Designs behind the deluge Trapped in floods triggered by breached lakes, as thousands of Bengalureans struggled, the sinister handiwork of the

t was an urban disaster fore- either totally cut off or were just

not wide enough.

There was no way anyone

could stop the lakes from over-

flowing as the downpour contin-

ued. Cut off from the link drains,

the lake water entered residential

layouts, flooding streets, houses

and vacant sites. Hopelessly ma-

rooned, residents in their thou-

sands realised the apartments

bodies or right on the flood path.

The implication was clear.

Builders were allowed to con-

struct multi-storied structures

so close to the lakes that even

the now stretched 30-metre

buffer zone had no meaning.

The National Green Tribunal

MADIW

Madiwala Lake

BOMMANAHALL

CHIKKA MADIVALA

Building obstacles

vere either too close to the water

told, yet ignored by the state

machinery. But last week, as

four lakes breached and flooded

huge swathes of the city, the mon-

ster problem was dramatically

out in the open: Blatant en-

croachment of lakebeds and

storm water drains, perfected

over the years by a well-oiled

nexus of builders and civic

Trapped in floods of mon-

strous proportions, residents of

areas around Madiwala, Huli-

mavu, Arakere, Sarakki and Bel-

landur lakes wondered why a

spell of heavy rain troubled them

so much. But the big picture soon

became clear: The encroached

feeder canals that take excess wa-

ter from one lake to the next were

The Madiwala lake breached, flooding the

neighbouring Kodichikkanahalli. Fire and

emergency service personnel had to use

ILEKAHALLI

HULIMAVU

Hulimavu Lake

DH INFOGRAPHICS / RASHEED KAPPAN & G BALAJI NANGAI

boats to rescue the trapped residents.

Hulimavu lake

breached after

incessant rains.

outflow of the

downstream.

unleashing

massive

agency officials.

POINT BLANK

Land mafia encroached on 98% lakes

A recent survey of 105 city lakes by the Energy and Wetlands Research Group, Centre for Ecological Sciences, IISc, has established that 98% of the lakes are encroached on by the land mafia in connivance with the government machinery. Only four were in good condition while 25 were in a very bad state, dumped with solid/liquid wastes.



Sewage-fed lakes

The survey also found that 90% of the lakes were sewage-fed due to sustained flow of untreated sewage and industrial effluents, dumping of solid waste and building debris. Water quality analysis of 80 lakes found that almost half of the water bodies were highly polluted. None of the lakes had water that was fit for drinking according to the Central Pollution **Control Board standards.**



K-C Valley lakes most polluted

All the lakes that breached and flooded neighbouring residential localities recently are in the Koramangala-Challaghatta Valley. The IISc survey had concluded that the K-C Valley lakes were the most polluted compared to those in the Hebbal, Vrushabhavathi valleys.



Stop constructions near lakes: Koliwad panel

The Koliwad committee probing encroachments of city lakes has asked the BBMP and the BDA to stop ongoing construction near water-bodies till a re-survey is completed. The re-survey will be done in accordance with the latest verdict of the National Green Tribunal, fixing a 75-metre buffer zone around lakes. The re-survey covers lakes under the jurisdiction of BBMP, BDA and Karnataka Lake Conservation and **Development Authority.**

Diverting drains in Choodasandra

eyond the Madiwala-Hulimavu lake stretch, the threat of floods due to encroachments of lake land and storm water drains looms large. Choodasandra, a locality along the Central jail road with several lakes in the vicinity, is no exception.

M N Kumar, who runs an automobile-related business in the area, charges that the residents' woes began after an apartment came up in the vicinity. "The rain water flowing downwards used to reach the Choodasandra and Kasavanahalli lakes. However, the builders and the authorities concerned diverted the flow of water so that the apartment could be constructed two years ago," he recalls.

The builders laid pipes and tried diverting the rain water in an upward direction. "As a result, the entire locality turns into a lake in itself if it rains for a few hours. When the land, where the building now exists, was an empty site, even days

PADMANABHA

REDDY

Opposition leader.

of heavy rainfall wouldn't make the road this bad. Water used to go off the road within minutes. It is not the same anymore. We are worried about the next three months of this rainy season.

Another resident, Ravi Sagar spoke about the encroachment. "The drainages have all been closed. Builders have blocked the raja kaluve to Choodasandra lake - about a kilometre from Kasavanahalli lake. As a result, the rain water cannot reach the lake. Police-quarters is right here. But, they are silent on the issue," he laments

Ramkumar Reddy, a resident and entrepreneur in Kasavanahalli, talks about builders encroaching upon the catchment areas of Kasavanahalli and Kaikondarahalli lakes

Chethan Misquith

Resident, Choodasandra

BBMP Council The drains are BBMP was told to desilt drains and clear encroachments, but but also no action was taken. The disaster was waiting to unfold.



blocked in this locality, triggering not just floods in the area, epidemic diseases.



KAVITHA D Resident, Sarakki

> We are shelling money out of our own pockets to get the water cleared from our homes. Every day, we are spending Rs 500 to Rs 1,000 to get the flood water pumped out.



SRINIVAS V Resident, Sarakki

For the last one week, Palike personnel have been trying to trace the rajakaluve at Sarakki Gardens. We hope it takes precautionary measures at the earliest.







designs were not in tune with the lake drainage mechanism Not enough space was allowed

(NGT) had in its recent order overflowing water from the lake extended the zone to 75 metres, but with only prospective effect. The Bangalore Development Authority (BDA) has carved out many layouts in the vicinity of these lakes. But, as the flooding proved beyond doubt, the layout

builder-official nexus was out in the open: Canals and lakebeds they encroached had blocked the natural flow of water.

for storm water drains. In Arakere, the BDA-approved Vysya Bank Colony had most of its streets flooded with

1ST BLOCK

SASANDRA

JAKKASANDRA

VANGANAHALLI

17th Cross Road

SECTORIS HASR LAYSON

Storm water Drains are

being built near Arakere

lake now. Roads in Vysya

Bank Colony are dug up.

The underground utility

lines are cut open.

nearby. Decades after the layout's formation, the Bruhat Bengaluru Mahanagara Palike (BBMP) is now building an underground drain. In the process, bulldozers are cutting open streets, slicing through cable, electricity, water and sewer lines.

1,923 encroachments

Absolute disregard for rules has aided the encroachment of 1,923 lakes and SWDs. This has been admitted by the civic agencies themselves to the legislature committee headed by Assembly

IEEVANBHEEMANAGAR

Roads in BTM Layout and

surrounding areas were

flooded, triggering massive

traffic congestions. Silk Board

Junction was badly affected.

Bellandur Lake

Speaker K B Koliwad, which visited flood-hit areas on Thursday.

The encroached feeder canals that take

excess water from one lake to the next

were either totally cut off or were

just not wide enough

But this is a conservative esti mate. BBMP officials say only 822 of these obstacles have been removed. A part of the remaining 1,101 encroachments were clearly responsible for the recent floods. The message is clear: Many more such disasters are in the offing if the Palike does not act quickly.

Why was this problem allowed to assume such destructive proportions? Why were the encroachments permitted with impunity, and not cleared before the monsoon? Koliwad himself had

KEMRABURA

Foam overflowed from

entered several houses

Sewage-filled water

in Yemalur village.

Bellandur lake.

RMZ Ecos

only against ordinary people and deliberately stop initiating action against builders.

But the builders do not act in isolation. Civic activists, environmentalists, scientists and lake committees have repeatedly exposed the connivance of BDA, BBMP and BWSSB officials and lower-level staff in bending rules.

Fabricating title deeds

This should explain how title deeds were fabricated to build huge apartment complexes on lakebeds and encroached storm water drains. But the sheer audacity of these sinister machinations has stumped many seasoned lake rejuvenation campaigners.

Wonders Dr T V Ramachandra from the Centre for Ecological Sciences, Indian Institute of Science, "How did they manage to get ownership of these lakebeds? Don't people understand that the lakebeds and wetlands act as a sponge, not allowing water to flood the surrounding areas?"

Last week's deluge is the latest proof of what unimaginable destruction this blatant violation of nature's rules can trigger. As Dr Ramachandra explains, the Hulimavu-Agara-Begur-Madiwala-Bellandur lake chain is part of the Koramangala-Challaghatta Valley along which water once used to flow naturally.

The city's unbridled growth without proper planning by the BDA and strict monitoring by the BBMP and the Karnataka State Pollution Control Board (KSPCB) has meant only this: The Valley system, once networked seamlessly through feeder canals, wetlands and SWDs, has been thoroughly compro-

Bengaluru has 850 km of SWDs. Of these, he says, 370 km are now encroached. Illegal takeover of wetlands has been worse. In one violation by a reputed builder that hit national headlines, the wetland stretch between Agara and Bellandur lakes was levelled for a massive realty project.

Desilting issues

Lack of routine desilting is another critical issue. Opposition party leader in the BBMP council, Padmanabha Reddy, he says, had asked the Palike higher officials to desilt all the drains right after the Chennai floods. "However, no action was taken. The silt remains uncleared from SWDs," observes Reddy.

Former Yediyur councillor N R Ramesh notes that BBMP had spent Rs 9 crore just to conduct the survey of encroachments, but actual work remains incomplete. The civic agency, says he, lacks dedication and is inefficient in work. No action is taken against big builders guilty of encroachments as they are protected by a powerful lobby of politicians and Palike officials. That says it all!

Rasheed Kappan

Blocked drains stumped Kodichikkanahalli

dents have had their houses flooded over a dozen times since 2005. But last month's shock has been their worst.

Located between Madiwala lake in the downstream and Hulimavu, Arekere and Akshayanagar lakes in the upstream, Kodichikkanahalli is a low-lying area with several apartments and independent

Siddaramaiah ordered an inquiry into the legality of these buildings and action against officers who approved the building plans, the hapless residents are in mortal fear of another downpour

happen. Here's why: There are two canals adjacent to Duo and Anugraha layouts in Bommanahalli that interconnect the

The floods were waiting to

Ten years ago, the BBMP had proposed to build a Storm Water Drain (SWD) to allow smooth flow of excess water from Hulimavu lake to the downstream Madiwala lake. But the project hit a roadblock after a few residents obtained a stay from the court, recalls Sethu Madhav, a retired gov-

ernment employee from Anu-

er, water flow in these canals

has been blocked due to en-

croachments and accumula-

tion of accumulation of silt and

weeds. Nothing has been done

to clear the blocks.

graha layout. The old rajakaluve (SWD) was not wide enough to divert the excess flow of water. The BBMP did begin building an SWD from Hulimavu lake through the BDA layout, which was 2.5-km long and about 20foot wide. However, it stopped barely 360 meters away from Madiwala lake. Reason: It had to pass through Duo Layout and the residents approached the court

court vacated the stay, the Palike could not restart work due to opposition from the residents. Manoj Bhandary, a resident of DUO layout, explains that the drain design shows its height is much higher than the

our houses even if the lakes do not overflow. We had a genuine reason to oppose the project,"

If completed, the drain could potentially solve half the problem. Seventy-year-old resident, Madhav talks about another solution: "There is a bund built on the periphery of Madiwala lake on the other side of Anugraha layout to stop the inflow

2005. There is no outlet for the excess water to flow. The difference in terrain is flooding the area and this could be solved if BBMP applies its mind," he

Sarakki lake floods

opines.

A week after the floods, residents staying close to Sarakki lake and surroundings are yet to recover from the flood shock.



In 2014, even though the of sewage. If the bund's height They now know what caused is reduced, there is a way for water to flow outside the residential area," he notes.

Dr D Muralidhar, professor at NIMHANS who stays in the locality, prefers a permanent solution. "We are seeing floodhomes of relatives. For instance,

their roads, drains and manholes to be totally under water: Blocks in the SWD near the lake

Excess water from Sarakki lake had flooded their houses forcing them to take refuge in

odichikkanahalli resi-houses. Even as Chief Minister up and down streams. Howev-houses. "This would submerge like situations since October, Mahadev A, a resident of Sarakki Gardens is staying alone at his house while his wife and two children have shifted. "I am eating out as the kitchen is in total mess. My wife and children do not want to stay in this house as water is still not pumped out

completely," he says. Another localite, Madhu M points out that there is no outlet from where the excess water from Sarakki lake can flow into.

"The rainwater remains stagnant at the lake and to make things worse, most of the side drains are blocked. The excess water is supposed to reach Madiwala lake from here. But it is not happening," he explains.

BBMP Joint Commissioner, Bommanahalli zone, Muniraju informs that the flooding took place mainly due to blockage of SWD near Ganapathi temple, close to Sarakki lake. "A stretch of about 100 metre near the drain was blocked due to which excess water from the lake ceased to flow into SWD. We have now sorted out the problem," he adds. While the Palike claims to have solved the problem, the fear of floods during rain continue to linger in the minds of the affected citizens.

Naveen Menezes

CENTRUL WATER COMMISSION

News item/letter/article/editorial-published on thought - 9.8.2016 in the

Hindustan Times

Statesman

The Times of India (N.D.)

Indian Express

Tribune

Tribune Hindustan (Hindi) Nav Bharat Times (Hindi)
Punjab Keshari (Hindi)
The Hindu
Rajasthan Patrika (Hindi)
Deccan Chronicle

M.P.Chronicle
A a j (Hindi)
Indian Nation
Nai Duniya (Hindi)
The Times of India (A)
Blitz

and documented at Bhagirath(English)& Publicity Section, CV/C.

New dam to help quench Capital's thirst by 2023

Deccan Herald

Prithviraj Singh & Mallica Joshi

* letters@hindustantimes.com

DEHRADUN: A new dam will be constructed on Tons river, a tributary of the Yamuna, on the Himachal Pradesh-Uttarakhand border to meet nearly two-thirds of Delhi's projected additional demand for water by 2023.

The governments of the two hill states recently signed an agreement to begin work on the ₹9,000-crore Kisau Hydropower Project – to be developed about

60 km north of Uttarakhand capital Dehradun – in the next six months. Once completed in 2023, the dam will supply 372 million gallons of water every day to Delhi – besides meeting the drinking water and irrigation needs of Haryana, Uttar Pradesh and Rajasthan.

According to official estimates, Delhi's water demand is projected to rise from the present 900 million gallons per day to 1,500 million gallons by 2023. "The national capital will be

the biggest beneficiary. A huge proportion of its demand for additional drinking water will be met," said SN Verma, managing director of the Uttarakhand Jal Vidyut Nigam Limited – the agency in charge of commissioning the project. Water from the dam will transported to beneficiary states through the Yamuna.

Officials in the Delhi government believe the project has come as a godsend for the city. "Our summer water woes can be wiped out with this water... it

will be a relief. We are, however, looking at ways to increase water production in Delhi itself. The idea is to reduce dependency on other states by saving and recycling water," said a senior Delhi Jal Board official.

Though the project has been hanging fire for the last 12 years, the Union water resources ministry began pushing for the dam in recent months because it would address the needs of four states.

