

DAILY PT POINTERS

9th July, 2024



The Hindu : GS 2/Governance –Page-1

Hemant Soren wins trust vote, inducts 11 Ministers into Jharkhand Cabinet

The Hindu Bureau
PATNA

Eleven Ministers were inducted into the Cabinet of Chief Minister Hemant Soren soon after he won the floor test in the Jharkhand Assembly with 45 votes on Monday.

Six Ministers are from the Jharkhand Mukti Morcha (JMM), four from the Congress, and one from the Rashtriya Janata Dal (RJD). Governor C.P. Radhakrishnan administered the oath of office and secrecy to them.

The JMM Ministers are Champai Soren, Baidyanath Ram, Deepak Biruwa, Mithilesh Kumar Thakur, Hafizul Hasan, and Baby Devi; the Congress Ministers are Rameshwar



Fresh start: Jharkhand Governor C.P. Radhakrishnan being greeted by Chief Minister Hemant Soren in Ranchi on Monday. PTI

Oraon, Banna Gupta, Irfan Ansari, and Deepika Pandey Singh; and Satyanand Bhokta from the RJD. Mr. Ansari and Ms. Singh are first-time Ministers.

Mr. Ansari's name was making the rounds from the Congress ever since

Alamgir Alam was sent to jail in an alleged commission scam. Badal Patralekh of the Congress has been dropped from the Cabinet.

With an eye on the upcoming Assembly election, Mr. Soren has given a strong message by dropping

his younger brother Basant Soren, who was earlier part of the Cabinet. He has also not given a Cabinet post to his wife, Kalpana Murmu Soren, a first-time MLA. The Cabinet has a balanced representation, including tribal persons, Muslims and Other Backward Classes.

Oppn. stages walkout

Earlier, the Hemant Soren government won the trust vote on the floor of the Assembly. Forty-five JMM-led alliance legislators voted for the motion and there were zero votes against it after the Opposition walked out and did not take part in the voting.

ED MOVES SC AGAINST BAIL

» PAGE 11

Floor Test (aka Trust Vote)

- It is a **constitutional mechanism** used to determine whether the incumbent government enjoys the support of the legislature.
- Under it, a Chief Minister appointed by the Governor can be asked to prove majority on the floor of the Legislative Assembly.
- It is primarily taken to know whether the executive enjoys the confidence of the legislature.
- Under **Article 175(2)**, the Governor can summon the House and call for a floor test to prove whether the government has the numbers.

The Hindu :GS2-Governance(Page -3)

Karnataka set to begin 'Naavu Manujaru' to inculcate social harmony among students

Jayanth R.
BENGALURU

With the stated objective of turning all educational institutions in the State into centres of social harmony, tolerance and scientific temper, the government has ordered implementation of 'Naavu Manujaru' programme from this academic year.

Implementation of this programme would involve discussions and dialogues for two hours per week (with three periods of 40 minutes) in all government, aided, and unaided primary and high schools of the State, the order said. One period of value education and two periods of Socially Useful Productive Work (SUPW) have been adjusted to this.

This programme was announced in the State Budget of 2024-25, presented by Chief Minister Siddaramaiah, to inculcate values enshrined in the Constitution among children.



The Department of School Education and Literacy has released a format for implementation of the programme. FILE PHOTO

Officers have been advised to provide appropriate guidance regarding the implementation of the programme and appoint nodal officer at the district level, and submit a report to Department of State Educational Research and Training (DSERT), the order said. No special grant will be given for the implementation of the programme.

The Department of School Education and Literacy has released a format for implementation of the programme.

According to the format,

discussion should be held on social harmony and its significance, based on local and national festivals, folk games, sports etc.

Discussion on the thoughts of social reformers, visiting and sharing information on outbound/local famous places, cottage industries, discussion on nuclear and non-nuclear families, discussion on elimination of inequality and dialogue on constitutional values like equality, liberty and fraternity, will be the part of the implementation of the programme.

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The Hindu: GS 2-Governance-Page 8

What are new provisions for police officers?

With the new criminal laws coming into effect, how have basic duties of police officers changed? What are some of the changed provisions with respect to arrests of elderly and infirm people? What about preserving electronic evidence? How can electronic evidence be stored?

