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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 have also been uploaded on the CWC website.

D. Maheshwari
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Hindustan Times
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The Hindu
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Deccan Chronicle
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M.P. Chronicle
Aaj (Hindi)
Indian Nation
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The Times of India (A)
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Odisha's dying largest freshwater lake to get a new lease of life

State govt. takes up restoration work of Ansupa lake with Central funding

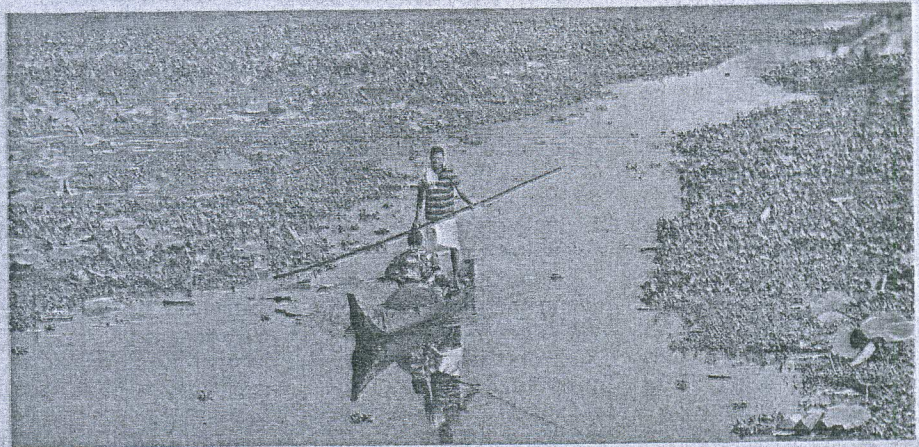
SATYASUNDAR BARIK
BHUBANESWAR

Odisha's largest freshwater lake, Ansupa, which silted up following drastic reduction of water inflow from the Mahanadi, may soon get a new lease of life, thanks to holistic intervention initiated by the State government.

Chilika Development Authority, the nodal agency, has taken up restoration measures under funding from National Plan for Conservation of Aquatic Ecosystems.

"We are proposing to dredge the mouth of Huluha-la Nullah, the lifeline of the lake, connecting Ansupa with Mahanadi and also maintain the gradient of the water channel to ensure flow of Mahanadi water into the lake," Sushanta Nanda, the CDA's chief executive, told *The Hindu* on Saturday.

Nullah's mouth is repeatedly silted up by sand being deposited by the meander-



Ansupa lake is also the wintering ground for 32 species of migratory birds. ■ BISWARANJAN ROUT

ing river. Experts believe the hydrological regime of the lake will improve after creation of passage for water through dredging.

Ansupa is the wintering ground of 32 species of migratory birds. Its water used to be so clean that it was serving both as a drinking water and irrigation supply source for villagers.

The lake being an ox-bow lake, an offshoot of the Mahanadi, was dependent on freshwater supply from the river during the rainy season.

The CDA chief said there had been almost no water supply to the lake since 2014 and the lake was choking itself to death. Now, the silted-up area has been en-

croached upon for paddy cultivation.

The water area of Ansupa lake as ascertained from the satellite imageries now varies between 375 acres and 385 acres depending upon the season. Now the water-spread area has reduced to only 500 sq. m and fishery resources are almost non-existent.

Statesman
The Times of India (N.D.)
Indian Express ✓
Tribune
Hindustan (Hindi)

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In Odisha vs Chhattisgarh Mahanadi water wars, issues of dams, politics

SOWMIYA ASHOK
NEW DELHI, MARCH 18

IN LINE with the Supreme Court's order in January, the Ministry of Water Resources last week notified the setting up of a Tribunal to resolve the dispute between Odisha and Chhattisgarh over the sharing of the waters of the Mahanadi river. What is the background to the dispute and, going beyond the political rhetoric in both states, who are the parties actually affected by it?

