

Polavaram: TS for third-party study

STATE BUREAU

Hyderabad

The Telangana government on Thursday insisted on a third-party study on the impact of the Polavaram project on the villages abutting the backwaters. Odisha and Chhattisgarh have also demanded decreasing the height of the project to reduce submergence.

At a meeting of irrigation officials from Telangana, Odisha, Chhattisgarh and Andhra Pradesh — held by the Jal Shakti Ministry in New Delhi — Special Chief Secretary for Irrigation Rajat Kumar argued that the Andhra Pradesh government made numerous changes to the project during construction, which in turn has increased the threat to villages abutting the project's backwaters. He demanded that urgent measures be taken to re-

duce the submergence threat which is beyond previous estimations.

Rajat Kumar attributed the inundation and damage caused due to recent floods in the Godavari near Bhadrachalam to the increased height of the Polavaram project. As against the 28 lakh cusecs-flood in 1986 when the water level in the river reached only 61 m, it was at 71.5 m during this monsoon despite the flood levels at 24 lakh cusecs. He alleged that the estimations submitted by Andhra Pradesh to the Centre were full of flaws and needed to be revisited.

Odisha and Chhattisgarh officials also insisted on reducing the height of the project and undertaking preventive measures to avoid the submergence of more villages. Further discussions on the issue would resume on October 7.

Monsoon ends officially, 7% excess rainfall received: IMD

Jayashree Nandi

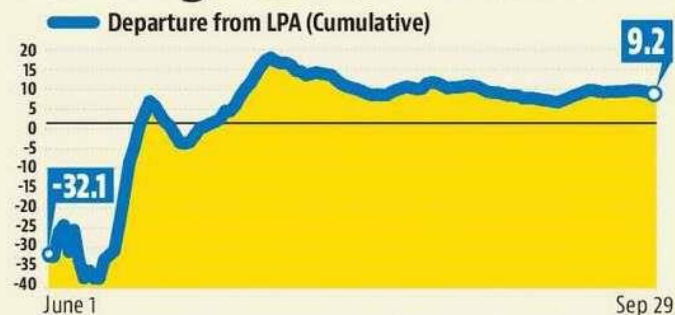
letters@hindustantimes.com

NEW DELHI: The southwest monsoon is set to officially come to an end across India on Friday after recording around 7% excess rainfall, making 2022 an "above normal" season. This is the fourth consecutive year that India's monsoon has been in the "normal" or "above normal" category.

In 2021, monsoon rainfall was 99% of the long-period average (LPA), considered "normal"; in 2020, monsoon was 109% of LPA (above normal); in 2019, monsoon was 110% of LPA (above normal).

To be sure, while overall national rainfall deviation remained relatively minor, this year's monsoon was character-

Tracking monsoon excess



Note: Data according to IMD's gridded dataset, which has a minor variation from numbers released by the department

ised by erratic rainfall, particularly towards the end of the season. The final two weeks of September, a period which generally experiences the weakest leg of the monsoon, saw heavy rainfall

in a majority of northwest India.

Despite this, east and north-east India saw 18% rain deficiency, according to data maintained by the India Meteorological Department (IMD). →P17

How climate change is threatening Himalayan hydropower projects

Vaishnavi Chandrashekhara

More than 650 hydropower projects planned or under construction in the Himalayan region are at risk from hazards related to melting glaciers, warns a study published recently in *Nature Geoscience*.

Many of the new projects are significantly upslope compared with existing ones, in locations closer to glaciers and glacial lakes in high-altitude areas, making them more hazard-prone, the study notes.

Those hazards include landslides, rock-ice avalanches, debris flow and lake outburst floods, all of which could increase with glacier melt and slope destabilisation.

Global warming is expected to lead to more glacier melt and extreme precipitation events in the region. Increased development on the mountains could also aggravate risks.

