Yemeni forces retreat from Bab el-Mandeb Strait held by Houthis

Reuters
SANAA

Yemeni government forces said on Sunday they were withdrawing from the area near the Bab el-Mandeb Strait to focus on defending their main base in Aden, in a major setback for the Saudi-backed campaign against the Houthis (Ansar Allah).

The announcement signalled the apparent end of a six-week offensive to reclaim the coast near the mouth of the Red Sea, seized by Houthis in September in a lightning advance that squeezed oil exports.

"The Southern Armed Forces announce the implementation of a redeployment operation for its forces from Dhubab Airport and the Bab el-Mandeb area," the main military force fighting for Yemen's government said in a statement.

"This step is taken based on the priority of securing the capital, Aden, and the neighbouring governorates, as well as strengthening the front lines and addressing existing threats."



Strategic link: Fishermen pass by a commercial ship in the Bab el-Mandeb Strait. AP

The government forces have been based in Aden on the southern coast since 2015 after the Houthis seized the capital Sanaa.

Eight people were killed and 12 wounded in a missile attack by Houthis on Sunday in Lahj province near Aden, sources said.

Sunday's announcement raises the prospect of new Houthi advances towards Aden, and underscores the predicament faced by Saudi Arabia in trying to stop the Houthis' drone and missile attacks on the kingdom. There was no immediate response from the Houthis, or from Saudi Arabia, the Yemeni government's main international ally.

GS II – International Relations

Key Pointers

- Where is the Bab el-Mandeb Strait located, and which water bodies does it connect?
- Why is the strait important for global trade and energy transportation?
- How does the Suez Canal route depend on the Bab el-Mandeb Strait?
- Why is the Red Sea region strategically important for India's trade and energy security?

Depression likely to turn into cyclone, move towards A.P.

The Hindu Bureau
VIJAYAWADA/CHENNAI

A well-marked low-pressure area over the Bay of Bengal has intensified into a depression and is likely to strengthen further to potentially form a very severe cyclonic storm, with wind speeds gusting up to 145 kmph, the meteorological department has said.

The Regional Meteorological Centre (RMC) in Chennai said the weather system is likely to intensify into a cyclonic storm over the central parts of the south and adjoining west-central Bay of Bengal on Monday. On Tuesday, it is likely to turn into a severe cyclonic storm over the west-central Bay of Bengal, before intensifying further and moving northwestwards towards the Andhra Pradesh coast.

If Cyclone Akvan makes landfall in Andhra Pradesh, it will be the third cyclone within a month to hit the State, after Cyclones Arnab and Murasu.

The RMC forecasts moderate rain in parts of north coastal Tamil Nadu, Puducherry, and Karaikal on Monday, with heavy rain likely in Chennai on Tuesday, and heavy to very heavy rain on Wednesday.

CONTINUED ON » PAGE 12

GS I – Geography, GS III – Disaster Management

Key Pointers

- What is a low-pressure area, and how does it develop into a depression?
- What conditions are needed for a depression to develop into a tropical cyclone?
- How are a depression, deep depression and cyclonic storm classified?
- Why does the Bay of Bengal experience frequent tropical cyclones?
- What role do warm sea temperatures and atmospheric conditions play in cyclone formation?
- What are the major impacts of cyclones on coastal areas, agriculture and infrastructure?

Yamuna remains polluted for most of the year despite clean-up plans, data show

Nikhil M Babu
NEW DELHI

Despite the political slugfest over the pollution in the Yamuna during yet another Chhath Puja, official data show that the river's Delhi stretch remains heavily polluted for most of the year, with water quality improving during the monsoon, when floodwaters flush out pollutants.

According to official data, the faecal coliform level (microbes from human and animal excreta) in the Yamuna at Asgarpur, where the river leaves the Capital, was 660 times the Central Pollution Control Board desirable limit for bathing water quality in May, before the monsoon. The water quality improved in September, as it does every year after the monsoon.



Devotees taking a dip in the Yamuna river on Sunday. AP

The Yamuna holds religious significance for people from Purvanchal (residents of eastern Uttar Pradesh and Bihar), who constitute a significant voter base in Delhi. Many observe Chhath Puja by taking a dip in the river.

