain over major parts of peninsular India, west coast and central Maharashtra," Srivastava said.

"There were also easterly and westerly interactions over northern/northwestern parts recently. This led to very heavy/extremely rainfall events in situ. Our data showed that in comparison to August 2018, the number of very heavy to extremely heavy rainfall instances registered a two-fold rise in August 2019. In comparison to August 2017, the increase was almost two-and-a-half times in August 2019," he said.

"Several researches have shown that the occurrence of extreme rainfall events over India during the southwest monsoon season shows spatial variability with preferred regions of occurrence over the entire west coast of India and parts of central India and northeast India. The frequency of extreme rainfall shows a significant increasing trend over the Indian monsoon region during the southwest monsoon season over the 1951-2005 period," Srivastava said.

Former IMD director general K J Ramesh said pre-monsoon heating was anomalously high this year because of the record temperatures in May and June.

Full report on www.toi.in

Hindustan Times
Statesman
The Times of India (New Delhi)
Indian Express
The Hindu (New Delhi)
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and documented at WSE Dte, CWC.

Goa floods affect 6,000 farmers

SI-21

IANAS
PANAJI, 20 AUGUST

Heavy monsoons and flooding in Goa have affected the livelihoods of over 6,000 farmers in the state and the consequent losses have been pegged at around Rs 8.92 crore, Deputy Chief Minister Chandrakant Kavlekar said on Tuesday.

Speaking to reporters in the capital, Kavlekar, who also holds the agriculture portfolio, said the state government is considering modifications to the agriculture loss compensation formula currently in place, adding that farmers have complained about low compensation for agricultural losses faced by them.

"A survey of the damage caused by the heavy rains and flooding of low lying areas has pegged the total loss in Goa to agricultural and horticulture crops at Rs 8.92 crore. 6,363 farmers have been affected and a total area of 1,928 hectares of land has been impacted by water logging," Kavlekar told reporters.

Unprecedented heavy rains have lashed Goa over the last three weeks, causing flooding in low-lying areas across the state.

Kavlekar also said that the state government is trying to reimburse at least 50 per cent of the compensation before the upcoming festival of Ganesh Chaturthi, which will be celebrated in the coastal state from 2 September.

"We are trying our best to allocate the compensation to the farmers by Ganesh Chaturthi," Kavlekar added.

According to the Agriculture Minister, the state government would look at revising the compensation ratio, which according to farmers is quite meagre at present.

"I will be meeting the Chief Minister about the reworking the compensation formula, to ensure that the farmers get more amount for the losses caused by such calamities," he said.

Hindustan (Hindi)
Nav Bharat Times (Hindi)
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Guj: Narmada dam water level just 5 metres short of upper limit

PRESS TRUST OF INDIA
AHMEDABAD, 20 AUGUST

SI-21

The water level in Gujarat's Narmada dam at Kevadiya on Tuesday rose to 133 metres, just five metres short of its upper limit, due to heavy inflow of water from upstream, officials said.

The water level of the dam, located in Narmada district, stood at 132.98 metres this afternoon, according to Sardar Sarovar Narmada Nigam Limited (SSNNL) officials.

"The dam received an inflow of water at the rate of 2.99 lakh cusec (cubic feet per second), out of which 2.18 lakh cusec water has been released by opening 15 out of total 30 gates," said an official. As of now, the dam, which has the capacity to storage 4.75 million acre feet (MAF) water, is 81.27 per cent full.

Chief minister Vijay Rupani has expressed hope that the dam water level will touch its full reservoir level for the first time since



2017 when its height was raised. "The full reservoir level of the dam is 138 (.68) metres. For the first time since the work on raising its height was completed (in 2017), the dam will be full to the brim," he said.

Rain likely in north TN, Puducherry: The city and its surroundings witnessed mild overnight rains on Tuesday even as the weather office forecast more spells during the next two days due to a "wind confluence."

Earlier, sharp, intermittent showers had lashed the city and its neighbourhood on Saturday and Sunday, bringing relief to the residents of this parched metropolis.

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MORE THAN A DAM

Sardar Sarovar Project should be completed to avail of the promised gains

YOGINDER K ALAGH

THE SARDAR SAROVAR Narmada Project (SSP) is showing substantial benefits although it has not been implemented the way it was designed. Activist NGOs agitated against closing the gates of the dam because this would flood the backwaters as the reservoir fills up. Some politicians have already given this a political hue although Madhya Pradesh Chief Minister Kamal Nath has maintained a dignified, studied silence.

This year, the onset of the kharif monsoon was delayed by over a month in Gujarat, causing much misery. Drinking water was scarce. The sown crop withered away and kharif area was at one time a tenth lower. By now the deficit is wiped out, but the losses are there in terms of non-preferred crops grown and loss of potential yield. The reservoir filling up has high socioeconomic benefits.

