

Central Water Commission
Water Systems Engineering Directorate

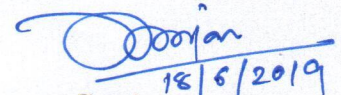
2nd Floor (S), Sewa Bhawan
R K Puram, New Delhi-66

Dated 18.06.2019


Subject: Submission of News Clippings

The News Clippings on Water Resources Development and allied subjects are enclosed for perusal of the Chairman, CWC and Member (WP&P/D&R/RM), Central Water Commission. The soft copies of clippings will also be uploaded on the CWC website.

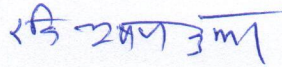
Encl: As stated above.


18/6/2019
Senior Artist
(WSE, Dte.,)

Deputy Director, WSE Dte.


18/6/2019

Director, WSE Dte.



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Monsoon likely to revive in next 2-3 days, says IMD

AGENCIES
New Delhi, 17 June

Though the southwest monsoon deficiency widened to over 43 per cent on Monday, there was hope on the horizon as both the state-run India Meteorological Department (IMD) and private weather forecasting agency Skymet predicted a pick-up in showers in the next 2-3 days.

According to weathermen, this could give good amount of rain in hitherto parched Eastern, Central and Western parts of India and perk of sowing of kharif crops which till Sunday was around 9 per cent less than 2018.

Till June 15, the southwest monsoon should have covered Central India.

However, due to its delayed onset and sluggish

progress thereafter, as on date (June 17), the southwest monsoon was stationed around Karnataka.

The India Meteorological Centre on Monday predicted moderate showers in Mumbai and surrounding areas over the next two days, while south Konkan will receive higher intensity rain during the same period.

The Madhya Maharashtra and Marathwada region will also get showers in a few isolated places, and so will Vidarbha, though the rain will be of low intensity.

Skymet Managing Director Jatin Singh in a blog post said that gloomy period seems to be taking a turn now and weather models are showing a circulation in the Bay of Bengal which would get organised in the

coming days.

"In fact, it (the weather phenomenon) shows signs of strengthening and becoming a low-pressure area, which is going to help in giving some very good amounts of rain in East and Central India during the last 10 days of June. South India will also witness moderate amounts of rain," Singh said.

He said states like Maharashtra, Madhya Pradesh, Chhattisgarh, Bihar and Jharkhand are going to benefit immensely from these rains and it is also a perfect time for farmers in these states to sow their kharif crops. PTI reported on Sunday quoting senior IMD officials that as the impact of cyclone 'VAYU' diminishes the monsoon might revive in next 2-3 days.

Till Sunday, the overall monsoon deficiency across the country has reached 43 per cent due to its sluggish pace.

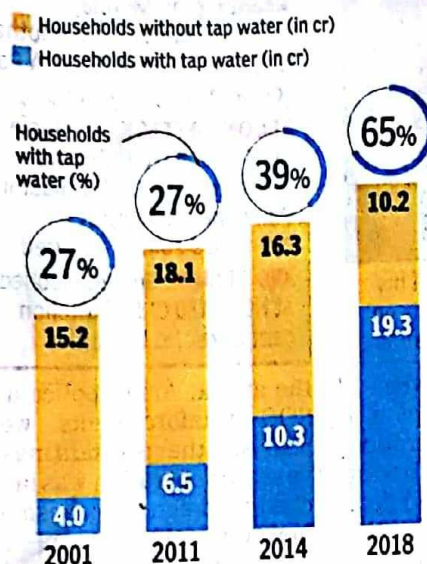
Why tap water to every home is not a pipe dream

TOI-18

Large swathes of India are grappling with a severe water crisis under record maximum temperatures this summer. The prime drivers of the current water crisis — equally acute in rural areas in Maharashtra and elsewhere and a metro city like Chennai — are drying reservoirs and dipping groundwater levels. But while those require deeper solutions, India's progress in building pipeline infrastructure that takes potable water to households is heartening. Close to 90% of urban households now have tap water connections, according to a survey by **PRICE***. In his second term, PM Narendra Modi is focusing on piped water connection for all households by 2024 as a key goal. But getting water to flow from the taps, as the present water crisis shows, is another challenge altogether

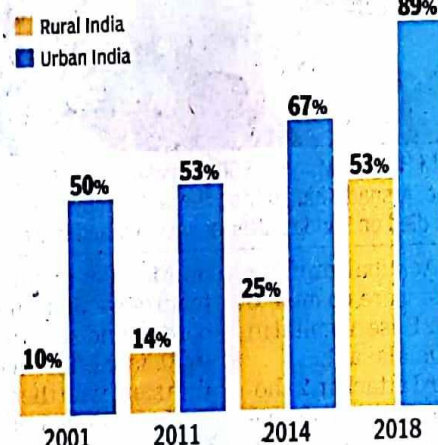
Piped Water Access Has Jumped, 65% Households Covered

At an all-India level the annual average increase in water connections was 6.7% in 2014-2018 compared to 4% in 2011-14 and 0.6% in 2001-11



Villages Saw Big Leap, But Still Behind Cities

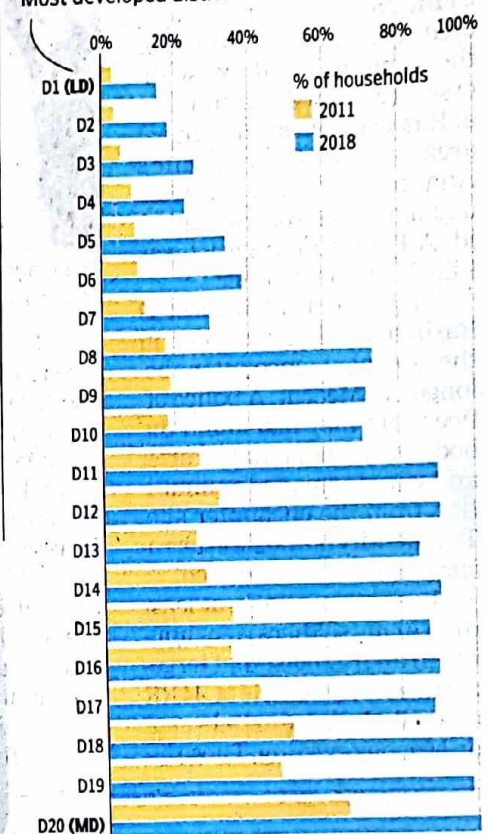
Though growth of households with water connections increased at a much faster pace in rural India (28 percentage points) as compared to urban India (22 percentage points) between 2014-2018, about half of all rural households are yet to get access to tap water



