# File No.T-74074/10/2019-WSE DTE

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

विषय: समाचार पत्रों की कटिंग का प्रस्तुतीकरण-27-सितंबर-2020

जल संसाधन विकास एवं सम्बद्ध विषयों से संबन्धित समाचार पत्रों की कटिंग को केंद्रीय जल आयोग के अध्यक्ष के अवलोकन के लिए संलग्न किया गया है. इसकी साफ्ट कापी केंद्रीय जल आयोग की वेबसाइट पर भी अपलोड की जाएगी.

संलग्नक: उपरोक्त

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उप निदेशक(-/sd)

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सेवा में

अध्यक्ष, केंद्रीय जल आयोग, नई दिल्ली

जानकारी हेतु: सभी संबन्धित केंद्रीय जल आयोग की वेबसाइट http://cwc.gov.in/news-clipping परदेखें



2<sup>nd</sup> Floor(South), Sewa Bhawan,

## Hindustan Times 27-September-2020

#### Hindustan Times

# Process has begun for 24x7 water supply to all households: Kejriwal

CM says consultant will help Jal Board to plug leakages and stop wastage during supply, rejects allegations of privatisation of DJB

#### **HT Correspondent**

NEW DELHI: Chief Minister Arvind Kejriwal on Saturday said the Delhi Jal Board (DJB) has begun the process to appoint a consultant to make water availa-ble 24x7 to every household in the national capital in the next five years.

Addressing a digital press conference, Kejriwal said Delhi consumes 930 million gallons (MGD) of water every day or 176

litre per person per day. This includes water use of all kinds, including industrial, swimming pools, for farm fields and so on, he said. "This is not a lot, but it is not

less either. At present, there is no accountability. A lot of water is either stolen or goes waste due to leakages. We are appointing a consultant who would recom-mend us steps to ensure not a single litre of water goes waste. It would also suggest us the technologies available across the globe to put in place a hi-tech, automated, and real-time water management system," the chief

minister said.
Clean water availability
round-the-clock was one of the
10 promises made by Kejriwal in his 10-point guarantee card dur-ing the 2020 Assembly elections.

"Delhi is the national capital of the country. If you visit any capital city across the world such as London, Tokyo, Paris, you will receive 24x7 clean tap water supply. In Delhi, the water pressure is low and people have to install pumps, and if one per-son installs a pump, it causes a problem for neighbours. Every household has to install water tanks to store water. We have to bring all of this to an end. Just like the citizens living in the national capitals of other countries receive 24x7 water with full pressure, without the need for a water tank and any water pump, we will do the same in Delhi," the chief minister said.

To enhance the availability of water in Delhi, he said the Delhi government is in talks with "water-rich" states such as Uttar Pradesh, Himachal Pradesh and Uttarakhand to explore the pos-

sibility of water-sharing pacts. Kejriwal also rejected sugges tions by the Bharatiya Janata Party (BJP) that the Delhi gov-ernment 'One Zone-One Opera-tor' policy is a step towards privatisation the DJB.

"No privatisation of water is happening, I am myself against privatisation of water. There can be no privatisation of water at any cost," said the CM. Kejriwal said, "We are still liv-

ing in old times, where if we have to transfer the availability of water from one area to another, we have to send a valve in those areas. We have a technology in DJB, where one can operate a valve through a remote control sitting in a room at the click of a button. The central control room has information on which pipeline and which area has how much water, and full information on the availability of water is there on a real-time basis. This is also called a SCADA system. The consultant will tell us about this technology. Now, we are moving towards providing 24x7 supply of water to Delhiites.'

The DJB on Thursday had announced 'One Zone-One Operator' policy under which the city will be divided into 7-8 zones and a private operator will be appointed to look into the works in each zone.

The decision was taken in a board meeting presided over by Delhi water minister and DJB chairman Satvendar Jain.

"The operators will be appointed for a period of 10 years under the scheme on a contract basis," it said.

Ankit Srivastava, DJB techni-cal advisor, explained that the services are not being privatised and no layoffs will be done within the water utility. Senior officials said the powers of moni-

toring and supervision will rest with the DJB. Delhi BJP president Adesh Gupta said it was an acknowledgement of the fact that a lot of water is still wasted through

leakages and theft.
"So why did the Kejriwal government not fix the system in five years? Chief minister Kejriwal said that talks are going on with Himachal Pradesh, Uttarakhand and Uttar Pradesh for water supply. In five years, why did the Delhi government not find any new resource for water supply? Why is the DJB still operating with outdated technology?," he said.

## The Hindu 27-September-2020

# Using cloud computing for better flood inundation mapping

Researchers have developed a tool for a near real-time mapping of flood extent

ASWATHI PACHA

The Kerala rains of July-August 2018 caused substantial loss of lives and property and left major cities flooded for days.

Maps showing where flooding may occur or flood inundation maps can help in better flood risk preparedness. Using openly accessible satellite data and a cloud computing platform, an international team has now developed a powerful tool for a near real-time mapping of flood extent. The paper published in PLOS ONE notes the new flood inundation maps showed an accuracy of over 94%. Space-based sensors known as synthetic aperture radar (SAR) have been used widely for monitoring and mapping of floodwater inundation. SAR is capable of acquiring data in all-weather condition, making it useful for mapping and monitoring flood inundation



Kerala floods: The team studied water inundation maps from 2015, and their analysis was clearly able to show the areas submerged in water in 2018. • THULASI KAKKAT

#### Copernicus programme

These sensors operate on the constellation of two SAR satellites belonging to the Copernicus Programme launched by the European Space Agency.

The data from the satellites was utilised on a cloudbased platform known as Google Earth Engine (GEE) for the rapid processing of big data. The GEE also has publicly made available numerous satellite image collections and has functions for image processing and analysis.

The team studied water inundation maps from 2015 and their analysis was clearly able to show the areas submerged underwater in 2018. "Once you have the data, it just takes a few minutes as you can apply machine learning and computer vision techniques to quickly generate the water inundation maps. This can help swiftly deploying the rescue team and rescue operations can be started immediately," explains Varun Tiwari, Remote Sensing and Geoinformation Analyst from the International Centre for Integrated Mountain Development, an intergovernmental organisation based in Kathmandu, Nepal. He is the first and corresponding author of the work.