Since the Bharatiya Janata Party came to power in February 2025, an ambitious plan to divert water from the Ganga to flush out pollutants from the Delhi stretch of the Yamuna has been under discussion. However, it has yet to yield any concrete results.

"Even if the plan is finalised, it will take about two to three years for Ganga water to reach Delhi. A detailed project report has been submitted to the government, but it will be hard to give a deadline for the project at this time," an official told *The Hindu*, requesting anonymity.

Under the current plan, the government proposes to divert about 500 cusecs of Ganga water from the Upper Ganga Canal, the largest canal carrying Ganga water through western Uttar Pradesh, into the Delhi stretch of the Yamuna at Wazirabad.

Addressing the issue

Experts have long maintained that cleaning the river requires increasing its flow and curbing the sources of pollution.

To address the latter, Union Home Minister Amit Shah, after chairing a review meeting on the Yamuna clean-up plan in July last year, directed the Delhi government to nearly double its sewage treatment capacity to 1,500 million gallons per day by 2028.

To augment the sewage treatment capacity, the government awarded contracts for the construction of 29 decentralised sewage treatment plants (DSTPs) this year. The plants are scheduled for completion in January 2028.

A Delhi Jal Board official said, "All of them are expected to be completed by January 2028 and some of them may be finished even earlier. The construction of the sewer network for these DSTPs is expected to be completed by June 2028."

GS III – Environment & Ecology

Key Pointers

- What are the major sources of pollution in the Yamuna River?
- What is faecal coliform, and why is it used to assess water pollution?
- How do untreated sewage and industrial effluents affect river water quality?
- Why does the Yamuna face severe pollution in its Delhi stretch?
- What is the role of sewage treatment plants (STPs) in controlling water pollution?
- What are decentralised sewage treatment plants, and how can they improve urban wastewater management?
- What is the role of the Central Pollution Control Board (CPCB) in monitoring river water quality?

India's green law needs baselines, not snapshots



Prasanth Raju
Practising Advocate and Counsel in Bombay High Court

On August 22, the Supreme Court set aside the National Green Tribunal's judgment of December 2017, which had held the organisers of the World Culture Festival responsible for damage to the Yamuna floodplain. The festival ran from March 11 to 13, 2016, on 25 hectares of active floodplain upstream of the DND flyway in Delhi, on land allotted by the Delhi Development Authority. The appellant was Vyakti Vikas Kendra India, which runs the Art of Living International Centre. The Authority must now refund the ₹5 crore the organisers deposited as environmental compensation.

The proposition on which the judgment rests deserves defending. The 'polluter pays' principle presupposes a polluter. Liability for ecological harm must attach to the party to whom that harm is attributable, and not to whoever happens to be in occupation when the reckoning is finally attempted. A doctrine that operates without attribution forfeits the moral authority on which its severity depends. The difficulty lies in what the reasoning does with uncertainty, and that difficulty will outlive this case.

The Tribunal emerges with very little credit, and the criticism is deserved. Culpability was settled, in substance, two days before the festival opened. On March 9, 2016, the Tribunal allowed the event to proceed on condition that the organisers deposit ₹5 crore and bear the cost of restoration if damages were later found. That interim order recorded that the floodplain had been drastically tampered with. It carried no reasons and rested on a single site visit by a committee appointed 18 days earlier. The promised reasons never came. The Tribunal clarified a month later that the order left every argument open, then declined for 20 months to revisit its finding, because the organisers had not appealed against it.

Nor was the land undamaged when it changed hands, and that does not rest on the appellant's word. An expert report of April 2014, filed in earlier proceedings about the same river stretch, described the floodplain as ruined. The Tribunal's own order of July 2015 recorded that its restoration directions had gone unimplemented. In December 2015, the organisers reported construction debris across 25 to 30 acres of the allotted land, and the Authority permitted its removal.

The committee then unmade its own case. In November 2016, it said it could not assess the ecological condition of the site before the event, having described that condition in confident detail four months earlier. It nevertheless recommended a full ecological upgrade of the floodplain, which the Tribunal ordered, adding the cost of a biodiversity park that had never existed on the land. Restoration returns a site to what it was. An upgrade makes it better than it was. Section 15 of the National Green Tribunal Act, the source of the Tribunal's power here, provides for the first.