The Poorest Districts Are the Worst Served

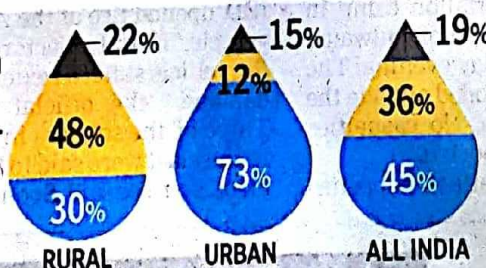
At the all-India level, only about 15-38% households in the least developed district clusters (D1- D7) have access to tap water compared to D8-D20 clusters where 70%+ households have tap water

LD: Least developed district cluster; MD: Most developed district cluster



Also, for the majority of urban households, tap water is the main source of drinking water while for rural households, it is the handpump

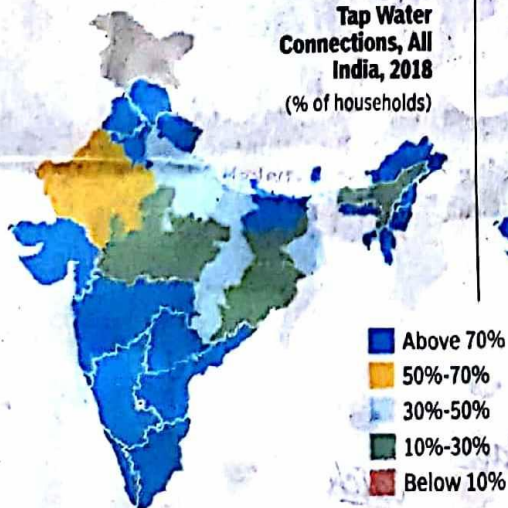
Tap
 Handpump
 Others



BIGGEST STATES LAGGING IN TAP WATER SUPPLY

The states of UP, Bengal, Bihar are among those where piped water has reached only half the households at the most

Tap Water Connections, All India, 2018
(% of households)

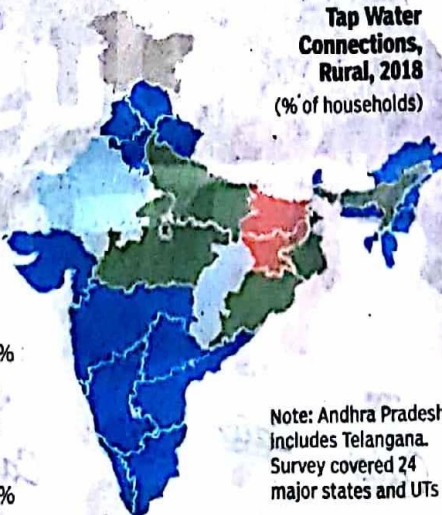


BUT PROGRESS DOESN'T INSULATE AGAINST CRISIS

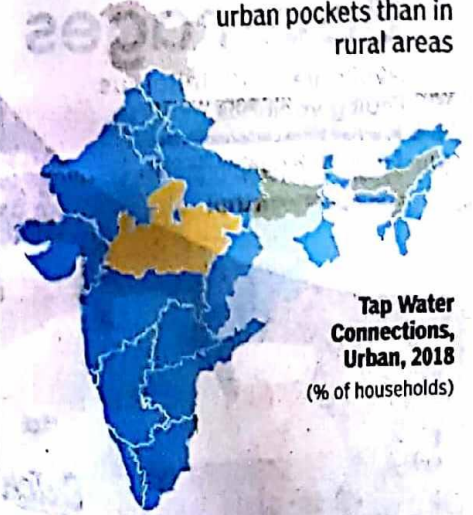
States of Maharashtra and Tamil Nadu are among states where more than 70% households have access to tap water, including for both rural and urban households. But these are also the ones that have borne the brunt of a parched 2019 summer

While even among states lagging overall on piped water access, the performance in ensuring coverage has been much better in urban pockets than in rural areas

Tap Water Connections, Rural, 2018
(% of households)



Tap Water Connections, Urban, 2018
(% of households)



Source: Census (2011) and ICE 360 Surveys (2014 & 2016); 2018 estimates by *People's Research On India's Consumer Economy

Rajasthan govt. wants canal project fast-tracked

ERCP would supply drinking water in 13 districts of the State

SPECIAL CORRESPONDENT
JAIPUR

The proposed Eastern Rajasthan Canal Project (ERCP) has come to the centre stage of demands raised by the State after the formation of the new government at the Centre, with Chief Minister Ashok Gehlot reminding Prime Minister Narendra Modi of the promises made in his election rallies for declaring it a national project.

The previous BJP government in the State had also lobbied for the Centre's approval for the ambitious project with an estimated budget of ₹40,000 crore as a major initiative for interlinking of rivers.

The project proposes to transfer excess waters from the Chambal river basin to 13 districts facing water scarcity.

In-principle approval

The Central Water Commission has already given in-principle approval to the project's feasibility report, while the Union Ministry of Water Resources had reportedly finalised a Cabinet note



Chief Minister Ashok Gehlot.

on it last year.

Besides supplying drinking water in 13 districts, the mega project will also provide water for irrigation to an additional 2 lakh hectares.

At the 5th Governing Council meeting of NITI Aayog held in New Delhi on Saturday, Mr. Gehlot said that national project status to ERCP would facilitate solution to the water scarcity issue in eastern and south-eastern districts of the State, at least till 2051.

It will also supply water to the Delhi-Mumbai Industrial Corridor and take care of the flood and drought situation in the area. The project, link-

ing Parvati, Kalisindh and Chambal rivers, is expected to benefit 40% of the State's population with the supply of drinking and irrigation water, as the quality of water is a big issue here.

The ERCP will ensure availability of water in Jhalawar, Baran, Kota, Bundi, Sawai Madhopur, Ajmer, Tonk, Jaipur, Dausa, Karauli, Alwar, Bharatpur and Dholpur districts and create an additional command area of 2 lakh hectares for irrigation. It will also facilitate restoration of dependable yield of the existing 26 major and medium irrigation projects en route – reduced to 30% – to their original status.

Mr. Gehlot also raised the issues of rainwater harvesting and drought management at the NITI Aayog meeting and asked the Centre to release the first instalment of ₹370 crore to the State for the current year under the National Drinking Water Project as well as a review of the Centre-State sharing ratio for the Integrated Watershed Management Project.

Rain adds to misery of Odisha's cyclone-hit 6

Restoration works post-Fani not over

STAFF REPORTER
BHUBANESWAR

11-18

With pre-monsoon showers lashing the coastal districts of Odisha, thousands of families, who lost their houses in cyclone Fani, are in deep distress.