#### **Future floods**

The team also analysed the rainfall data from 1981 to 2018 and were able to predict the major reasons behind this flood. "The monsoon season of Kerala has seen an increasing rainfall trend and this has played a major role. This also depicts that more floods are likely to happen in the near future," adds Tiwari. "Other studies have also pointed out that the flooding event would have not taken place if the capacity of the major six reservoirs would have been 34% more."

**Deccan Chronicle 27-September-2020** 

# More rains for 4 days likely: IMD

DC CORRESPONDENT HYDERABAD, SEPT. 26

Telangana state faces the prospect of more rains over the next four days with the possibility of thunder storms accompanied by lightning in many places on Sunday. There could be heavy rain at isolated places till Wednesday.

The Indian Meterological Department said that the southwest monsoon has been vigorous over Telangana state and that very heavy rain occurred at isolated places in Jangaon, Ranga Reddy, Siddipet, Warangal Rural and Mahbubnagar districts.

Heavy rain was reported from a few places in Nagarkurnool, Sangareddy, Siddipet, Vikarabad, Bhadradri-Kothagudem, Karimnagar, Nalgonda, Warangal-Urban, Rajanna-Siricilla, Khammam Kamareddy, Mahbubabad, Peddapalle, and Medchal-Malkajgiri districts on Friday and Saturday, the department said.

In the Greater Hyderabad area, the rainThe IMD said that the southwest monsoon has been vigorous over Telangana state and that very heavy rain occurred at isolated places in Jangaon, Ranga Reddy, Siddipet, Warangal Rural and Mahbubnagar districts.

fall ranged from a high of 7.25 cm in Pashamylaram in Patancheru mandal to a low of 2.3 mm in

Uppal.

Of the 136 automatic weather stations manned by the Telangana State Development Society in the Greater Hyderabad Municipal Corporation (GHMC) limits, 72 recorded one centimetre or more of rain between 8.30 am and 10 pm, on Saturday. The TSDS forecast for the city for Sunday predicted rain ranging from 2.5 mm to 64.5 mm.

The highest rainfall in the state was recorded at Palakurthi in Jangaon district at 15 cm along with Shadnagar in Ranga Reddy and Waragal in Siddpet recording a similar amount of rainfall, according to the IMD.

## Deccan Chronicle 27-September-2020



Family members try to save their belongings as rainwater enters their house at Nadeem Colony on Saturday following continuous rains for last couple of days. -S. SURENDER REDDY

# Rain inundates areas near Saroornagar lake

# Houses filled with rainwater, streets under four ft water

SANJAY SAMUEL PAUL I DC

HYDERABAD, SEPT. 26

The incessant rain that started on Friday night continued till the morning, submerging localities surrounding Saroornagar lake.

Houses filled with the rainwater, streets were buried under four feet of water, the areas of Kodandaram Nagar Colony, Sharadanagar, Tirupatinagar, Sasala Bathi and V.V. Nagar, have recorded 13.1 mm of rain.

Chendra Reddy, a retired employee of APSRTC, living in Kodandaramnagar Colony since 1995, rued that the government had not come to the aid of the colony's people. "Sewage of other colonies have been diverted into the Saroornagar tank, civic authorities could have diverted it to the Musi river and this problem would have been solved."

Commenting on a common urban phenomenon, he added "There are water bodies which have been encroached upon in the surrounding areas which is also the reason for this disaster."

A few days ago, 39-yearold Naveen Babu was carried away by the currents into this tank. The body was fished out after a 16hour search. Narsimha Chary, a resident in the area, claimed that all shops have been kept closed because the roads are filled with water

are filled with water.
"This happens repeats every year," he said.

# DILSUKHNAGAR-KARMANGHAT ROAD DISCONNECTED DUE TO RAINWATER

DC CORRESPONDENT HYDERABAD, SEPT. 26

Greater Hyderabad Municipal Corporation (GHMC) officials barricaded the Dilsukhnagar-Karmanghat road as copious amounts of water was flowing over it from the adjoining colonies. Though the field staff was alerting commuters to take different routes, their instructions fell in deaf ears since it is the only road which connects the areas.

The field employees said that the water level and current had increased alarmingly by Saturday evening.

"We have altered the officials to fence both sides of the nala to avoid any untoward incident. Though we have barricaded the main road due to the water, commuters are going past to reach their destinations," a field official at Tapovan Road said.

"We urge the municipal authorities to provide a permanent solution in the coming days to avoid knee-level water collecting in the adjoining colonies and heavy flow of water on the arterial roads," the official further said.

## Indian Express 27-September-2020

# Bring policy to cut dependence on groundwater: Centre to states

### HARIKISHAN SHARMA

NEW DELHI, SEPTEMBER 26

THE CENTRE has asked state governments to bring a suitable water pricing policy to reduce the agriculture sector's overdependence on groundwater. This advice has been rendered in the new guidelines notified by the Jal Shakti Ministry on September 24 to regulate and control groundwater extraction in the country.

"States/UTs are advised to review their free/subsidized electricity policy to farmers, bring suitable water pricing policy and may work further towards crop rotation/diversification/other initiatives to reduce overdependence on groundwater," say the guidelines that came in force with effect from Thursday.

The ministry's advice regarding a water pricing policy assumes significance as it was not part of the earlier draft guidelines issued on December 12, 2018, which were struck down by the National Green Tribunal. In those guidelines, the Centre had provided a 9point indicative list of demands, including various water saving methods. However, there was no mention of reviewing the policy of free/subsidized electricity or water pricing policy.

Describing the agriculture sector as the "backbone of the Indian economy", the guidelines say, "As per Minor Irrigation Census 2013-14, 87.86% of wells are owned by marginal, small and semi-medium farmers having land holding up to 4 hectares (ha). Around 9.18 % of wells are

owned by medium farmers having land holding 4 – 10 ha and 2.96% of the wells are owned by big farmers having land holding more than 10 ha.

"Considering the number of groundwater abstraction structures, regulation of groundwater in the agriculture sector through a 'command and control' strategy will prove to be an arduous task," the guidelines say.

While the Centre has left it to states to take action, it itself has exempted agricultural activities from the requirement of obtaining a No Objection Certificate (NOC) for groundwater extraction.

