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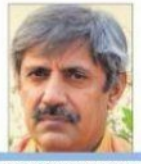
The Tribune- 25- October-2021

No lessons learnt from past flood disasters



HIMANSHU THAKKAR
ENVIRONMENTALIST

Along with better forecasts, we need better monitoring and reporting of actual rainfall, water levels in rivers and incidents of landslides. More timely and location-specific forecasts that would enable the disaster management authorities to take the necessary advance actions would help. Such emergency action plans would follow only if there is a functional, accountable and participatory disaster management mechanism in place.

THIS month's flood disasters in two states distant from each other — Kerala and Uttarakhand — have a lot in common. Both happened after the end of the normal dates of the south-west monsoon. It was a repeat of earlier such disasters in the respective states. In both cases, there were reports by experts warning about the disasters. The rainfall events were broadly along the lines warned by the climate scientists. But the states were ill-prepared to cope with the situation. Inappropriate human interventions worsened the disasters in major ways. Disaster management seems to be absent from the ground. In both cases, more precise forecasts about the rainfall quantum and location would have helped.

Over 250 people have lost their lives in these floods in Kerala, Uttarakhand and contiguous areas of Uttar Pradesh and Nepal and the damage is likely to go past Rs 10,000 crore. The disaster is also extending to Sikkim and neighbouring sub-Himalayan West Bengal areas. The full scale of the disaster is still unfolding. The floods have some unprecedented aspects, but that cannot be any justification for the lack of preparedness.

For example, the rainfall at a number of locations has crossed recorded figures, including in Nainital, Mukteshwar, Pantnagar and Pithoragarh. The river water level crossed the highest flood levels at many places, including Pancheshwar, the Banbasa barrage, Ghat and Paliakalan (all four sites along the Sharda river) and Deoprayas and Karanprayag (both along the Alaknanda river). In Kerala, the water level crossed the highest flood levels along the Manimala river in Kottayam district and along the Kodiyar river in the neighbouring Kanyakumari of Tamil Nadu.

ILL-PREPARED: NDMA's flood management norms remain unimplemented. REUTERS

Madhavan Rajeevan, former secretary, Ministry of Earth Sciences, says that there were clear forecasts of heavy rains in Uttarakhand and Kerala, but the absence of disaster reaction mechanisms at local levels, advanced landslide prediction systems and some basic ground work of evacuation from the low-lying vulnerable areas resulted in the loss of lives and properties.

Along with better forecasts, we need better monitoring and reporting of actual rainfall, water levels in rivers and incidents of landslides. It was disturbing, for example, to see that the IMD's daily district-wise rainfall report showed 'no data' for Bageshwar and Pithoragarh districts of Uttarakhand on October 20 in the midst of the disaster. Its river basin-wise reporting of rainfall has been persistently callous and problematic for years, but the IMD seems to be making no amends. It needs to understand that reporting the rainfall along hydrological units like river basins and sub-basins is vital.

Moreover, more timely and location-specific forecasts that would enable the disaster management authorities to take the necessary advance actions would help. Such emergency action plans would follow only if a functional, accountable and participatory disaster management mechanism is in place.

Such actions would include advance water releases from dams, shifting of vulnerable people from landslide-prone areas, ensuring sufficient stock and distribution of essential items.

In Kerala's flood disasters of 2018 and 2019, the inappropriate operation of dams played a significant role, as it has happened at many other places, including Uttarakhand. But there is no transparent or accountable mechanism in place to either learn lessons from such events or hold accountable those responsible for such wrong operations. Neither the Central Water Commission (India's official flood forecasting body) nor state water resources departments are legally required to publicly display the rule curves for dams and how the actual dam operation compares with it.

By consistently ignoring the recommendations of the Madhav Gadgil Panel, Kerala politicians have ensured that the state will continue to face disasters.

In fact, the CWC's flood forecasting performance is pretty pathetic and it is doubtful if it can contribute to flood management, as also considering the lack of independent oversight or accountability.