The biggest threat may be lake outburst floods, including landslide-driven lake outbursts and glacial lake outburst floods (GLOFs), said Dongfeng Li, a scientist with the National University of Singapore and the study's lead author. Glacial lake outbursts refer to the sudden release of water from a lake formed by glacial melt.

"Lake outburst floods are often unpredictable and cause severe downstream damages to the infrastructure system such as hydropower," he said.

Risk of glacial lake outbursts is currently higher in the eastern Himalayas compared with western Himalayas, but that scenario could reverse with increasing glacier melt, he added.

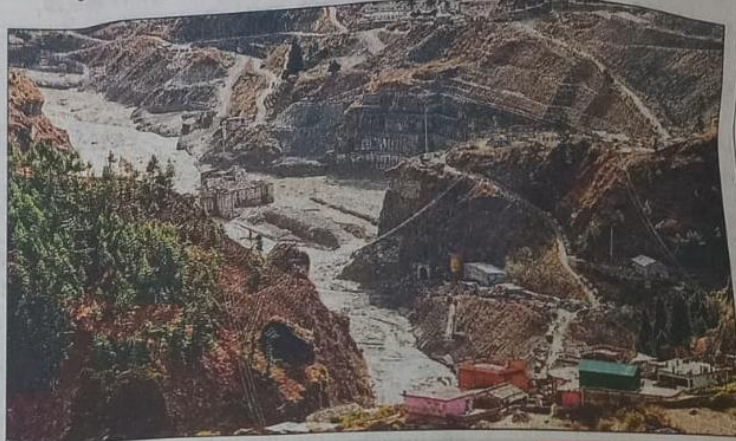
"Overall, the Himalaya is currently facing more glacier-related hazards as compared to other mountain ranges such as the Hindu Kush and Karakoram, but the situation will evolve with climate change," he said.

As a low-carbon source of energy, hydropower is projected to play an important role in meeting the rising energy demands in south Asia.

Hydropower potential in the high mountains of Asia is mostly untapped, with 650-odd projects representing around 260 gigawatts of power. There are more projects likely underway — the study used a 2015 database that may not include small projects or more recent proposals.

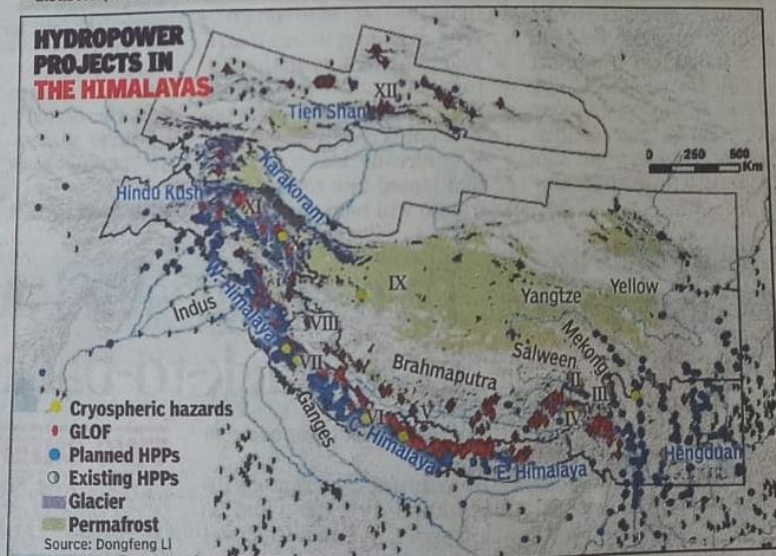
Existing projects are also at risk, the study notes, with an estimated 100 power projects already located in the upper Indus-Ganges-Yangtze river basins.

For instance, the avalanche-triggered flood in Chamoli, Uttarakhand, in February last year destroyed two hydropower projects, said Tobias Bolch,



The map below shows how close new hydropower projects (blue circles) are to glaciers and recorded glacial lake outburst events (red diamonds), making them vulnerable to hazards related to climate change and melting glaciers. The yellow circles denote major disasters, including the 2021 Chamoli disaster (VIII on map), which was caused by a rock-ice avalanche (pictured above)

TIMES Special



study co-author and a scientist at the University of St. Andrews in Scotland.