"Agriculture sector shall be exempted from obtaining No Objection Certificate for groundwater extraction," say the guidelines.

## Asian Age 27-September-2020



People on a boat move across a flood-affected area at Kachua village in Nagaon district of Assam on Saturday.

- PTI

# Telangana Today 27-September-2020

Telangana 🖳 Today

# Six killed as rain batters TS

Life out of gear in many parts of State; rains likely for 4 more days; Collectors put on alert



In a rare sight, while the Krishna water from Nagarjunasagar Sagar Canal flows over the Musi bridge, water from the overflowing Musi gushes below the bridge near Vemulapalli mandal of Nalgonda district on Saturday.

# STATE BUREAU

Hyderabac

Six people died and the normal life was affected with incessant rains lashing many parts of the State on Saturday, warranting Chief Minister K Chandrashekhar Rao to alert District Collectors to be on a round-the-clock watch.

Rainwater inundated lowlying areas while seasonal streams, rivulets and tanks overflowed affecting road transport. While two women — Bharathi and

# Youth crossing rivulet swept away

HYDERABAD: A youth who was trying to cross a rivulet in spate was swept away as villagers watched helplessly at Gondyal village of Hanwada mandal of Mahabubnagar on Saturday morning. (SEE PAGE 2)

Lalitha Bai — from Itikyala village of Dahegaon mandal of Komram Bheem district died of lightning strikes, Ra-

# 55-year-old man feared drowned

SANGAREDDY: A 55-yearold man, Managali Maruthi, was washed away while crossing Kaki Vagu at Jangi (K) of Sangareddy while attempting to cross a culvert flooded by the swollen stream.

mulu of Gondyala village of Mahabubnagar was washed away in a gushing stream. In Siddipet, two persons were

## Himayathsagar: Residents cautioned

HYDERABAD: With Himayathsagar reservoir filling up fast due to the heavy rains, those living along the water body were asked to leave their houses as a precautionary measure. (REPORT PAGE 2)

washed away in overflowing streams while another drowned in Sangareddy district. (SEE PAGE 2)

## Telangana Today 27-September-2020

# Steady rains keep city on toes

Chief Secretary directs Collector, GHMC officials to be on alert; leaves of employees cancelled; rains or thunderstorms likely across city for next three days

CITY BUREAU

With the rain gods remaining benevolent despite south monsoon nearing for a withdrawal over the State, heavy rains had been lashing the city and suburbs since Friday late night. Starting as a light drizzle on Friday evening, the rains picked pace in the night and intensified to continue as heavy rains till early morning on Saturday, Spells of rains continued on Saturday afternoon onwards with most parts of the city registering moderate rainfall. Till 4 pm on Saturday, Madhapur recorded a rainfall of 52 mm, followed by Patancheru (49,8 mm), EFBB (433 mm), Gachicowi (353 mm) and Khaiguda (28.5 mm). During the last 24 hours, Hayathnagar recorded a very heavy rainfall of 131 mm, followed by Bandlaguda (95 mm), Saroornagar (88.5 mm), Vanasthalipuram (67.8) and Charminar (87.8) and Charminar (87 mm), according to Telangana State Development Planning Society. The average rainfall recorded in Greater Hyderabad during the last 24 hours was 47.3 mm. Weather forecast with the Meteorological department, Hyderabad said rains or thunderstorms would occur towards evening or night across the city in the next three days. Usually, September receives either normal or below normal rainfall with the intensity of monsoon remained vigorous both in the city and other parts of the State as well.

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as Rajanna Siricilia, Karim-nagar, Suryapet, Warangal Rural, Vikarabad, Jangaon, Siddipet and Mahabubnagar



### Highest rainfall in last 24 hrs





# Heavy rain forecast for Ranga Reddy

HYDERABAD: Ranga Reddy stort Collector D Amoy Kumar on Saturday put the entire district Administration on high alert in view of the forecast of heavy rain in the district. All leaves and public holidays of officials were cancelled with the entire official machinery being asked to report time to time about the situation within their administrative limits without any deviation or negligence. In a circular issued to officials here on Saturday, Amoy Kumar said any deviation or negligence would be treated seriously and that action would be taken.

# Officials put on alert

Officials put on alert

HYDERABAD: With heavy rains lashing the
city since last evening, Chief Secretary
Somesh Kumar directed the Hyderabad Collector and GHMC officials to be on alert and instructed them to regularly monitor the situation. Leaves of all the employees have been
cancelled and instructions were issued to stay
on alert and address the grievances immediately. Since 8 am today, EVDM call centre received 23 complaints, including 14 informing
water logging, three tree falling and four tree
branches collapsing from different areas. Officials said all the complaints have been attended. Among all the areas, Hayathnagar
(111.35 mm), Bandlaguda (62mm), Charminar
(75 mm), Saroomagar (71.5mm) Abdullapurmet (66 mm) and Balanagar (64.5 mm) received heavy rainfall, said officials. Similarly,
moderate rainfall of 63.5 mm was recorded in
Musheerabad, 63.5 mm in (bpal, 61.5 mm in
Malkajgiri, 59.3 in Secunderabad and 58.5 mm in
Asifnagar, they added.

# Shamirpet lake springs to life

S SANDEEP KUMAR

With incessant rains lashing the city and its suburbs, the water bodies in and around the city have been receiving good inflows. The water levels in Shamirpet, which remained rock bottom for four years, have started to increase steadily in the last couple of days. The current water level in the lake is 20 feet against the full tank level of 22 feet.

There have been good inflows in the last few days from catchment areas must be full to the start of the sta

brim" said Suresh, Deputy

Engineer, Irrigation Depart-

Engineer, Irrigation Department.

After 2015-16, it is now that the Shamirpet lake is getting steady inflows due to the heavy rains in Hyderabad and neighbouring areas. In 2016, the water level in the lake had gone up to 12 feet and this season, it has already reached 20 feet level. The inflows are generally from Medhal cheruvu and from rains in the catchment areas. Already, Keesara lake is receiving good inflows and so is the Medchal cheruvu, he said. For long, Shamirpet lake has been a major a tourist spot in the city and the steady inflows into the lake had the tourism department expressing happiness.