The National Disaster Management Authority did come out with some steps for reservoir operations mentioned in the flood management guidelines in January 2008 and urban flood management in September 2010, but the guidelines remain unimplemented.

It's been more than a decade since climate scientists have been telling us how the rainfall is intensifying, their timing and locations are changing, as has also been clear from our experience over the years. In Uttarakhand, scientists have recorded over 7,500 extreme rainfall events since 2015. The Himalayas are warming faster than the average warming experienced across the world. Snowlines are going up and rainfall is increasing at higher altitudes. Similarly, Kerala has faced the third major flood disaster in four years. The warming of the Arabian Sea has led to a 52 per cent increase in the frequency of cyclonic storms.

So, our disaster management plans, mechanisms and governance should have been prepared for this, but we are far from prepared.

As part of better disaster governance, we need to identify the vulnerable locations, assess their vulnerabilities and prepare appropriate policies and plans.

One of the key steps has to be to ensure that we do not increase the vulnerabilities of these locations by our actions. All development projects and plans that are increasing the vulnerabilities by the destruction of ecology and land use change should be reviewed and reversed.

We are, in fact, doing the opposite. We are continuously increasing the disaster potential of the vulnerable areas in Kerala, Uttarakhand and elsewhere by inappropriate interventions in the name of development.

So, we continue to push disaster-enhancing, unviable hydropower projects, build highways without assessing impacts or looking for less damaging options, continue with indiscriminate and unsustainable mining, blasting, deforestation, keep encroaching on river beds and floodplains, and keep dumping muck and waste into the rivers. All of these are majorly contributing to increasing the disaster potential of the already vulnerable Himalayas and the Western and Eastern Ghats.

It should be clear that the climate change-induced disasters are taking a heavy toll of society and economy. We may be good at saving people once the disaster sets in, but we are pathetic in being prepared to prevent avoidable disasters.

One of the things that can help is to learn lessons from past disasters. For that, a basic requirement is to institute an independent assessment of each such disaster which would tell us what all happened during the disaster and who played what role. Such a credible objective assessment would also tell us what lessons the disaster provides for us.

Do we have the benefit for such an assessment of, say, the June 2013 Uttarakhand disaster or the 2018 Kerala floods or, for that matter, any other disaster? If not, how can we even start the process of identifying the lessons we can learn from a disaster? Till we change this situation, we are possibly destined to experience a repeat of the worst kind of disasters.

Hindustan Times- 25- October-2021

"Jal Jeevan Mission is not just to make water accessible to the people, but it is a village driven, women driven movement. Its main base is public participation."

Narendra Modi
Prime Minister

Irrigation capacity increased to **3.77** lakh hectares

12 other irrigation projects nearing completion

Pure piped drinking water scheme in **30,000** gram panchayats of the state in Har Ghar Nal Yojana

Construction of **19,428** farm ponds in Bundelkhand

MoU signed for Indo-Israel Water Project Bundelkhand

"'Har Ghar Nal' yojana would help to achieve the central and state government's objective of providing clean water to the people living in rural areas."

Yogi Adityanath
Chief Minister, Uttar Pradesh

Pure drinking water at every house

Har Ghar Jal Scheme

Bumper crops for farmers

Known for insufficient supply of drinking water and unavailability of water for farming, the reorganised Chinhat and Sarojini Nagar blocks of the state capital, Lucknow have undergone a massive change over the last four and a half years, thanks to the improved groundwater table and efforts of the irrigation department.

The Chinhat and Sarojini Nagar blocks of Lucknow had been suffering from the major problem of depletion in groundwater level. Neither the area had enough water for drinking nor for agricultural purposes. The Water level in the block was also in the over-exploited category.

In the 8 development blocks of Lucknow, there used to be dry ponds, the area was also not equipped with less water-consuming methods of farming. To address the problem, from 2017 onwards, rapid efforts for rainwater harvesting started. The old ponds were renovated along with the construction of new ponds.