Such incidents show "we need to think carefully about the future and the future changes to hazards, not just to glaciers but landslides, mud flows, and rock falls when we design these hydropower projects," Bolch said.

The study also highlights the risks of increased erosion and sediment flow in the high mountains. Erosion rates are higher than the global average in the Himalayas. And rising sediment loads may reduce reservoir storage capacity, undercutting their supply of water for irrigation and power, especially in

Koshi and the upper Indus, which already have high sedimentation rates, the study notes.

Environmentalists and others have repeatedly raised concerns about the risks and impact of hydropower in the Himalayas and on the Ganga.

In September last year, a group of 60 Indian scientists and environmentalists wrote an open letter to Prime Minister Narendra Modi against the decision to restart construction of seven hydroelectric power projects in Uttarakhand, warning of their impact on local ecology and noting the risks of climate-related disasters.

Join the Times Special Readers' Club. Scan the QR code to share your inputs. Top contributors win rewards!



AFFECTED PEOPLE WILL HAVE TO WAIT FOR FEW MORE DAYS

Yamuna water level receding but still above danger mark

OUR CORRESPONDENT

NEW DELHI: The water level in Yamuna in Delhi has receded slightly but it is still above the danger mark of 205.33 metres and the affected people will have to wait for a few more days before they can return to their houses in low-lying areas along the river, officials said on Thursday.

According to the Central Water Commission's data, the water level in the Yamuna dipped from 206.59 metres at 7 am on Wednesday, the highest since August 2019, to 205.37 metres at 9 am on Thursday. It is likely to drop below the danger mark of 205.33 metres during the day.

The city administration had issued a flood alert, suspended rail traffic movement on the Old Yamuna Bridge and evacuated around 6,500 people from low-lying areas close to the Yamuna on Tuesday as the river breached the evacuation mark of 206 metres following a late spell of heavy rain in the upper catchment areas, especially Uttarakhand and Him-



Submerged shanties in a low-lying area near the Yamuna river, in New Delhi, on Thursday

P71

achal Pradesh, last week.

Since there has been no significant rainfall in the upper catchment areas over the last to three days, the water flow rate from Haryana's Hathnikund Barrage has also come down from 96,000 cusecs at 7 am on Tuesday to 25,400 cusecs at 9 am on Wednesday and further to 17,800 cusecs at 9 am on

Thursday. One cusec is equivalent to 28.32 litres per second.

Normally, the flow rate at the Hathnikund barrage is 352 cusecs, but the discharge increases after heavy rainfall in the catchment areas.

The water discharged from the barrage normally takes two to three days to reach the national Capital.

Officials said civil defence workers deployed in the affected low-lying areas are asking people not to move back to their houses till the water recedes to the normal level.

The low-lying areas near the river in Delhi are considered vulnerable to flooding and are home to around 37,000 people.

Most of the people shifted

to safer places themselves. The Delhi administration had to evacuate around 6,500 people and move them to community centres, schools and temporary tents, an official said.

"We expect the water to recede to normal levels in two to three days. Thereafter, these people can go back to their places," he said.

Though the land along the Yamuna belongs to the Delhi Development Authority, Revenue Department and private individuals, encroachments have come up on a large part of the river floodplains over the years. Normally, flooding in the Yamuna is reported in July or August which receive maximum rainfall during the monsoon season.

Also, this was the second time within two months that a swollen Yamuna inundated low-lying areas in Delhi, forcing people to shift to safer places.

The Yamuna had breached the danger mark of 205.33 metres on August 12, following which around 7,000 people were evacuated from the low-lying areas near the riverbanks.