The Yamuna floodplain verdict rightly insists that the 'polluter pays' principle requires a polluter, but the route it takes leaves a gap that the National Green Tribunal Act had already closed

A statute that anticipated the problem

Section 17(2) of the same Act provides that where damage cannot be attributed to any single activity but is the combined or resultant effect of several, the Tribunal may apportion liability among those responsible on an equitable basis. The judgment reproduces Section 17 in full. That subsection thereafter plays no part in the analysis.

Set it against the Court's own framing. It asks whether the preparation work of December 2015 to February 2016 caused additional damage to a floodplain that was already damaged, and holds that the Tribunal should have answered that question and did not. The finding is not that nothing was done to the land. It is that whatever was done cannot be separated from the ruin that preceded it. That is the difficulty for which Section 17(2) exists. Apportionment still operates among those responsible, so some contribution must be shown before a share can be allotted, and whether the subsection could finally have been applied here is open to argument. What is absent is any explanation of why a mechanism Parliament supplied for precisely this difficulty was unavailable.

The material carrying the burden of exoneration is a report by a second committee, of officials from the Authority and two state irrigation departments. Constituted in July 2017, it inspected the site and reported grass, standing water, no debris, no significant wetland in the allotted area, little difference between Google Earth images taken before and after the festival, and no compaction of soil.

Two of those findings cannot do the work assigned to them. The absence of a wetland is circular. The case against the organisers was that wetlands and hollows had been filled and levelled, and if that case were true, an inspection 16 months later would find no wetland. The observation fits both accounts and settles neither. The comparison of images rests on the satellite photograph of September 5, 2015, which the same judgment holds unreliable a few pages earlier because it came from the internet and contradicted everything else on record. An image too poor to establish what was present is also too poor to establish what was absent.

The finding on compaction raises a question of even handedness. Compaction matters because ground rolled flat stops absorbing floodwater. The Court examines the first committee's account with real rigour, asking which of its members visited and whether their photographs showed the allotted land at all. That question is not put to the assertion that no compaction was found, and the record discloses no method, no depth and no comparison ground.

There is, finally, the material nobody sought. Ramps, roads, compacted earth and pontoon bridges went up on the site, and nowhere do the organisers deny that preparatory construction took place. What such works do to ground meant to absorb water is a question for engineers rather than photographers, and the answers lay in the organisers' own files: contracts, bills for earth and fill, machinery logs, compaction specifications. Nobody asked for them.

The price of a degraded commons

Where the condition of a site before occupation was not recorded, establishing how much of the later damage belongs to the occupier becomes harder. The more degraded a commons, the more safely it may be degraded further, since the fresh injury disappears into the existing ruin. Decades of failure to protect this river become a defence for whoever occupies it next.

The correction is administrative and cheap. Before any allotment of floodplain or comparable public land, require a survey on the day possession changes hands, at the applicant's cost: levels, soil density and water absorption at marked points, a map of vegetation and water bodies, dated photographs. The officer handing the land over and the person taking it sign it, so that neither can afterwards dispute what the land looked like that morning.

And where a starting condition truly cannot be recovered, approximation is better than acquittal. Compensating for damage to a protected wetland on the Costa Rica and Nicaragua border in 2018, the International Court of Justice found its earlier condition unproved, cut the claim down, and still awarded a sum rather than nothing.

Manoj Misra, who brought this case before the Tribunal in 2016, did not live to see it decided. Ten years is a long time for a river to wait for an answer to the question of who harmed it.

GS III – Environment & Ecology | Environmental Governance | Judiciary

Key Pointers

- What is the polluter pays principle, and how does it apply to environmental damage?
- What is a floodplain, and why is it important for river ecosystems?
- How do construction, land filling and other human activities damage floodplains?
- What is the role of the National Green Tribunal (NGT) in environmental protection?
- What powers does Section 15 of the National Green Tribunal Act, 2010 provide?
- How does Section 17(2) of the Act deal with damage caused by multiple activities?