With the plantation of around 2093581 saplings, the water condition in these blocks started improving.

The government has also installed water harvesting plants in around 446 government and semi-government buildings of the rural as well as urban areas for rain water harvesting.

The schemes are being run for groundwater conservation across the state. Water harvesting arrangements are being made according to geographical conditions.

2,995 villages in Vindhya region to get pure water

The Prime Minister Narendra Modi had launched 'Har Ghar Nal Yojana' (tap water to every household), for Sonbhadra and Mirzapur in Vindhya region of Uttar Pradesh via video conference in 2020. The scheme worth Rs 5,555.38 crore is aimed at providing water to over 41 lakh villagers in two districts. ensuring water supply through pipelines to 2,995 villages in two districts in the region. Despite the region having many rivers, it was known for draught however, the government addressed the problem of water scarcity by launching this scheme. The scheme will benefit 21,87,980 villagers in Mirzapur while in Sonbhadra, 19,53,458 families will be benefitted by the scheme. The water of lakes and river will be purified and supplied to the families in Sonbhadra.Rs 3212.18 crore and Rs 2343.20 crore will be spent under the scheme in Sonbhadra and Mirzapur respectively. The scheme will be completed by next year.

A total of 467 piped drinking water schemes have been launched under 32 projects of Jal Jeevan Mission in the Bundelkhand region. The project linked to the 'Jal Jeevan Mission' is estimated to cost Rs 10,131 crore.

A population of 14 lakh in Mahoba, Lalitpur and Jhansi will benefit from the project.

It may be mentioned that Bundelkhand is prone to droughts and availability of drinking water is a major issue in the region.

Bundelkhand villagers to get piped water soon

The project was earlier scheduled to be completed in December 2022 but the Uttar Pradesh government has directed the construction agency to expedite the work in Jhansi district to start piped water supply to 648 villages in December this year.

Bukhara, a village located amid the rocky lands of Mauranipur tehsil about 20 kms from Jhansi, is finally ready to have easy access to drinkable water after many years. Women of the village were forced to walk miles to bring consumable water to their homes. Finally putting an end to the years of trouble, the Uttar Pradesh government under its 'Har Ghar Nal, Har Ghar Jal' scheme has started laying the water pipeline across the village. Soon, the village will have a regular water supply.

Jhansi Will Witness Unprecedented Change

Jhansi will witness an unprecedented change with the Har Ghar Jal scheme.

During the period of March to July, the villagers faced a shortage of water but with this scheme, now lakhs of people will get pure drinking water. In collaboration with the Government's scheme, making people aware of the 'need to save water' in every village,

The state government has almost completed the work of water treatment plants in various districts of Bundelkhand including Jhansi and Mahoba. The scheme will benefit lakhs of people.

Increase in Groundwater level

The problem of groundwater in western Uttar Pradesh will now be a thing of the past. The work by the Ground Water Conservation Department to save water is being done on a war footing. The department has raised the groundwater level through several schemes including rainwater conservation, drip and sprinkler irrigation methods, in over-exploited and critical development blocks of Saharanpur and Meerut in the past four-and-a-half years. Taking precedence from these cities, work has started in other districts of western Uttar Pradesh as well. To overcome the problems of water, the Ground Water Conservation Department has also made farmers aware about the use of drip and sprinkler systems in the construction and restoration of ponds, construction of check dams, and low water consumption methods in irrigation.

According to the Ground Water Resources Assessment Report, five development blocks of Saharanpur fall into overexploited and four in the critical category. The Ground Water Conservation Department has started work on a massive scale to increase the groundwater level in all the development blocks here. As a result, the groundwater has increased here by 20 cm.

