

# NGO to hold 'Walk for Yamuna'

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TRIBUNE NEWS SERVICE

**FARIDABAD, DECEMBER 3**

KBS, a non-governmental organisation, will organise a 'Walk for Yamuna' campaign to highlight the rising water pollution and need to clean the Yamuna river passing through Faridabad and Palwal.

The campaign, involving a 75-km walk, will start from the Delhi border on December 17 and conclude at Hasanpur in Palwal district on December 23, it has been revealed.

Dr Shiv Singh Rawat, a retired Superintending Engineer in the Irrigation Department of Haryana, said the walk not only aims at addressing the issue of river contamination, but also focuses on highlighting the need to take effective measures on the basis of the available technology and related aspects. Rawat said the drive is expected to create awareness among masses and the need to launch a suitable plan in order to save the river from further contamination.

## To tackle rising water pollution in F'bad

He said the river irrigates around 3,66,223 sq km basins in the region and fulfills the drinking water needs of around 128 million people, comprising over 70 percent of the supply needs of Delhi's National Capital Region. "Unfortunately, with an increase in the population and industrialisation, it has emerged as one of the most polluted rivers in the country, owing to the release of industrial effluents, municipal sewage, untreated solid waste (plastics, bottles, polythene bags, religious items, dead bodies) and agricultural runoff (fertilizers and pesticides) from the cities and towns located on its banks, making it a highly polluted drain," he claimed.

This has not only adversely affected the aquatic life but also resulted in increased health risks such as cancer in the adjoining areas.

# Despite SC ban, land around Pong Dam being cultivated; green activists flag issue

Court had banned non-forestry activity in wildlife sanctuaries in Feb 2000

RAJIV MAHAJAN

NURPUR, DECEMBER 3

The Supreme Court had on February 14, 2000, imposed a ban on all non-forestry activities in wildlife sanctuaries across the country but some habitual offenders are ploughing land surrounding the Pong Dam Wetland in Kangra district to sow rabi crops.

As per information, these politically influential offenders have ploughed land falling under the jurisdiction of the Nagrota Surian wildlife range.

Meanwhile, thousands of exotic migratory birds have thronged the wildlife sanctuary these days. All human activity like cultivation of land there is considered detrimental to winged guests.

The Union Government had in 1999 notified the Pong Dam wetland area spread over around 300 sq km as a wildlife sanctuary under the Indian Wildlife Act 1972. Over one lakh migratory birds visit the wetland during the winter every year. It is alleged that farmers, who



Land of Pong Dam Wetland being cultivated illegally near Jawali.

## ACTIVITY HARMFUL FOR WINGED GUESTS

- Offenders have ploughed land falling under the jurisdiction of the Nagrota Surian wildlife range. Thousands of exotic migratory birds have thronged the wildlife sanctuary these days.
- All human activity like cultivation of land there is considered detrimental to winged guests.
- Over one lakh migratory birds visit the wetland during the winter every year.
- Environmentalists have been raising the issue of illegal cultivation with the Wildlife Department for the past several years

illegally cultivate this fertile land, used to poison migratory birds to save their crops.

Environmentalists have been raising the issue of illegal cultivation with the Wildlife Department for the

past several years after the Supreme Court's order imposing the ban. Milkhi Ram Sharma, a noted environmentalist, has been engaged in a crusade against illegal cultivation in

the wetland area since 2015. He has filed a civil writ petition (CWC) in the Himachal High Court, seeking directions to the state government to stop the cultivation of land. He lamented that the wildlife wing of the Forest Department, which is the custodian of the Pong wetland area, has failed to check this illegal activity.

Sharma said that the Himachal High Court, in July last year, had directed the state wildlife authorities to stop illegal cultivation in the wildlife sanctuary area. "If the Wildlife Department doesn't take strict measures to stop illegal activities in the wetland's wildlife sanctuary area, I will file a contempt petition in the High Court against the authorities concerned," he warned.

Meanwhile, Pavinder Kumar, Officiating Range Officer of Nagrota Surian, says that after getting information about illegal cultivation in the wetland area, he sent a team of field staff to the spot. Anyone found involved in illegal cultivation would face action as per the law.



# DAMNED BY OUR DAMS AS SAFETY ISSUES SWIRL

The country has over 6,000 large dams. And a staggeringly large number of them are ageing

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It was the intervening night of 3 and 4 October. Most residents of Chungthang were deep in sleep when a surge of water in the Teesta river triggered flash floods that laid waste to the settlement in north Sikkim—home to around 4,000 people.