The River

The Mahanadi rises in a pool 6 km from Farsiya village in Chhattisgarh's Dhamtari district, and winds 851 km broadly east to fall into the Bay of Bengal close to the temple town of Konark in Odisha's Puri district. The river basin is spread over Chhattisgarh, Odisha, and small parts of Jharkhand, Maharashtra and Madhya Pradesh, and drains an area of 1,41,589 sq km, with a maximum length of 587 km and a maximum width of 400 km. Some 54.27% of the basin area is agricultural land, and 4.45% is water bodies, according to the National Water Development Agency, an autonomous society under the Ministry of Water Resources, which studies the river systems of peninsular India.

Dispute timeline

The Chhattisgarh government, in its reply to Odisha's plea in the Supreme Court for an injunction to stop work on six industrial barrages upstream on the Mahanadi, provided the following timeline.

- In 1983, the Chief Ministers of Odisha and undivided Madhya Pradesh agreed to resolve "all water disputes by a mechanism of Joint Control Board" to "review the progress, from time to time of survey, investigation, planning, execution and preparation of joint inter-state irrigation and power projects" and to "discuss and resolve any issues."

- In 2000, Chhattisgarh was created.

- In November 2016, Odisha filed a complaint in the Supreme Court, and in the following month a suit under Article 131 of the Constitution (disputes between states and the Union, or among states) to plead for the setting up of a Tribunal under Section 3 of the Inter-state Water Disputes Act, 1956.

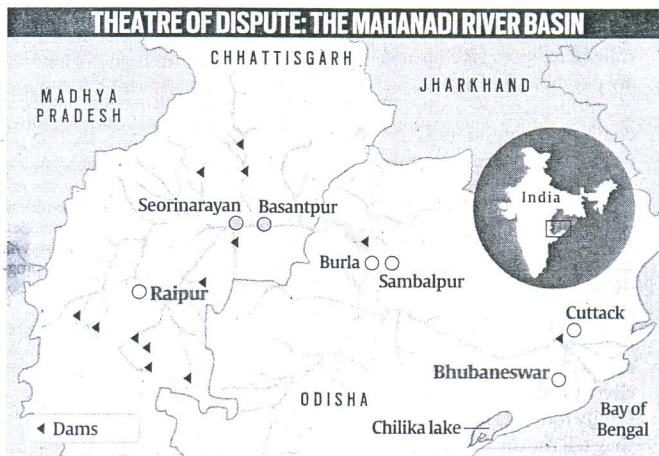
- In its reply in December 2016, Chhattisgarh asked Odisha to form the "Joint Control Board" proposed by the 1983 agreement.

In January 2017, the Centre formed an 11-member negotiation committee to resolve the dispute. Odisha insisted on the Tribunal instead, and stayed away as the committee met in February 2017. The committee held a meeting again later that year.

Meanwhile, the Union government's statement in Parliament to set up a tribunal was



BJD workers stand in the water of the Mahanadi to protest the visit to Odisha of Chhattisgarh Chief Minister Raman Singh last year. The posters say, 'First stop work on barrage, then come and give speeches', and 'You are squeezing the Mahanadi's neck, the people of Odisha will never forgive you.' *PTI Archive*



overturned with Minister of Water Resources Nitin Gadkari's proposal to form a joint control board for "early resolution of the issue."

However, on January 23, 2018, the apex court directed the Centre to notify a Tribunal to adjudicate the dispute. The Tribunal, which the Centre notified on March 12, has been asked to "determine water sharing among basin states on the basis of the overall availability of water... contribution of each state, the present utilisation of water resources in each state and the potential for future development".

The Arguments

In its 2016 plea to the court, Odisha asked for Chhattisgarh to be restrained from constructing and operating six industrial barrages, Samoda, Seorinarayan, Basantpur, Mirouni,

Saradiha and Kalma, "pending constitution of the Tribunal". Biju Janata Dal MPs had said in Parliament that year that the damming of the Mahanadi by Chhattisgarh would choke water supply to Odisha. The state had moved court after the Centre rejected its demand for a Tribunal. "These are purely illegal constructions for the benefit of industries carried out by Chhattisgarh, which has been choking the water flow to the Hirakud dam in Odisha," BJD MP Bhartuhari Mahtab had told *The Indian Express* after the Cabinet decided to set up the Tribunal last month.