Meanwhile, the water levels in Hussian Sagar have

els in Hussain Sagar have

also been rising and crossed the full tank level of 513.4 mts due to the rains on Saturday.

Officials said the water level in the lake was 513.65 mts on Saturday evening and more inflows were expected. However, GHMC officials said there was nothing to panic as the lake was designed in a way that 1.5 metres can flow above the Maximum Water Level of 514.9 metres.

The GHMC lakes wing is constantly monitoring the situation. There are 21 vents for the water body installed several decades ago. Every time, there is a heavy inflow into Hussain Sagar from upstream, the surplus water overflows through the vents at Hotel Marriott's end, officials said.



Water levels in Shamirpet lake which remained rock bottom for four years have started to in steadily in the last couple of days.

# Himayatsagar filling up fast

CITY BUREAU

With Himayatsagar reservoir filling up fast due to the heavy rains in the last few days, authorities have been put on high alert amid possibilities of water being released downstream on Sunday. After almost a decade, the water levels in the reservoir have risen to just 10 feet voir have risen to just 10 feet short of the brim following which the district Collec-

tors, Police Commissioners, GHMC and other departments were put on alert. The residents of Shankernagar, Chaderghat, Moosanagar and neighbouring areas have been asked to stay alert. Those living along the river were asked to leave their houses as a precautionary measure, said a senior official from HMWSSB. On Saturday, the water level in the reservoir was 1,733 feet, Just 10 feet

short of full reservoir level of 1,763 feet. Since the last month, there have been steady inflows into the reservoir. With heavy rains lashing the city and suburbs in the last few days, the inflows have increased steadily, an official said.

"Water will be released downstream once the levels."

"Water will be released downstream once the levels cross 1,760 feet. The last time water was released downstream was in 2010," he said.

## Telangana Today 27-September-2020

# Stay put, heavy rain forecast next 4 days

IMD for effective traffic management, restriction of movement of people and controlling water-borne diseases; municipal authorities told to issue necessary local advisories

STATE BUREAU HYDFRARAD

The Indian Meteorological Department (IMD) centre here on Saturday warned that thunderstorms accompanied with lightning likely to occur at isolated places in the State on Saturday with similar conditions continuing for four more days. The rains are a result of a low pressure area over east Bihar and neighbourhood and associated cyclonic circulation extending up to 3.1 km above mean sea level from south Chhattisgarh to South interior Karnataka across Telangana and Ray-

Very heavy rain was recorded at isolated places in Janagaon, Ranga Reddy, Siddipet, Warangal rural, Suryapet, and Mahabubnagar and heavy rain oc-curred at most places in Mahabubnagar, at a few places in Medak, Nagarkurnool, Sangareddy, Siddipet, and Vikarabad and at isolated places in Kothagudem, Karimnagar,Nalgonda, Warangal Urban, Bhupal-pally, Khammam, Kamareddy, Mahabubabad, Peddapalle, Rajanna Sircilla and Malkajgiri districts.

According to the Meteorological Centre light to moderate rains may fall across the State with thunderstorms and heavy rains in isolated places of San-gareddy, Medak, Siddipet, Jangaon, Medchal, Hyderabad, Ranga Reddy, Yadadri, Vikarabad, Mahbubnagar, Wanaparthy, Jogulamba, Nagarkurnool,



A car drives through a waterlogged stretch following heavy rains in Chevella, in Ranga Reddy district on Saturday.

### Nalgonda, and Suryapet. The weather condition will continue to be similar till September 30.

Impact Massive flooding, water

logging might occur in many places of low lying areas in districts, water pooling on roads, Drain clogging, and massive up rooting of trees and electric poles over roads might lead to traffic snarls. It was also warned that reservoirs can overflow inundating low lying areas and submerging crops leading crop damage. The IMD advised effective traffic management, restric-tion of movement of people in affected areas, controlling water-borne diseases in municipal areas of the State and directed municipalities to issue necessary local ad-

# Rain lashes several parts of Suryapet

STATE BUREAU

Rain lashed several parts of the district on Friday night and flood water entered into several colonies in Kodad and Suryapet causing inconvenience to resi-

The officials swung into action in Suryapet and other places to clear stagnated water in the colonies and also removed the branches of the trees, which fell on the roads at several places.

Flood water entered into several houses at Srimannarayana Colony at Kodad in the district. The colonies located on Kudada road also reached flood water and rain water stagnated on the CC roads.

## Excess rainfall

Suryapet district has re-ceived an average rainfall of 67.8 mm in the last 24 hours. Out of 23 mandals in the district, 13 mandals received excess rainfall, nine mandals received normal rainfal and deficit rainfall was received in one mandal, road connection between Ramireddipalem and Singram villages in Kodad mandal was disrupted due a stream overflown on to Reddy, the barrage is holding 5 tmc of water against its capacity of 16.17 tmc.

# Cotton, maize crops damaged

STATE BUREAU

A few parts of both Kumram Bheem Asifabad and Mancherial districts saw light to moderate rains on Friday night. Standing cotton and maize crops were damaged due to the showers, causing losses to farmers. Two women died after being struck by thunderbolt.

According to information rovided by authorities of the planning department, Kumram Bheem Asifabad district registered the average rainfall of 19.5 mm. Be-jjur mandal received the highest rainfall by 57 mm, followed by Sirpur (T) which recorded 37.3 mm of Tirvani Penchikalpet, Dahegaon and Wankidi mandals witnessed somewhere between 21 mm and 29 mm.

Mancherial district's av-

erage rainfall was gauged to be 19.3 mm. On Friday evening, Vashaka Bharati (40), a resident of Ityala village in Dahegaon mandal and Powar Lalita Bai (35), a of Kishannaik Thanda in Jainoor mandal in Kumram Bheem Asifabad district were killed as they were being struck by the

were engaged in farm activities. An ox of a farmer also died in the similar mishap reported at Marthadi village in Bejjur mandal.