When officials took count of the devastation, as many as 42 people had been killed in the Teesta basin, and 77 missing and presumed dead. Thousands had been displaced. Those who escaped did so with just the clothes they were wearing; they had no time to salvage anything else.

The hydropower dam over the Teesta was destroyed and the associated 1,200MW Teesta-III hydropower project submerged by the swirling waters in the disaster that rekindled an old debate: how safe are India's dams?

Experts blamed what they call a Glacial Lake Outburst Flood, or GLOF, in the South Lhonak lake, for the disaster.

Glacial lakes sit atop or below a melting glacier and as they grow larger, they become more perilous. They are blocked by ice or sediment of rock and debris, and if the boundary breaks, waters surge down the mountains, flooding downstream areas. This phenomenon is known as GLOF.

It's not as if the authorities had been caught totally unawares. As far back as 2015, glaciologist Anil Kulkarni had warned the Sikkim government about the formation of a lake in the South Lhonak glacier, which had been melting rapidly, and suggested that an early warning system be put in place to avert a disaster.

Kulkarni, a scientist at the Divesha Centre for Climate Change in Bengaluru-based Indian Institute of Science, was co-author of a paper that highlighted high risk posed to many settlements along Chungthang valley because of the construction of a hydropower dam over the Teesta river.

The state government officials were part of this investigation and attempts were made to take some action to prevent a disaster. An early warning system was also installed," Kulkarni said.

Obviously, this early warning system did not work on the night of 3-4 October.

A statement by the National Disaster Management Authority (NDMA) said excess rainfall, besides the GLOF, triggered the disaster. Sikkim has 10% or 750 of the country's glacial lakes and 25 have been assessed to be at risk of GLOF.

The NDMA statement spoke of making assessments at two such lakes in September this year to develop an early warning system.

## DEBATE ON DAMS

Let's delve deeper into the issue of dam safety.

Much of the 1980s and 1990s had been consumed by protests over the Russian (Soviet)-aided Tehri dam in Himachal Pradesh where some experts warned that an earthquake with the force of 10,000 Hiroshima-size atom bombs was waiting to strike, and the Sardar Sarovar dam in Gujarat.

The Sardar Sarovar dam, a part of the Narmada Valley project, became a centre of controversy because it meant displacing 100,000 tribespeople and peasants, sharecroppers and landless labourers from their ancestral lands.

India is the third most dammed country in the world, with 6,138 large dams in all. Any dam higher than 15 metres from its deepest foundation level is classified as a large dam. If it has very large storage, even a 10-metre high dam is called large.

But despite so many large dams, India has a rather poor record of dam safety. The country has a staggeringly large number of ageing dams and never has it decommissioned one so far.

An overwhelming 80% of India's large dams are over 25 years old and 234 are over 100 years old, according to the latest data shared in a presentation by the ministry of Jal Shakti.

How are the 234 century-old dams kept safe? Are they safe in the first place? Some are over 500 years old!

Cumbhum in Andhra Pradesh was built in 1500, making it the oldest in the country at about 523 years. The two dams in Rajasthan, Svaroop Sagar and Udal Sagar, were also built in the 16th century (1560 and 1585, respectively). The dam in Dhamapur (Maharashtra) is 423 years old; dams on Magarpur and Pachwara Lake (Uttar Pradesh) are of 1694 vintage.

There had been 42 dam failures in India till September this year, according to a



A July 2008 photo of a hydroelectric project built on the river Teesta at Kalijhora, 30 km from Siliguri in West Bengal.

presentation by S.K. Sibal, chairman of the National Dam Safety Authority (NDSA). The failure of the Machhu dam in Gujarat in 1979 was the worst, in which 2,000 people perished.

According to the South Asia Network of Dams, Rivers and People (SANDRP), an informal network of organizations and individuals working on issues related to the water sector, the Bharudpur dam on Karam river, a tributary of the Narmada in Madhya Pradesh, faced a disaster after the dam was filled with water for the first time in August 2022—erosion of the dam wall was reported.

And there have been multiple dam failures and dam-induced floods in Madhya Pradesh, Tamil Nadu and Kerala. The Hirakud-induced floods in Mahanadi basin have affected several villages in Odisha and Chhattisgarh. There have also been several instances of unscientific operation of dams.

Not just older dams, most failures have actually involved "newly built dams, chiefly in the first 10 years," according to NDSA's Sibal.

The Chungthang dam was commissioned only in 2017. So, it wasn't age that was responsible for its collapse.

## CLIMATE CHECKS

The question is what can India do about the problem?

Anil Kulkarni said that not just South Lhonak, Himalayan glaciers in general have been receding and strict monitoring of lakes in states like Himachal Pradesh and Sikkim was necessary.