Polavaram project will not affect Bhadrachalam, says Union ministry

EXPRESS NEWS SERVICE

@ Vijayawada

IN a bid to allay Telangana's fears that the Polavaram project in Andhra Pradesh would submerge the temple town of Bhadrachalam, the Ministry of Jal Shakti on Thursday stated that such a situation would not arise.

Telangana has been repeatedly saying that Bhadrachalam in that State would be in perennial trouble once the irrigation project on the River Godavari is completed.

The MoJS made the clarification at a virtual meeting it convened with the water resources department officials of the four stakeholder States: AP, Telangana, Odisha and Chhattisgarh. The meeting was held on a Supreme Court directive to clear doubts on national project.

According to senior officials, MoJS heard objections raised by Telangana, Odisha and Chhattisgarh during the preliminary meeting.

Sources said the MoJS rejected Telangana's request for a resurvey of the impact of Godavari's backwaters, saying there was no threat of Bhadrachalam getting flooded as being reported.

The MoJS maintained that surveys had been conducted twice already - in 2009 and again in 2011. It clarified that there was no scope for any submergence as being apprehended by the other three States.

Officials of the AP Water Resources Department reiterated that the Polavaram project has been taken up only after receiving all clearances. They said model studies on the possible impact of backwaters had

found no threat to Bhadrachalam as being projected by Telangana.

Meanwhile, the Polavaram Project Authority (PPA) officials explained that while the Godavari River Water Disputes Tribunal had recommended a spillway with a release capacity of 36 lakh cusecs, a structure with a release capacity of 50 lakh cusecs was constructed.

"The project is being constructed as per the designs approved by the Centre. Though we have asked Odisha and Chhattisgarh to cooperate with the State for a joint survey on the submergence and flood bank protection walls, Odisha is not coming forward," the PPA officials reportedly said.

The Ministry would hold another meeting in New Delhi on October 7 with the technical details of backwaters' survey.

गंगा में प्रदूषण के मामले में तेजी से कार्रवाई करे यूपी सरकार : एनजीटी

नई दिल्ली। राष्ट्रीय हरित न्यायाधिकरण (एनजीटी) ने उत्तर प्रदेश सरकार को कानपुर जिले में टेनरियों से क्रोमियम-दूषित अपशिष्ट को उचित शोधन के बिना गंगा नदी में बहाए जाने के मामले में तेजी से कार्रवाई करने को कहा है। साथ ही एनजीटी ने अधिकारियों को एक अनुपालन रिपोर्ट दाखिल करने का भी निर्देश दिया है।

एनजीटी चेयरपर्सन जस्टिस आदर्श कुमार गोयल की अध्यक्षता वाली पीठ ने कहा कि मामले में कुछ प्रगति हुई है लेकिन नालों और एक कॉमन अपशिष्ट उपचार संयंत्र (सीईटीपी) के जरिये गंगा में अशोधित अपशिष्ट का प्रवाह जारी है। पीठ ने कहा कि प्रदेश सरकार के अधिकारियों द्वारा पर्याप्त कार्रवाई के अभाव के चलते

अनुपालन रिपोर्ट दाखिल करने का भी दिया निर्देश

समस्या अभी भी बनी हुई है। इसके चलते मिशन मोड में उपचारात्मक कदम उठाए जाने की आवश्यकता है। साथ ही इस तरह की लगातार नाकामियों के लिए दोषी अधिकारियों की जिम्मेदारी भी तय की जानी चाहिए। पीठ ने हाल ही में आदेश में कहा था कि यूपीपीसीबी को टेनरियों से होने वाले प्रदूषण पर लगाम लगाने के लिए उपचारात्मक उपाय करने की जरूरत है। इसमें उचित दिशानिर्देश जारी करना, ड्रम या पैडल को सील करना, उत्पादन क्षमता में कटौती व अनुपालन लक्ष्य की प्राप्ति तक टेनरियों को बंद करना शामिल है। ब्यूरो