Farmers demanded authorities of the Agriculture department to carry out a survey for assessing the damage of crops and to sanction compensation. Local streams were flooded due to the downpour in sev-

eral places.
Irrigation projects such as Sripada Yellampalli and Kumram Bheem, Rally Vagu and Neelwai received copi-

# Water projects receive good inflows

STATE BUREAU

voirs of various projects in the State. Projects on Godavari and Krishna and their tributaries on Saturday were receiving good to heavy in-flows and the reservoirs are brimming with flood water.
At the flagship Kaleshwaram Lift Irrigation
Scheme (KLIS) the inflows into Lakshmi (Medigada) barrage were 2,50,000 lakh cusecs and same quantity has been discharged by lifting 46 gates out of 85 gates. According to KLIS Superintending Engineer Ramana

Incessant rains have proved to be a boon to the reser-



Water being released from Nagariuna Sagar Dam, in Nalgonda on Saturday

1,02,000 cusecs and water was let down stream by opening 60 gates out of 74 gates. The quantum of water available on Saturday was 6.8 tmc out of a total capac-

cusecs and outflows were 1,02,170 cusecs.

At Lower Manair the reservoir was brimming with 98.77 per cent of its capacity, while the inflow was go up to 2,00,000 cusecs by Saturday night. At Priyadarshini Jurala Project (PJP) the inflows were heavy at 1,92,000 cusecs and

## The Statesman 27-September-2020

# Will take city water supply to developed world's level: CM

Efforts are on to provide round-the-clock water to every household, says Kejri, ruling out privatisation of water supply

SNS & PTI

NEW DELHI, 26 SEPTEMBER

Delhi chief minister Arvind Kejriwal today said the AAP government will make the water supply in Delhi "as good as in developed countries" and will hire a consultant for better water management and for achieving zero wastage of water in the city.

Kejriwal pledged that the Delhi government will ensure round-the-clock water supply in the city in the next five years. He rejected allegations that the water supply in the national capital was being privatised.

ital was being privatised.
"Water supply cannot be
privatised. It can never happen. I can assure you that,"
the CM asserted while
addressing a virtual press
conference.

He said in the capital cities of developed countries water is available round-the-clock with proper pressure and there is no need for



a submersible pump. "We will make it happen in Delhi. The city's water supply will be as good as in developed nations," he promised.
"If you visit the capital
cities of other nations..London, Tokyo, Paris, you will

get clean tap water 24x7. In Delhi, the water pressure is low, so people install pumps. And if one person installs a pump, it causes a problem to their neighbours. Every household has to install water tanks to store water. We have to bring all of this to an end," Kejriwal said.

After ensuring 24X7 electricity supply, the AAP government was now making efforts to provide round-the-clock water supply to every household in Delhi, he said.

The CM pointed out that a lot of water goes to waste in Delhi. The Delhi Jal Board (DJB) supplies 930 million gallons of water (MGD) per day to the city, which amounts to 176 litres perperson per day. Of this, a lot of water gets stolen and leaked. "Accountability should be fixed for every drop of water. There should not be any wastage." he said.

wastage," he said.
"We are hiring a consultant which will tell us how to improve our water supply management and to ensure that not even a drop of water is wasted. We have started walking in the direction of providing round-the-clock water supply," Kejriwal said. The coron-avirus pandemic delayed the process, otherwise it would have been completed by March-April, he added.

"The consultant will tell us about the state-of-art technology, such as the SCADA system, with the help of which water supply can be managed from the central control room," the CM said.

Kejriwal also claimed that his government has been working to increase water availability in Delhi. "We have been working to increase water availability in Delhi. We have been talking (in this regard) to the governments of Uttar Pradesh, Himachal Pradesh, Uttarakhand and other states, which have more water." he said.

# Rain batters Hyderabad; T'gana issues high alert for all districts

#### STATESMAN NEWS SERVICE

HYDERABAD, 26 SEPTEMBER

Telangana administration today issued a high alert to all districts as heavyrains continued unabated for the second day battering the state including the state capital which received copious amount of rainfall leading to waterlogged streets and inundation of low lying areas.

Following instructions from chief minister K Chandrasekhar Rao chief secretary Somesh Kumar alerted all district collectors in view of heavy downpour and weather forecast predicting more rains in store.

All districts have been put on high alert. While all officers have been asked to stay put at the district head quarters all leaves and permissions for public holidays have been cancelled.

District administrations have been asked to maintain special vigil at low lying and other vulnerable areas. The state has received 44.5 mm of rain as against the normal 2.6 mm today.

In fact Telangana has received heavyrains since June all reservoirs are full.

According to Telangana State Development Planning Society under the planning department this year the state's cumulative rainfall from 1 June till 26 June is 1061 mm against normal of 704.5 mm.

The highest rainfall of 194 mm has been recorded in Nandigam mandal of Rangareddy district, adjoining Hyderabad.

A trough running from South Chhattisgarh to south interior Karnataka across Telangana and Rayalaseema has led to heavy rainfall for the past two days and will continue till tomorrow.

The cityalso experienced incessant rain since last evening leading to flood like situation in manyareas, particularly low lying ones remaining submerged and

streets inundated.

In some areas the water level reached knee high causing immense hardship to the commuters.

Water level in Hussainsagar lake has also risen due to the continuous rain battering the city.

Uprootedtrees and street light posts also left streets uprooted as teams from Greater Hyderabad Municipal Corporation (GHMC) and traffic police worked round the clock to remove debris from clogged drains and maintain normal traffic flow.

Areas like Nampally, Basheerbagh, Saroornagar, Vanasthalipuram, Gulzar Hous near Charminar, Bahadurpura, Tollychowki and Shamsabad saw severe waterlogging.

People took dig at the TRS government and urban development minister KT Rama Rao for tall claims about the city's infrastructure, particularly after the opening of the new cable stayed bridge.

Millennium Post 27-September-2020



The first of the two-part article uses NIE+ framework to analyse the many recurring problems that plague the water sector across the world



The growing freshwater crisis worldwide has compelled the global scientific community to seek ever more difficult methods of procuring freshwater



# File No.T-74074/10/2019-WSE DTE



n these columns last year. I had dis n these columns last year, I had dis-cussed the problem of overconsump-tion and underinvestment in the critical areas of water, air and forest management. On the lines of research by Elinor Ostrom, the Nobel prize winner of economics in 2009, I had suggested that common property management may be a good alternative to public or private manement of public resources. This may agement of public resources. Ints may also prevent the 'tragedy of the commons' from playing itself out in various public resources arenas. I had also suggested that social capital would be an important factor in overcoming collective action dilemmas in the angule of public ages, In this type. in the supply of public goods. In this two-part article, I will dig deeper into these part article, I will dig deeper into these problems in the water sector and analyse the issues from the NIE+ perspective, which I have proposed in earlier articles. In Part I, I will discuss where we stand now and look at the policy trends in developing and developed countries. In Part II, I will outline policy guidelines that the NIE+ analysis offers.