Should hydropower projects be located in the fragile Himalayan region at all? "I have been recommending climate assessments in addition to environment impact assessments for such projects. I have said construction of hydropower stations in the Himalayan region should be avoided but if unavoidable, then GLOF assessment should be done beforehand and mitigation measures should be built into the project," Kulkarni said.

Most often, this advice has been ignored because it entails costs, he added. Mohammed Farooq Azam, glaciologist

expert and associate professor at Indian Institute of Technology—Indore, said that for GLOF hazards, the government should maintain "an updated inventory of all lakes."

Azam warned that existing lakes are growing larger "and also new lakes are developing as glaciers are receding, leaving depressions which are filled with meltwater, leading to formation of new lakes or lake growth. The inventory of glacier lakes should be updated every five years so that we can estimate the water volumes in these lakes."

Now, perhaps a little wiser after the north Sikkim disaster, the government may lend an ear to the glaciologists' renewed entreaties for detailed climate impact studies and declaring a mountain regulation zone, on the lines of a coastal regulation zone, where large infrastructure projects would be regulated.

Kulkarni says the ministry of earth sciences was in the process of forming a committee to conduct a study of the climate impact of large infrastructure projects in the Himalayan region.

## DISASTER-PROOF DESIGN

Should India build more dams, whether for generating hydro power or for other needs?

Azam says India is producing around 25,000MW energy from the dams on the Himalayan rivers alone, which is around 65% of the total hydropower potential of these rivers.

It will not be easy to find an alternative to damming the Himalayan rivers for securing India's energy needs. Dams are also needed for irrigation and other water security purposes.

So alongside evaluating the climate impact of building new dams in ecologically sensitive areas like the Himalayan region, a critical component of dam safety has to be in-built special operating procedures in dam design that take care of eventualities like flash floods.

Disasters and ageing dams notwithstanding, India has no mechanism in place to assess the viable lifespan and performance of dams.

In response to a query from members of parliament during a meeting of the parliamentary standing committee on water resources, the Jal Shakti ministry said in March this year: "Dams in India are nor-

## mint SHORT STORY

### WHAT

A Glacial Lake Outburst Flood in Sikkim, this October, destroyed a hydropower dam over the Teesta. It has rekindled an old debate: how safe are India's dams?

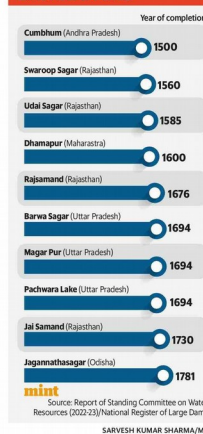
### WHY

India has 6,138 large dams. Despite so many large dams, India has a rather poor record of dam safety. There had been 42 dam failures in India till September this year.

### NOW

None of the older dams have till date been decommissioned, which is a controversial issue since there are socio-economic concerns. Dams create colonies and economy around them.

## INDIA'S OLDEST LARGE DAMS



will help in standardizing dam safety practices across the country.

The official declined to provide any further details of the steps taken to make India's large dams safe.

The parliamentary standing committee has noted that some of the dams were over 300 years old and despite the Jal Shakti ministry acknowledging that the lifespan of a dam is 100 years, none of the older dams had been decommissioned till date. The panel gave a three-month deadline to the ministry to apprise it of steps taken to nudge state governments to decommission dams that have outlived their lifespans and may pose severe threat to life and infrastructure.

## HOT BUTTON ISSUE

In any case, decommissioning of dams remains a controversial issue in India, points out Ranjan Panda, a water activist and convenor at Combat Climate Change Network, India.

"For one, India's water policy is dominated by civil engineers who feel their work can pass the test of time. Policy-making does not involve stakeholders from diverse backgrounds, unlike in the US or Europe," he said.

Then, there are powerful socio-economic concerns that prevent dam decommissioning.

"Dams create a new economy around them. Colonies develop around dams, making it very difficult for a country like India to shift ecosystems around dams to new sites. Mullaperiyar (Kerala) and Hirakud (Odisha) dams are examples," Panda said.

In any case, decommissioning of dams is a time-consuming and laborious process. First, the government needs to conduct socio-economic and ecological impact studies and then earmark rehabilitation areas for the displaced people. Next comes a strategy for building an alternative water resource to offer livelihoods to the displaced population.

And nature has its own way of evening out things.

"The government has never decommissioned a dam in India but nature has. The GLOF event at the Chungthang dam over the Teesta has effectively meant that this dam has been decommissioned," said Himanshu Thakkar, coordinator of SANDRP.

mally designed for approximately 100 years of useful life. The functional life of the dams decreases with progressive reservoir sedimentation concurrently reducing project benefits. There is no mechanism to assess the viable lifespan and performance of dams."