CONTINUED ON PAGE 6

New dam

Officials said it was finally clinched with Uttarakhand accepting a key demand that it share 50% of the 660 MW of electricity generated through the project with Himachal Pradesh, and pay for the relocation of villages that get submerged. The agreement was inked on June 20, following which both the state cabinets gave their approval.

While the Centre will bear 90% of the project cost, the remaining will be shared by the two states. The Uttarakhand government is expected to seek environment clearance for the project soon.

State government officials don't think the project will face any legal hurdles, considering that it is coming up on a tributary of the Yamuna. Proposals for setting up half-a-dozen hydro projects on the Ganga are being reviewed by the Supreme Court.

Activists, however, believe the project would be an ecological disaster because it would submerge hundreds of acres of land in both Uttarakhand and Himachal Pradesh.

Covaring 1 1 YES

News item/letter/article/editorial published on Quay- 9.8-2015 in the

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

Nev Bharat Times (Hindi) Funjab Koshari (Hindi) The Hindu Rajasthan Fatrika (Hindi) Deccan Chronicie Deccan Herald

M.P. Chronisle Aaj (Hindi) Indian Nation Nai Duniya (Hindi) The Times of India (A) Elliz

and documented at Bhagirath(English)& Publicity Section, CV/C.

No action on NGT plan for Yamuna

Year After Tribunal Offered Solution, Work Delayed As State & Central Agencies Give Excuses

TIMES NEWS NETWORK

New Delhi: More than a year after the National Green Tribunal (NGT) came up with a solution to Yamuna's pollution problem, agencies are yet to implement it.

A number of excuses were given by both state and central agencies about funding and execution of the project. NGT in its order published on Monday observed that objections were raised on "frivolous and casual grounds and ultimately the judgment itself was made a subject of deliberation".

The Centre's Yamuna Action Plans (YAPs) in which close to Rs 2,000 crore has already been spent have failed to reduce pollution levels in the river, as is evident from data released by CPCB and DPCC.

The tribunal laid out the "Mailey Se Nirmal Yamuna revitalisation plan 2017" last year in response to activist Manoj Mishra's application on conserving the Yamuna floodplains and cleaning its water. The plan focused on plugging the discharge of untreated sewage into the river through a network of decentralised sewage treatment plants (STPs).

"It appears to the tribunal that environment and public health have received least priority ...the sufferer is the public of Delhi and the city's environment," the bench observed adding, "We are really unable to understand the attitude of extreme non-cooperation, shifting of blame and continuous fault finding..."

NGT said before initiating contempt proceedings or other coercive directions, it would give the agencies another chance to implement its January 13, 2015 order, which lays out in detail the points for STPs to be set up, laying of sewer lines and upgrade of sewer systems, among others.

In the phase 1, the two feeder drains — Najafgarh and Delhi Gate, which contribute to 64% of pollution in Yamuna — were to be taken up. This was to be funded by DJB, National Mission for Clean Ganga (NMCG), DDA and the ministry of urban development (MoUD).

The NGT order on June 3. 2016 said the payment would be done in design-build-operate (DBO) mode. In fact, the detailed project report (DPR) and tenders were invited by

DIRTY FOREVER?

TTO-9- Pale (

On May 8, 2015, NGT ordered clean-up of Najafgarh and Delhi Gate drains that cause 63% of pollution in the Yamuna in Delhi. Though on the priority list under phase 1 of Mailey Se Nirmal Yamuna 2017, work is yet to start due to lack of funds



AGENCIES AND ACTION

NGT even specified various agencies' role in implementing the order

- > DJB to invite tenders within 45 days of the order and complete the project in 2016
- ➤ DPCC to ensure all effluent treatment plants operate to optimum capacity; a CPCB report recently highlighting how existing STPs are running largely under capacity
- DSIIDC to make sure all industries discharge trade effluents only in designated drains
- Irrigation and flood control department to dredge both

drains in coordination with DJB

- ➤ DJB, DDA and revenue department to take possession of land for new sewage treatment plants (STPs) in four weeks
- ➤ All new STPs to release effluent following prescribed standards notified by CPCB
- ➤ DJB and DSIIDC to introduce online monitoring system at specified observation points through DPCC

MONEY MATTERS

₹3,659 crore to come from water resources ministry under National Mission for Clean Ganga, urban development ministry, DJB and Delhi government

Agencies to fine anybody throwing waste into the river ₹5,000 as per NGT's earlier orders

Civic agencies to collect an environmental compensation from every household generating sewage

and Papan Kalan had been stuck because of "unreasonable obstructive approach of stakeholders". It also noted that a new STP of 70 MGD was coming up at Coronation Pillar and an old plant of 10 MGD capacity would be upgraded, which together would help achieve pollution standards.

This is not the first time that agencies have delayed the efforts to clean up Yamuna. NGT's earlier orders have also not been followed up for a variety of reasons.

The tribunal in its May 8, 2015 order had specified that the DPCC will ensure that all existing STPs run on optimum capacity. A recent report by CPCB in response to NGT's order has revealed that 31 of the 40 sewage treatment plants in the city are unable to treat sewage according to the new pollution norms.

Experts also point that implementation of orders like prosecuting anyone caught throwing waste in the river is poor. "DDA was given the charge of imposing a fine of Rs 5,000 on people caught throwing waste in the river. There is no data on how many were fined eventually. NGT's order had great potential to solve all the problems facing the river, including ecological flow, floodplains and water quality. Unfortunately agencies didn't share the same spirit," Mishra said.

DJB in DBO mode but the Centre continued to insist on annuity mode of payment-—disbursal of a certain amount on the basis of the annu-

NGT observed that if the

mode of payment was changed at this stage, there could be serious escalation of cost. and the efforts of DJB and the tribunal would go waste. It said that rehabilitation of peripheral sewer lines for drawing sewage from Nilothi

al appraisal—instead of giving all at one go.

News item/letter/article/editorial published on 2/6908-9-8206 in the

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

Nev Bharat Times (Hindi)
Funjab Kashari (Hindi)
The Hindu
Rajasthan Fatrika (Hindi)
Deccan Chronicle
Deccan Herald

M.P.Chronicle
A.aj (Hindi)
Indian Nation
Nai Duniya (Hindi)
The Times of India (A)
Elliz

and documented at Bhagirath(English)& Publicity Section, CV/C.

Wet spell not over, rain to stay erratic

NewDelhi: Widespread moderate rains that were predicted for Delhi on Monday and Tuesday gave the city a miss as the Met department downgraded the severity of the next spell of rain over the city.

As per the latest forecast, fairly widespread rain is expected over Delhi and neighbouring areas on Wednesday and Thursday with scattered, isolated showers to affect the region on Tuesday and Friday.

The last spell of widespread rain occurred over Delhi on August 2 when 14. 4 mm rain was recorded.

Monday's maximum temperature went up to 36.7 degrees Celsius while the minimum was 28.6 degrees Celsius, both two degrees above normal.

This was coupled with a high level of humidity ranging from 55% to 87%.

"Delhi will see a generally cloudy sky with light rain or drizzle likely to occur in some areas till August 11," said a Met official. TNN

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

Punjab Keshari (Hindi)
The Hindu
Rajasthan Patrika (Hindi)
Deccan Chronicle
Deccan Herald

Aaj (Hindi)
Indian Nation
Nai Duniya (Hindi)
The Times of India (A)
Ellis



and documented at Phagirath(English)& Publicity Section, CV/C,

Bridge collapse: Search continues for missing, 3 days after accident

Mahad tragedy: 9 more bodies found

RAIGAD/MUMBAI, DHNS: Nine more bodies and vehicle parts were fished out from the Savitri river amid inclement weather and strong currents on Friday.

Searches continued for other missing persons three days after the Mahad-Poladpur bridge on the Mumbai-Goa Highway was washed away following heavy rains in the Mahabaleshwar area.

"Till now, we have recovered 22 bodies and identified 21," Raigad District Collector and Magistrate Sheetal Teli-Ugale said on Friday evening.

Maharashtra Chief Minister Devendra Fadnavis on Thursday night had said that 42 persons were involved in the accident, including 26 persons travelling in two state transport buses and rest in cars and SUVs. Till Thursday evening, 13 bodies were recovered. On Friday, joint teams of the Indian Navy and NDRF recovered nine more bodies.

Because of strong winds, the helicopter operations were not conducted, but rescuers continued to search the area on river rafts and gemini boats. They also used magnets and grapnels to lift metal pieces.

Meanwhile, some vehicle remains were found which appeared to be that of a SUV and a small mangled piece that could be of a bus.

However, officials refused to confirm whether it is of the ill-







MONSOON FURY: A waterlogged railway station after heavy downpour in Mumbai on Friday; (2) A man helps his sons along a flooded street in Mumbai; (3) A man walks past a stranded bus on a flooded road. DH PHOTO/PTI/REUTERS

fated vehicles that they were looking at.

The search and rescue oper-

ation would continue on Saturday, officials said, adding that they would widen the circle of

search once again. The fishermen community also joined the operation and put up nets along

some of the bridges on the river so that bodies do not get carried towards the Arabian Sea.

Bihar toll rises to 89

The toll in Bihar flood rose to 89 with 25 more deaths reported on Friday, even as the flood situation eased in parts of Assam and West Bengal, PTI reports from New Delhi.

Heavy to very heavy rain is forecast at a few places over Uttarakhand, Madhya Pradesh, Assam, Meghalaya, West Bengal, Sikkim, Himachal Pradesh, Jharkhand, Maharashtra and Karnataka.

The national capital witnessed a sultry day with the mercury settling at 36.8 degrees Celsius, three notches above normal for this time of the year. The minimum temperature was recorded at 26 degrees Celsius and the weatherman has predicted a sultry Saturday with no possibility of rain. In Bihar, the flood-related death toll rose to 89 with 25 casualties being reported on Friday as 33 lakh people in 14 districts remain affected. Ganga and Ghaghra rivers are flowing above danger mark in Kahalgaon (Bhagalpur) and in Siwan district respectively. Rohtas district received heavy rainfall even as other regions witnessed light to moderate showers.



Silver scales and survival ladders: the hilsa recipe

On August 4, Water Resources Minister Uma Bharti told Lok Sabha that the government was planning to create "fish ladders" in the Ganga near the Farakka Barrage to help hilsa travel upstream to spawn — hopefully improving the catch. KAUSHIK DASGUPTA explains the journey — and the crisis — of West Bengal's most beloved fish

SIMPLYPUT

Is the hilsa (Tenualosa ilisha) a sea or a river fish? Where is it found?

It is what is called an anadromous species - like the salmon, sturgeon and shad, it is born in fresh water, spends most of its life in the sea and returns to fresh water to spawn. The bony fish, with silver scales and a faint streak of pink on its belly, is found in marine, estuarine and riverine environments. The Bay of Bengal, Indian Ocean, and Arabian Sea are its marine homes; the rivers Ganga, Bhagirathi, Hooghly, Brahmaputra, Rupnarayan, Narmada, Cauvery and Godavari are its spawning grounds. The fish also goes to the Indus in Pakistan, Irrawaddy in Myanmar and Bangladesh rivers like Padma, Jamuna, Meghna and Karnaphuli to lay eggs. However, it's in eastern India and in Bangladesh to a lesser extent in Sindh, Pakistan — that the fish attains cult status in gastronomy.

So, at what time is the hilsa on the move?

The hilsa's upstream migration begins in late June and continues until mid October to early November. A second wave of migration occurs from late January to March/early April. The spring spawners return to the sea during the monsoon, where fishers are lying in wait for them. Their cousins who lay eggs in the monsoon return to the sea in late winter and spring — their journey too ending in fishing nets. The hilsa is at its tastiest at this stage: the stay in river waters imparts sweetness to the flesh and reduces its otherwise salty taste to a whiff — and for Bengalis, when combined with mustard, chilly and some other spices, it makes for a lip-smacking *mélange*.

And how far upstream does it travel?

It's a long-distance swimmer that's been known to travel 1,200-1,400 km from the Bay of Bengal — up the Hooghly and then the Ganga up to Patna and Varanasi, and sometimes even Allahabad, Kanpur and, up the Yamuna to Agra. Back in 1822, Francis Buchanan Hamilton, the Scottish physician who made seminal contributions to Indian zoology and botany, noted, "I have seen [the Ilisha] as high as Agra and Cawnpore. At Patna on the Ganges, and Goyalpara on the

DECIMATED...

In the middle Ganga, average annual production declined from 36 TONNES in the 1960s to merely 0.9 TONNES in 2013

...& BARRAGED

1957-1972 (PRE-FARAKKA): Average annual yield from the Bhagirathi-Hooghly system was around 1,400 tonnes

1975-1999 (POST-FARAKKA):
Average annual yield rose to
6,000 tonnes, mainly because a
huge number of mechanized
fishing vessels with gill nets
trapped even juveniles in the
Hooghly's estuarine zone

2002: Yield spiked massively to 76,000 tonnes

2012: 10 years later, it was down to 20,000 tonnes, and has gone downhill ever since

2013-14: 18,000 tonnes

2014-15:9,000 tonnes

Source: Hilsa data from the Central Inland Fisheries Research Institute

Brahmaputra, it is pretty common." A little over a century later, colonial fishing expert Stanley Howard, while confirming Hamilton's observations, wrote: "During the monsoon the adult fish ascend the Hooghly... for the purpose of spawning. The spawn is deposited from about the middle of July to the middle of September, and rivers continue to be the home of these fish until the middle of November when the fish return to the sea. Having deposited their spawn the older fish, or what remains of them, meet their fate in nets. The young fish after about two months' stay in the sea, add considerably to their size and weight, and towards the end of December they return to the estuaries."

Where does the Farakka Barrage come in?

The commissioning of the Farakka rivers including the Teesta in India.

Barrage in 1975 in West Bengal's Murshidabad district intercepted the hilsa's journey. The fish could no longer move beyond West Bengal. Central Fisheries Research Institute records show that rarely do hilsa manage to make their way to Patna, and have not been seen in Allahabad for decades now. Two "fish passes" that could have facilitated the hilsa's movement across the barrage never worked. On the other hand, as the hydrologist Parimal Ray wrote in his 1998 book Ecological Imbalance of the Ganga River System: Its Impact on Aquaculture, "There is a heavy congregation of the fish below the barrage and they are indiscriminately caught before they can breed."

But what are the fish ladders that Minister Bharti mentioned?

A fish ladder, or fishway, is essentially a structure that allows migrating fish passage over or around an obstacle — dams, culverts, waterfalls — on a river. Fishways give anadromous fish — whose survival depends on migration — a detour, and have been considered critical in keeping up fish stocks. Fish ladders are common in the US, and are of designs that depend on the obstruction, river flow, and species of affected fish. The general principle, however, according to the National Oceanic and Atmospheric Administration (NOAA) of the US Department of Commerce, is the same for all: "the ladder contains a series of ascending pools that are reached by swimming against a stream of water. Fish leap through the cascade of rushing water, rest in a pool, and then repeat the process until they are out of the ladder."