"The joint control board was not constituted for 35 years and it was intended to look into construction of smaller projects and not for resolving inter-state issues," lawyer representing Odisha in the apex court Mohan

Katarki told *The Indian Express*. "As for the negotiation committee that was set up by the Centre, we rejected that because it was intended more as a fact-finding body than a negotiating one." Chhattisgarh, on its part, has rejected Odisha's claims, and told the court that the plea was "misconceived, baseless", and "premature and not maintainable", according to the reply filed by standing counsel for Chhattisgarh, Atul Jha.

The dispute has become a political issue in Odisha. Following the BJP's success in the local body elections of 2017, the BJD sought to use the Mahanadi to portray the BJP as being anti-Odisha and pro-Chhattisgarh (where it is in power), a pitch that it amplified during the campaign for the February 24 Bijepur Assembly bypoll, a crucial test for both parties ahead of the Assembly elections of 2019. The Centre announced the setting up of the Tribunal four days before the vote. However, the BJD won easily, and declared that the Mahanadi water dispute had played a decisive role in the election.

Bigger picture

According to Shripad Dharmadhikary of the Forum for Policy Dialogue on Water Conflicts in India, a non-partisan citizen's group, the inter-state dispute has taken the focus away from the older, more relevant struggle of small farmers against large industrial interests in both states.

Back in October 2006, about 25,000 farmers had formed an 18-km-long human chain around Burla near Sambalpur in Odisha to protest the government's decision to provide water from the Hirakud reservoir on the Mahanadi to upcoming industries. The farmers had pointed to the "adverse impact" this would have on farming.

"Orissa started allocating water from the Hirakud project to industries," Dharmadhikary said. "That, combined with the poor maintenance of the canal system, provoked a very strong struggle from farmers in Odisha." This clash between farming and industrial interests was at the time visible in Chhattisgarh as well, where similar allocations were being made to thermal power plants, Dharmadhikary said.

Over the past few years, however, the narrative has changed — in Odisha, specifically. Dharmadhikary said, political compulsions have nudged it in the direction of, "We are not able to give water to our farmers because Chhattisgarh is bringing in new projects".

Experts such as Dharmadhikary argue that while the Mahanadi Tribunal will follow "conventional, established paradigms of water management", it may be time, "to re-vamp the way we think about water disputes", and look at actual stakeholders beyond just the state governments.

(WITH SAMPAD PATNAIK IN HUBANESWAR)

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गलत नीतियों के कारण हमें परेशानी का सामना करना पड़ रहा है पानी की कमी नहीं, फिर भी जल संकट



भरत झुनझुनवाला

यूरोपीय महानगरी
एम्सटरडम की तुलना में पानी की प्रति व्यक्ति उपलब्धता दिल्ली में ज्यादा है। चीन की जनसंख्या हमसे कहीं ज्यादा है, फिर भी वह हमारी तुलना में 28 प्रतिशत कम पानी का उपयोग कर रहा है। हमारे पास पर्याप्त पानी है, पर गलत नीतियों के कारण हम संकट में अनायास ही पड़ रहे हैं। भारत में लगभग 80 प्रतिशत पानी का उपयोग खेती में किया जाता है। बाजरा और रागी जैसी फसलें बिना सिंचाई के ही पैदा हो जाती हैं। गेहूं और चावल जैसी फसलों को एक या दो पानी दे दिया जाए तो ठीकठाक हो जाती है। लेकिन अंगूर, गन्ने और लाल मिर्च को 15 से 20 बार पानी देना होता है। इन फसलों के उत्पादन में पानी का अधिक उपयोग होने से कई राज्यों में संकट पैदा हो रहा है। कर्नाटक में अंगूर, उत्तर प्रदेश में गन्ना और राजस्थान में लाल मिर्च की खेती के लिए हम पानी का भारी मात्रा में उपयोग कर रहे हैं। किसान का प्रयास रहता है कि वह अधिकाधिक लाभ कमाए। वह हिसाब लगाता है कि एक अतिरिक्त सिंचाई करने में उसका खर्च कितना बैठेगा और बढ़ी हुई फसल से लाभ कितना मिलेगा।