EXPLAINER

R.K. Vij

The story so far:

The new criminal laws have become effective from July 1. SOPs have been issued by the Bureau of Police Research and Development (BPRD) to guide police officers in implementing the new provisions.

What are rules for registering FIRs?

The officer-in-charge of a police station cannot refuse to register an FIR on the basis of lack of jurisdiction or disputed jurisdiction. He is legally bound to register (popularly known as a zero FIR) and transfer such a case to the respective police station. Though this practice was followed earlier too, the Bharatiya Nagarik Suraksha Sanhita (BNSS) now has a direct provision under Section 173; non registration of FIRs may attract penal action under various sections.

Additionally, while information can be given orally or in writing as before, it may also be given by electronic means which is to be taken on record by the officer-in-charge if it is signed within three days by the person giving it. While no one can stop a police officer from enquiring into the information immediately if it is of a sensitive nature, the electronic mode by which information may be given must be decided by the agencies, such as the Crime and Criminal Tracking Network and Systems (CCTNS) portal, the police website or officially published email IDs.

What about videography?

The BNSS mandates videography during a search conducted by the police under Section 185; of the scene of crime (Section 176); and of the process of conducting a search of a place or taking possession of any property (Section 105). Since these are mandatory provisions, any negligence on the part of the police may benefit the



GETTY IMAGES

officers (IOs) must be provided electronic devices and proper training to discharge such functions.

A cloud-based mobile app, 'eSakshya' has been designed by the National Informatics Centre for enforcement agencies, which allows capturing multiple photos and videos. The photographs of witnesses and selfies of IOs may be captured using this app. Each item is geo-tagged and time-stamped to ensure the integrity of data. Since eSakshya is an initiative under the Inter-operable Criminal Justice System (ICJS), this data will be available to other agencies such as the judiciary, prosecution and cyber forensic experts.

What about provisions of arrest?

Information about arrested persons is to be mandatorily displayed in police

done only when there is a possibility of escaping from custody or causing harm to himself or others.

What about timelines?

In case of medical examination of a victim of rape, the registered medical practitioner is mandated under Section 184 (6) of the BNSS to forward the medical report to the IO within seven days, who shall forward it to the magistrate concerned. Therefore, doctors must be sensitised about the new law. The investigation of POCSO cases is required to be completed within two months of recording the information of the offence. Earlier, this time limit was only for rape cases under the Indian Penal Code.

A new provision under Section 183(3)(i) requires the IO to maintain the sequence of custody of an electronic device. Though maintaining a chain of custody is important for every seizure, emphasis is laid on electronic devices because they are sensitive pieces of evidence and more vulnerable to tampering. While every police officer is required to upgrade his skills about maintaining integrity of electronic records, the task of the (cyber) expert is likely to increase with many of the mandatory provisions coming into effect.

This sub-section also imposes a duty to inform the progress of the investigation within 90 days to the informant or victim. Section 113 introduced in the Bharatiya Nyaya Sanhita (BNS) defines what is a 'terrorist act' and imposes the duty on an officer, not below the rank of Superintendent of Police (SP), to decide whether to register a case under this

Section or the UAPA. Since, no guidelines are given to exercise this discretion, the SP may inter-alia consider factors such as whether the terrorist organisation is notified under the UAPA, approximate time needed to complete investigation, the rank of the IO and the level of scrutiny required, and how dangerous the accused person is.

R.K. Vij is a former Indian Police Service

THE GIST

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Section 173 of the BNSS requires a police officer in every police station, not below the rank of Assistant Sub-Inspector, to be responsible for maintaining and prominently displaying information about the arrested persons.

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The Hindu-Environment (GSIII)-Page 8

What are the laws preventing tree felling in Delhi?

What is the extent of the national capital's green cover? What does Delhi Preservation of Trees Act mandate?

Kartikey Singh

The story so far:

In June 26, a Vacation Bench of the Supreme Court (SC) directed the Delhi government and Delhi Development Authority (DDA) to take effective steps to enhance the national capital's green cover amidst the extreme heat wave.