यमुना का जलस्तर घटा, लेकिन अब भी खतरे के निशान से ऊपर

जनसत्ता संवाददाता
नई दिल्ली, 29 सितंबर।

यमुना का जलस्तर घट रहा है, लेकिन अब भी खतरे के निशान से ऊपर नयी दिल्ली, 29 सितंबर (भाषा) दिल्ली में यमुना का जलस्तर थोड़ा कम हुआ है लेकिन यह अब भी खतरे के निशान 205.33 मीटर से ऊपर है और प्रभावित लोगों को नदी के तटीय निचले इलाकों में अपने-अपने घरों में लौटने के लिए कुछ दिन और प्रतीक्षा करनी होगी। अधिकारियों ने बृहस्पतिवार को यह जानकारी दी।

केंद्रीय जल आयोग के आंकड़ों के अनुसार, यमुना में बुधवार को सुबह सात बजे जल स्तर 206.59 मीटर था जो बृहस्पतिवार सुबह नौ बजे तक घटकर 205.37 मीटर हो गया। बुधवार को दर्ज किया गया यमुना का जलस्तर अगस्त 2019 के बाद सबसे अधिक था। हालांकि, इसके दिन के दौरान खतरे के निशान 205.33 से नीचे आने की संभावना है।

दिल्ली प्रशासन ने मंगलवार को बाढ़ की चेतावनी जारी की थी, पुराने यमुना पुल पर रेल यातायात को निलंबित कर दिया था और यमुना के निकटवर्ती निचले इलाकों से लगभग 6,500 लोगों को निकालकर सुरक्षित जगह पहुंचाया था, क्योंकि भारी बारिश के बाद नदी में जलस्तर 206 मीटर के चिह्न को पार कर गया था। पिछले सप्ताह ऊपरी जलग्रहण क्षेत्रों, विशेषकर उत्तराखंड और हिमाचल प्रदेश में बारिश हुई। पिछले तीन दिनों में ऊपरी



केंद्रीय जल आयोग के आंकड़ों के अनुसार, यमुना में बुधवार को सुबह सात बजे जल स्तर 206.59 मीटर था जो गुरुवार सुबह नौ बजे तक घटकर 205.37 मीटर हो गया।

यमुना के निकटवर्ती निचले इलाकों से लगभग 6,500 लोगों को निकालकर सुरक्षित जगह पहुंचाया था, क्योंकि भारी बारिश के बाद नदी में जलस्तर 206 मीटर के चिह्न को पार कर गया था।

जल स्तर बढ़ने से किसानों की फसल डूबी

जनसत्ता संवाददाता
ग्रेटर नोएडा, 29 सितंबर।

जेवर इलाके में यमुना नदी में पानी का स्तर बढ़ जाने की वजह से किसानों की फसल डूब रही है। जिससे फसल नष्ट होने का भी खतरा किसानों को सता रहा है। वहीं, प्रशासन भी इसको लेकर सतर्कता दिखाई दे

रही है। प्रशासन द्वारा बनाई कई चौकी क्षेत्र संबंधित विभाग के अधिकारी नजर बनाए हुए हैं। जेवर क्षेत्र के झुप्पा, पूरननगर, शमशम नगर, कानीगढ़ी, गोविंदगढ़ और रामपुर गांव के नजदीक से होकर यमुना नदी गुजर रही है। जिसके बांध के कमजोर होने की वजह से पानी कटकर किसानों की फसल में पहुंच गया है।

जलग्रहण क्षेत्रों में वर्षा की कोई उल्लेखनीय घटना नहीं हुई है और हरियाणा के हथिनीकुंड बैराज से जल प्रवाह दर भी मंगलवार को सुबह सात बजे 96,000 क्यूसेक से घटकर

बुधवार को सुबह नौ बजे 25,400 क्यूसेक और बृहस्पतिवार सुबह नौ बजे 17,800 क्यूसेक हो गई। एक क्यूसेक 28.32 लीटर प्रति सेकेंड के बराबर होता है।