Simultaneously, rooftop rain harvesting is also being done in urban areas to achieve the same goal. To increase the level of ground-water, a rainwater harvesting system was established on 187 government and semi-government buildings, and a total of 59,81,391 saplings were planted in Saharanpur through an afforestation scheme. In all the development blocks of Saharanpur, 72 check dams and 2,203 ponds were constructed and renovated. Farmers were also introduced to new methods of irrigation. This has reduced the number of 5 over-exploited blocks to four and critical blocks to one in the 4.5 years of the Yogi Government.

467 piped drinking water schemes launched under **32** projects of Jal Jeevan Mission in Bundelkhand

Jhansi district to start piped water supply to **648** villages in December this year.

In Saharanpur, **72** check dams and **2203** ponds constructed and renovated

PEOPLE SPEAK

Rainwater harvesting and sprinklers pay off

According to Lavlesh Singh, former Gram Pradhan of Papanamau Panchayat Chinhat, "The increasing exploitation of water and the falling groundwater level was the major concern of the Chinhat area. With the efforts of the government, rainwater harvesting is starting to pay off the area."

Poonam Singh, the former Gram Pradhan of Uttargauna in Chinhat, told that less water-consuming methods like drip and sprinkler systems have been promoted in agriculture. Due to this, the use of water has been reduced.

319 ponds constructed

In the current year, the Minor Irrigation Department has completed the construction of 23 check dams and 12 ponds in all the 8 development blocks of Lucknow. It is worth mentioning that in the last 4.5 years, the government has constructed 319 ponds in all the development blocks of the city.

Sushil Kumar Singh, a resident of Sarojini Nagar block, said that for the first time, work has been done for water harvesting at such a fast pace.

Dinesh Sharma, another resident of Sarojininagar informed that the Minor Irrigation Department has promoted rainwater harvesting and water harvesting naturally. With the continuous efforts made for water harvesting and augmentation, now all the development blocks of Lucknow have started reaching back to the safe category.

Millennium Post- 25- October-2021

Ganga's water quality improved since 2014

68 of 97 locations compliant with bathing standards

OUR CORRESPONDENT

NEW DELHI: Ganga's water quality has significantly improved since 2014 with the entire length of the river having more dissolved oxygen than the prescribed minimum level, and 68 out of 97 monitoring locations compliant with bathing standards in terms of biochemical oxygen demand, a senior official said.

In an interview to PTI, National Mission for Clean Ganga Director General Rajiv Ranjan Mishra said 32 out of 53 locations monitoring biochemical oxygen demand (BOD) were compliant with the primary water quality criteria for bathing in 2014, whereas in 2021 the total monitoring stations increased to 97, out of which 68 monitoring locations were found compliant with BOD criteria for bathing.

BOD represents the amount of oxygen consumed by bacteria and other microorganisms. The greater the BOD, the more rapidly oxygen is depleted in the stream, which means less oxygen is available to higher forms of aquatic life. Mishra said the dissolved oxygen level of the Ganga has also improved.

"At present, the entire length of Ganga has more dissolved oxygen (DO) than the prescribed minimum level of 5 mg/l. The river water quality has shown improvement between 2014 and 2021," he said. The water quality of Ganga is assessed as per primary water quality standard for outdoor bathing in terms of dissolved oxygen (=5mg/L), BOD (=3mg/L) and faecal coliform (FC) (=2500 MPN/100ml) and (pH) (6.5-8.5).

Mishra said the steps taken to improve the water quality include abatement and control of source pollution by establishment or upgradation of wastewater treatment plants for the towns located on Ganga main stem and its tributaries, construction of crematoria, surface cleaning activities, solid waste management on the riverbanks and floodplains and refraining trash from drains falling into river Ganga by installation of trash racks at the mouth of drains.

"The outcome of these projects has started showing significant results and the water quality of river Ganga will further improve as more and more projects are operationalised," he said. Mishra said in Uttarakhand up to Haridwar, the river is meeting class A criteria, which is the highest level i.e., it meets DO, BOD and FC criteria.