What is the extent of the green cover?

According to the 'India State of Forest Report 2021' (ISFR) published by the Forest Survey of India (FSI), Delhi has the largest forest cover among seven major megacities, with 195 sq. km, followed by Mumbai (110.77 sq. km) and Bengaluru (89.02 sq. km). Delhi's forest cover constitutes 13.15% of its geographical area, while its tree cover spans 147 sq. km (9.91%). Despite extensive urban development, the city's overall green cover (forest and tree cover) has increased from 151 sq. km (10.2%) in 2001 to 342 sq. km (23.6%) in 2021.

What about their protection?

The Delhi Preservation of Trees Act (DPTA), 1994 provides legal protection to trees in the national capital against actions that could harm their growth or regeneration. According to Section 2 (h) of the Act, "to fell a tree" includes severing the trunk from the roots, uprooting, bulldozing, cutting, girdling, lopping, pollarding, applying arboricides, burning, or any other damaging method. Under Section 8, no tree or forest produce can be removed on any land without prior permission from the "Tree Officer", even on privately owned property. The "Tree Officer" may grant permission after inspection and must respond within 60 days. Any person violating this Act may face imprisonment for up to one year, a fine up to ₹1,000, or both. Furthermore, the Act outlines a "Tree Authority" tasked with conducting tree censuses, managing nurseries, and reviewing government and private construction proposals, among other responsibilities. In addition, Delhi's Tree Transplantation Policy, 2020

mandates that 80% of identified trees slated for felling must be transplanted. However, an affidavit submitted by the government to the Delhi High Court in 2022 disclosed that out of the 16,461 transplanted trees since the policy's notification, only 33.33% had survived.

What is the case against the DDA?

The apex court is hearing a contempt petition against DDA's Vice Chairman Subhashish Panda for the felling of about 1,100 trees, in violation of the SC's orders, for road expansion in the ridge area, which falls under the eco-sensitive zone around Asola-Bhati Wildlife Sanctuary. On March 4, the DDA submitted an application to the SC seeking permission to cut trees for the construction of the Gushala Road. However, the court directed the DDA to re-examine the proposal with the help of field experts. During the proceedings, an affidavit from the DDA's Vice Chairman revealed that tree felling had already begun on February 16 and continued for ten days.

So, by February 26, all intended trees were cut down even before the application reached the SC. This material fact was not disclosed when the court heard the application on March 4. Despite knowing no trees could be touched without the court's sanction, the DDA misled the court and acted in bad faith by seeking permission only after the tree felling work. While probing deeper to set accountability, the Bench pulled up DDA for not providing records of the Delhi LG's (Chairman of the DDA) February 3 visit to the site, which allegedly led to the tree felling order. The Delhi government was also reprimanded for usurping the Tree Officer's authority in granting permission.

The apex court has halted the DDA's work and directed a team from the FSI to assess the number of trees cut and the environmental damage.

What next for Delhi?

Amid an extreme heatwave, rampant tree felling in the world's second most populous city will only worsen hardships. Urban forests act as carbon sinks, absorbing emissions and filtering pollutants, essential for cities like Delhi with persistently unhealthy air quality indices. Trees reduce the urban heat island effect by lowering temperatures through shading and evapotranspiration. Among other reforms, the government should consider increasing the penalty from ₹1,000 to ₹5,000 under the DPTA, 1994, aligning it with current realities. *Kartikey Singh reads law at RGNUL.*

THE GIST

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The Hindu –Science and Tech (GSIII)-Page 9



Looking forward: In the nation of World Electric Vehicle Day, a row of 175 electric vehicles (EVs) of the latest models are lined up in Bangalore.

In an electric vehicle, what is regenerative braking?

Regenerative braking is a system designed to convert the kinetic energy of the wheels to a form that can be stored and used for other purposes. Here the motor operates as a generator turning mechanical energy back to electrical energy.

Santhosh Mukundan

The impetus to be sustainable driven by the increasing pressure to lower our carbon footprint, often translates as seeking transportation and increasing range alongside a focus on reducing emissions. In the case of electric vehicles, the focus is on range, efficiency and stability. Regenerative braking is an important mechanism in these vehicles that increases their energy use efficiency.