In 2013, however, the American ecology, anadromous fish and urban waterways expert John Waldman and six colleagues reported that fishways on rivers in the US Northeast were failing. ('Fish and hydropower on the US Atlantic coast: failed fisheries policies from half-way technologies', Conservation Letters) They tracked the journey of Atlantic salmon, American shad, river herring, and other species up the Susquehanna, Connecticut, and Merrimack rivers, and found that in some cases, less than 3% of fish made it past the dams. The study results, the Waldman wrote, had significance for proposed or planned dam projects on rivers including the Teesta in India.

Mahadayi means for Karnataka

At stake in years' old dispute among three states: drinking water for parched lands and ecological concerns in fragile Ghats. JOHNSON TA explains

AN OLD battle over the sharing of water from the Mahadayi or Mandovi river — whose basin is spread across the states of Goa, Karnataka and Maharashtra — has flared up again after the Mahadayi River Disputes Tribunal on July 27 rejected an interim plea by Karnataka to allow diversion of 7.56 thousand million cubic (tmc) feet to meet drinking water requirements in four northern districts of Karnataka. Farmers and pro-Karnataka groups called a bandh in the state on July 30 to protest the order; a similar agitation last year had stretched for over 300 days in two towns. Chief Minister Siddaramaiah has indicated he might go to court against the Tribunal's order, and at an allparty meeting held on Sunday, the entire opposition, including the BJP, pledged support to whatever decision the government takes.

The Mahadayi's water — specifically the building of a canal across two tributaries of the Mahadayi, the Kalasa and the Banduri triggers powerful emotions in the northern districts, and with Assembly elections due in 2018, the dispute is a hot button issue for both the Congress and the BJP. The districts of Belagavi, Dharwad, Gadag and Bagalkot are known as BJP strongholds — and being in power at the Centre as well as in Maharashtra and Goa has forced the party on a political tightrope walk. Siddaramaiah has in the last 6 months called twice for intervention by Prime Minister Narendra Modi — including once last week. Last year, an all-party delegation from the state had met the PM over the issue.

The dispute

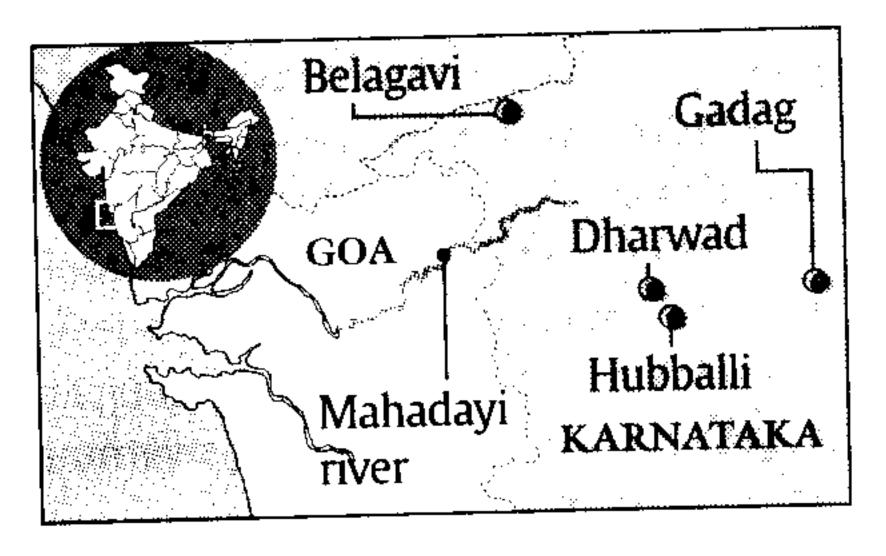
Attempts at negotiations were initiated by the central government back in 1985. A flashpoint was reached in 2002 after the government of Chief Minister S M Krishna moved to implement a long pending drinking water project by building a canal across two tributaries of the Mahadayi, the Kalasa and the Banduri. The Kalasa-Banduri project aimed to divert 7.56 tmc of water from the Mahadayi to the Malaprabha river to service the drinking water needs of parched Belagavi, Dharwad and Gadag. The NDA government at the Centre cleared the project, but it was opposed by the BJP government of Manohar Parrikar in Goa at the time.

Goa approached the Centre in 2002 seeking a Mahadayi Water Disputes Tribunal to assess "available utilisable water resources in the basin at various points and allocation of this water to the three basin states keeping in view priority of the use of water within basin". It argued that the Kalasa-Banduri project would cause immense damage to fragile ecosystems in protected areas of the Western Ghats in Goa. In the face of Goa's protests, the Centre put the final clearance for the Kalasa-Banduri project on hold.

for the Kalasa-Banduri project on hold.
After the JD(S)-BJP coalition took power,
Chief Minister H D Kumaraswamy decided
to start construction on the project at
Belagavi in September 2006. Goa went to the



The Mahadayi river is known as the Mandovi in Goa (above); the course of the river on its way to the sea Archive



Supreme Court seeking the creation of a Tribunal to settle the water-sharing issue. With no prospects of a negotiated agreement in sight, the UPA government eventually set up the Mahadayi Water Disputes Tribunal on November 16, 2010.

Karnataka believes drinking water requirements should get precedence in legal disputes, and that since much of the water of the Mandovi eventually empties into the sea, courts would be in favour of allowing the project to go on. "The farmers in the region of the Malaprabha project (where the Mahadayi water will be diverted) are losing their patience... As I have already intimated to you, the Hon'ble Chief Minister of Goa has not reacted favourably to my suggestion to resolve the Mahadayi water disputes through negotiations. I believe a mediated solution is possible under your leadership," Siddaramaiah wrote to the PM on August 3.

The way ahead

Legal experts in Karnataka are of the view that the Mahadayi Tribunal has only issued interim orders that are not likely to have a bearing on the final verdict, since many of the technical issues are yet to be assessed fully. The government has decided to approach the courts again through its legal consultant for water disputes, Fali S Nariman. The government is also of the view that the dispute can be resolved faster through mediation if Modi were to intervene to bring the states to the negotiating table. The Karnataka House had passed an unanimous resolution on March 30 this year seeking a resolution through mediation.

News item/letter/article/editorial published or 2/6905-9.8-20/jn the

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

Nav Bharat Times (Hindi)
Punjab Kashari (Hindi)
The Hindu
Rajasthan Patrika (Hindi)
Deccan Chronicle
Deccan Herald

M.P.Chronicle
A a j (Hindi)
Indian Nation
Nai Duniya (Hindi)
The Times of India (A)
Elitz

and documented at Bhagirath(English) & Publicity Section, CV/C.

Eleven bridges, barrages remain submerged in Belagavi district

SPECIAL CORRESPONDENT

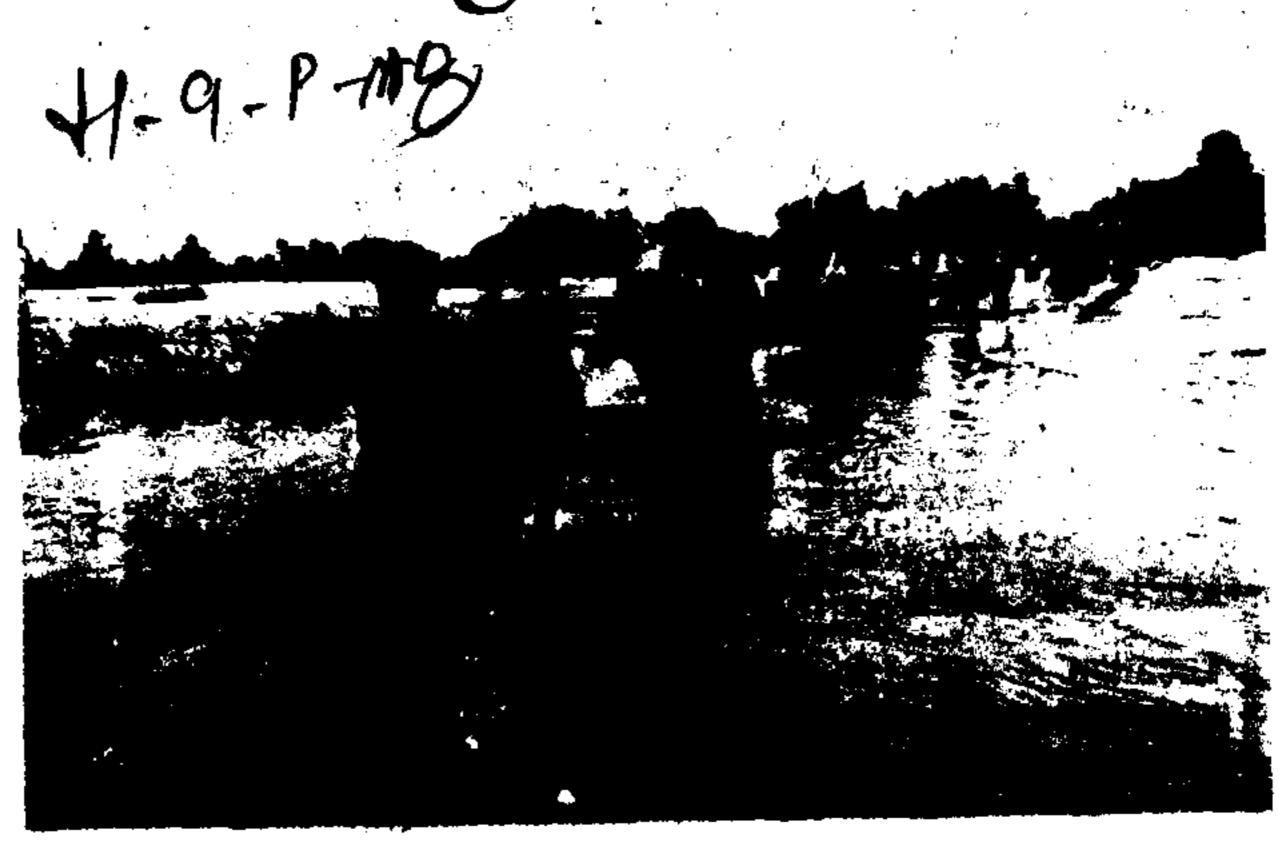
BELAGAVI: As many as 11 bridges and barrages remain submerged in Chikkodi and Athani taluks of the border district of Belagavi owing to incessant rain and release of water from the reservoirs into the Krishna and its tributaries.

There is no relief from the submergence so far though the rain has receded in catchment areas. As per preliminary reports, over 5,000 hectares of agricultural fields have been under water for more than a week, which could result in yield loss. Official sources said they were assessing the actual loss.

Shifted to safer places

So far, 50 families residing on the banks of the Krishna and Doodhganga rivers have been shifted to safer places. A total of 65 boats, including 10 mechanised, besides a rescue team comprising 30 members from the National Disaster Response Force are ready to take up rescue and relief operations in the event of flash floods.

Belagavi Deputy Commis-



TEMPORARY SHIFT: Families moving to a safer location, along the banks of the Krishna in Ingali village of Chikkodi taluk in Karnataka on Monday. — PHOTO: SPECIAL ARRANGEMENT

sioner Jayaram and officials of Chikkodi taluk maintain that there are no floods at present, but the rivers and barrages have swollen due to large inflow of water from Maharashtra in the preceding week. The water level at Almatti dam and Hipparagi barrage across the Krishna are being maintained to avoid flooding.

The Jatrat, Sidnal, Malik-wad, Bhojwadi, Karadga, and Kallol barrages and Examba bridge in Chikodi taluk remained closed for the fifth day. The Kudachi and Chin-

chali barrages in Raibag taluk and low-lying Ugar and Kusnal barrage-cum-bridges of Athani taluk also remained closed for the second day on Monday.

The public used alternative roads as they had been advised against taking the over-flowing barrages, bridges and roads.

Water from Almatti

Mr. Jayaram said 1,82,000 cusecs of water was being released from Almatti dam and 2,08,000 cusecs from all 22 gates of Hipparagi barrage.

Bridges remain submerged in Belagavi

VIJAYKUMAR PATIL

BELAGAVI: As many as II bridges and barrages remain submerged in Chikkodi and Athani taluks of Belagavi owing to incessant rain and release of water from the reservoirs into the Krishna and its

tributaries. There is no relief from the submergence so far though the rain has receded in catchment areas.

As per preliminary reports, over 5,000 hectares of agricultural fields have been under water for more than a week, which could result in

yield loss. Official sources said they were assessing the actual loss.

Shifted to safety

So far, 50 families residing on the banks of the Krishna and Doodhganga rivers have been shifted to safer places. News item/ietter/article/editorial published ork

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

Nev Bherat Times (Hindi)1 Punjab Keshari'(Hindi) The Hindu Rejesthen Petrika (Hindi) Deccan Chronicle Deccan Herald

M.P.Chronicle Aaj (Hindi) Indian Nation Nai Duniya (Hindi) The Times of India (A) Elliz

and documented at Ehagirath (English) & Publicity Section, CV/C.

Prachi.Yadav@timesgroup.com

एनजीटी: मैली से निर्मल यमुना रीवाइटलाइजेशन प्रोजेक्ट-2017 को लेकर केंद्र और राज्य सरकार के रुख पर नैशनल ग्रीन ट्रिब्यूनल (एनजीटी) ने अफसोस जाहिर किया है। ट्रिब्युनल ने अपने आदेश को अंतिम बताते हुए अधिकारियों और सभी संबंधित पक्षों को साफ तौर पर चेतावनी दी है कि इस काम में रुकावट पैदा करने के लिए उनके की सजा तक शामिल है।

एनजीटी अध्यक्ष जस्टिस स्वतंत्र कुमार की अगुवाई वाली बेंच ने 12 पन्नों के पब्लिक हेल्थ को सबसे कम तवज्ञो दे अपनै आदेश में सरकारी रवैये के प्रति रहे हैं, फिर चाहे वह राज्य सरकार हो या नाराजगी जताई है। बेंच ने कहा कि दिल्ली सरकार हो या केंद्र, दोनों पर एनजीटी का आदेश पूरी ईमानदारी से लागू करने और है। बेंच ने कहा कि यह बेहद दुर्भाग्यपूर्ण तय समय पर प्रोजेक्ट को पूरा करने की जिम्मेदारी थी। लेकिन आज तक जजमेंट या प्रोजेक्ट पर सही दिशा में काम आगे नहीं बढ़ा। इसके बजाए एक-दूसरे को रिहैब्लिटेशन का या फिर एसटीपी लगाने सहयोग न करने और अपनी-अपनी का। दिल्ली सरकार के अधिकारी ही या खिलाफ सख्त कार्रवाई होगी, जिसमें जेल जिम्मेदारी से पल्ला झाड़ने का काम केंद्र के, डीडीए के हो या डीजेबी के, सब हो रहा है। ग्रीन बेंच के मुताबिक, हमें हाथ पर हाथ धरे बैठे हुए हैं।

लगता है कि संबंधित लोग पर्यावरण और केंद्र। इसका खामियाजा दिल्ली की जनता और एनवायरनमेंट को भुगतना पड़ रहा है कि अभी तक प्रोजेक्ट से जुड़ा कोई भी काम शुरू नहीं हुआ है। चाहे वह सीवर लाइन बिछाने का काम हो, सीवर लाइन

News item/letter/article/editorial published on

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

Nav Bharat Times (Hindi)
Punjab Kashari (Hindi)
The Hindu
Rajasthan Patrika (Hindi)
Deccan Chronicle
Deccan Herald

M.P.Chronicle
A = L (Hindi)
Hidian Nation
Nai Duniya (Hindi)
The Times of India (A)
Elitz

and documented at Bhagirath(English)& Publicity Section, CV/C.