■ किसान की मुश्किल

मान लीजिए 20 सिंचाई समेत लाल मिर्च के उत्पादन का खर्च 20,000 रुपये बैठता है जबकि लाल मिर्च 25,000 रुपये में बिकती है तो किसान लाल मिर्च का उत्पादन करेगा। इसके विपरीत यदि पानी महंगा होने के कारण उसी उत्पादन का खर्च 30,000 रुपये बैठे तो किसान लाल मिर्च के स्थान पर बाजरे जैसी किसी दूसरी फसल का उत्पादन करेगा जिसे पानी की कम जरूरत पड़ती है। पानी महंगा होगा तो किसान उसका कम उपयोग करेगा। पानी सस्ता होगा तो किसान उसका अधिक उपयोग करेगा। अपने देश में नहर का पानी



Snehl Sakharare

सिंचाई के अनेक प्रयोगों के बावजूद समस्या बरकरार।

कर्नाटक में अंगूर, उत्तर प्रदेश में गन्ना और राजस्थान में लाल मिर्च की खेती के लिए पानी का भारी मात्रा में उपयोग होता है

बहुत सस्ता है। किसान द्वारा क्षेत्र के हिसाब से एक बार मूल्य अदा कर दिया जाए तो वह कितनी भी बार सिंचाई कर सकता है। वैसे ही जैसे अनलिमिटेड थाली का एक बार मूल्य अदा करने के बाद आप जितनी चाहे उतनी रोटी खा सकते हैं। यह व्यवस्था किसान को पानी की अधिक खपत करने वाली फसलों की खेती करने की प्रेरणा देती है। चूंकि उसे पानी का मूल्य उतना ही देना है, चाहे एक सिंचाई करे या 20 सिंचाई। इसी प्रकार फ्री या सस्ती बिजली उपलब्ध होने से ट्यूबवेल से पानी निकालना सस्ता हो गया है। वह पानी की अधिक खपत करने वाली फसलों की खेती कर रहा है। प्रश्न उठता है कि पहले से ही मर रहे किसान पर पानी के दाम बढ़ा कर अतिरिक्त बोझ डालना उचित होगा क्या?

इस समस्या का उपाय है कि पानी की कम खपत करने वाली फसलों का समर्थन मूल्य बढ़ा दिया जाए। तब उत्तर प्रदेश के किसान के लिए गन्ने के स्थान पर गेहूं और राजस्थान के किसान के लिए लाल मिर्च के स्थान पर बाजरे की खेती करना लाभप्रद हो जाएगा, चूंकि गन्ने और लाल मिर्च की खेती में पानी का मूल्य ज्यादा अदा करना होगा जबकि गेहूं और बाजरे की खेती में दाम ऊंचे मिलेंगे।

पानी के संकट का दूसरा कारण पानी का भंडारण बड़े बांधों में करने की पॉलिसी है। टिहरी बांध के पीछे 45 किलोमीटर लंबा तालाब बन गया है। इस पानी पर धूप की किरणें पड़ने से पानी का वाष्पीकरण होता है। अनुमान है कि 10 से 15 प्रतिशत पानी इस प्रकार हवा में उड़ जाता है। इसके बाद नहर से पानी को खेत तक पहुंचाने में वाष्पीकरण तथा रिसाव होता है। इसमें 25 प्रतिशत पानी की बर्बादी हो जाती है। इसलिए पानी का भंडारण जमीन के ऊपर करने के बजाय जमीन के नीचे किया जाए। अपने ट्यूबवेल से पानी निकलते देखा होगा। जमीन के नीचे पानी के तालाब होते हैं। ट्यूबवेल से इन्हीं तालाबों से पानी