What is braking? Braking is the mechanism by which an automobile vehicle in motion slows down. A vehicle moving faster has more kinetic energy than a vehicle moving slower, so the process of braking uses or generates kinetic energy from the vehicle. The law of energy conservation means the wasted energy has to go somewhere.

For example, the disc brake is one type of mechanical brake. It works by pressing a brake pad against a disc, attached to the rotating wheels, and uses friction to convert some of the vehicle's kinetic energy into heat. This is why the discs of the brake have holes, can turn them, or dissipate heat better.

Another type is the induction brake, often used to train a magnet induces a current in the wheels to a spinning wheel made of a conducting material, for metal. These currents produce their own magnetic field, which opposes that of

propel the vehicle, converting electrical to mechanical energy. This motor is called the traction motor. During regenerative braking, the motor operates as a generator, turning mechanical energy back to electrical energy. In this vehicle, this means all electric current will be produced at the vehicle's wheels, which is stored temporarily in a battery or some other vehicle, especially trains, the current is fed back into the traction motor. The other type of dynamic braking is rheostatic braking, where the current is sent to an array of resistors that dissipate the electrical energy as heat. It is often necessary for a vehicle to have both regenerative and rheostatic braking to use the electrical energy recovered, can be stored or sent right away.

How does motor become a generator? A motor has two essential parts: a rotor (the thing that turns) and a stator (the thing that's stationary). In a radial-stator design, the stator consists of permanent magnets or other magnets while the rotor consists of current-carrying slots radiating out from the stator. The rotor surrounds the stator.

When a charged particle, like an electron, moves inside a magnetic field, the field exerts a force on the particle called the Lorentz force. Whether the force will push or pull the wire in which the electron is moving depends on the direction of the electric current. Think of it as if you're in a boat. The

The mechanics of brake energy generation

Regenerative braking is a type of dynamic braking. It uses the motor operating as a generator to turn mechanical energy back to electrical energy. In a vehicle, this means an electric current will be produced at the vehicle's wheels, which is stored in a battery.

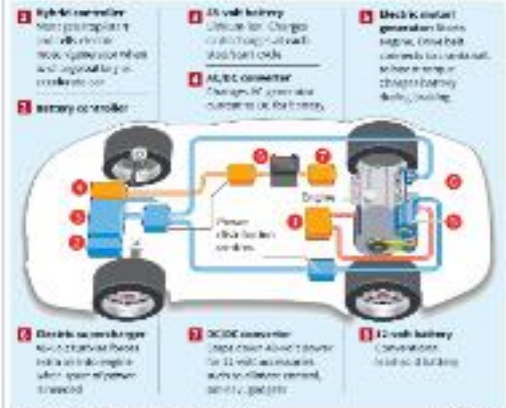


Illustration: The Hindu, Bangalore, India, 2019. Source: Wikimedia Commons. © 2019 The Hindu.

- Regenerative braking is a brake system designed to convert the kinetic energy of the wheels to a form that can be stored and used for other purposes. As such, it creates a process in which at least part of the energy delivered to the vehicle's wheels can be recovered in a situation when the vehicle doesn't need it.
- Regenerative braking is one type of dynamic braking. In an electric vehicle, of the types becoming common on Indian roads, a battery onboard the vehicle draws electric power from the grid and stores it.

The Hindu –Governance(GSII)-Page 12

Centre set to tweak criteria for according classical language status

Sreeparna Chakrabarty
NEW DELHI

Amid demand for classical status for many languages, the Union government has decided to tweak the criteria for giving the special tag.

The Linguistics Expert Committee of the Culture Ministry submitted a report on October 10 last year, suggesting changes, sources in the Ministry told *The Hindu*.

The sources said the Centre had asked the panel to reconsider the rules. The issue was taken up first at a meeting on June 21, 2023. A Gazette notification of the new criteria will be issued after Cabinet approval.

This, in effect, means that classical language status for certain languages, chiefly Marathi, which is under consideration of the government, may have to

With polls due in Maharashtra, push for the status for Marathi has gained momentum

wait for the notification.