Memories of the original (SSP) plan dim and a number of exciting new alternatives are visualised. In a water scarce area, the possibilities are many. Given the passage of time, redesigning the plan is of some importance. New crops are possible. Scarcities change. Gujarat and Indian agriculture is now trade dominated. Resource-based planning is important to keep us anchored. A more serious reason for this caution is the fact that central

resources have been an important part of financing the project. Resource-based planning is the only way of accessing them. The conditions of central assistance for the project are still as set up 25 years ago when it was approved by then Prime Minister Rajiv Gandhi, who, after he was convinced of its merits, became a great supporter of the project. These may need review.

Gujarat has correctly stated that after the reservoir fills up, if water is still flowing into the dam, the largest main canal of the world will be used to take water to Saurashtra and will fill up the many small dams in the plateau. This was modelled as a benefit of the project in the original blueprint of the SSP in 1984. It has been said that some of the unique features built into the planning of the project are "concrete-lined canals to reduce conveyance losses, use of control volume concept for design of distribution systems, efficient water-use allocation with optimised crop planning for 13 different agro-climatic zones of the command, extensive irrigation to a 1,80,000 ha area... deepening of village tanks for borrowing soil for canal embankments, computerised automated operation of canal system, participatory irrigation management through water users associations, and promoting micro-ir-

rigation systems like drip and sprinkler for efficient water use."

The benefits of the SSP project will be more when this is done. Without it, the coverage of beneficiaries is less; we must issue the SCADA contracts so that the largest number of farmers benefit. Mathematical models have been developed using the services of Indian consulting firms for the command area at different time stages. These need to be used.

There is some urgency to getting back to the original design configuration of the SSP plan. As long as upstream use of Narmada waters was not according to MP's full entitlements, Gujarat as the lower riverine state was entitled to all the water flowing down from the Sardar Sarovar Dam. This was more than the water which would be available as Gujarat's share when MP uses all its share. The SSP plan had anticipated all this.

The SSP plan is not cast in stone. Planning is meant to be a flexible business in its best variants. However, in some of the great social decisions, pursuit of objectives with tenacity is also a virtue not to be scoffed at. It is quite obvious that completion of the SSP plan is of great priority.

The writer, a former Union minister, is an economist

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Tenders for water grid project in Beed to be floated soon: Lonikar

'We are not doing injustice to one group to benefit others'

PRESS TRUST OF INDIA
MUMBAI

Minister for Drinking Water and Sanitation Babanrao Lonikar said on Tuesday that tenders would be floated soon for work in the Beed district as part of the ambitious 'water grid' project to connect dams.

The tendering process was on hold as the code of conduct is in force due to election for a Legislative Council seat from Jalna, Mr. Lonikar told reporters.

The election results are expected on Thursday, after which the tender would be floated, he said.

"Beed is the first district in the Marathwada water grid project (where the work will start) with a cost of ₹4,802 crore," the Minister said.

The cost of the entire project is estimated at ₹16,000 crore.

The project reports for Beed and other seven districts of Marathwada region are being prepared by Mekorot, the national water company of Israel, he said.

"Project reports of Latur and Osmanabad too will be out soon," Mr. Lonikar added.

Asked if those who currently benefit from dam waters would object to the grid

Water management, not scarcity, a challenge'

PRESS TRUST OF INDIA
PUNE

India does not have scarcity of water but the challenge is to manage it well, Union Minister for Jal Shakti Gajendra Singh Shekhawat said on Tuesday.

He said the country's annual average rainfall is good when compared to several other countries, adding that headlines, which spoke of parched regions till 15 days ago, were now centred on floods.

"Our challenge is not that we have water scarcity, our challenge is of water management. And the challenge is faced by a

country where water is revered as god," he said.

He was speaking at the induction training programme for newly appointed Central Water Engineering Service officers at the National Water Academy.

"India's average rainfall is 1068 mm, which is very good compared to other countries. One month ago, there was only one news everywhere, and that was about the (adverse) water situation in Chennai. The main headline was that India is parched," he said.

"In the last 15 days, the only news everywhere is that of floods," he added.

project, he said, "The idea is to connect all the dams. We will be mostly transferring excess water from one dam to another.

"All the dams will be connected with pipelines and the needy areas will get water as per demand. There will always be some groups objecting to such sharing

but we are not doing injustice to one group to benefit others."

Ujani in Solapur district, Jayakwadi in Aurangabad and Isapur in Yavatmal are three major dams which would be interconnected along with other small and medium dams, the Minister said.

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Statesman ☐
The Times of India (New Delhi) ☐
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