Although the Odisha government has started releasing housing building assistance to the affected families, repair of houses is unlikely to be completed before monsoon in many parts of the Puri district, which was the worst affected in the cyclone that hit the State on May 3.

As per the damage assessment and enumeration conducted by the Puri district administration, houses and huts of as many as 2,87,762 families were damaged in the cyclone.

"While 9,059 pucca and kutcha houses have been fully damaged, 1,04,715 houses have suffered severe damage. Similarly, 1,13,221 pucca houses and 49,529 kutcha houses have been partially damaged," the assessment report says.

The State government, as per the norms of the State Disaster Response Fund and the National Disaster Response Fund, announced ₹95,100 for a person whose house (pucca or kutcha) has been fully or severely dam-

aged. Similarly, ₹5,200 is to be paid for partial damage of pucca house, ₹3,200 for partial damage of kutcha house and ₹4,100 for damage to hut.

First instalment given

The first instalment of the house building assistance has already been disbursed. The State government had released ₹197.59 crore to the Puri district administration on June 10. Subsequently, ₹10.21 crore was released.

"Prior to the disbursement of house building assistance, we had asked suppliers of roofing sheets to make the material available at the panchayat level so that people don't face difficulties in getting them," said Puri District Collector Balwant Singh.

According to villagers, the magnitude of the damage is such that roofing material alone would not suffice. "We are facing difficulties in mobilising building materials, masons, carpenters and labourers," said Sudarshn Behera of Bhagabatipur under Nimapara block of Puri district. Farmers were facing a twin challenge - protecting their family members and household articles from rain and taking up farming in the rainy season, Mr. Behera said.

Pre-monsoon showers elude region, Punjab worst-hit ^③

VIJAY MOHAN
TRIBUNE NEWS SERVICE

T-18

CHANDIGARH, JUNE 17

Overcast skies and intermittent showers notwithstanding, pre-monsoon rains in Punjab this year are deficient by 76 per cent so far, making it worst-hit state in the region and among top three across the country where rains have been sorely lacking.

Punjab has received a total of 4.6 mm rainfall from June 1 to June 17 against the normal of 19.5 mm for this period, according to data compiled by the Met Department. The

PUNJAB 76% DEFICIENT, HARYANA 63%, HP 41%

- In Punjab, Mansa, Tarn Taran and SAS Nagar dists have received no rain, as per IMD
- In Ferozepur, Moga, Barnala, Sangrur, Patiala & Fatehgarh Sahib, the shortfall is above 90 pc
- Haryana's Sirsa, Hisar and Mahendragarh districts have recorded 'above average' rain
- In Rohtak, Yamunanagar and Kaithal, rain deficiency



is 96-99 pc; in Gurugram and Panipat 90 pc

- In Himachal Pradesh, but for Kullu and Lahaul-Spiti, all other districts are rain deficient

monsoon generally arrives in the region around June 30.

The deficiency is higher

than Punjab in UP and Vidarbha region in central India. While eastern and west-

ern UP are witnessing a shortfall of 82 per cent and 78 per cent, respectively, Vidarbha has a shortfall of 88 per cent.

As far as Punjab's neighbouring states are concerned, the situation is optimistic only in J&K that has a surplus of 70 per cent. Rains are deficient by 63 per cent in Haryana and 41 per cent in Himachal. Rajasthan too is witnessing a shortfall.

Of the 22 districts in Punjab, three — Mansa, Tarn Taran and SAS Nagar — have received no rain so far, according to the IMD. In six

other districts, including Ferozepur, Moga, Barnala, Sangrur, Patiala and Fatehgarh Sahib, the shortfall is above 90 per cent. Faridkot, with a deficiency of 29 per cent, is the least affected.

The situation is marginally better in Haryana where Sirsa, Hisar and Mahendragarh districts have received "above average" rain. Sonapat is sole district not to have received rain so far. Kinnaur and Lahaul-Spiti have received surplus rain in HP. In Una, Hamirpur, Solan and Sirmour districts, it is above 80 per cent.

A new approach

Jal Shakti Mantralaya should promote decentralised, but integrated water resource management and service delivery



PARAMESWARAN IYER

WATER IS AT the top of the development agenda of the new government, as emphasised by the prime minister at Niti Aayog's governing council meeting last week. Encouraging the participating chief ministers to give top priority to the subject of water in all its different avatars, especially conservation, the prime minister emphasised that the first concrete step taken by the central government towards a holistic and integrated perspective on water has been the constitution of the new Jal Shakti Mantralaya. This bold institutional step has integrated the erstwhile Ministry of Water Resources, River Development and Ganga Rejuvenation with the former Ministry of Drinking Water and Sanitation, and has led to the formation of a single new ministry focused on water with a capital W. This is a major step towards the consolidation of the management of water resources with delivery of drinking water and sanitation — a much-needed step in the direction of ensuring India's water security — as well as a thrust towards the goal of providing safe and adequate piped water supply for all households.

Until now, the institutional landscape for water in India has been somewhat fragmented, with about seven ministries and more than 10 departments having a say on different aspects of water management and use. Not only have these had some overlapping roles and responsibilities, but no single body had the ultimate oversight and authority necessary to resolve conflicting issues and take the necessary decisions. This led to these ministries and departments working in silos. While the Niti Aayog had made a solid start at integrating the sub-sectors of water by creating an integrated water management index and ranking states on this basis, the creation of the new Jal Shakti Mantralaya is a big bang governance reform which will have a permanent and positive impact on integration in the water sector.

Integrated water management in India has never been more relevant than it is today. India is entering water crisis territory, with certain estimates indicating that water demand will exceed supply by a factor of two by 2030 if we continue with a business-as-usual approach. This has the potential of driving economic losses of an estimated 6 per cent of GDP by 2050, and potentially leading to a significant percentage of our population having limited or no access to drinking water. Recent satellite data has also shown that India's taps could run completely dry in the medium term, with cities like New Delhi, Bengaluru, Chennai and Hyderabad completely running out of groundwater.

Some inefficiencies in the water sector have led to challenges with respect to important outcomes such as rainwater storage, and greywater treatment and reuse. Presently, India captures only eight per cent of its annual rainfall, among the lowest in the world. Lack of proper maintenance of existing infrastructure causes further losses of almost 40 per cent of piped water in urban areas. Treatment and reuse of greywater is almost non-existent. As a benchmark, Israel, another country facing severe water shortages, treats

100 per cent of its used water, and recycles 94 per cent of it, meeting more than half of its irrigation needs through this reused water.