देश में उपजी जल समस्या...

निदयों का राष्ट्रीयकरण ही समाधान

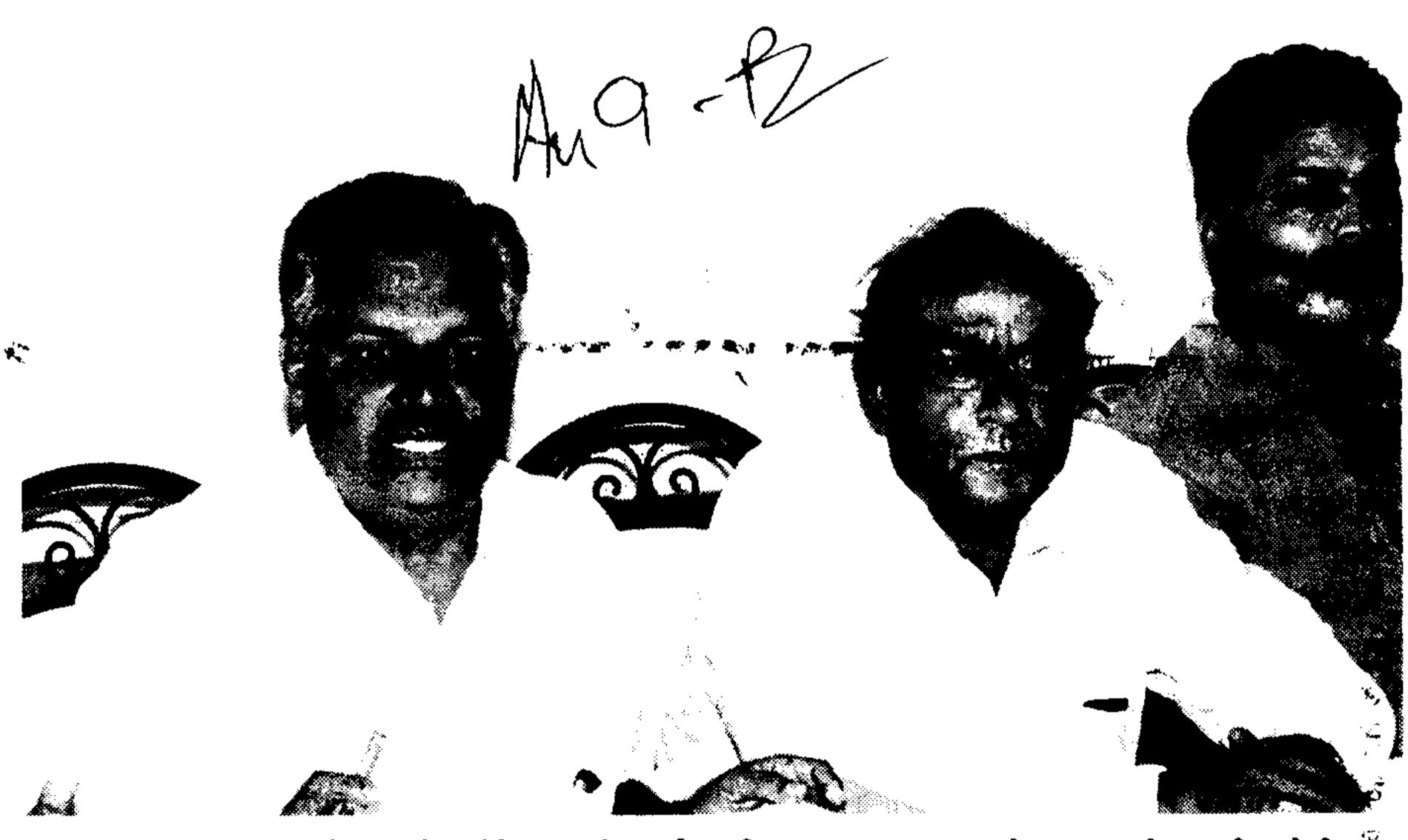
पत्रिका न्यूज़ नेटवर्क

rajasthanpatrika.com

धारवाड़. कर्नाटक विचारक मंच के अध्यक्ष पी.एच नीरलकेरी ने कहा कि देश में उपजी जल समस्या के लिए नदियों का राष्ट्रीयकरण एक मात्र समाधान है।

शहर में आयोजित संवाददाता सम्मेलन में नीरलकेरी ने कहा कि देश में 65 प्रतिशत पानी की मांग को गंगा तथा ब्रह्मपुत्र निदयां ही पूरी कर सकती हैं। इसी प्रकार अंतरराष्ट्रीय जल नीति के अनुसार पानी पर कोई भी अपना अधिकार नहीं जता सकता। नदी किसी इलाके में जन्म लेने के बावजूद वह आगे बहकर विभिन्न क्षेत्रों से होकर गुजरती है, इसलिए पानी पर हर एक का अधिकार है। इसके चलते निदयों का राष्ट्रीकरण कर इसके बंटवारे को उच्चतम न्यायालय के न्यायाधीश की अध्यक्षता में समिति का गठन कर फैसला ले सकते हैं।

उन्होंने कहा कि अगर देश की सभी निदयों को जाड़ा गया तो कर्नाटक को 283 टीएमसी पानी मिलेगा परन्तु केंद्र सरकार के सौतेले बर्ताव के कारण यह सम्भव नहीं हो रहा है। भारत एक कृषि प्रधान देश होने से नदी जल का राष्ट्रीकरण करना बेहद जरूरी है। यहां 70 प्रतिशत बारिश कृ पानी बिना किसी उपयोग के समुद्र



धारवाड़ में संवाददाता सम्मेलन को संबोधित करते कर्नाटक विचारक मंच धारवाड़ के अध्यक्ष पी.एच नीरलकेरी। 🥇

अतिक्रमणकारियों के खिलाफ हो कार्रवाई

उन्होंने कहा कि यह नदी जल की समस्या है तो शहरी इलाकों में बिल्डरों ने अधिकतर तालाबों का अतिक्रमण किया है। ऐसे अवैध भवनों को हटाने के साथ अतिक्रमणकारियों के खिलाफ सख्त कार्रवाई करनी चाहिए। देश में सशक्त जल नियंत्रण मंडल की स्थापना करनी चाहिए। इसके जरिए किसानों की न्यूनतम पानी की मांग पूरी करने में मदद करनी चाहिए। उन्होंने कहा कि आज

में मिल जाता है। इसका मुख्य कारण अनियमित ढांचागत सुविधा है। इसके चलते देश भर राजनेता पानी पर राजनीति से जनता को गुमराह करने का कार्य कर रहे हैं। कार्वेश नदी मुद्दे पर पूरा तमिलनाडु पार्टी मतभेद भुलाकर एकजुट हो जाता है परन्तु कर्नाटक में पार्टियों के नाम पर राजनीति करते हैं। ऐसा नहीं होना चाहिए। जल तथा जमीन के मुद्दे पर पूरा राज्य एकजुट नहीं होगा तो कभी भी हमारी मांगें पूरी नहीं होगा। इस दिशा में जनजागृति पहुंचाने की जरूरत है।

में बांध तथा जलाशयों का निर्माण होना चाहिए। इसके जरिए बाढ़ को रोककर पानी बहाने का कार्य

कर सकते हैं। धारवाड़ उच्च न्यायालय अधिवक्ता संघ के अध्यक्ष आरडी देसाई ने कहा कि महादायी नदी जल बंटवारे के बारे में पंचाट में राज्य के पक्ष में पैस्वी कर रहे वरिष्ठ अधिवक्ता फाँसी एस नारिमन को संघ की ओर से आगामी तर्क पेश करने में सुविधा योग्य पूरक जानकारी उपलब्ध की जाएगी। महादायी का पानी मांगना कोई गलत नहीं है। संवादवंता सम्मेलन में प्रो. नागराज शिरूर, करण दोड्डवाड्, बीवी सोमापुर, प्रो. एससी मालगी, एनएम अन्सारी, जे,एस, शेट्टी, आरवी गवली उपस्थित थे। (कासं)

News item/letter/article/editorial published on

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

Nav Bharat Times (Hindi)
Punjab Keshari (Hindi)
The Hindu
Rajasthan Patrika (Hindi) (
Deccan Chronicle
Deccan Herald

M.P.Chronicle
A a j (Hindi)
Indian Nation
Wai Duniya (Hindi)
The Times of India (A)
Elitz

and documented at Bhagirath(English)& Publicity Section, CV/C.

मौसम का प्रकोप..

9-A-PP

कृष्णा उफान पर, तटीय गांवों पर खतरा

बेलगावी जिले में एक और पुल डूबा

पत्रिका न्यूज नेटवर्क rajasthanpatrika.com

हुब्बली/बेलगावी. बेलगावी, खानापुर तथा चिक्कोड़ी तालुक में रिमझिम बारिश का सिलसिला जारी है। इसके अलावा महाराष्ट्र से भारी मात्रा में पानी की आवक हो रही है। इससे कृष्णा तथा इसकी उपनिदयों में उफान आया है। नदी तट के गांवों में बाढ़ का खतरा मंडरा रहा है।

चिक्कोडी तालुक में यक्संबा-दानवाड पुल रिववार को डूब गया, जिससे सड़क संपर्क टूट गया है। इसके साथ ही चिक्कोडी तालुक में कुल सात पुल डूब गए हैं। इससे सड़क परिवहन अस्तव्यस्त हो गया है। इसके चलते लोगों को दिसयों किलोमीटर का फेरा लगाकर यात्रा करी पड़ रही है। महाराष्ट्र के राजापुर बैरेज से पानी छोड़ा गया है। इससे कृष्णा नदी के प्रवाह में रिववार को 1.80 लाख क्यूसेक की वृध्द हुई है।

बेलगावी जिलाधिकारी एन जयराम ने बताया कि चिक्कोडी तालुक के नदी तट पर स्थित इंगली गांव टापू बन गया है। अब तक 50 परिवारों को सुरक्षित जगह स्थानांतरित किया गया है। खतरे की जगह पर स्थित नदी तट के बकाया गांवों को भी स्थानांतरित करने के लिए भी जिला प्रशासन ने कार्रवाई की है।

राजस्व विभाग के प्राकृतिक आपदा प्रबंधन विभाग के सचिव

राहत केंद्र स्थापित करने की तैयारी

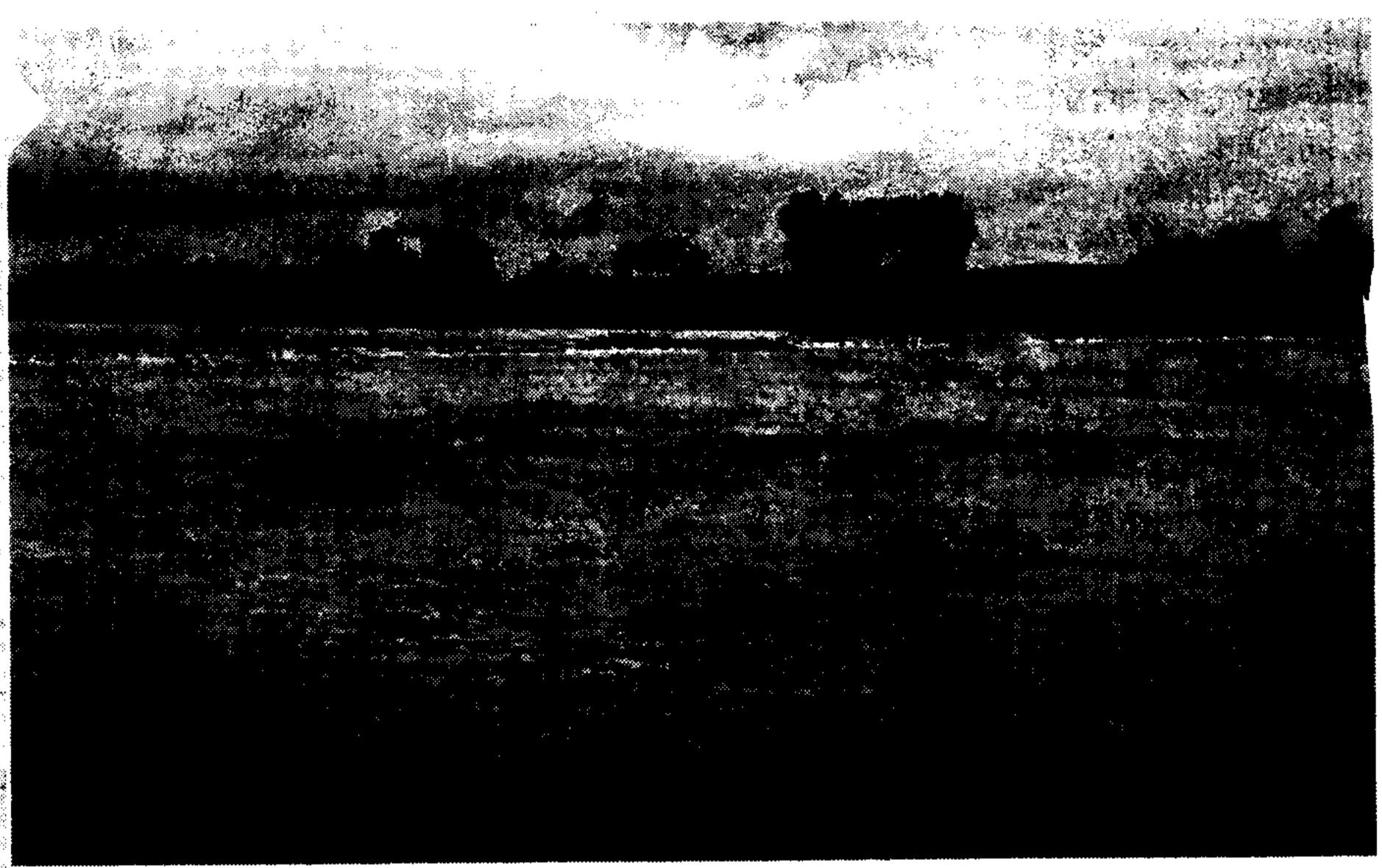
जिलाधिकारी ने बताया कि कृष्णा तथा उप नदियों में नियमित रूप से प्रवाह बढ़ने से नदी तट के बागानों की संपर्क सड़के बांध के पानी में डूब रही हैं जिससे संपर्क कट रहा है। इसके चलते लोग सुरक्षित जगहों पर रवाना हो रहे हैं। जिला प्रशासन हालात पर नजर रखे हुए है। राहत केंद्रों को स्थापित करने के लिए जिला प्रशासन ने उचित जगहों को चिन्हित किया गया है। टापू बन रहे आबादी वाले इलाकों से लोगों को सुरक्षित जगहों पर लाने के लिए नावों की व्यवस्था कर ली गई है।