#### THE CURRENT SITUATION

analysis offers.

Just 2.5 per cent of the water on the Earth is freshwater, and more than 66 per cent of this is frozen in glaciers and polar ice tops. Water demand exceeds supply in most parts of the world. Further, the qual ity of water continues to deteriorate with sewage flowing directly to water sources in many parts of the world. Hence, water con-servation continues to be a focus area in servation continues to be a focus area in the policy matrix of most countries. Every country is confronted with either quantity or quality issues in respect of water supply (both surface water and groundwater). It s also true that in either case, efficient use is also true that in either case, efficient use and better management of available water resources can ameliorate the conditions appreciably. A number of studies at the World Bank (Saleth and Dinar, 2004) have also argued as much and this gives us hope.

Given that most of the water demand connectificant the inclusion of the control o

comes from the irrigation/agriculture, urban sector and human consumption this has implications for the various polithis has implications for the various poli-cies in these areas. For example, given that any new irrigation project involves huge costs and an unfavourable environmental impact (relocation of populations, land acquisition etc.), it is better to improve water availability through more efficient

use, better conservation techniques (like drip irrigation, sprinklers, behavioural the frigation, symmetrs, behaviour as change) and management. The same argu-ment applies to the urban sector water supply. With growing urbanisation, abou 60 per cent of the world's population is likely to good in cities by 2005, which will likely to reside in cities by 2025, which will lead to a rise in demand for urban water. Further, in developing countries, poor Further, in developing countries, poor quality of water also means poor sanita-tion, which in turn leads to serious public health issues such as frequent outbreaks of malaria and gastrointestinal diseases. Again, new projects of urban water sup-ply are capital intensive and more efficient management of existing water resources may be a better solution. Not only that, but dealinguist net producing to reduce may be a better solution. Not only that, but desalination technologies to reclaim sea and ocean water also are way too costly and have been deployed in very few coun-tries where there are no other alternatives. However, as we will see, there is no sin-

gle solution or 'one size fits all' approach that works. Problems in developing countries are different from those in devel-

Just 2.5 per cent of the water on the Earth is freshwater. and more than 66 per cent of this is frozen in glaciers and polar ice tops

oped countries. Again, within developing countries and developed countries, what works in one country may not work in

The right incentive structure can resolve inefficiencies in water use in irri ration, urban sector and human consum gation, urban sector and numan consump-tion. But, for this to happen, we have to get the 'water' institutions right. We will discuss this further in the next section. Regardless of their diverse disciplinary backgrounds and ideological orientation water experts and policy-makers around the globe evince a remarkable level of consensus on the diagnosis that water crisis is a direct outcome of "governance crisis". The focus on governance underlines the central role of water institutions.

Water institutions are structures defined interactively by both formal ele ments (laws, policies, and organisations) and by informal elements (customs norms, and conventions). It is these struc-tures that create the incentive environment and operational framework for managing water demand across uses and developing water supply across sources. Appro-priate water institutions are, therefore, priate water institutions are, therefore, indispensable to promote sustainable use, allocation, and management of water at various regional and sectoral scales. To perform such a role, water institutions, which are structured and embedded within the larger physical, social, co-nomic, and political setting of a country or a region, have to adaptively evolve and

constantly improve their performance to fit with the changing conditions. Although a variety of forces — both economic and non-economic — are at work within this process of institutional change and performance, they operate largely through an economic calculus. The task of the institutional economics of sater is, therefore tutional economics of water is, therefore, to unravel these forces, their underlying rationale, and their implications for the process of water economics and policy.

#### **DEVELOPING COUNTRIES' TRENDS**

As noted earlier, the water sector in developing countries tends to be largely informal. However, there are variations within countries and across countries within countries and across countries. For example, Israel has one of the best water management policies in the world and is an exception among developing countries. There is a Water Commission, which implements the water law through Mekorot, a state-owned water company handling 70 per cent of Israel's water sup nanding of per cent of israels water sup-ply. Urban water prices cover the full sup-ply cost, but irrigation water is subsidised. On the other hand, Bangladesh has chal-lenges not only of frequent floods, low lying areas, presence of arsenic in ground-water and poor drainage, but also pov-erty-related challenges. Most of the laws (Environmental Couservation Act 1985 erty-related challenges. Most of the laws (Environmental Conservation Act 1995 and Environmental Pollution Control Ordnance of 1997) are therefore targeted more at ensuring water quality and con-trolling floods and less at water manage-ment and allocation. In addition, there are also policy challenges of international cooperation since Bangladesh shares many of its rivers with its neighbours. of its rivers with its neighbours.

of its rivers with its neighbours.

In Africa, most developing countries are either dependent on rains or the river systems. For example, the Nile is the major source of water for its riparian countries: Egypt, Ethiopia and Sudan. Irrigation is the main user of the river water in these countries. In other countries too, there is dependence on rains and the rivers. Given dependence on rains and the rivers. Given dependence on rains and the rivers. Given the challenges of poverty alleviation and development in most African countries, water policy is more focused on over-all development targets such as improv-ing sanitation and ensuring a minimum per capita availability of water. These are defined mainly but he of the capit have the riven mainly by the State and hence the role of private players in the water sec-tor is limited (in the sense that it opertor is limited (in the sense that it oper-ates with user charges etc., in Europe and developed countries). To be sure, there are some exceptions such as South Africa and Morocco where decentralisation of water management, market-based water allocation, modern water conservation techniques, recovery of user charges and

private sector participation has been tried. In Latin America, Chile, Brazil and Mexico have undertaken many policy reforms in the water sector. There has been a trend to move to decentralisation and vatisation in both urban drinking water and irrigation sectors. The importance of

river basin management in irrigation has river oasin management in irrigation has also been recognised and implemented. The three countries have enacted water-specific laws, which emphasise conserva-tion and greater autonomy to the local and provincial governments in water supply and management.