PM in Manila: Giving new momentum to Act East Policy



Gurjit Singh

Former Ambassador to ASEAN and author of *The Durian Flavour*

Prime Minister Narendra Modi's participation in the ASEAN-India Summit and East Asia Summit in Manila on November 16-17 comes at an important time for India-ASEAN engagement. Strategic rivalries, economic disruption and anxieties over the international order give the summit an opportunity to reaffirm ASEAN centrality, consolidate the results of the 2026 ASEAN-India Year of Maritime Cooperation and add fresh momentum to India's Act East Policy. India is an ASEAN dialogue partner that respects ASEAN's strategic autonomy and its inclusive institutions.

In 2027, the ASEAN-India Dialogue Partnership turns 35 and their Comprehensive Strategic Partnership five. The evolution from bilateral trade and cultural exchanges in 1992 into a multidimensional partnership reflects the contemporary significance of the relations.

Maritime cooperation is central to the engagement in 2026. The second ASEAN-India Maritime Exercise demonstrated operational familiarity at sea. MILAN 2026, the International Fleet Review and the Indian Ocean Naval Symposium in Visakhapatnam enhanced engagement. The conferences on maritime security cooperation in Visakhapatnam and Kochi provide platforms for regional dialogue.

India will seek to enhance engagement in maritime domain awareness, information-sharing, search and rescue, protection of submarine cables, and humanitarian assistance and disaster relief. The role of the Information Fusion Centre-Indian Ocean Region is important as six ASEAN countries are associated with it.

Despite rising regional rivalries, ASEAN countries engage with India in the maritime sphere. Its value lies in stronger regional capabilities, confidence-building measures and complementarity with ASEAN-led initiatives.

Economic cooperation remains the principal unfinished agenda. Bilateral trade last year was approximately $128 billion, but the review of the ASEAN-India Trade in Goods Agreement (AITIGA) remains incomplete. Market access, rules of origin and non-tariff barriers require attention. The Manila summit could provide political direction to the conclusion of the review. Indian exports to ASEAN rose 56% in the current year, mainly due to higher exports of petroleum products. This should encourage the review process to conclude sooner rather than later.

Cooperation in the digital economy holds considerable promise for the future. ASEAN sees India's digital public infrastructure and fintech experience as complementary to its efforts to integrate the regional digital economy. Project Nexus, which seeks to link national instant-payment systems, could eventually facilitate cross-border transactions.

Enhanced submarine cable connectivity between India and Southeast Asia strengthens the foundations for digital services, cloud computing and artificial intelligence. In July 2026, the ASEAN-India Scale Hub in Bali demonstrated the growing potential for collaboration among start-ups, investors and technology enterprises. These indicate the Act East Policy is acquiring greater substance beyond traditional diplomacy.

Prime Minister Modi's participation in the 21st East Asia Summit carries a clear strategic message: At a time of tensions in the South China Sea, uncertainty over Taiwan and continuing conflicts in West Asia and Europe, holding inclusive regional dialogue is necessary.

India maintains a distinct position. It takes part in the Quad, maintains close relations with Russia, has reinvigorated ties with China despite border differences and continues to expand its relationships with Japan, Australia, Europe and the United States. These relationships allow India to support dialogue across geopolitical divides while continuing to advocate for a rules-based, inclusive Indo-Pacific.

The possibility of a Quad summit finally taking place in Manila, with leaders from all four Quad countries expected to participate, gives greater weight to this Indian perspective on the region.

The Philippines' chairmanship lends additional relevance to these summits. While India-Philippines relations have advanced strategically, India also maintains broad engagement with Singapore, Indonesia, Vietnam, Malaysia and Thailand.BRICS has become another platform for increased exchanges with ASEAN members. At the BRICS Summit in New Delhi this year, Indonesia took part as a member and Malaysia, Thailand and Vietnam as partners.

Beyond governments, there are active engagements between universities, businesses, research institutions, and youth. Direct flights are carrying more tourists, Nalanda University is attracting more ASEAN students, and cooperation in healthcare, renewable energy and skills development is building up.

The results of the Manila meetings will be judged by whether they convert the achievements of 2026 into a forward-looking agenda for 2027 and beyond. The ASEAN-India Plan of Action for 2026-2030 provides the framework. Greater progress in maritime cooperation, trade facilitation, digital connectivity and people-to-people exchanges will help translate political camaraderie into tangible benefits for their peoples.

Prime Minister Modi's presence in Manila will reinforce a clear message: India's Act East Policy is not merely an outreach to Southeast Asia. It is increasingly about working with ASEAN to shape a stable, prosperous and inclusive Indo-Pacific. In a fraying international order, such a partnership offers both sides greater strategic space and a framework for enhanced cooperation.