गंगाराम बडेरिया ने भी इंगली समेत बाढ़ प्रभावित गांवों का दौरा कर हालात का जायजा लिया।

भीमा नदी प्रवाह में वृद्धि

विजयपुर जिले के आलमेल के समीप भीमा नदी में रिववार सुबह से ही महाराष्ट्र से भारी पैमाने पर पानी की आवक हो रही है। इससे बाढ़ का खतरा मंडरा रहा है। पानी खेतों में घुसने से भारी पैमाने पर फसल जलमग्न हो गई है। तारापुर गांव के पास कडणी पुल पूरी तरह डूब गया है। इससे कुछ गांवों का संपर्क टूट गया है। लोंगों को स्थानांतिरत करने के लिए नावों की व्यवस्था की गई है।

रायचूर तथा यादगिर जिले में स्थित कृष्णा नदी का प्रवाह थोड़ा घटा है। लिंगसूरु तालुक के



बेलगावी जिले के चिक्कोड़ी तालुक में कृष्णा नदी में आए प्रवाह में डूबा पुल।

पत्रिव

शीलहल्ली पुल पर वाहन यातायात को मौका दिया गया है। रायचूर तालुक के टापू बने गांव वंकम्मनदोड्डी, करकलदोड्डी, म्यादरगड्डी में राशन वितरित करने गए तहसीलदार शिवानंद सागर के नतृत्व के अधिकारियों को वहां के निवासियों ने वापस भेज दिया है। ग्रामीणों ने आग्रह किया कि हमें राशन नहीं चाहिए स्थाई स्थानांतरित करें, हमारे गांव के लिए पृथक सरकारी राशन की दुकान मंजूर करें।

नारायणपुर के बसवसागर जलाशय में रिववार को 491.170 मीटर पानी संग्रह हुआ है और 1.6 2 लाख क्यूसेक प्रवाह तथा 1.55 लाख क्यूसेक बहिर्वाह था। 18 क्रस्ट गेट के जिरए पानी नदी को छोड़ा जा रहा है।

जलाशयों का जलस्तर (समुद्र स्तर से)

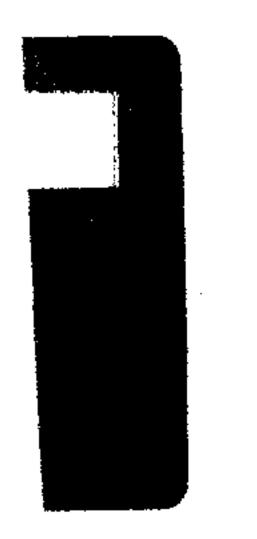
उत्संख्य	अधिकतम स्तर (फीट में)	मेजू दा स्तर	प्रवाह (वथूरोक)	बहिर्वाह (क्यूरोक)
केआरएस	124.80	97.55	9,204	7,888
हारंगी	2,859	2,857.81	2,904	1,000
क्रीबनी	2,284	2,275.4	6,740	2,000
हेमावती	2,922	2,899.66	10,804	3,500
लिंगनमक्की	1,819	1,785.40	20,399	4.88
सुपा	564	538.96	21,153	
मिण	594.35	581.91	5,270	
तुंगभद्रा	1,633	1,612.26	9,673	7,507
मलप्रभा	2,079.50	2,053.90	8,078	116
घटप्रभा	2,175	2,151.30	24,121	125
भद्रा	186	152.3	10,500	1,911
अलमत्ती	519.60	518.45	1,73,700	1,82,114

Hirdustan Times (Delhi)
अधिभारत टाईम्स (विक्ती)

The Tribune (Chandigarh)
The Hindu (Chennai)

The Assam Tribune (Guwahati)
The Times of India (Mumbai)
The Telegraph (Kolkata)
हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru)
The Deccan Chronical (Hyderabad)
Central Chronical (Bhopal)





पंजाब के भारी बारि पोंग जल पिछले दे

पंजाब के डूब वाले क्षेत्रों में भारी बारिश से भाखड़ा और पोंग जलाशयों में जल स्तर पिछले दो दिनों में 13 फुट तक बढ़ गया है। यूपी में दक्षिण-पश्चिमी मॉनसून सक्रिय है, लेकिन लखनऊ और आसपास के इलाकों में पिछले दो दिनों से बारिश नहीं हुई है।

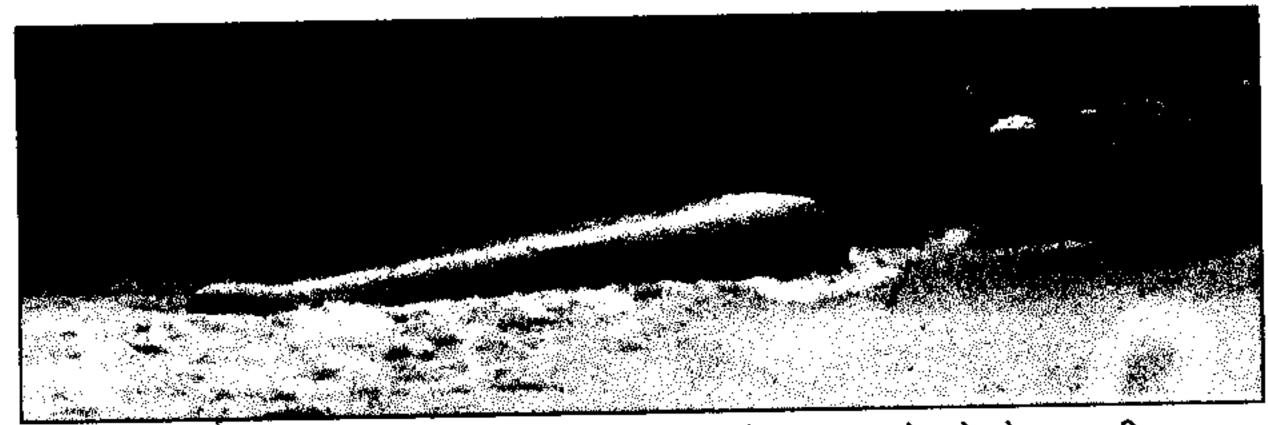
दिल्ली में सोमवार की शुरुआत उमस भरी सुबह से हुई। हालांकि आसमान में बादल छाए रहे पर बारिश नहीं हुई।



नवभारत टाइम्प > नई दिल्ली > मंगलवार, 9 अगस्त 2016 > पेज 16

जानलेवा बारिश जारी

राजस्थान में स्कूल बस नदी में गिरी, गांववालों ने बचाए 50 बच्चे



राजस्थान के भीलवाड़ा में सोमवार सुबह स्कूल के 50 बच्चों को ले जा रही एक बस्त उफनती पालका नदी में जा गिरी। ऐसा देखते ही मौके पर मौजूद तकरीबन 10 लोग नदी में कूद गए। उन्होंने बस के शीशे तोड़कर सभी बच्चों को बाहर निकाल लिया। पुल पर पानी होने के बावजूद ड्राइवर उसे पार करने की कोशिश कर रहा था। तभी बस बही। भीलवाड़ा में पिछले दो दिनों से लगातार बारिश हो रही है।



जम्मू में बाढ़, भूस्खलन से दो लोगों की मौत

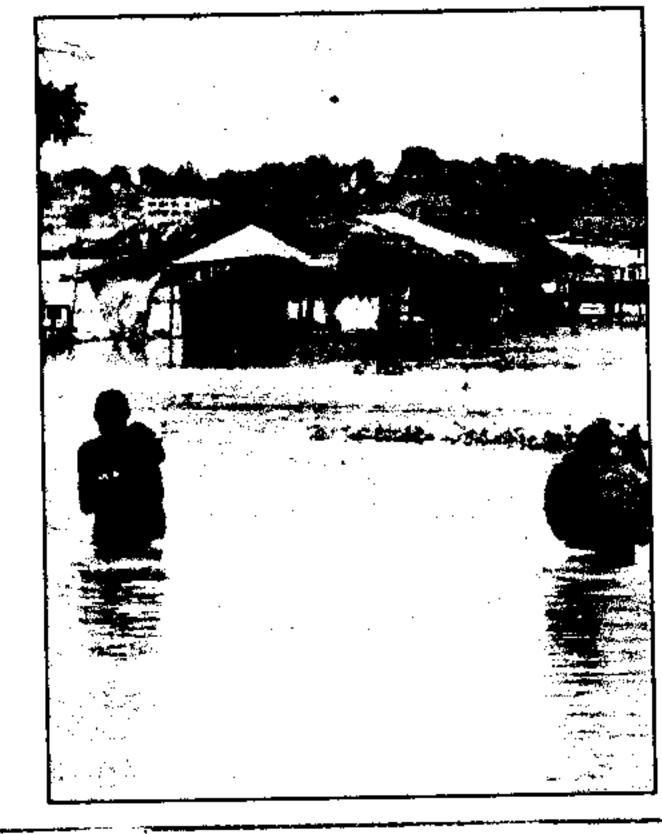
जम्मू में भारी बारिश के बाद आई अचानक बाढ़ और भूरखलन से दो महिलाओं की मौत हो गई जबिक सात लोगों को बचा लिया गया। पहली घटना कठुआ जिले के बशोली इलाके में हुई। यहां एक महिला नदी पार करते वक्त बह गई। वहीं सांबा जिले में भूरखलन होने से दूसरी महिला की मौत हो गई। कठुआ और उधमपुर में भी बाढ़ के हालात हैं।

बहती गाय को बचाने की कोशिश में युवक मरा

मध्य प्रदेश के रायसेन जिले के बम्हौरी गांव में रविवार को भारी बारिश के कारण पुलिया से गुजर रही गाय अचानक आए तेजं बहाव के साथ बहने लगी। तभी राजू जोगी (35) नाम के ग्रामीण ने नदी में छलांग लगा दी। वह गाय को किनारे लाने में (बचाने में) तो सफल तो रहा पर खुद बह गया। डेढ़ किमी दूर उसका शव मिला।

उत्तराखंड में भारी बारिश का अलर्ट

मौसम विभाग ने उत्तराखंड में अगले 48 घंटों के दौरान भारी बारिश होने की चेतावनी जारी करते हुए अलर्ट रहने की हिदायत दी है। अल्मोड़ा, चंपावत, नैनीताल, उधमसिंह नगर, पौडी, हरिद्वार और देहरादून में बहुत भारी बारिश होने की संभावना है। वहीं पहाड़ से मलबा आने के कारण राज्य का रिषिकेश-गंगोत्री राष्ट्रीय हाइवे यातायात के लिए बंद कर दिया गया है।



मेक्सिको : लैंडस्लाइड से 38 की मौत

भीषण तूफान अर्ल के बाद मेक्सिको में हुए भूस्खलन में कम से कम 38 लोग मारे गए हैं। पेबला राज्य में आमतौर पर जितनी बारिश एक महीने में होती है उतनी एक दिन में होने से कई घर जमींदोज हो गए। यहां 28 लोग मारे गए और 200 बेघर हो गए। वहीं राज्य वेराकूज में 10 लोग मारे गए। यहां की नदियां बारिश भर गई हैं।

हिनाकं रिजिया को निम्नलिखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

Hir dustan Times (Delhi)

स्थाना टाईम्स (दिख्ली)

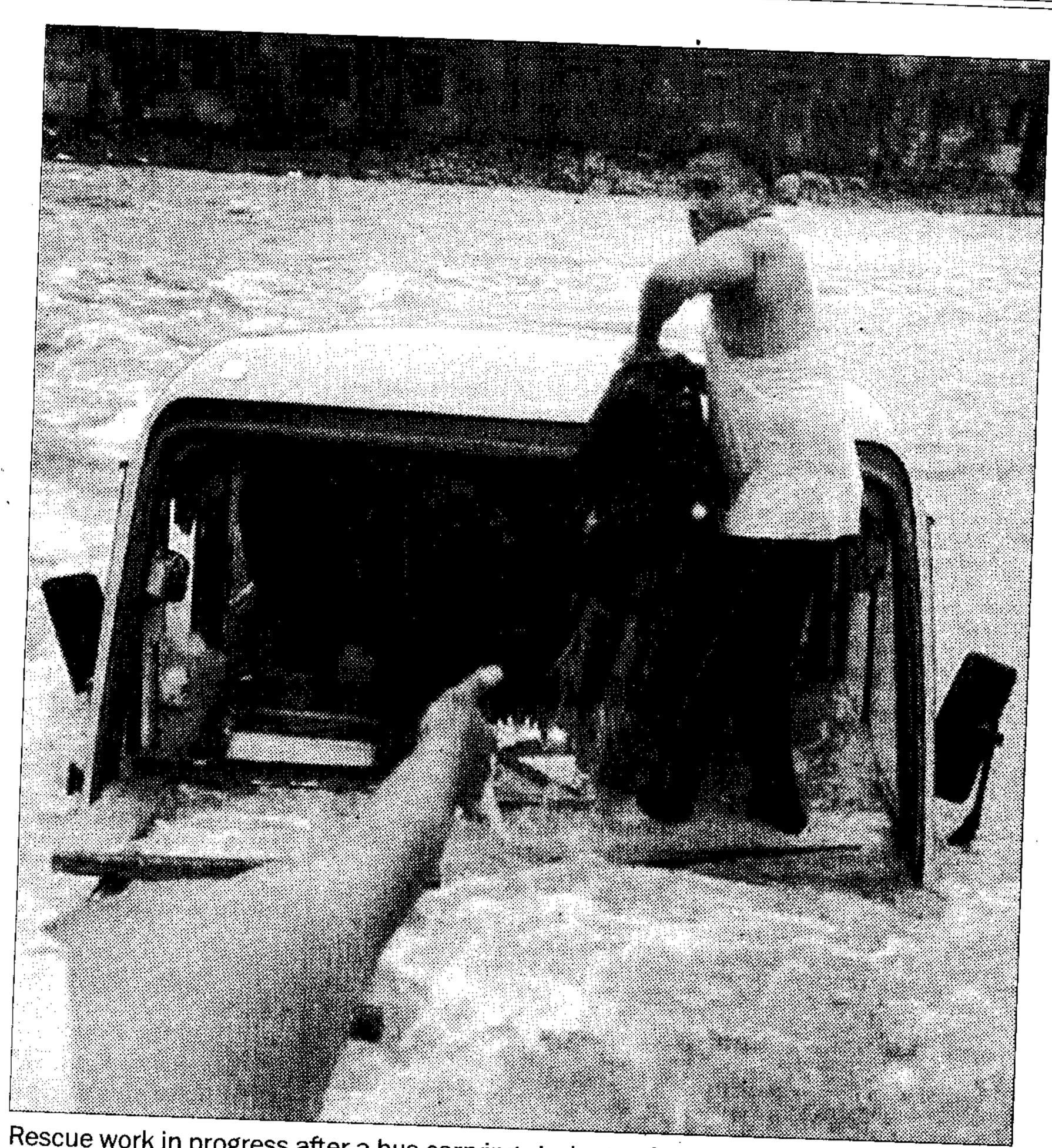
Tribune (Chandigarh)