Variations within a country are best illustrated by Indian a country are oest illustrated by Indian a country are oest illustrated by Indian accountry indiance of treated piped water supply (mostly managed by the municipal corporations), the rural areas are served by a variety of sources rang-ing from wells to handpumps to open water bodies. In fact, NSSO surveys (1999 and 2003) showed that about 80 per cent and 2003) showed that about 80 per cent of rural households are self-served for of rural households are self-served for their domestic water needs. This could be either through wells or handpumps or open water bodies. Only a small propor-tion was connected to a public water sup-ply system. The same surveys also showed that in urban areas, the position was just the reverse: about 75 per cent of urban households were connected to a public nousenoids were connected to a public water supply system. Further, the surveys also showed that the proportion of villages with public water supply system increased rapidly as we move from poor states like Bihar, MP and Orissa to rich states like Haryana, Goa and others. The irrigation state is like the public properties and servers is also brook in formation and servers. riaryana, Goa and oriens: In eirrigation sector is also largely informal and served mainly by wells, deep tubewells, tanks and streams. The recently launched Pradhan Mantri Krishi Sinchai Yojana (PMKSY) is therefore appropriate and timely. The scheme is mainly focussed on expanding the area under irrigation, reducing the dependence of aericulture on monspons. dependence of agriculture on monsoon and using water more efficiently. As cur rently designed, PMKSY has four com onents: Accelerated Irrigation Benefits

With growing urbanisation, about 60 per cent of the world's population is likely to reside in cities by 2025. which will lead to a rise in demand for urban water

Programme, 'per drop, more crop' com ponent to support micro-irrigation, water-shed program and a new component called 'Har Khet Ko Pani' to construct one water Har Khet Ko Pani' to construct one water harvesting structure per village by 2020. In respect of the institutional environ-ment in India, water and sanitation come under the jurisdiction of the state govern-ments as per the division of work under the Constitution of India. However, the Union Consengent can legislate on part. Union Government can legislate on mat ters of inter-state issues on river water etc ters of inter-state issues on river water etc. In respect of privatisation of water supply, some cities in Maharashtra (Nagpur, Latur, Aurangabad), MP (Khandwa, Dewas) and Karnataka (Belgaum, Hubli-Dharwad) have experimented with public-private partnerships. Some areas in Delhi have

also experimented with PPP models (areas ass experimented with PPF moders (areas in Nangloi, Malviya Nagar and Meh-rauli). However, there have been mixed results with many of the projects scrapped (like the one in Aurangabad) and others facing criticism of favouring the private by completely derisking the project for them (for example, the France lia and Vishwakarma Infrastructure PPF in Nagpur were criticised for passing on huge revenues to the private party, dis-proportionate to the investment put in by them).

ties in their water policies such as laws that ties in their water policies such as laws that define property rights over water, basin authorities which monitor water extrac-tion from the rivers, many private play-ers across the country and empowered urban local bodies which are responsible for water supply and recovery of water fees in their jurisdictions. To be sure, there are differences across countries, which is because of the path dependence of the existing institutions and legacy issue.
Other differences arise because of the geographical uniqueness of a country.

Most of the laws (Environmental Conservation Act 1995 and Environmental Pollution Control Ordnance of 1997) are targeted more at ensuring water quality and controlling floods and less at water management and allocation

#### WATER POLICY IN DEVELOPED COUNTRIES

A quick review of the existing literature A quick review of the existing iteration on the institutional economics of water reveals the way in which the institutional issues in the water sector are approached and evaluated. The change and performance of water institutions can be evaluated with different analytical perspectives and functional levels. The focus can be on and functional levels. In erfocus can be on the feature and performance of either indi-vidual institutional elements (e.g., norms/ customs, property rights, pricing, and water markets) or structural components (e.g., water laws, water policies, and water organisations). The evaluation can also fease either on the congestion of custor incit. focus either on the operation of water insti tutions at regional and sectoral scales or or the structure, reform, and performance of water institutions, taken as a whole, from

water institutions, taken as a whole, from national or macro perspectives. From a methodological perspective, depending on the focus of evaluation, the analysis can be based on descrip-tive, conceptual, analytical, or empirical approaches. This special issue on the insti-tutional economics of water aims to showtutional economics of water aims to show-case some illustrative examples of the kind of studies that are ongoing in the area of water institutions in recent years. In contrast with the developing coun-tries, water markets tend to be highly for-

mal in developed countries. For example in Switzerland, almost the whole of the in Switzerland, almost the whole of the country is covered by public water supply (comprising a mix of the municipal, pri-vate sector and cooperative suppliers) and wastewater treatment facilities. The water tariff is also high and recovers the cost of the water supply. There are also stringent laws and regulations governing the suppli-ers as well as water usage, which leads to low transaction costs.

Similarly, the FU issues directives on water policy from time to time, which are taken seriously since many of the rivers involve more than one European country. In addition, most countries including UK, France and Germany have many similari-

sector in the 1980s and 1990s have led to a mature institutional environment. The reforms centred around water qualthe reforms centred around water qual-ity, water rights and water allocation, and pricing. Private sector participation in both the urban water and irrigation sectors has been encouraged. There was also a general consensus at all levels: national state and regional levels on the reforms. This has led to low transaction to retorms. Inis nas lea to low transaction costs in the supervision and monitoring of water supply and ensured a basic level of quality and quantity of water for both the urban and irrigation sectors.

The US has a mature and formal water market with multiple agencies handling different aspects. While the Environmental Protection A energy handles the water

tal Protection Agency handles the water quality aspect, the water supply is done by agencies at the national, state and municagencies at the national, state and municipal levels. The Federal Government-owned and operated Centralised Drinking Water System, which includes large dams, pumping stations and cross-country pipe-lines is an important source of drinking pumping stations and cross-country pipe-lines is an important source of drinking water supply. Similarly, the Centralised Sanitation System operates and main-tains sewers and treatment plants across the country. The US Geological Sur-vey maps various water resources of the country; both surface water and ground-water. The 'Safe Drinking Water Act' (SDWA), of 1974 requires that the water provided is free of contaminants. (SDWA), of 1974 requires that the water provided is free of contaminants. The EPA specifies the level of contaminants. The US depends largely on surface water (almost 70 per cent), rather than groundwater for water needs of various sectors. Irrigation, thermal power and urban water use form the bulk power and urban water use form the bulk power and urban water use form the bulk users. Even though about 75 per cent of the municipalities/local bodies have public water supply, there is bipartisan support for the private sector supply of water. Similarly, most of the water sup-ply for irrigation comes from the public water supply. vater supply.