The ministry also said no information/recommendation from the dam owners has been submitted for decommissioning of any of their dams.

In fact, Sibal of CWC laid the entire onus of ensuring safety of India's dams on the state governments, public sector undertakings and private agencies.

A Jal Shakti ministry spokesperson referred to DRIP II and DRIP III schemes, which have been devised to enhance dam safety oversight. DRIP is an acronym for Dam Rehabilitation and Improvement Project. The Cabinet Committee on Economic Affairs approved DRIP II and DRIP

III in October 2020. DRIP aims to fully "rehabilitate" 736 dams in 19 states by 2031. Rehabilitation includes treatment for reduction of seepage through masonry, improvement in dam drainage; treatment for cracking in the dam, improvement in the ability to withstand higher floods, etc.

Another senior ministry official said that dam safety was "close to the Prime Minister's heart" and that after decades of inaction, the Narendra Modi government had brought in a comprehensive Dam Safety Act.

The Dam Safety Act of 2021 became effective from 30 December that year. According to an official statement, the Act provides a comprehensive framework for proper surveillance, inspection, operation and maintenance of all the large dams. The Act also provides for an empowered institutional framework for dam safety, both at the level of Centre and States and



# दिल्ली की 62% जमीन से जमकर हो रहा भूजल दोहन

अजय राय • नई दिल्ली

हर मंच पर भले ही बूंद-बूंद पानी बचाने की बात हो रही है, लेकिन राष्ट्रीय राजधानी की कई तहसीलों में बूंद-बूंद भूजल दोहन करने की स्थिति बनी हुई है। दिल्ली की 34 तहसीलों में से सिर्फ पांच ही सुरक्षित और चार कम खतरे वाली हैं। बाकी के 25 में 12 तहसील भूजल दोहन के मामले में खतरे वाली व 13 अति दोहित हैं। खतरे वाली और अति दोहित क्षेत्र का कुल भू-भाग दिल्ली का करीब 62 प्रतिशत है। जल शक्ति मंत्रालय की केंद्रीय भूजल संसाधन आकलन रिपोर्ट के मुताबिक नई दिल्ली जिले

**34** में से 5 तहसील सुरक्षित, चार कम खतरे वाली, 12 खतरे वाली, 13 अति दोहित यूनिट



की तीनों तहसीलों में भूजल दोहन का स्तर बेहद खराब है। साथ ही तीन जिलों की तीन-तीन तहसीलों में से दो-दो भी इसी स्थिति में हैं।

**नई दिल्ली की राह पर उत्तर पूर्वी, दक्षिण और शाहदरा**

जरूरत से काफी ज्यादा भूजल दोहन के मामले में सात जिलों की 13 तहसीलें दिल्ली की स्थिति को और खतरनाक बना रही हैं। इससे रिपोर्ट में अति दोहित श्रेणी में रखा गया है। इसमें सबसे अक्वल नई दिल्ली जिला है, यहां की तीनों तहसीलों चाणक्यपुरी, वसंत विहार व दिल्ली कैट में भूजल दोहन की यही रफ्तार रही तो भविष्य के लिए भूजल ही नहीं बचेगा। यह पूरा क्षेत्र करीब 158 वर्ग किलोमीटर का

वर्ष 2023 के आकलन रिपोर्ट के मुताबिक, दिल्ली की करीब 74 प्रतिशत भूमि से भूजल दोहन अधिक हो रहा है। सिर्फ 14 प्रतिशत

है। इसके साथ ही उत्तर पूर्वी, दक्षिण व शाहदरा की प्रत्येक तीन तहसीलों में से दो-दो तहसीलें इसी राह पर हैं। इनमें उत्तर पूर्वी की यमुना विहार व करावल नगर, दक्षिण की मेहरोली व साकेत और शाहदरा जिले की विवेक विहार व शाहदरा तहसील शामिल है। इसके अलावा मध्य जिले की करोल बाग, उत्तरी की नरेला, दक्षिण पश्चिम की कापसहेड़ा और पश्चिम की राजौरी गार्डन तहसील भी इसी श्रेणी में हैं।

के लगभग जमीन में भूजल की स्थिति ठीक है। पांच तहसीलों की करीब 330 वर्ग किमी जमीन, जहां भूजल सुरक्षित है, उसमें दक्षिण