In terms of drinking water, while 81 per cent of all habitations are currently estimated to have access to 40 litres of water per day through some source, only about 18 to 20 per cent of rural households in India have connections for piped water supply. One of the priorities of the new government is to provide piped water supply to all rural households by 2024 in a sustainable manner. The Jal Shakti Mantralaya will also need to promote decentralised, but integrated, water resource management and service delivery, with a key focus on water conservation, source sustainability, storage and reuse wherever possible, by involving the communities themselves, as they are the primary stakeholders. There are important lessons to be learned from the best practices of decentralised planning for water conservation such as in Hiware Bazaar, Maharashtra and the Swajal model of community-based drinking water in Uttarakhand — which need to be scaled up.

In water stressed areas, especially in the designated dark blocks and in areas affected by water quality issues, surface water based multi-village schemes need to be designed, while in groundwater rich areas, single village, groundwater-based schemes with end-to-end source sustainability measures should be encouraged. These schemes also need to have provisions for rainwater harvesting through household or community storage, which can also be used for recharging groundwater. Other local methods of water storage and conservation must also be encouraged. A good example of local approaches to developing infrastructure for storage of water is seen in Dewas district in Madhya Pradesh. Here, through government support to farming communities for building ponds as alternative storage and supply sources, the district has achieved a 6 to 40 feet rise in the water table, even while increasing irrigated area by 120-190 per cent.

Another area of focus for water conservation in each drinking water scheme is developing infrastructure for collection and basic treatment of domestic non-faecal wastewater, kitchen or bathing waste water — also called greywater — which typically accounts

Raising awareness and changing perceptions on water also needs to be an important priority. Even today, water is regarded as an infinite resource and is abundantly wasted in many parts of the country, while others suffer drought-like conditions. Behaviour change communication initiatives for both internal and external stakeholders will be critical in changing attitudes towards water. All stakeholders, from state governments to citizens must be taken on board and a national consensus will have to be built.

for nearly 80 per cent of the by-product of all domestic water. This may be done through simple waste stabilisation ponds, constructed wetlands and similar local infrastructure projects in order to recycle this water for agriculture, the sector that consumes 80 per cent of our water.

Some states, like Gujarat, are leading the efficient use of agricultural water by bringing in micro-irrigation to over six lakh farmers, 50 per cent of which are small and medium ones. The Andhra Pradesh government is also prioritising water efficiency in agriculture, by earmarking Rs 11,000 crore to bring 40 lakh acres of land under micro-irrigation over the next five years. If these measures are combined with reuse of greywater for agriculture, it will result in a significant reduction of demand from our water resources.

Raising awareness and changing perceptions on water also needs to be an important priority. Even today, water is regarded as an infinite resource and is abundantly wasted in many parts of the country, while others suffer drought-like conditions. Behaviour change communication initiatives for both internal and external stakeholders will be critical in changing attitudes towards water. All stakeholders, from state governments to citizens, must be taken on board and a national consensus will have to be built. To that effect, all integrated water management approaches would do well to borrow from the effective behaviour change communication initiatives of the Swachh Bharat Mission, and attempt to create an army of grass roots motivators on water, on the model of the swachhagrahis for sanitation. Initiatives to strengthen the capacity of this field force, sarpanches, and block and district officials are already underway.

This approach of holistic and integrated water management that India is adopting is unique for any large federal country. Just like the country did in the Swachh Bharat Mission, India could lay out a template for other countries on securing national water security by integrating fragmented institutions and making water security everyone's business.

The writer is secretary, Department of Drinking Water and Sanitation, Ministry of Jal Shakti. Views are personal

Jal Shakti borrows Nitish idea, considers proposal on a user fee for piped water

SHALINI NAIR

NEW DELHI, JUNE 17

A SIGNIFICANT proposal being considered by the Jal Shakti Ministry, which was officially constituted Monday, is the imposition of user fees for piped water supply along the lines of Chief Minister Nitish Kumar's "harghar

nal ka jal" scheme in Bihar.

And with the second Modi government signalling the 'nal se jal' policy to provide piped drinking water to every household in the country over the next five years, sources said that considering the overall capital intensive nature of water supply, a user fee will have to supplement the funding by the Centre and

states.

"In the Bihar model, for instance, people pay a basic user fee of Re 1 a day or Rs 30 monthly for the service provided. The water supply is done in the most decentralised manner taking the ward of a gram panchayat as the basic unit which could include as few as 100 households. The

CONTINUED ON PAGE 2

Jal Shakti

water source, in this case, is groundwater, which is abundant in Bihar, and is supplied using tube wells," said an official.

The "harghar nal ka jal" scheme was rolled out in Bihar in September 2016. Its target is to provide piped water to 20 million households over a five-year period, up from the existing 0.8 million households.

Four sub-schemes are currently under implementation to address issues of water supply quality and

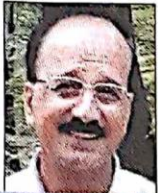
quantity in urban and rural Bihar. Incidentally, the provision of clean drinking water to every household was part of Kumar's seven policy resolutions in his election campaign against the BJP in the 2015 state polls well before the JD(U) became an NDA alliance partner.

Officials added that the Bihar model of water supply can be considered for implementation in areas where groundwater tables are high, which include many states along the Gangetic plains from Punjab to Assam.

India is drying up, fast

②

Traditional water bodies and harvesting systems need urgent revival



DEVINDER SHARMA

FOOD & AGRICULTURE SPECIALIST

CONGRATULATIONS to all... we have achieved 50 degree temperature this year. Let's cut more trees to achieve 60 degrees the next year,' a sarcastic tweet the other day came as a jolt. It was, however, hard to tell whether the quiet sarcasm was lost on a majority of the readers who are following Twitter or had made more and more people sit up and think.

Whatever had been the impact, the fact remains that while 2018 was the fourth hottest year on record in the past 140 years since the world began to keep a track on temperatures, NASA expects 2019 to be still hotter. The heat is therefore on. In India, a 22 per cent deficit has been recorded in pre-monsoon showers in the months of March, April and May — the second lowest in the past 65 years — and with monsoons delayed by a fortnight or so, daily temperatures have been sizzling. Churu in Rajasthan has already crossed 50°C thrice this season, and even Delhi burnt at an all-time high of 48°C.

With nearly 43 per cent of the country engulfed in a drought, an estimated 600 million people are reeling under its fury. With temperatures soaring, water sources going dry, parched lands staring as far as one can see, 'hundreds of villages have been evacuated as historic drought forces families to abandon their homes in search of water', reports *The Guardian*. In Maharashtra's Ahmednagar district, such is the wrath of a continuing drought that over 50,000 farmers have shifted to 500 camps meant for cattle. There are 1,501 cattle camps in Maharashtra, where 72 per cent of the area is faced with a



EVERY DROP COUNTS: With 43 per cent of the country engulfed in a drought, about 600 million people are reeling under its fury.