निकाला जाता है। इन तालाबों की क्षमता बहुत ज्यादा होती है। सेंट्रल ग्राउंड वाटर बोर्ड के अनुसार उत्तर प्रदेश के इन जमीनी तालाबों में 76 बिलियन क्यूबिक मीटर पानी का भंडारण किया जा सकता है जो कि टिहरी की 2.6 बिलियन क्यूबिक मीटर की क्षमता का लगभग 30 गुना है। जमीनी तालाबों में पड़े पानी का वाष्पीकरण नहीं होता है। इनसे पानी को मनचाहे स्थान पर ट्यूबवेल से निकाला जा सकता है। नहर बनाने की जरूरत नहीं पड़ती है। नहर से वाष्पीकरण तथा रिसाव नहीं होता है। हां, पानी निकालने में बिजली का खर्च जरूर बढ़ता है पर इसे सौर ऊर्जा से बनाया जा सकता है। बड़े बांधों में नदी का पानी रुक जाने से बाढ़ कम आती है, जमीन पर पानी कम फैलता है, जमीनी तालाबों में पानी का पुनर्भरण कम होता है और ट्यूबवेल से सिंचाई भी कम होती है।

■ भंडारण का तरीका

बड़े बांधों से जनित वाष्पीकरण, नहरों से रिसाव तथा बाढ़ कम आने की समस्याओं का उपाय है, जमीनी तालाबों में वर्षा के पानी का भंडारण किया जाए। खेत के चारों तरफ मेंड़ बनाकर उसमें वर्षा का पानी जमा करने से जमीनी तालाबों में पुनर्भरण होता है। इस कार्य के लिए किसानों को सहायता देनी चाहिए। मेरा अनुमान है कि टिहरी जैसे बड़े बांध की तुलना में मेंड़ बनाकर उतने ही पानी का भंडारण करने में बहुत कम खर्च आएगा। लेकिन हमारे मंत्रियों, इंजीनियरों और अधिकारियों को यह पसंद नहीं है क्योंकि मेंड़ बनाने में बड़े ठेके देने के अवसर नहीं रहते हैं। नदियों के बाढ़ के पानी को इंदिरा गांधी नहर से ले जाकर राजस्थान के जमीनी तालाबों में भंडारण भी किया जा सकता है। पानी के संकट का कारण है कि हम शहरवासी सस्ती चीनी और बड़े ठेके चाहते हैं। हमें तय करना है कि हमें सस्ती चीनी चाहिए अथवा नहाने और पीने को पर्याप्त पानी। देश में पर्याप्त पानी उपलब्ध है, लेकिन गलत नीतियां अपनाकर हमने अनायास ही आम आदमी को संकट में डाल दिया है।

and documented at Bhagirath(English)& Publicity Section. CWC

Yamuna mafias alive and killing

ILLEGAL ACTIVITIES Fresh evidence shows illegal sand mining, groundwater extraction goes on in the river floodplains despite court orders

HT SPOTLIGHT

1/2

ARE EFFORTS TO SAVE YAMUNA FAILING?

Joydeep Thakur

■ joydeep.thakur@htlive.com

NEWDELHI: The National Green Tribunal, in a series of orders over the past four years, has banned several activities including sand mining, dumping of debris, encroachment and open defecation in the Yamuna floodplains.

But fresh evidence gathered over the past six months by a private security agency, hired by the Delhi Development Authority to patrol the floodplains, has shown that little seems to have changed on the ground. Even though the land belongs to the DDA on paper, but it is the local mafias who seems to be controlling floodplains — at least after dark.

Hindustan Times in a two-part series checks how sand mining by gangs, dumping of debris to reclaim more land for encroachment, encroachment by slums and groundwater extraction from the Yamuna banks to supply hotels and hospitals are still rampant.

SAND MINING

As one walks along the Yamuna's bank in

Usmanpur Pushta-2, makeshift barricades made of bamboo sticks, could be spotted dividing the bank into several plots — each stretching not less than 50–100 metres.

"Each plot belongs to a different gang who gets the right from a local mafia to dig out sand. The mafia controls the entire stretch. It is a profitable business as one trolley of sand would sell for around ₹1,500," said Naresh Kumar a security guard who has been patrolling these floodplains over the past few months.

Enter one such plot and you would stumble upon large and deep ditches all across from where sand has been dug out.

"During the day there is hardly any activity in these isolated stretches. But at night, one can see several trucks, trolleys and tractors waiting to transport the sand, while local youths dig it out. The activity starts after 9pm. It is very risky to go there at night," said a local who refused to be identified.