India's Act East Policy is not merely an outreach to Southeast Asia. It is increasingly about working with ASEAN to shape a stable, prosperous and inclusive Indo-Pacific

GS II – International Relations

Key Pointers

- What is India's Act East Policy, and how does it differ from the Look East Policy?
- Why is ASEAN central to India's engagement with Southeast Asia?
- What is the significance of the ASEAN-India Comprehensive Strategic Partnership?
- How does maritime cooperation with ASEAN support India's security interests?
- What is the importance of the South China Sea for regional trade and security?
- What is the role of the Quad in promoting a free, open and inclusive Indo-Pacific?

India and Bangladesh should support temporary renewal of Ganga Water Treaty: expert

Kallol Bhattacherjee
NEW DELHI

There is no possibility of a fully revised India-Bangladesh Ganga Water Treaty in the mere four weeks left before the 30-year-old treaty expires, Manjur Ahmed Chowdhury, former Chairman of the National River Conservation Commission of Bangladesh, said on Sunday. The treaty could be renewed for three to five years "at the last moment", Mr. Chowdhury said, but clearance would be needed at the highest level of political leadership for it.

"Four weeks is not sufficient for revising the old Ganga Water Treaty as river treaties require more time to finalise. But having a bad treaty is also better than not having any treaty at all. We can at least opt for a renewal of the treaty for three to five years, if the political leaderships of both sides give the green signal," Mr. Chowdhury said.



The Ganga Water Treaty will expire in December. FILE PHOTO

Agriculture season

He cautioned Bangladesh on the upcoming agriculture season of February when, as in every year, Bangladesh's dependence on Ganga water will increase.

"Without a treaty, India will not have any commitment to release water at regular intervals and that might pose a major problem for Bangladesh's agriculture sector, economy as well as ecology," Mr. Chowdhury said.

The Ganga Water Treaty was signed in December 1996. Prior to the signing of the treaty, for eight years between 1988 and 1996, Bangladesh suffered due to unpredictability in the supply of Ganga water. The treaty had ensured predictability, which helped Bangladesh, Mr. Chowdhury said.

He added that the Government of Prime Minister Tarique Rahman had not managed Bangladesh's foreign policy requirements effectively.

"The foreign policy of the government has become unhinged from real requirements. At the moment, there is an urgent need for agreement between the political leaderships of Bangladesh and India to ensure the Ganga Water Treaty remains on track," Mr. Chowdhury said.

GS II – International Relations | India's Neighbourhood Policy | Water Sharing

Key Pointers

- What are the main provisions of the 1996 Ganga Water Sharing Treaty?
- Why is the sharing of Ganga waters important for India and Bangladesh?
- What is the role of the Farakka Barrage in the sharing of river water?
- How does the treaty regulate water sharing during the lean season?
- What are the challenges in sharing river water between upstream and downstream countries?
- How can climate change and changing rainfall patterns affect water-sharing agreements?

India votes against UN resolution on death penalty

Press Trust of India
UNITED NATIONS

India has voted against a draft UN General Assembly resolution calling upon nations to establish a moratorium on the death penalty.

The 193-member UNGA adopted, by recorded vote, the resolution on Friday introduced by Mexico on "Moratorium on the use of the death penalty", with 133 countries voting in favour of the resolution, 33 against, and 16 absenting.

The resolution expressed deep concern about the continued application of the death penalty, and reaffirmed the right of all countries to develop their own legal systems, including determining appropriate legal penalties in accordance with international law.

It called upon all states to establish a moratorium on executions, with a view to abolishing the death penalty.

The resolution expressed deep concern that despite the global trend towards limiting the application of the death penalty, there was a significant surge in reported executions in 2025.

GS II – International Relations | Human Rights | United Nations

Key Pointers

- What is a moratorium on the death penalty?
- What is the role of the UN General Assembly in promoting human rights?
- Is a UN General Assembly resolution legally binding on member countries?
- What is the difference between a moratorium and the complete abolition of the death penalty?
- What does the International Covenant on Civil and Political Rights (ICCPR) say about the death penalty?