The Hindu (Chennai)

The Assam Tribune (Guwahati)
The Times of India (Mumbai)
The Telegraph (Kolkata)
हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru)
The Deccan Chronical (Hyderabad)
Central Chronical (Bhopal)

The Tribune, 9/0/16



Rescue work in progress after a bus carrying students of a private school plunged into a river in Bhilwara district of Rajasthan on Monday. ANI

Miraculous escape for 18 students in Rajasthan

- Eighteen students had a narrow escape when a private school bus in which they were travelling fell into the "Palka" river in Bhilwara district of Rajasthan on Monday morning
- **All students, including five girls, were rescued by local villagers within half an hour, a senior police officer said
- **The driver of the private bus affiliated to Acharya Vidhya Sagar Secondary School
- reportedly drove over an inundated bridge, but the water flow swept the bus into the river
- A case has been registered against the bus driver for negligent driving

हिनाक रे. भेर्ज 16 को निम्नलिखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

नामारन दाईम्स (विक्ती) The Tribune (Chandigarh) The Hindu (Chennail)

The Assemment Guwahati) The Times of India (Mumbai) The Telegraph (Kolkata) हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru) The Deccan Chronical (Hyderabad) Central Chronical (Bhopal)

UT. GAW

VILLAGERS SAVE 20 CHILDREN AFTER SCHOOL BUS FALLS INTO RIVER

THE COLD





■People watch (left) as local people and police officials rescue students (right) from a school bus that fell into a river in Bijoliya, a town in Rajasthan's Bhilwara, on Monday. The bus carried nearly 20 students, none of whom were hurt in the incident. The driver fled from HT PHOTOS the spot but a case of negligent driving was registered against him, police said.

JAIPUR: A school bus carrying 20 students fell into a river in Bijoliya, a town in Rajasthan's Bhilwara, on Monday, police said. Locals and police officers rescued the children after breaking the windshield and windowpanes of the vehicle before anyone from the district administration reached the site.

A bus of AVS Public School, carrying students to school, fell into Palki river on Monday morning when the driver of the vehicle failed to judge the water level on the road and skidded off into the river in spate.

Bhilwara SP Pradeep

Mohan Sharma said police officers from Bijoliya police station rescued the children with the help of villagers from Keserganj.

Sharma said that due to the incessant rain in the region for the past 48 hours, water levels in most seasonal rivers had increased.

On Monday, when the bus was making its way to school, the driver risked moving through a flooded road. But he lost control and the vehicle collapsed.

Police said the driver fled the spot but a case of negligent driving had been registered against him. Locals said they heard cries of help from the bus and rushed to the students' help.

हिनाकं हैं में १ कि को निम्नलिखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

Hirdustan Times (Delhi) ਜਹਮਾਨਰ ਟਾਡੰਸਦਾ (ਫਿਫਰੀ) The Tribune (Chandigarh) The Hindu (Chennai)

The Assam Tribune (Guwahati)
The Times of India (Mumbai)
The Telegraph (Kolkata)
हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru)
The Deccan Chronical (Hyderabad)
Central Chronical (Bhopal)



Villagers going to collect drinking water on banana rafts in a flood-affected area of Morigaon district on Friday. – UB Photos

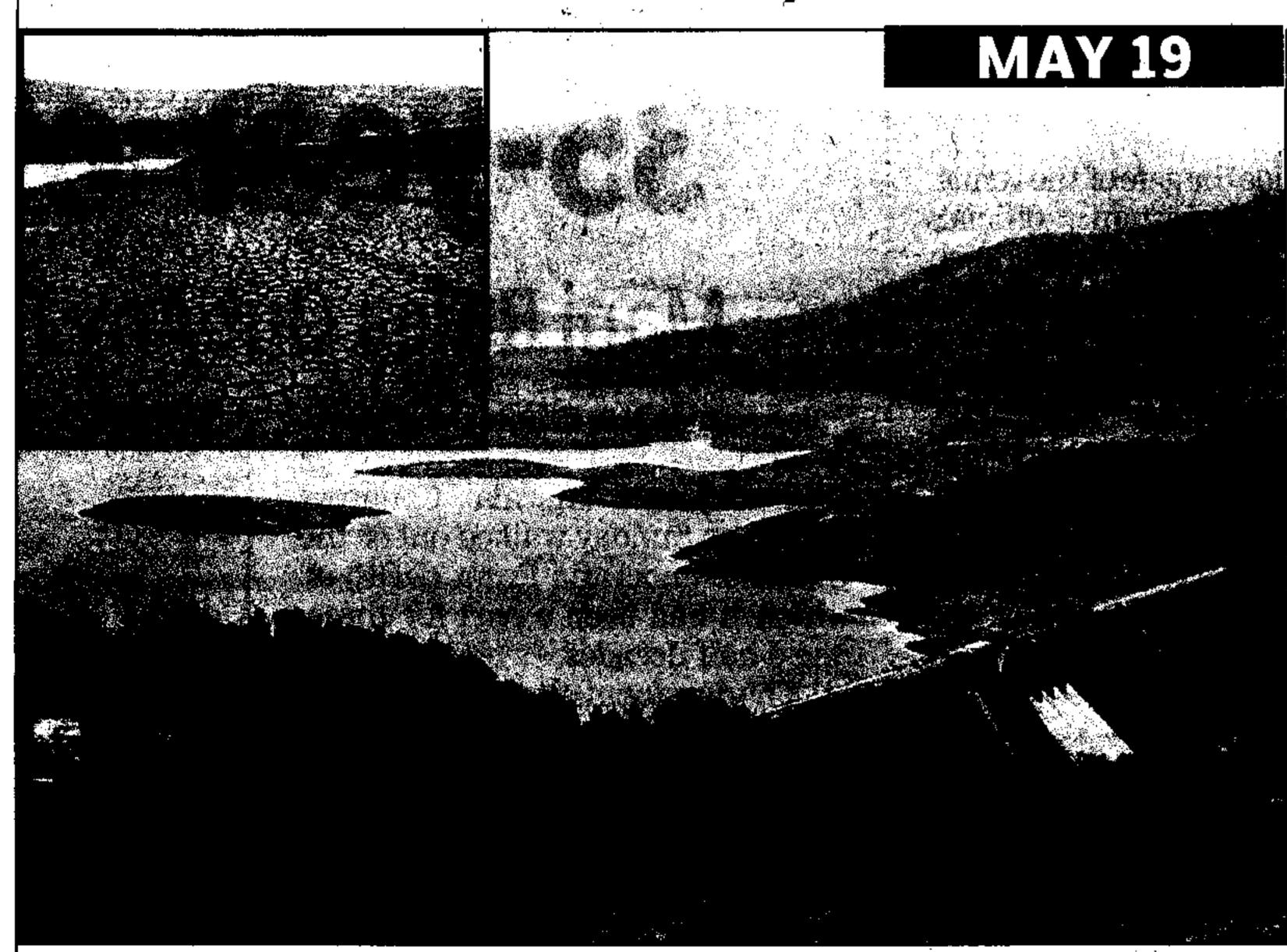
िनाक है निष्नु । को निम्नालेखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

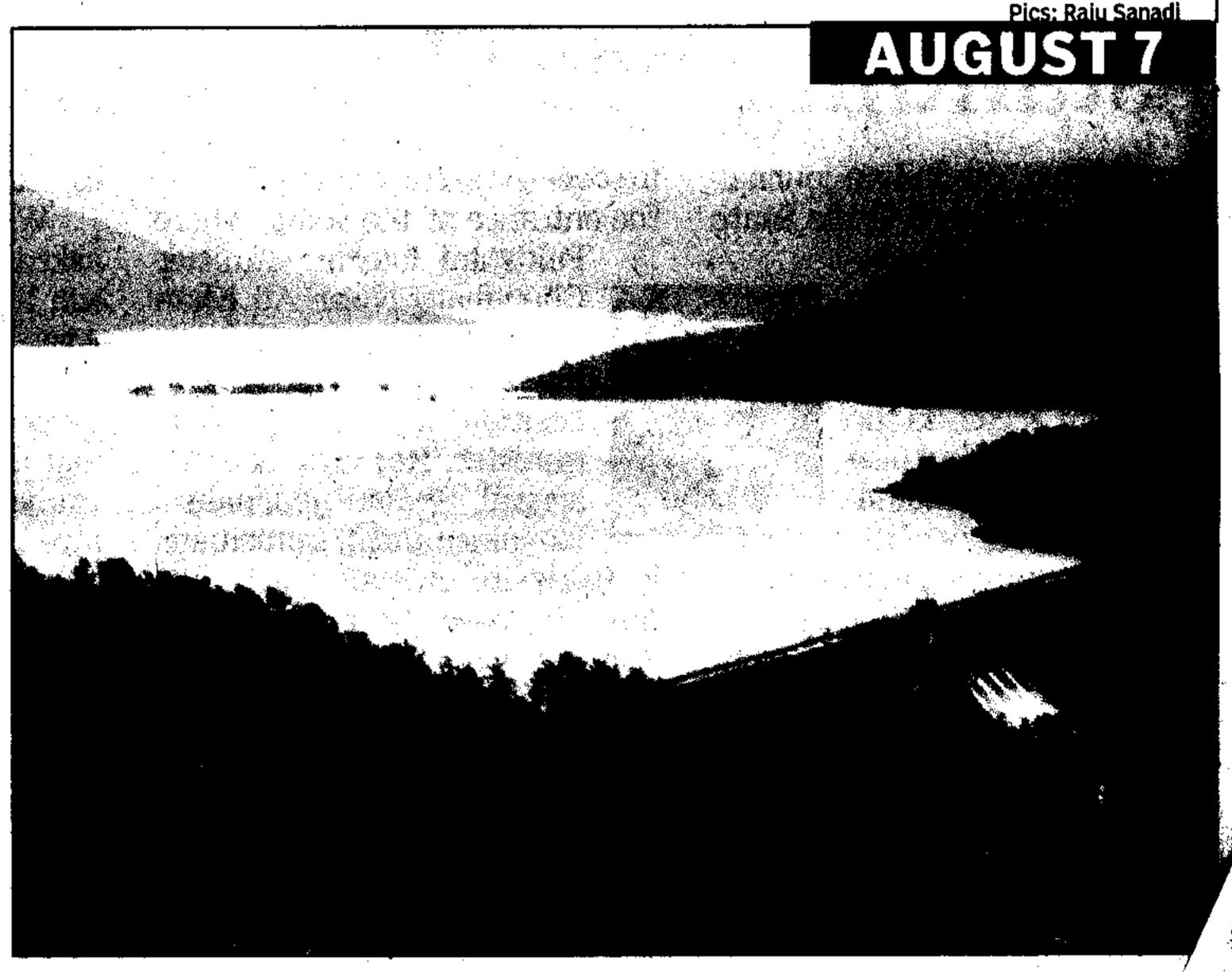
Hirdustan Times (Delhi) ਜੋਹਮਾਨਰ ਟਾਡੇਸ਼ਲ (ਫਿਲੀ) The Tribune (Chandigarh) The Hindu (Chennai)

The Times of India (Mumbai)
The Telegraph (Kolkata)
हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru)
The Deccan Chronical (Hyderabad)
Central Chronical (Bhopal)

AT KOYNA DAM, GOOD RAIN BRINGS ABOUT A SEA CHANGE





On May 19, Koyna dam's reservoir had a water level of 20 TMC (thousand million cubic feet); (inset) a parched tract of the bed. (R) Water was released from the dam on Sunday and the level rose to 85 TMC. Officials said release of water from the Koyna and Warna dams could lead to further flooding in Kolhapur city

विज्ञाकं .हे. जे.जे. 1.6... को निम्बिखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

ਜੀਤ ਰੋਪਤtan Times (Delhi) ਜੋਤ ਜਾਹਰ ਟਾਡੇਸ਼ਲ (दिख्ली) The Tribune (Chandigarh) The Hindu (Chennai)

The Assam Tribune (Guwahati)
The Times of India (Mumbai)
The Telegraph (Kolkata)
हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru)
The Deccan Chronical (Hyderabad)
Central Chronical (Bhopal)



A flood alert has been sounded in Jammu. Three have died in the region so far and the Vaishnodevi and the Amarnath yatras have been suspended. The Tawi is flowing at a danger level of 18-feet and river Chenab is flowing 33-feet above alert level.

िनाकं 🐧 🎎 🗥 को निम्नलिखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

Hir dustan Times (Delhi) ਜ਼ੜਮਾਨਕ ਫ਼ਾਡੇਸ਼ਲ (ਕਿਫਜੀ) The Tribune (Chandigarh) The Hindu (Chennai)

The Assam Tribune (Guwahati)
The Tir of India (Mumbai)
The Telegraph (Kolkata)
हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru)

The Deccan Chronical (Hyderabad)

Central Chronical (Bhopal)

SILATIO

Deccan Chronicle



Changing climate discourse

There's a major problem in the way we're discussing the weather

round this time in 2015, the focus in . A Paris was to see the extent to which India could be persuaded to announce its National Determined Contributions. India is the third largest emitter (after China and the US) and hence the success of the Paris agreement hinged on India's position. We soon announced a target to reduce emission intensity of GDP by 33 per cent over 2005 levels and a commitment to less fossil intensive growth.

While it has been, mostly, well received, author Amitav Ghosh himself

enters a rider on it; that in the text of the Agreement "there is not the slightest acknowledgement that something has gone wrong with our dominant paradigms; it contains no clause as a critique of the practices that are known to have created the situation that the Agreement seeks to address. The current paradigm of growth perpetual enshrined at the core of the

However, going beyond Ghosh's rider, Climate Change can be tackled only by a concerted commitment of policymakers as well as

the Executive at both national and state levels and by engaging with climate sceptics at policy and administrative levels.

As of now, a doubt seems to persist — are policy makers capable of mitigating Greenhouse Gas Emissions and improving resilience to Climate Change? If we are to believe murmurs, the answer is a resounding no. The Great Derangement as Amitava Ghosh points out in his recent book of the same name — has been our collective failure in the face of global warming. There is a need to act now and alter the approach.

Bengaluru has witnessed a major deluge due to incessant rains—the highest rainfall in seven years

But why now?