Niti Aayog has warned that 21 cities — including the four metropolises — will run out of groundwater by 2020.

drought. Reports say village after village around the capital city of Mumbai has been deserted. More than 88 per cent of Karnataka is somehow surviving under a severe drought. With 156 of the 176 *talukas* declared drought hit, Karnataka has faced 12 years of drought in the past 18 years.

Karnataka's economic survey for 2018-19 projects a growth rate of minus 4.8 per cent in agriculture. Therefore, while drought has taken a heavy toll on standing crops and also crippled the farming-led economic activity, not only in Karnataka, but also in nearly half the country, adequate attention is finally coming to the declining groundwater levels. With the conundrums of water conflicts between states, between communities within a state, and as well as individuals standing in queues increasing over the years, policy makers are now realising the importance of conservation. Already the alarm has been raised with a recent report by Niti Aayog warning that 21 cities — including the four metropolises — Bengaluru, Chennai, Hyderabad and Delhi — will run out of groundwater by 2020. Since groundwater provides

for 40 per cent of the water needs, about 600 million people may be hit.

But the problem of groundwater depletion is not only confined to the cities. In fact, it is because of the unbridled exploitation of groundwater that even a short dry spell turns into a more destructive drought. At most places across the country the rate of depletion exceeds 0.5 metre a year and often touches 1 metre. Add to it the reduced availability of water from shrinking rivers; the resulting water crisis has reached worrying levels. Reports say the water availability from the mighty Narmada has declined, from 30.84 million-acre ft in 2007-18 to 14.80 million-acre ft in 2017-18. The Ministry of Water Resources estimates water levels in 91 reservoirs falling to 18 per cent of their capacity. Moreover, water from numerous dams is being diverted from agriculture to meet the needs of the urban areas, including drinking water. This has added to farmer protests, leading to rural-urban conflicts.

Over the years, the emphasis shifted from water conservation, water harvesting and groundwater recharge.

Revival of traditional water bodies, which could have played a major role in drought-proofing, received lip service. Restoration of ponds and measures for recharging groundwater remained incomplete, abandoned or preceded at a slow pace. There still exist close to 2 lakh traditional water bodies, ponds and tanks across the country which need to be revived. In Punjab, where 110 of the 138 blocks are in the 'dark zone' (over exploited), the revival of the 15,000 ponds and traditional water bodies could not only help in recharging groundwater, but also providing irrigation. So far, only 54 such ponds have been rejuvenated. Strangely, even in Rajasthan, instead of reviving the excellent water conservation structures perfected over the ages, the emphasis is on drip irrigation. Not even a drop of rainwater was allowed to go waste in these *baoris*. In Karnataka, an estimated 39,000 traditional ponds and tanks existed. While nearly three-quarters of them have dried up, encroached upon or turned into sewage dumps, there is still a sizeable number that can be revived. Meanwhile, Karnataka has launched a *jalamrutha* scheme under which the traditional water bodies would be rejuvenated. But the pace needs to be hastened.

Although Karnataka is trying to preserve the *kalyanis*, and Odisha has the *kutta* and *munda* water systems, the traditional wisdom association with water harvesting has been more or less lost. Several years back, travelling to Texas A&M University, I was surprised to see the traditional water harvesting structures of Tamil Nadu being followed. The Centre for Science and Environment had published a book, *Dying Wisdom*, listing all traditional harvesting systems.

In the age of borewells, the emphasis has to revert to traditional harvesting. Recharging the depleting groundwater in a sustainable manner is urgently required. But this cannot be in isolation. Destroying forests, water bodies, catchment areas in the name of development must cease. Otherwise, crossing the Rubicon may turn out to be catastrophic.



India should consider popularising bucket baths worldwide, to save water

Make Water Wastage Beyond the Pail

Next to yoga, the bucket bath is probably the most fascinating holistic health philosophy to emanate from India. So, it stands to reason that much like the initiative to communicate the beneficial effects of yoga to a wider audience, India should take the lead in starting a similar move to take bucket baths to the rest of the water-wasting world. Maybe it can be called the 'Bathing Bucket Challenge'. Indeed, the bucket should become the symbol of a global campaign to conserve water and, possibly, the new Ministry of Jal Shakti too. In many countries, the maximum overuse and wastage of water occurs in agriculture and industry rather than in millions of bathrooms, but a bucket and mug in every bathing area would at least serve as a reminder to each person that every drop counts. Two-minute showers supposedly use up less water than a normal 25 litre Indian bucket; but how many people actually time their ablutions, especially when extreme temperatures or the need to 'de-stress' tempt longer use?

Anything that needs washing or requires water should be measured in buckets henceforth—from human bodies, floors and vehicles to animals, lawns, air-coolers and more. Water usage would be far more quantifiable that way, rather than when emanating from a showerhead or a hosepipe. Wastage would then be literally beyond the pail.

Solving of UP water crisis before 2022 polls PM's priority^①

IANNS

NEW DELHI, 17 JUNE

ST-18

By 2021, a year before Uttar Pradesh goes to the polls, India's largest state would have enough water to quench the thirst of its over 20 crore people. After writing personal letters to UP's village pradhans to conserve water, Prime Minister Narendra Modi has now instructed Union Jal Shakti Minister Gajendra Singh Shekhawat and UP Chief Minister Yogi Adityanath to solve UP's "water crisis" within next two years.

To expedite projects related to water resources, the Modi government would release Rs 9,000 crore to UP which includes water-starved regions of Bundelkhand and Vindhyaachal.

From bigger irrigation projects to drinking water supply in urban and rural areas,

Highly placed sources informed that dredging work of major rivers, including Ganga and Yamuna, would be undertaken to ensure smooth flow of surface water in rivers and streams. In UP, water resources are trifurcated into three ministries – Rural Development, Irrigation, and Jal Nigam.

the Union government and the state government will work in tandem to deliver all the schemes before the UP Assembly polls, scheduled to be held in early 2022. To move the projects on a fast pace, CM Yogi Adityanath held an important meeting with Gajendra Shekhawat on Sunday.

Both agreed to focus on Bundelkhand where 'water riots' often create law and order problems. Besides, in areas of Sonbhadra and Mirzapur, touching PM's constituency of Varanasi, all-out efforts would be made to solve acute water problem

being faced by all and sundry.

Highly placed sources informed IANS, that dredging work of major rivers, including Ganga and Yamuna, would be undertaken to ensure smooth flow of surface water in rivers and streams. In UP, water resources are trifurcated into three ministries -- Rural Development, Irrigation, and Jal Nigam.

All three ministries are perceived to be neck deep in corruption, a reason why projects are either delayed or their benefits do not reach the people. Sources said that CM Yogi gave an assurance that

a special drive would be launched to identify corrupt engineers and officials in these ministries and initiate adequate action against them.