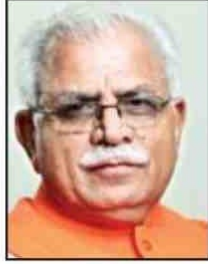
पश्चिम, मध्य की एक-एक, उत्तर पश्चिम की दो तहसील और नजूल भूमि की एक यूनिट है। कम खतरे वाली यूनिटों में उत्तर की अलीपुर, उत्तर पश्चिम की सरस्वती विहार, पश्चिम की पंजाबी बाग व उत्तर पूर्वी दिल्ली की सीलमपुर तहसील हैं। खतरे वाली आठ जिलों की 12 तहसीलें हैं। इनमें उत्तर की माडल टाउन, दक्षिण पश्चिम की द्वारका, दक्षिण की हौज खास, मध्य की कोतवाली, पश्चिम की पटेल नगर, शाहदरा की सीमापुरी, दक्षिण पूर्व की कालकाजी, डिफेंस कालोनी, सरिता विहार, पूर्व की गांधी नगर, मयूर विहार, प्रीत विहार तहसील शामिल हैं।

# जल संरक्षण को अरावली की तलहटी में बनाए जाएं छोटे तालाब : मनोहर

**चंडीगढ़ (एसएनबी)।**

मुख्यमंत्री मनोहर लाल ने प्रदेश में चल रही जल संरक्षण योजनाओं की समीक्षा करते हुए सिंचाई एवं जल संसाधन विभाग के अफसरों को निर्देश दिए कि चालू परियोजनाओं का तय समयावधि में क्रियान्वयन सुनिश्चित किया जाए ताकि किसानों को इन परियोजनाओं का लाभ अविलंब मिल सके। जल संरक्षण के लिए अरावली की तलहटी में छोटे तालाब बनाए जाएं। इसके अलावा उन्होंने जनसंवाद कार्यक्रमों में ग्रामीणों द्वारा दिए गए कार्यों को भी जल्द से जल्द पूरा करने के निर्देश दिए। मुख्यमंत्री रविवार को सिंचाई एवं जल संसाधन विभाग के अफसरों के साथ बजट 2023-24 में घोषित विभिन्न परियोजनाओं, राज्य में जल संरक्षण के लिए जल निकायों व जनसंवाद कार्यों की समीक्षा बैठक की अध्यक्षता कर रहे थे।

मनोहर लाल ने अधिकारियों को अब तक चिन्हित किए गए एक हजार एकड़ क्षेत्रफल वाले लगभग 100 जल निकायों पर जल्द से जल्द काम शुरू करने व मानसून 2024 की शुरुआत से पहले इसे पूरा करने के निर्देश दिए ताकि बारिश के अतिरिक्त पानी के भंडारण हेतु पर्याप्त भंडारण क्षमता उत्पन्न की जा सके। सीएम के सलाहकार (सिंचाई) देवेन्द्र सिंह ने बताया कि पहले मिकाडा व सिंचाई विभाग



बजट का केवल 50 प्रतिशत खर्च कर सकता था, जबकि वर्ष 2023-24 में बजट आवंटन का लगभग 80 प्रतिशत तक खर्च कर सकता है, जोकि चालू वित्त वर्ष के लिए ये लगभग 2000 करोड़ रुपए है। वर्ष 2015-2016 की

तुलना में वॉट कोर्स के निर्माण में 250 प्रतिशत की वृद्धि व सूक्ष्म सिंचाई परियोजनाओं में 500 प्रतिशत की वृद्धि हुई है।

मुख्यमंत्री ने संबंधित अधिकारियों को सख्त निर्देश देते हुए कहा कि सिंचाई कार्यों को तय अवधि में पूरा करें और योजना की बाधाओं को कम करने व परियोजना निष्पादन में तेजी लाने के लिए बैंक ऑफ सैंक्शन की निरंतर समीक्षा करें। मिकाडा के प्रशासक डॉ सतबीर सिंह कादियान ने मुख्यमंत्री को अवगत कराया कि सूक्ष्म सिंचाई हेतु मिकाडा पोर्टल पर 1.5 लाख एकड़ के लिए 46,512 आवेदन प्राप्त हुए हैं। इनमें से 27,341 आवेदनों पर काम पूरा हो चुका है और 7,198 आवेदनों के लिए सहायता राशि जारी कर दी गई है। मुख्यमंत्री ने लंबित आवेदनों के लिए भी शीघ्र सहायता वितरण का निर्देश दिया।

मुख्यमंत्री ने सिरसा में खरीफ चैनलों की मांगों के संबंध में निर्देश देते हुए कहा कि इस संबंध में व्यवहार्यता की जांच कर आगामी कार्यवाही की जाए ताकि मानसून के दौरान अतिरिक्त बाढ़ के पानी का उचित उपयोग किया जा सके।