The frequency of extreme weather events has increased in recent years. In 2015, a strong El Nino effect impacted millions of people with floods, droughts, torna-

does and cyclones at places never seen before. We also saw uncommon temperature anomalies including unheard-of winter highs in the North Pole. The past year was the hottest ever.

Ghosh's narrative also investigates how it might become for Mumbai if overheating oceans produce hurricanes in the Arabian Sea during the Monsoon. Likewise, flooding during Monsoon in Mumbai is common and severe cyclones have occurred in the past—but is the city prepared to deal with more severe cyclones? Ghosh warns us that at windspeeds of 240

kmph and a 3-meter storm surge, the high-rise glass paned buildings will shatter, informal settlements will be wiped out.

And as this article is written, Bengaluru witnessed a major deluge due to incessant rains — the highest rainfall in seven years. This, after one of the hottest summers ever recorded.

Alter how?

In South Asia's rural societies, community ties and a sense of the collective is often invoked as a space for decision-making and dialogue. Ghosh's insight is that the developing world faces the highest costs but is also capable of action due to this attribute.

Last year, several important non-state actors such as Pope Francis (Laudato Si) spoke on Climate Change and to make the issue accessible. The Pope's text itself recommends that formal political systems alone cannot deal with the crisis. Several Hindu, Muslim, and Buddhists leaders also made similar appeals. These are distinctly more accessible better comprehended by people than the text of the Paris Agreement.

Shweta Srinivasan is a Senior Research Analyst with Centre for Study of Science, Technology and Policy, Bengaluru. Prof B. K. Chandrashekar is Chairman, Bangalore Climate Change Initiative-Karnataka (BCCI-K).

Monsoon fur : Situation in Assam improves considerably

Flood toll rises to 91 in Bihar

NEW DELHI: With two more deaths reported, the toll in Bihar flood increased to 91 on Saturday, while the flood situation in Assam improved.

The disaster management department in Bihar said the deaths were reported from Purnea district.

Fed by heavy rain in the Terairegion of Nopal, the Ganga was flowing above the danger mark at various places, in-Kahalgaon in cluding Bhagalpur district, Ghaghra-Darauli and Gangpur-Siswan in the Siwan district of Bihar.

Flood situation in Assam improved considerably even as nearly 68,000 people are still affected, Assam State Disaster Management Authority said, with Brahmaputra's tributary Dhansiri flowing above the danger mark at Numaligarh in Golaghat district.

Two engineers of a private construction company were washed away in flash floods on Friday evening when they were inspecting an under-construction bridge at Beni nallah in Kathua district of Jammu & Kashmir. One of them was rescued, while search is on for the other, said the police.

In Maharashtra, two more bodies were recovered during the search operation in Savitri river where several vehicles were swept away after a Britishera bridge collapsed in Mahad,

taking the toll in the tragedy to

Water levels in major reservoirs of Maharashtra have increased to 59% of their total capacity, due to fresh spell of rainfall across several parts of the state.

The state recorded 736 mm rainfall in the first week of August and so far in this season, 107.5% of the average annual rainfall has been recorded, which was 62% last year in the corresponding period.

1 killed in Uttarakhand

In Uttarakhand, one person died after being hit by boulders in Pithoragarh district during landslide triggered by rain in the state even as the Chardham Yatra remained affected with the highways leading to the Himalayan shrines of Badrinath and Kedarnath blocked at several points.

In Gujarat, Sardar Sarovar Dam across Narmada river has started overflowing at Kevadia in Narmada district, following the release of water from Omkareshwar dam in Madhya neighbouring Pradesh, officials said.

The India Meteorological Department has warned that very heavy rainfall is likely to occur in one or two places in districts of interior Odisha. Fishermen were advised not to venture into the sea along the Odisha coast.



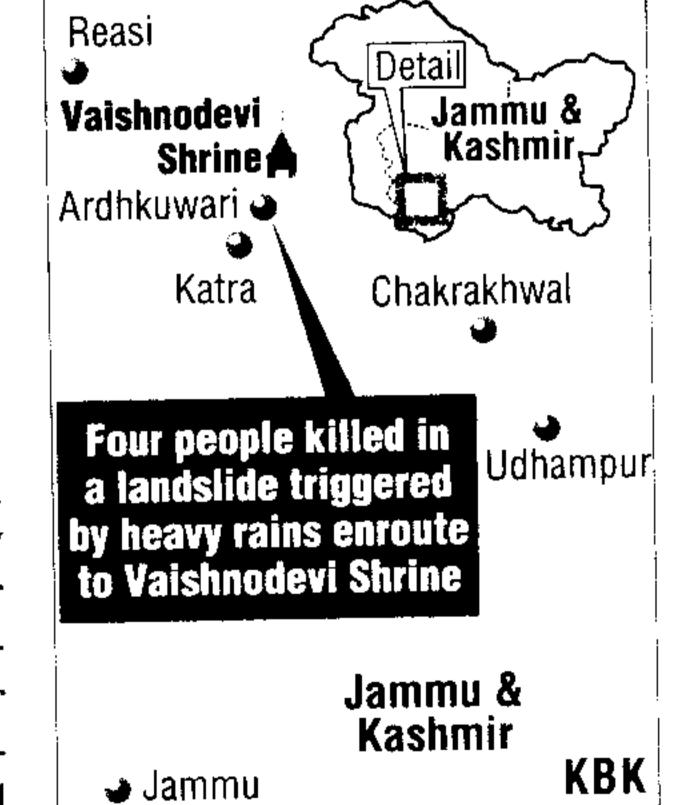
B'luru man among 4 killed in landslide near Vaishno Devi

JAMMU: Four people, including one from Bengaluru, were killed and nine injured in a landslide triggered by heavy rain en route to the cave shrine of Vaishno Devi in Jammu & Reasi Kashmir's district.

The landslide occurred on Banganga-Ardhkuwari road around midnight on Friday and the debris fell on a shelter where the pilgrims were sitting, Chief Executive Officer (CEO) of Shri Mata Vaishn-Board Shrine (SMVDSB) Ajeet Sahu said.

"Three pilgrims, including a 5-year-old, died on the spot and another person was brought dead to the hospital," the CEO said.

The deceased are: 29-year-



old Shashidhar Kumar of Bengaluru, 30-year-old Bindu Sahni and her 5-year-old son Vishal from Chhattisgarh, besides 32-year-old Sadik of Reasi, a ponywallah, adds PTI

DHNS from Srinagar.

Some of the injured were identified as Suraj Kant Sahni of Chhattisgarh, Ved Singh, Naryani and Om Prakash of Haryana, and Paras and Santosh of Bengaluru.

The yatra to the cave shrine, which was disrupted for some hours, later resumed, Additional Superintendent of Police (Reasi) Sanjay Rana said.

While, seven of them were given first aid, two others were admitted to a hospital with serious injuries, he said.

Sahu said the incident occurred following heavy rainfall the previous night.

"Our team went to the site as soon as the incident was reported," he said.

Monsoon quells water dispute

Water dispute between Telangana and Andhra Pradesh has ceased for the time being with the strong monsoon coupled with overflowing water from the upper riparian states filling all major reservoirs, DHNS reports from Hyderabad. Significant inflow is seen at the Srisailam reservoir along Krishna river in Andhra Pradesh, as Almatti and Narayanpur dams in Karnataka and Jurala in Telangana's Mahboobnagar district are overflowing. Srisailam is already receiving inflows with Telangana releasing water from Jurala over the past few days.

The Deccan Hearld (Bengluru)
The Deccan Chronical (Hyderabad)
Central Chronical (Bhopal)

NDRF uses sonar to locate vehicles that sank in river

Decision Today On Continuing Mahad Search

Chittaranjan Tembhekar, Vijay Singh & Umesh K Parida TNN

Mahad: The NDRF on Saturday used sonar system and underwater cameras to detect the position of buses and cars swept away in the raging Savitririver when a British-era bridge collapsed in Mahad on Tuesday night. However, the systems failed to locate any missing vehicle till evening.

On Sunday, the NDRF will again use the sonar system mounted on a boat across a major stretch of the river till Ambet, about 25-30 km away from the accident spot. The marine commandos will also use inflatable boats in their search attempt on Sunday. NDRF sources said a collective decision on continuing the operation will be taken only late Sunday evening.

Meanwhile, the NDRF and the Navy's Marine commandos found two seats of buses, a roof-top carrier of Tavera, and a piece of a metal roof of the bus floating near Dadli bridge, 6 km from the collapsed Poladpur bridge. The search team also retrieved two bodies — one of them in Bankot, about 50 km from Poladpur bridge.

On Saturday, the NDRF used sonar system between the Poladpur bridge and Dadli bridge—a six-km stretch where experts think the vehicles are stuck under the river. They say buses can't move beyond Dadli as it's a narrow bridge. For the first time, the NDRF also deployed four hi-tech underwater cameras near the collapsed bridge to find the missing vehicles.

Prior to this, such gadgets were only used in seas and oceans. The cameras are attached to the base of four boats, while an LCD screen is kept above to monitor the recordings up to a depth of 400 feet. The weather on Saturday was suitable for this operation as the intensity of rains has also reduced.

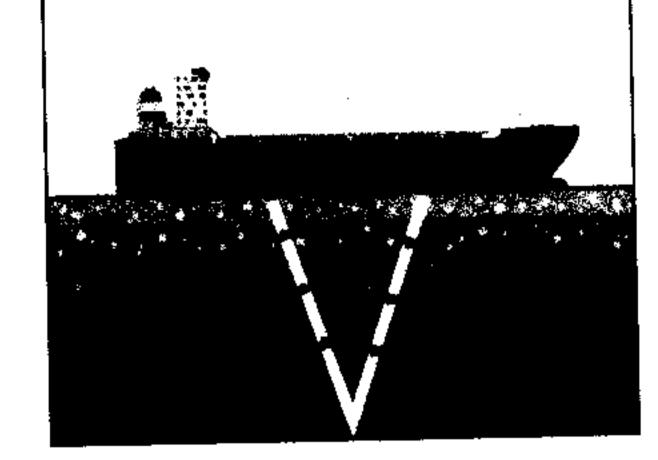
Coast Guard Commandant



Several crocodiles were spotted in Savitri river on Saturday. **TOI** had reported on Thursday how crocodiles have been a problem in the river. The Navy's marine commandos are equipped to tackle such problems

HOW SONAR WORKS

- ➤ Sonar used to locate "targets/objects" in the water such as black boxes of crashed aircraft or wreckage of ships
- ➤ 2 types: active sonar involves emitting sound waves and listening to echoes; passive is listening to sound from vessels
- ➤ A device fitted on a vessel sends a burst of ultrasonic waves through water
- The waves hit an object or ocean/river floor, bounce off
- ➤ The reflected waves are detected and analysed



RK Singh said, "The Navy, Coast Guard, NDRF, district administration, police and an NGO, White Army, from Malvan used sonar, Fish-finder, 15kg magnets fixed to boats and around 15 boats for the operation on Saturday."

The Raigad resident deputy collector Satish Bagal said, "We had approached the ISRO for remote sensing image of the river. The request was turned down as remote sensing is not done inside water."

2 more bodies found, toll touches 24

Bella Jaisinghani & Umesh K Parida | TNN

Mumbai: Two more bodies were retrieved from the Savitri river on Saturday. With this, the total number of deaths in the Mahad tragedy has touched 24. Another 18 people are still missing.

One of the two bodies found on Saturday has not been identified. The other victim has been identified as Dinesh Kamble from Mira Road. Kamble's remains were sent to Mumbai where his young wife and son performed the last rites late Saturday.

The Mira Road resident was travelling in a Tavera along with his extended family. "We are unable to come to terms with the loss of so many relatives. This has come as a bolt from the blue," said his brother-in-law Krishna Chache who lives in Guhagar.

It has now come to light that Kamble and Jaywant Mirgal, another occupant of the Tavera, had got down at Poladpur bus depot and had boarded the Jaigad Mumbai State Transport bus. "He last spoke to his family members while on board the Jaigad –Mumbai bus around 10.30 pm Tuesday," said his nephew Yashwant Kamble.

Hindustan Times (Delhi)

अधिभागन टाईम्स (दिख्ली)

The Tribune (Chandigarh)

The Hindu (Chennai)

The Assam Tribune (Guwahati)
The Times of India (Mumbai)
The Telegraph (Kolkata)
हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru)
The Deccan Chronical (Hyderabad)
Central Chronical (Bhopal)

Krishna in spate, floods roads

BENGALURU: Heavy rainfall in Maharashtra continued to push levels in the River Krishna, flooding North Karnataka districts on Saturday.

Six bridges in Chikkodi taluk and one in Gokak taluk continued to be under water while two more bridges would submerge by Saturday night given the present inflow into the river. Roads in Athani and Raibag taluk was submerged on Saturday. As much as 1.35 lakh cusecs of water was released into the river from Rajapur barrage in Maharashtra.

Meanwhile, Belagavi and Khanapur received mild to heavy occasional rains.

Bhatkal, Karwar, Ankola

and Kumta towns in Uttara Kannada district received moderate rains in the day. Boats did not venture into the waters as the Arabian Sea had become turbulent owing to gusty winds.

Shivamogga district also received moderate rains. It rained in Sagar, Bhadravathi, Thirthahalli, Hosanagar and Shikaripur. The water level in Linganamakki reservoir stood at 1,784.45 feet.

The Kodagu district received an average of 18.2 mm rainfall in the last 24 hours. The water level in Harangi reservoir stood at 2,857.76 feet. Mangaluru city received rains towards evening.

DH News Service



A temple flooded by swollen rivers in Karadaga village of Chikkodi taluk in Belagavi district on Saturday. DH PHOTO

Hir dustan Times (Delhi) त्रवस्य (विक्सी) The Tribune (Chandigarh) Tran Handu (Chennai)

The Assam Tribune (Guwahati) The Times of India (Mumbai) The Telegraph (Kolkata) हिन्दुस्तान् (पटना)

The Deccan Hearld (Bengluru) The Deccan Chronical (Hyderabad) Central Chronical (Bhopal)

Bihar flood toll climbs to 89, over 33 lakh people hit

PATNA, Aug 5: The floodrelated death toll in Bihar rose to 89 with 25 casualties being reported today as 33 lakh people in 14 districts remain affected. The Disaster Management Department said in a statement that Saran is the latest district to be hit by the deluge.

Purnia district has reported maximum number of deaths (26), followed by 21 in Araria, 15 in Katihar, eight in Supaul and five in Kishanganj, it said.

Four persons have died each in Madhepura and Gopalganj, three in Darbhanga, and one each in Saharsa, Muzaffarpur

and Saran, the statement said.

Rivers like Mahananda, Bakhra, Kankai, Parmar, Koshi and others have primarily caused inundation in Purnia, Kishanganj, Araria, Darbhanga, Madhepura, Bhagalpur, Katihar, Saharsa, Supaul, Gopalganj, East Champaran, West Champaran and Muzaffarpur districts.