"The NMCG's efforts towards cleaning of the river have been targeted towards meeting bathing quality criteria for river water. Out of the 351 polluted river stretches identified by the Central Pollution Control Board (CPCB) in India, no stretch of river Ganga falls in the top three priority categories," he said.

The Hindu- 25- October-2021

Lessons in facing rising water along Mullaperiyar

Residents told of precautionary measures to be adopted if dam shutters are opened

Safety measures: Officials of the Revenue Department and National Disaster Response Force visiting houses on the banks of the Periyar, downstream of the Mullaperiyar dam, on Sunday.

A CORRESPONDENT
IDUKKI

In the wake of the increasing water level in the Mullaperiyar dam, officials of the Revenue Department and the National Disaster Response Force (NDRF) visited houses on the banks of the Periyar to create awareness of the precautionary measures to be adopted in case the shutters of the dam are opened.

The team visited the houses at the Inchikadu, Vikas Nagar and Manjumala areas of the Periyar village which are on the downstream of the dam.

An official of the Revenue Department said it was to create awareness and inform them of the steps that would be adopted by the authorities.

The team cleared doubts regarding the opening of the dam and the steps taken by the Government. The NDRF was led by team commander T. Rajan.

Water level in the Mullaperiyar dam reached 136.85 ft on Sunday.

Tamil Nadu issued the first warning regarding the opening of the dam on Saturday when the water level reached 136 ft. The maximum water level is 142 ft. Tamil Nadu was drawing water at 2,200 cusecs while there was an inflow of 2,900 cusecs on Sunday.

Steady at Idukki

Meanwhile, the water level at the Idukki dam was almost stagnant at 2,398.26 ft on Sunday.

One of the shutters of the Cheruthoni dam remained open and the power generation was maximum at the Moolamattom power plant. The full reservoir level is 2,403 ft. The red alert level is 2,398.31 ft.

Hindustan- 25- October-2021

प्रस्ताव : पानी के उपयोग की प्राथमिकताएं तय हों

नई जल नीति

नई दिल्ली | एजेंसी

देश में पानी के गहराते संकट के बीच मौजूदा दर के लिहाज से 2030 तक जल की आधी राष्ट्रीय मांग पूरा करना भी मुश्किल होगा। जल संकट से जुड़ी ऐसी ही चुनौती से निपटने के वास्ते नई राष्ट्रीय जल नीति के मसौदे में उपलब्ध पानी के उपयोग के लिए प्राथमिकताओं को वर्गीकृत किया गया है।

सरकार को नई राष्ट्रीय जल नीति का मसौदा सौंप दिया गया है जिसमें पानी के उपयोग को प्राथमिकताओं के आधार पर वर्गीकृत कर प्रथम वरीयता पेयजल, भोजन पकाने सहित जीवन से जुड़ी जल जरूरतों एवं दूसरी वरीयता कृषि कार्यों को दी गई है। मसौदा तैयार करने वाली समिति के अध्यक्ष मिहिर शाह ने कहा कि नई राष्ट्रीय जल नीति 2020 के मसौदे को जल शक्ति मंत्रालय को सौंप दिया गया है।

पांच खंडों में वर्गीकृत

पानी के उपयोग की प्राथमिकता तय की गई हैं और इसे पांच खंडों में वर्गीकृत किया गया है। इसके प्रथम खंड में जीवन के लिए पानी के उपयोग को रखा गया है जिसमें पेयजल, भोजन पकाने आदि जरूरतों का ध्यान रखा गया है। दूसरे खंड में खाद्य सुरक्षा, कृषि कार्यों एवं नदियों में गुणवत्तापूर्ण जल का प्रवाह बनाए रखने के विषय और तीसरे खंड में सामाजिक, सांस्कृतिक एवं आध्यात्मिक जरूरतों के लिये पानी के उपयोग को रखा गया है। चौथे खंड में जल से जुड़ी वाणिज्यिक कृषि के लिये पानी बचाने वाली तकनीक का उपयोग करने एवं औद्योगिक वाणिज्यिक प्रतिष्ठानों के लिये पुनः चक्रीय माध्यम से पानी के उपयोग के बाद ही ताजा पानी पर दावा करने की बात कही गई है। पांचवें खंड में पानी का भंडार तैयार करने का उल्लेख किया गया है।