In 2016-17, the UP government could not utilise around Rs 700 crore due to prevailing corrupt practices which have been continuing in these departments since BSP and SP-led governments. In the previous government, the Irrigation Ministry was held by Mulayam Singh Yadav's brother Shivpal while Jal Nigam was run by Azam Khan. Several complaints related to corruption in these ministries have now come to light.

Sources said that earlier PM Modi had instructed Shekhawat to place water crisis in UP on top of his ministry's list of priorities. The PM was of the view that if UP's problems were solved, half of the country's water crisis

would be addressed consequently, sources added.

The PM also suggested to Yogi that water crisis in UP should be solved before the situation got worse. Both Shekhawat and Yogi also discussed the problem of increasing pollution in Ganga river. In this connection, they decided to take strong action against tanneries which are not complying with the norms of the pollution control board.

Recent reports have indicated that the Ganges, which passes through several important cities and towns of the state, is being severely polluted by tanneries located in Kanpur (and Unnao) and other industries. Apart from several other water-related projects, the ministers also discussed the dredging work of the Saryu, Rapti and other important rivers of eastern UP, to be done on a priority basis to facilitate irrigation projects.

खड़ा हो जल आंदोलन

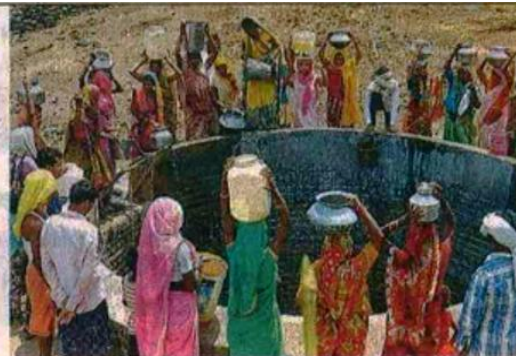
नए जल शक्ति मंत्री गिरते भू-जल को
लेकर चिंतित हैं तो उन्हें इसके लिए
राष्ट्रव्यापी अभियान शुरू करना होगा।

देश का कोई भी मंत्री क्यों ना हो, गंभीर समस्या पर चिंता जताने से नहीं चूकता। समस्या का समाधान निकले या नहीं, लेकिन अधिकारियों के समक्ष चिंता जताना नहीं भूलता। नए जल शक्ति मंत्री गजेन्द्र सिंह शेखावत जयपुर दौरे पर आए तो गिरते भू-जल स्तर को लेकर चिंतित नजर आए। ठीक वैसे ही, जैसे उनसे पहले जल संसाधन संभालने वाले मंत्री नजर आते थे। बीते तीन-चार दशक के हालात पर नजर डाल ली जाए तो साफ हो जाता है कि गिरते भू-जल को लेकर चिंता जितनी गहरी होती गई है, भू-जल स्तर उतना ही नीचे जाता रहा है। कारण साफ है कि चिंता जताने को लेकर जितनी गंभीरता जताई जाती है उसके समाधान के लिए उतने प्रयास होते नहीं दिखाई देते। वाटर हार्वेस्टिंग सिस्टम को प्रभावी बनाने पर चर्चा तो खूब होती है, लेकिन जमीनी हालात किसी से छिपे नहीं हैं। अदालतों के तमाम निर्देशों के बावजूद क्या हुआ? निजी भवनों की बात तो दूर, सरकारी भवनों में भी वाटर हार्वेस्टिंग सिस्टम प्रभावी ढंग से काम नहीं करते। नीति आयोग की रिपोर्ट को आधार माना जाए तो देश में आज करोड़ों लोग साफ पानी को तरस रहे हैं।

देश में पीने का 85 फीसदी पानी भू-जल स्रोतों पर निर्भर है। बांधों के कैचमेंट एरिया में अतिक्रमण के चलते पानी आना बंद हो रहा है। नदियों को जोड़ने की योजना राजनीति से ऊपर नहीं उठ पा रही है। भू-जल को लेकर राष्ट्रीय स्तर पर प्रभावी प्रबंधन की जरूरत है। सब जानते हैं कि 'जल है तो कल है।' लेकिन क्या महज इस नारे को सरकारी होर्डिंग्स में लगाने या विज्ञापन देने भर से इसका उद्देश्य पूरा हो जाएगा? जब तक सरकार, गैर सरकारी संगठन और आमजन अपनी जिम्मेदारी नहीं समझेंगे, तब तक सरकारी बैठकें रस्म अदायगी से ऊपर नहीं उठ पाएंगी। जरूरत पानी को लेकर राष्ट्रीय चेतना जगाने की है। पानी बचाने के अभियान को जन-जन का अभियान बनाने की है। बीते चार साल में स्वच्छता को लेकर जैसा माहौल बना, क्या वैसा पानी बचाने को लेकर नहीं बन सकता? नए जल शक्ति मंत्री गिरते भू-जल को लेकर चिंतित हैं तो उन्हें इसके लिए राष्ट्रव्यापी अभियान शुरू करना होगा। लापरवाह अफसरों को सजा दिलानी होगी तो अच्छा काम करने वालों को पुरस्कृत भी करना होगा। जल संकट आज देश का सबसे बड़ा संकट है। हर साल खरबों रुपए बाढ़ या सूखे से निपटने में खर्च होते हैं, क्यों नहीं बाढ़ के पानी का सदुपयोग करने की तकनीक विकसित की जाए। हर साल हर राज्य सरकार के मंत्री-नेता पानी बचाने की तकनीक सीखने इजरायल जाते हैं, लेकिन उसके परिणाम कहीं देखने को नहीं मिले। मंत्री को अधिकारियों को निर्देश देने पड़ें, इसका अर्थ अधिकारी अपनी जिम्मेदारी नहीं समझ रहे। जल हमारा जीवन है। जीवन के साथ खिलवाड़ करने का हक किसी को नहीं मिलना चाहिए।

मानसून हुआ बहुत लेट जलाशयों के भी खाली पेट

भयावह गर्मी और जल संकट से पूरा देश त्राहि त्राहि मार रहा है। देश के कई हिस्सों में लोगों को पीने का पानी नहीं भयस्सर हो रहा है। इस अनिवार्य जरूरत को पूरा करने के लिए कई किमी दूर से उन्हें पानी लाना पड़ रहा है। लू की लपटें असमय लोगों को काल-कवलित कर रही हैं। सिर्फ बिहार में लू से मरने वालों की संख्या सौ के पार हो रही है। इन सब इंसानी दुश्वारियों का एकमात्र इलाज मानसून है। इसी पर लोगों की टकटकी लगी है। लेकिन इस बार सात दिन देरी से केरल तट छूने वाले मानसून की रफ्तार सुस्त है। पूरे देश में अब तक मानसूनी बारिश में 43 फीसद की कमी दिखी है। कायदे से अब तक मानसून की बारिश को आधे देश को सराबोर कर देना चाहिए था, लेकिन अभी मानसून उत्तरी बंगाल और सिक्किम को ही छू सका है। देश में कुल 91 बड़े जलाशय हैं। इनकी भी स्थिति कमोबेश चिंता पैदा करने वाली है। ऐसे में मानसून की ताजा स्थिति और देश के जलाशयों में भंडारण के स्तर पर पेश है एक नजर:



बारिश में कमी

(एक जून 2019 से 17 जून 2019)

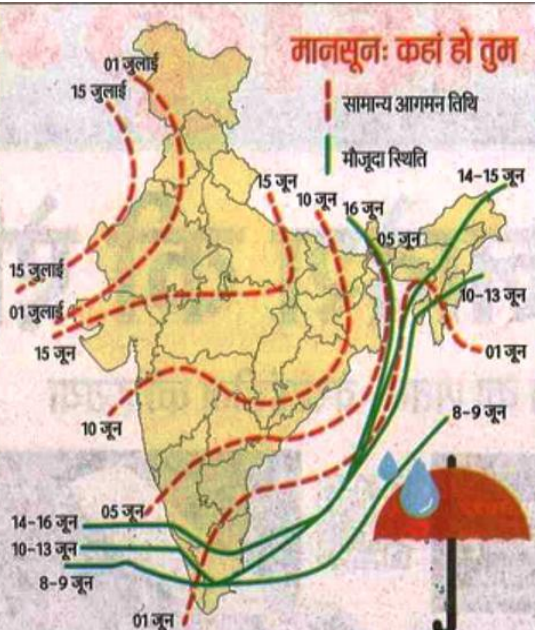
76.2 मिमी
अब तक देश
में होने वाली
कुल सामान्य
बारिश की
मात्रा

43.2 मिमी
अब तक हुई
वास्तविक बारिश

43% कमी

राज्यों की हालत

बहुत अधिक बारिश	2 राज्य
अधिक	1
सामान्य	2
कमी	18
बहुत कमी	13



29.189 अरब घन मी

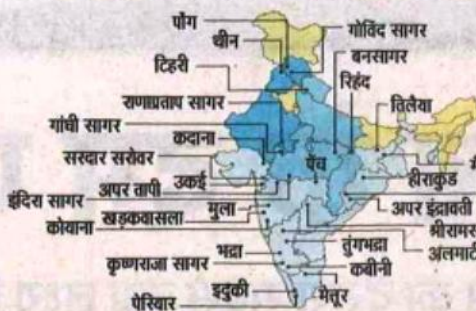
देश के जलाशयों में मौजूद जल

जलाशयों का भंडारण

देश में कुल 91 बड़े जलाशय हैं जिनके जलस्तर और भंडारण की जानकारी हर गुरुवार को केंद्रीय जल आयोग जारी करता है। ये जलाशय सिंचाई, पेयजल और पनबिजली उत्पादन करके क्षेत्रीय और राष्ट्रीय अर्थव्यवस्था के अहम हिस्सा होते हैं। हालिया 13 जून की जारी रिपोर्ट के मुताबिक देश के सभी जलाशयों में इस समय 29.18 अरब घन मी पानी है जो उनकी कुल भंडारण क्षमता का सिर्फ 18 फीसद है। हालांकि पिछले साल के इसी सप्ताह के मुकाबले भंडारण की समग्र स्थिति अच्छी है लेकिन कुछ क्षेत्रों में यह स्थिति काफी दयनीय है।

28.013 अरब घन मी

2018 में इस समय तक मौजूद पानी



28.972 अरब घन मी

इस समय तक का सामान्य औसत

शेष हिस्सों में सामान्य स्थिति

देश के उत्तरी क्षेत्रों (हिमाचल, पंजाब), पूर्वी क्षेत्रों (पश्चिम बंगाल, ओडिशा, त्रिपुरा) और मध्य प्रदेश के जलाशयों की स्थिति ठीक है। यहां के जलाशयों में पानी औसत के अनुरूप है।

पश्चिमी और दक्षिणी क्षेत्रों में बुरा हाल

देश के पश्चिमी हिस्से में 27 बड़े जलाशय हैं। जो गुजरात और महाराष्ट्र की जल जरूरतें पूरी करते हैं। इनकी कुल क्षमता का 10 फीसद पानी इनमें शेष है। जबकि इस समय तक सामान्य भंडारण का औसत 17 फीसद है। महाराष्ट्र के 68 फीसद जलाशयों में सामान्य के कम भंडारण है। दक्षिण के पांच राज्यों में कुल 31 जलाशय हैं जो अपनी क्षमता का महज 11 फीसद भरे हैं। इनकी अब तक की सामान्य भंडारण स्थिति 15 फीसद होती है।

गहराता जल संकट

बारिश के पहले देश के विभिन्न हिस्सों में पानी की किल्लत के जैसे समाचार आ रहे हैं वे यही बता रहे हैं कि आने वाले समय में पेयजल के साथ सिंचाई के पानी का संकट और गहराने वाला है। इसकी पुष्टि नीति आयोग के सीईओ के इस आकलन से भी होती है कि पानी का संकट सबसे बड़ी चुनौती बन गया है। उन्होंने यह भी रेखांकित किया कि पंजाब और महाराष्ट्र जैसे राज्यों में धान एवं गन्ने की खेती के जरिये पानी की बर्बादी हो रही है। यह पहली बार नहीं जब गहराते जल संकट के साथ उसके कारणों का उल्लेख किया गया हो। यह काम एक अर्से से हो रहा है। खुद नीति आयोग ने पिछले साल कहा था कि देश इतिहास के सबसे गंभीर जल संकट का सामना कर रहा है। यह अच्छा है कि इस बात को फिर से कहा गया कि धान और गन्ने की खेती के जरिये पानी की बर्बादी की जा रही है, लेकिन केवल समस्या के कारणों का उल्लेख करना ही पर्याप्त नहीं। इन कारणों का निवारण भी करना होगा। यह आसान काम नहीं, क्योंकि आम तौर पर किसान मनचाही फसलें उगाना अपना अधिकार समझते हैं। ऐसे में यह आवश्यक है कि किसानों को यह बताया-समझाया जाए कि किस क्षेत्र में कौन सी फसलें उगाना उचित है? ऐसा केवल बताया ही नहीं जाना चाहिए, बल्कि यह सुनिश्चित भी किया जाना चाहिए कि जल संकट वाले इलाकों में वे फसलें न उगाई जाएं जो कहीं अधिक पानी की मांग करती हैं। यह कितना कठिन काम है, इसे इससे समझा जा सकता है कि कुछ समय पहले जब उत्तर प्रदेश के मुख्यमंत्री योगी आदित्यनाथ ने गन्ना किसानों के समक्ष यह सवाल उछाला था कि आखिर वे इतना अधिक गन्ना क्यों उगाते हैं तो उस पर आपत्ति जताई गई थी।