The NGT had banned sand mining from the Yamuna floodplains in November 2015, on a petition filed by an activist, Rahil Nagar. But the security agency has

detected at least 85 cases of sand mining in the past six months between Wazirabad Bridge and Kalindi Kunj barrage — a stretch of 25 km.

The modus operandi is, however, different near Batla House area where local youths take the help of horses and mules trained to transport the sand in bags to a fixed location.

"They are very hard to intercept as they flee just leaving behind the animals. The locals refuse to talk about it," said one of the guards, requesting anonymity.

These gangs are active even during the day just below the DND flyover. They dig out sand which is loaded on mules. The animal trudges towards Batla House where other gang members unload the sand and send the animal back to bring back more.

"The floodplain is a repository of water which helps to maintain the water flow even during lean season and helps to recharge groundwater. Rampant sand mining from the floodplains would destroy the hydrological balance of the river," said CR Babu, an ecologist who was a member of the expert committee set up by the NGT to assess damage of floodplains after an Art of Living event in 2016.

GROUNDWATER EXTRACTION

Thousands of gallons of groundwater are being extracted everyday with the help of submersible pumps from the Yamuna floodplains — one of the few groundwater recharging zones left in Delhi — to supply to some the hotels in Delhi.

"As the floodplains become desolate at night, the gangs usually install the pumps and borewells in these places. It is very hard to locate them as they are often covered during the day," said Ramesh Singh in-charge of one of the patrolling teams.

"Armed gang members guard the place to keep away intruders. We have been threatened a number of times," said Ramesh Singh in-charge of one of the patrolling teams.

In January this year, the NGT had ordered the Delhi government to seal all unauthorised borewells in the national Capital within three months. But since September, at least six cases were detected by the patrolling guards from areas such as Sarai Kale Khan and Chilla Khadar where water was being extracted from the floodplains. A few were stopped but the gangs returned soon changing their location.



■ Tonnes of construction debris dumped on the Yamuna banks in Old Usmanpur area. SANCHIT KHANNA

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Hindustan. Time



■ Members of team Rakshak show a pit dug by the sand mafia in the Yamuna floodplain in New Usmanpur area of northeast Delhi. SANCHIT KHANNA/HT PHOTO

“Tankers supply this water to some of hotels and hospitals, preliminary enquiry has revealed. The water is usually used in the washrooms and gardens,” said Singh.

A senior Central Ground Water Board official said in Delhi the approval for extracting ground water is given only through a committee led by the district magistrate in charge of the district where the applicant wants the connection. The rest are illegal.

A report tabled in the Lok Sabha in March states that 56% of the tehsils in Delhi have over-exploited the ground water resource making the national Capital the third most ‘over-exploited’ groundwater states in India after Rajasthan and Punjab.

It also states that water table in several parts of Delhi have gone down eight metres below the ground level.

“Unregulated, unscientific and excessive extraction of ground water from the floodplains may destroy the only potential and pristine aquifer of the city. Extraction of water may lead to leaching of polluted water from the river or it may pave the way for the underlying layer of saline water to come up and spoil the aquifer,” said Shashank Shekhar, assistant professor of geology at Delhi University.

Disaster unfolds on floodplain

Guards hired by DDA reveal rampant illegal activities

Places where cases have been detected

- Waste dumping ● Sand mining
- Groundwater extraction ● Encroachment

HOW IT AFFECTS THE RIVER

SAND MINING

- Sand mining disturbs the river's hydrological balance
- Mining affects the river's capability to recharge water during the monsoon
- Mining kills the microbes which help purify the river water

DEBRIS DUMPING

- Debris prevents the water from percolating into the ground, hitting the river's ability to recharge groundwater
- This also plays havoc with the biodiversity of the floodplains. Dumping may also lead to flood in the neighbouring areas

GROUNDWATER EXTRACTION

- Unregulated extraction of groundwater may destroy the pristine aquifer of the city
- It may lead to leaching of polluted water from the river or underlying saline water spoiling the aquifer