The writer is an IAS officer, working as Principal Resident Commissioner, Government of West Benga

Rajasthan Patrika 27-September-2020

कुछ जिले बाढ़ की चपेट में

# आंध्र प्रदेश के कई जिलों में बारिश का कहर

नेल्लोर. आंध्र प्रदेश में कुछ दिनों से भारी बारिश हो रही है। लगातार बारिश के कारण तालाब और सड़कें पानी से ओवरफ्लो हो गई हैं। बारिश के चलते लोगों का जीवन अस्त-व्यस्त हो गया है और फसलों को भी भारी नुकसान हो रहा है। जिलों के नदियों और तालाबों से सटे निचले क्षेत्र भी जलमग्न हो गए। कुरनूल जिले में भारी बारिश से फसल को नुकसान हुआ है।

सड़कों पर पानी भर जाने के कारण यातायात बाधित हो रहा है। बांदी आत्मकूर जोन में 180.6 मिमी की सबसे अधिक वर्षा दर्ज की गई। भारी बारिश के कारण महानदी-गाजुलपक्षी के बीच पलेरू बागू पुल बह गया जिससे यातायात बाधित हो गया।

बाढ़ के कारण नंघाला और भीमावरम के बीच यातायात बाधित हुआ। सीमा क्षेत्र के कोराटाम्श्ली में एक पुल के बहने से गांवों के बीच आवागमन बंद हो गया।



प्रकाशम जिल में बाढ़ की चपेट में आये गांव के लोगो को सुरक्षित बाहर निकालते पुलिसकर्मी।

# बाढ़ का पानी गोवावरी तक पहुंचा

पूर्वी गोवावरी जलग्रहण क्षेत्र में भारी बारिश के कारण बाढ़ का पानी गोवावरी तक पहुंच गया जिससे धवलेश्वरम बैराज से चार लाख क्यूसेक पानी निचले इलाके में छोड़ा जा रहा है। भद्राचलम में भी बाढ़ का जल स्तर 5 लाख क्यूसेक तक है, ऐसे में अधिक बाढ़ का पानी धवलेश्वरम बैराज तक पहुंचने की संभावना है। हालांकि पूर्वी गोदावरी जिले में बारिश का प्रभाव बहुत अच्छा नहीं है। हालांकि, सिंचाई विभाग के अधिकारियों ने कहा कि बाढ़ के पानी के पांच लाख क्यूसेक से अधिक तक पहुंचने की संभावना नहीं है।

# चिरला और ओंगोल के बीच यातायात बाधित

प्रकाशम जिले में नागुलुप्पलाडु क्षेत्र में चड़लवाड़ा तालाब में भूस्खलन के कारण चिरला और आँगोल के बीच यातायात बाधित हो गया। बाढ़ के पानी में डूबे लोगों को उनके घरों से निकालने के बाद पुलिस गिद्धलूरु के श्रीनिवास थिएटर से लोगों को निकाल रहे है। गुंडलाकम्मा रचेली क्षेत्र जल बहाव उग्र होने से गिद्दलुरु-अकावेद के बीच यातायात बंद कर दिया गया है जबिक बेस्टवारी क्षेत्र में पानी की धाराएं बह रही हैं। बेसिनपह्नी में बाढ़ के कारण 10 गांवों का आवागमन बाधित हो गया। इसी प्रकार अनंतपुर जिले में भारी बारिश से ताड़ीपतरी, उरावकोंडा और शिंगणमला क्षेत्रों में भारी वर्षा से डोंकल डाइक के ओवरफ्लो के कारण गुंटकल और बेह्नारी के बीच यातायात बाधित हो गया था।

# सूखे क्षेत्र के जलाशय, उम्मीदों पर फिरा पानी



गुढ़ाचन्द्रजी. इस साल का मानसून विदाई की ओर है। माड़ क्षेत्र में पर्याप्त बारिश के नहीं होने से नदी-नाले, तालाब, फार्म पाँड और बांध सूखे पड़े हैं। इससे सालभर फसलों की सिंचाई तो दूर पेयजल संकट गहराने की आशंका हो गई हैं। माड़ क्षेत्र में भंडारी का विशनसमंद बांध, मोहनपुरा बांध व न्यूटेंक महस्वा प्रमुख तौर पर बांध हैं। इन बांधों में पानी भरने से सैंकड़ों गांवों के किसान अपने खेतों की सिंचाई करते थे। लेकिन बीते दो दशक से लगातार बारिश की कमी से बांध रीते ही रह जाते हैं। इस वर्ष भी इन बांधों का तला भी नहीं भर पाया है। हालांकि बांध में एक-दो जगह गड्डों में जरूर पानी भरा है।

# File No.T-74074/10/2019-WSE DTE

# Punjab Kesari 27-September-2020



श्रीनगर, 26 सितम्बर (अरीज, इंट): जम्मू-कश्मीर में विश्व प्रसिद्ध पर्यटन स्थल गुलमर्ग और पुंछ के पीर की गली में शनिवार को मौसम की पहली बर्फबारी हुई। जबकि बर्फबारी हल्की ही रही, लेकिन पहाडों न बर्फ

की चादर ओढ़ ली है। इससे तापमान में गिरावट दर्ज की गई है। गुलमर्ग में हल्की बर्फबारी सुबह हुई।

कि सुबह हल्की बर्फबारी कुछ देर गई। बर्फबारी होने से मौसम में काफी तक चलती रही। वहीं करीब 6 माह

बाद खुली पुंछ जिले में मुगल रोड पर स्थित पीर की गली में शुक्रवार शाम करीब 7 बजे मौसम खराब हो आस-पास के लोगों ने बताया गया। रात 8 बजे बर्फबारी शुरू हो बदलाव आ गया।