Amar Ujala- 25- October-2021

गंगाजल 97 में से 68 जगह स्नान के लायक

एनएमसीजी का दावा : गंगा हुई निर्मल, पानी की गुणवत्ता में सुधार

नई दिल्ली। स्वच्छ गंगा के लिए राष्ट्रीय मिशन (एनएमसीजी) के महानिदेशक राजीव रंजन मिश्रा का दावा है कि गंगा के पानी की गुणवत्ता में 2014 के बाद से उल्लेखनीय सुधार हुआ है। मिश्रा ने बताया कि गंगा के 97 निगरानी स्थानों में से 68 पर जैव रासायनिक ऑक्सीजन (बीओडी) स्नान मानकों के अनुरूप है। इसके अलावा पूरी नदी में घुलित ऑक्सीजन का स्तर निर्धारित न्यूनतम मानक से अधिक है। उन्होंने बताया कि 2014 में सिर्फ 32 स्थानों पर स्नान के लिए जल की गुणवत्ता बीओडी मानकों के अनुरूप थी। उन्होंने कहा कि गंगा सफाई के लिए चलाई जा रहीं कई परियोजनाओं के नतीजे दिखाना शुरू हो गए हैं।

2015 में करीब 20,000 की अनुमानित लागत के साथ नमामि गंगे व एनएमसीजी की शुरुआत की गई

थी। इसके तहत अब तक सीवरेज इंफ्रास्ट्रक्चर, नगरपालिका ठोस अपशिष्ट, घाट विकास, जलीय जैव विविधता और सार्वजनिक जुड़ाव जैसी 30,255 करोड़ रुपये की लागत की 347 परियोजनाओं को मंजूर किया जा चुका है। इन्हीं का नतीजा है कि भारत में केंद्रीय प्रदूषण नियंत्रण बोर्ड (सीपीसीबी) की तरफ से चिह्नित 351 सर्वाधिक प्रदूषित नदी खंडों में से कोई भी गंगा का हिस्सा नहीं है। गंगा जल की गुणवत्ता में सुधार के लिए कोविड के चलते लगे लॉकडाउन, यात्रा प्रतिबंध, पर्याप्त बारिश से नदी का बेहतर प्रवाह जैसे कारक भी शामिल हैं।

जितनी ज्यादा बीओडी, नदी में उतनी कम ऑक्सीजन

बीओडी असल में जल में मौजूद बैक्टीरिया और अन्य सूक्ष्मजीवों द्वारा इस्तेमाल होने वाली ऑक्सीजन खपत को प्रदर्शित करती है। बीओडी जितनी अधिक होती है, नदी में उतनी ही तेजी से ऑक्सीजन की कमी होती है।

ए श्रेणी में है हरिद्वार तक गंगा जल की गुणवत्ता.. गंगा में घुलित ऑक्सीजन (डीओ) निर्धारित न्यूनतम स्तर 5 मिलीग्राम/लीटर से अधिक है। जल गुणवत्ता का आकलन स्नान के लिए गुणवत्ता मानक यानी डीओ(5एमजी/लीटर), बीओडी (3एमजी/लीटर) व मल कोलीफॉर्म (एफसी) (2500 एमपीएन/100 एमएल) व पीएच (6.5-8.5) के आधार पर किया जाता है। उत्तराखंड में हरिद्वार तक नदी का जल सभी मानदंडों को पूरा करता है। ऐसे नदी जल को ए श्रेणी में रखा जाता है।