According to latest reports, the Ganga is flowing above the danger mark in Kahalgaon (Bhagalpur), while Ghaghra river is flowing above the danger mark at some places in Siwan district.

Budhi Gandak river is also flowing above the danger mark in Khagaria, while Koshi river is flowing above the danger mark in Khagaria and Katihar districts.

A staggering 6.41 lakh people have been shifted to safer places and 1,490 boats have been pressed into service for rescue and relief works, the Disaster Management Department said.

As many as 3.79 lakh people have been sheltered at campus where elaborate arrangements for food and other relief materials have been made.

Several teams of NDRF and SDRF have been pressed into service in the flood-affected districts for rescue and relief works, the Disaster Management Department statement added. – PTI

Meet on assessment of flood damages

STAFF REPORTER

GUWAHATI, Aug 5: The District Disaster Management Authority (DDMA) of Kamrup district held an assessment of the flood damages today at the Conference Hall of DC Office, Amingaon, under the chairmanship of Kamrup Deputy

Commissioner Vinod Seshan.

Speaking on the occasion, MLA of Palasbari constituency Pranab Kalita, MLA of Hajo constituency Suman Haripriya and MLA of Boko constituency Nandita Das appealed to all the departmental heads to ensure that flood-affected people get benefits from the government as per-norms and to assess the flood damages after proper field survey.

The MLAs further requested the departmental officers to keep them updated about any damages as well as schemes proposed thereof.

Presiding over the DDMA departmental heads to pre-

pare proposals as per the SDRF norms.

The DC further entrusted the Circle Officers to verify the schemes proposed by various departments against flood damages in their respective jurisdiction.

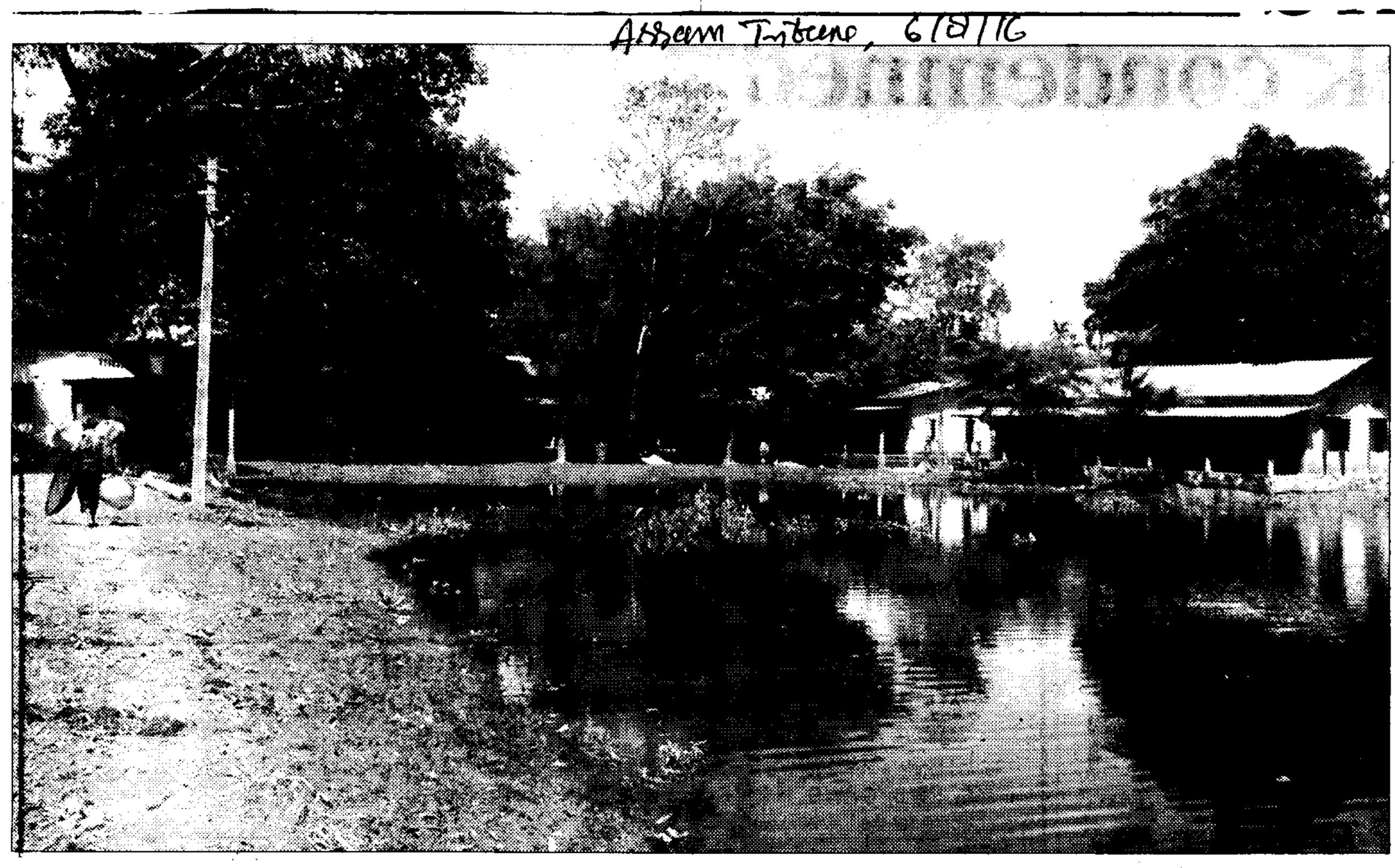
The meeting elaborately reviewed the status of the ex-gratia and rehabilitation grants and all other schemes proposed by various departments against the flood damages in the district in respect of roads, bridges, embankment, agricultural fields, irrigation, health centres, educational institutions, Anganwadi centres, electricity, drinkmeet, Seshan also asked all ing water schemes, fishery and veterinary.

.....को निरुन्तिखिन यमाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

Hir dustan Times (Delhi) ने भारत टाईम्स (विक्री) The Tribune (Chandigarh) Thir Hindu (Chennai)

The Assam Tribune (Guwahati) The Times of India (Mumbai) The Telegraph (Kolkata) हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru) The Deccan Chronical (Hyderabad) Central Chronical (Bhopal)



Though flood waters around the State are receding, a school at Gohpur still surrounded by water, on Thursday. – UB Photos

Heavy rain throws Mumbai out of gear

MUMBA!: Heavy rain lashed Mumbai and its suburbs on Friday throwing the road and rail traffic out of gear.

Two cases of drowning were also reported from Mumbai one in Girgaum chowpatty and another in a drain at Shivajinagar. There were delays ranging from 15 to 30 minutes at the Chhatrapati Shivaji International Airport (CSIA) because of the heavy downpour and poor visibility.

People were seen wading through knee-deep water at several places and walking » Rain, Page 12 along the railway tracks.

The Mithi river, which runs through the city, also rose to the danger level. But as the rain receded, it was back to normal. The bouts of heavy rain were accompanied by strong winds.

According to the data collected from the Mumbai-based Regional Meteorological Observatory of the Indian Meteorological Department and the Municipal Corporation of Greater Mumbai, the commercial capital on an average received 80 to 130 mm rainfall.

Related reports, Page 12



An ambulance moves along a waterlogged road near King's Circle area in central Mumbai on Friday. DH PHOTO



MISSEN BHASEATHA

Providing a perennial solution for drinking water

Teleogens, the proopent state of hole is pergraphically located definence Codesies and recodes affect to assume the recodes affect as assume the requirement of the state of the repensive of the feature of the state of the recodes affect as with most amounted to assume the recodes of the state of the sta

The Concept

- The Telangona Water Grid has been planned to utilitie water resources available in Kindres & Godavan - two personal rivers flowing through the State. A total of 48:35 TMC of water from the Codevan and 20.06 TMC from the Griding would be utilized for the natur grid. Plant are ready to use water from Sricaliam, Simon Sagar Project, Komunen Sheem Project, Palery Reservoir, Jurally Carm and Nazuro Sagar Propert. This occuret(sub) designed proper intends to use the natural gradient wherever possible and pump-water where reconnect and outsile water through pipelines.
- . The main trust pipelines of this project would run about fulfill ion, and the secundary pipelines of about \$5,000 km would'be used to fill permantaries in habitations. From herethe village-book pipeline network of about 75,000 km would be used to provide clean direkting water to households. The state-level grid will complise of a total of 3% internal grids.

Project Details

- The State Government will be using latest technology for the proposed Mater Srid project. indivenced Light Selection and Ranging (LIGHI) reclinatings would be utilized for a detailed survey of the Mater Crid, Eightweight annuals will be ongaged for serial survey
- Along with this, sufficient tools like surge analysis and ament flow reguld be used to resolve any problems that price in distribution of voter. One'l Wrister K Chandrashekhar Ras would be personally exertising the critic Water Gird project works flore Secretarial Brough Spatiern Control and Claira Access (SCDA) rectinology.
- The State Government intends to adopt international standards in execution of this project, To improve countilisation and againsive resources, the Government would follow a turn-key model where the organizations executing the project would be responsible for its maintenance for













Setting examples for other states.

The flagship project has already caught the attention of the entire nation even before the completion of its first phase. The State has secured HUDCO's Award for the Water Grid Scheme spart from winning appreciation from NITI Aayog and Union Government. The state governments of Madhya Pradesh, Ultar Pradesh, Bihar and West Bengal have shown interest in this innovative project.

Snapshots of the Project









170 WATER TREATMENT PLANTS



35,573 OVERHEAD SERVICE RESERVOIRS



142 WW ELECTRICITY



62 INTERMEDIATE PUMPING STATIONS को निम्नलिखित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी स

Hir dustar Times (Delhi) ज्ञाधभारत दा**ईम्स (विक्सी)** The Tribune (Chandigarh) Tra Hindu (Chennai)

The Assam Tribune (Guwahati) The Times of India (Mumbai) The Telegraph (Kolkata) हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru) The Deccan Chronical (Hyderabac Central Chronical (Bhopal)

Rains in M'rashtra flood N-K dists

DC - 6 Aug

No threat to life: Disaster Monitoring

BENGALURU, DHNS: Several parts of North Karnataka in the River Krishna basin will continue to face floods for the next two to three days as Maharashtra is getting neavy rains.

As many as nine bridges in the basin have submerged. Villages facing floods are spread over Yadgir, Raichur, Belagavi, Vijayapura and Bagalkot districts.

The flooding is all along the river course, said Dr Srinivas Reddy, Director, Karnataka State Natural Disaster Monitoring Centre.

Reddy said, "It is not that the districts in North Karnataka are receiving heavy rains. Rains in Maharashtra have led to swelling of River Krishna which is causing floods in areas

STORAGE IN DAMS AS ON AUGUST 5

RESERVOIR	GROSS STORAGE IN TMC	PRESENT STORAGE IN TMC	INFLOW IN CUSECS	OUTFLOW IN CUSECS
Linganamakki	151.75	60.58	22558	Nil
Supa	145.33	55.92	27312	Nil
Varahi	31.10	11.04	4209	Nil
Harangi	8.50	8.26	6586	5050
Hemavati	37.10	18.52	4827	2035
KRS	49.45	20.69	5072	7764
Kabini	19.52	14.24	3310	3279
Bhadra	71.53	34.23	5720	623
Ghataprabha	51	29.94	2130,3	127
Maleprabha	37.73	10.71	11227	115
Almatti	123.08	108.97	121933	240697
Narayanapura	33.31	27.97	218487	247420

Source: Karnataka State Natural Disaster Monitoring Centre.

around Almatti and Narayanafor the next two to three days. However, there is no threat to life though the floods have inconvenienced people. The situation is not grim."

He said that Karnataka on the whole had 6% deficit rains

pura. There may not be respite to August 5. It is considered as Chikkamagaluru 22%. The normal, but on the negative side. Departure from normal (+) 19% to (-) 19% is considered as normal.

The Malnad region is facing a deficit of 25%. Kodagu district alone is facing a paucity

during the period from June 1 of 30%, Shivamogga 21% and rain deficit in coastal region is 17%.

> The director pointed out that the reservoirs in the Cauvery basin have lesser water storage this time compared to last year.

दिनाकं

.. को निम्निस्त्रित समाचार पत्र में प्रकाशित मानसून/ बाढ़ सम्बन्धी समाचार

Hir dustan Times (Delhi)
निव्धानिकाल द्वाईन्स (विदेशी)
The Tribune (Chandigarh)
The Hindu (Chennai)

The Assam Tribune (Guwahati)
The Times of India (Mumbai)
The Telegraph (Kolkata)
हिन्दुस्तान (पटना)

The Deccan Hearld (Bengluru)
The Deccan Chronical (Hyderabad)
Central Chronical (Bhopal)

River Krishna in spate, wreaks havoc on North Karnataka

Standing paddy crops on vast tracts destroyed in Belagavi

BENGALURU: A swollen River Krishna and its tributaries have flooded many villages in the North Karnataka districts.

With heavy rains continuing to lash Maharashtra, the inflow into River Krishna increased to 1.42 lakh cusecs on Friday. Several bridges in Belagavi taluk are under water.

Six low-lying bridges in Chikkodi taluk had submerged in river waters on Thursday. Water levels in Hidkal dam increased to 2145.16 feet while that in Malaprabha dam went up to 2051.60 feet.

Several farm fields on the river bank river, have been submerged in the river waters damaging paddy crop on vast tracts of land.

However, rains receded in Belagavi and Khanapura taluks on Friday.

The movement of vehicles on Shahapur-Deodurg road in Yadgir district has come to a halt. Police have been deployed on the banks of River Krishna. As many as 21 villages on the river basin face flood threat. Water



has gushed into farmlands damaging standing crops of toor and cotton.

Several villages on the river bank in Raichur district are in-

undated.

Kodagu district received an average of 25.15 mm rainfall in the last 24 hours. This includes Madikeri taluk—32.6 mm and

Somwarpet taluk—26.53 mm. The water -level in Harangi reservoir stood at 2,858.28 feet. Dakshina Kannada district did not receive rain on Friday.

Uttara Kannada district has been receiving good rains for the last couple of days. The coastal and the Malnad regions received intermittent rains on Friday. It drizzled in Bhatkal, Honnavar, Kumta and Ankola.

Water level in the dams of Shivamogga district went up following good spell of rains in catchment areas.

Thirthahalli, Hosanagar, Sagar, Bhadravathi received good rains throughout the day while it rained intermittently in Shivamogga, Shikaripur and Sorab. In the last 48 hours, Hosanagar recorded rainfall of 51 mm, followed by Thirthahalli-37.20 mm, Sagar 25.60 mm and Shivamogga-28.60 mm.

With Cauvery catchment area receiving a good spell of rains on Thursday, the inflow into Krishnaraja Sagar (KRS) reservoir slightly increased on Friday.

The inflow, which was 3,932 cusec on Thursday, increased to 6,417 cusec on Friday. The outflow was 7,744 cusec. The water level on August 5 is 97.15 ft against its maximum level of 124.8 ft.

DH News Service