इसका कोई मतलब नहीं कि देश के जिन इलाकों में पानी की कमी बढ़ती जा रही है वहां भूमिगत जल का दोहन करके वे फसलें उगाई जाएं जिनमें कहीं अधिक पानी की खपत होती है। आज महाराष्ट्र गंभीर जल संकट से जूझ रहा है, लेकिन गन्ना उगाने वाला रकबा कम होने का नाम नहीं ले रहा है। इसी तरह उस पंजाब में धान की खेती बड़ी मात्रा में की जा रही है जहां भूमिगत जल का स्तर लगातार नीचे जा रहा है। कुछ ऐसी ही स्थिति देश के अन्य अनेक क्षेत्रों में है। इसका एक बड़ा कारण यही है कि किसानों को कोई यह सीख देने वाला नहीं कि वे क्या करें और क्या न करें? इसके लिए जरूरी हो तो आवश्यक नियम-कानून बनाने में देर नहीं की जानी चाहिए, क्योंकि पहले ही बहुत देर हो चुकी है। निःसंदेह किसानों को सिंचाई के वे तरीके भी उपलब्ध कराने होंगे जिनमें कम पानी की जरूरत पड़ती है। इसी के साथ पानी की बचत करने और उसे दूषित होने से बचाने के तौर-तरीके भी विकसित करने होंगे। हालांकि इस मामले में इजरायल से कुछ सीख ली जा रही है, लेकिन उसे पर्याप्त नहीं कहा जा सकता। यह भी एक तथ्य ही है कि वर्षा जल संरक्षण के उपाय अभी कागजों पर ही अधिक हैं।

गन्ने व धान की खेती में भूजल की बर्बादी

नीति आयोग के सीईओ ने **जल संकट** के प्रति आगाह किया

हरिकृष्णन शर्मा • नई दिल्ली

आसन्न जल संकट के प्रति आगाह करते हुए नीति आयोग के सीईओ अमिताभ कांत ने कहा है कि देश के समक्ष सबसे बड़ी चुनौती पानी की है। कांत ने महाराष्ट्र व पंजाब जैसे राज्यों में गन्ने व धान की खेती में भूजल की बर्बादी के प्रति आगाह किया है। उन्होंने भूजल का समझदारीपूर्वक उपयोग की जरूरत पर भी बल दिया है।

नीति आयोग के सीईओ ने यह टिप्पणी ऐसे समय की है, जब अगले कुछ दिनों में आयोग कंपोजिट वाटर मैनेजमेंट इंडेक्स 2019 जारी करने जा रहा है। इस रिपोर्ट में पता चलेगा कि कौन सा राज्य कितने बेहतर तरीके से अपने जल संसाधनों का इस्तेमाल और प्रबंधन कर रहा है। आयोग ने पिछले साल पहली बार यह इंडेक्स जारी किया था जिसके शीर्ष पर गुजरात जबकि सबसे निचले पायदान पर झारखंड था। प्रधानमंत्री नरेंद्र मोदी की अध्यक्षता में हुई नीति आयोग की गवर्निंग काउंसिल की बैठक में पानी के मुद्दे पर



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चर्चा हुई थी। सरकार ने 2024 तक हर घर को नल से जल मुहैया कराने का लक्ष्य रखा है। कांत ने सोमवार को ट्वीट कर कहा, "भारत को जिन चुनौतियों का सामना करना पड़ रहा है, उनमें जल सबसे बड़ी चुनौती है। भारत में विश्व की 16 प्रतिशत आबादी है लेकिन जल संसाधन मात्र चार प्रतिशत हैं। हमारे देश में सिंचाई की 63 प्रतिशत जरूरतें भूजल से पूरी होती हैं। ऐसे में भारत को भूजल का समझदारीपूर्वक उपयोग, जल स्रोतों को रिचार्ज करने, जलाशयों का जीर्णोद्धार करने और वेस्ट वाटर को पुनः इस्तेमाल करने की जरूरत है।"

कांत ने कहा, पंजाब और महाराष्ट्र में धान और गन्ने जैसी फसलें उगायी जा रही हैं जो प्रति हेक्टेयर लाखों लीटर पानी का इस्तेमाल करती हैं। बिहार में एक किलोग्राम चावल पैदा करने के लिए जितने जल की आवश्यकता होती है, उतना ही चावल पैदा करने में पंजाब में 3.5 गुना जल खर्च हो जाता है। कांत ने चावल उत्पादन में इस्तेमाल होने वाले जल के प्रभाव का जिक्र करते हुए कहा कि भारत हर साल बासमती चावल के निर्यात के साथ 10 लाख लीटर पानी भी निर्यात कर देता है। उन्होंने कहा कि हर घर को शुद्ध पेयजल मुहैया कराना मोदी सरकार की प्राथमिकता है। प्रधानमंत्री ने दो साल पहले प्रमुख राज्यों के साथ पानी के मुद्दे पर बैठक की थी जिसके बाद कई राज्यों ने अपने यहां जल प्रबंधन की अलग-अलग योजनाएं शुरू कीं। महाराष्ट्र ने जलयुक्त शिविर योजना, राजस्थान ने मुख्यमंत्री जल स्वावलंबन अभियान, आंध्र प्रदेश ने नीरुचेट्टू, तेलंगाना ने मिशन काकतिया और गुजरात ने सुजलाम सुफलाम योजना शुरू की।



जलाशयों में कितना बचा है पानी

क्षेत्र	इस साल	पिछले साल	दस साल का औसत
उत्तरी क्षेत्र	40%	16%	26%
पूर्वी क्षेत्र	18%	21%	17%
पश्चिमी क्षेत्र	10%	13%	17%
मध्य क्षेत्र	24%	22%	19%
दक्षिणी क्षेत्र	11%	15%	15%

- इस वक्त देश के प्रमुख बांधों में कुल 29.189 बिलियन क्यूबिक मीटर पानी का भंडार है
- यह सभी बांधों की कुल भंडारण क्षमता का 18 फीसद है
- यह आंकड़ा पिछले साल के मुकाबले बेहतर है

स्रोत : केंद्रीय जल आयोग (आंकड़े 13 जून तक के हैं)