AMRITA IAS
An Amrita Group Institution

Nagaland seeks travel permit exemption for foreign nationals

The Hindu Bureau
GUWAHATI

Nagaland Chief Minister Neiphiu Rio has requested the Centre to allow foreign nationals to visit the State without a Protected Area Permit (PAP). The PAP is a special travel document required to enter sensitive border and tribal regions in India.

In a letter to Union Home Minister Amit Shah on November 13, he said the existing 10-day PAP relaxation for the Hornbill Festival was insufficient to support tourism, trade, and investment in the State.

Mr. Rio welcomed the Union Home Ministry's decision to relax the PAP requirement from December 1 to 10 for the festival every year.

"However, the limited window does not address the State's wider tourism and economic needs," he said.



Neiphiu Rio

The Chief Minister sought PAP exemption from November 15 to December 15 for the Hornbill Festival, pointing out that foreign tourists often arrived before the event and stayed beyond its conclusion to explore Nagaland.

Mr. Rio urged the Ministry to extend PAP exemptions to foreign investors, corporate representatives, and their accompanying families, foreign athletes, coaches, technical officials, and team management participating in sporting events.

GS II – Polity & Governance | Internal Security

Key Pointers

- What is a Protected Area Permit (PAP), and why is it required?
- Which areas of India require foreign nationals to obtain a PAP?
- What is the purpose of regulating foreign visitors in sensitive border regions?
- What is the difference between a Protected Area and a Restricted Area?
- Why is Nagaland seeking relaxation of PAP requirements?

WHAT IS IT?

Nāpōwawā'enakaulua

Vasudevan Mukunth

In the Hawaiian language, Nāpōwawā'enakaulua means "two celestial bodies of fathomless powerful darkness in the brilliance of heat reincarnating energy into the universe". It is a nickname astronomers have given to a strange new discovery: an unusual pair of quasars that are also closer to each other than thought possible.

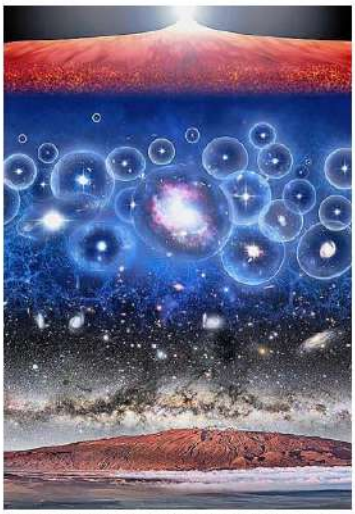
A quasar is the extremely bright centre of a galaxy, where a black hole is drawing in and heating up gases, causing them to emit radiation. The pair is unusual because it existed when the universe was only 900 million years old.

The official designation of Nāpōwawā'enakaulua is J1602+4228AB. Astronomers first spotted the brighter of the pair in 2004, and later the James Webb Space Telescope discovered the second one nearby. Finally, scientists used the Gemini North telescope in Hawaii to study both quasars together.

The quasars are separated by only 18,100 lightyears, which is extremely tight for powerful objects of this nature.

Today, astronomers around the world are struggling to explain how black holes could have grown so large within the first billion years of the universe. The black in one of the quasars weighs a whopping 1.5 billion solar masses. One hypothesis is that young galaxies merged and funnelled copious amounts of gases towards their central black holes, feeding their growth.

Another is that the gravity of a galaxy lying between the earth and a quasar could bend the quasar's light, making one object appear as two. This possibility remains to be eliminated — or confirmed — as astronomers continue studying Nāpōwawā'enakaulua.



An artist's impression of Nāpōwawā'enakaulua NOIRLAB

For feedback and suggestions for 'Science', please write to **science@thehindu.co.in** with the subject 'Daily page'

GS III – Science & Technology | Astronomy | Space Research

Key Pointers

- What is a quasar, and how is it formed?
- What is the role of a supermassive black hole in the formation of a quasar?
- Why do quasars emit extremely large amounts of energy?
- What makes the pair of quasars J1602+4228AB unusual?
- How can two nearby quasars help scientists study the growth of early black holes?
- What is gravitational lensing, and how can it make one quasar appear as two?
- How does the James Webb Space Telescope help scientists study the early universe?

AMRITA IAS
An Amrita Group Institution