Over the years, some States and literary circles have been demanding classical status for languages such as Marathi, Bengali, Assamese and Maithili.

In 2014, then Maharashtra Chief Minister Prithviraj Chavan constituted a committee of Marathi language experts chaired by Ranganath Pathare, and the report was submitted to the Centre. The Pathare committee had concluded that Marathi fulfils all parameters to be recognised as a classical language.

Mr. Chavan had written to then Culture Minister Shripad Naik requesting that the demand be met.

The issue has been

raised time and again by MPs from Maharashtra in Parliament, and the Centre has given assurances at least three times in the past 10 years that Marathi was being considered. Then Union Culture Minister G. Kishan Reddy informed Parliament in February 2022 that “the proposal for according classical status to Marathi was under the active consideration of the Ministry of Culture”.

Once a language is notified as a classical language, the Education Ministry helps promote it, which includes instituting two major annual international awards for scholars of eminence in the language. Apart from this, a centre of excellence for studies in the language is set up, and the University Grants Commission is requested to create a certain number of Professional Chairs in Central universities

With Assembly election due in Maharashtra in October, the demand in support of Marathi has gained momentum. Recently, Congress general secretary Jairam Ramesh posted on X: “For the last ten years, the demand for declaring Marathi as a classical language has been pending with the Modi Sarkar”.

The Shiv Sena-BJP government in Maharashtra too upped the game by forming a “persuasion” committee, led by former diplomat Dnyaneshwar Muley, four months ago. The mandate of this committee is to liaison and pursue the matter with Union government officials.

Lakshmikant Deshmukh, a committee member, told *The Hindu*: “Maharashtra is a rich State. We do not need any funds for the promotion of the language. It is just a matter of pride for us.”

Centre set to tweak criteria for according classical language status

The Linguistics Expert Committee comprises representatives of the Union Ministries of Home, Culture and four to five linguistic experts at any given time. It is chaired by the president of the Sahitya Akademi.

India has six classical languages as of now – Tamil, Sanskrit, Telugu, Kannada, Malayalam and Odia. It was in 2014 that the government last granted the special tag.

The current criteria evolved by the government to determine declaration of a language as a classical language are – it should have high antiquity of its early texts/recorded history over a period of 1,500-2,000 years, a body of ancient literature or texts that is considered a valuable heritage by generations of speakers, the literary tradition should be original and not borrowed from another speech community. Another criterion is that the said language and literature should be distinct from its modern format; there may also be a discontinuity between the classical language and its later forms or its offshoots.

The Hindu—Economy (GSIII)-Page 13

Govt. reopens PLI scheme for white goods till October 12

The Hindu Bureau
NEW DELHI

The Centre has reopened the application window for the Production linked Incentive (PLI) scheme for white goods from July 15 to October 12, citing industry appetite to invest more in the scheme originally launched in 2021.

The Commerce and Industry Ministry said the fresh window was an “outcome of the growing market and confidence generated due to manufacturing of key components of air



conditioners and LED lights” under the PLI White Goods (PLIWG) scheme.

So far, 66 applicants with committed investment of ₹6,962 crore have been selected as beneficiaries under the PLIWG.

The government has retained the terms and conditions for applicants under the new window. But it has decided to switch to a quarterly system of incentive payouts from the current annual one.

“In order to avoid any discrimination, both new applicants and existing beneficiaries of PLIWG who propose to invest more by way of switching over to higher target segment or their group companies applying under different target segment would be eligible to apply,” it added.

- White goods refer to heavy consumer durables or large home appliances, which were traditionally available only in white. They include appliances such as washing machines, air conditioners, stoves, refrigerators, etc. The white goods industry in India is highly concentrated.

Do you know ?

- PLI Scheme for White Goods for manufacture of components and sub-assemblies of ACs and LED Lights was approved by the Union Cabinet chaired by the Prime Minister on 7th April, 2021.
- The PLI Scheme for White Goods is designed to create a complete component ecosystem for Air Conditioners and LED Lights Industry in India and make India an integral part of the global supply chains. Domestic Value addition is expected to grow from the current 15-20% to 75-80%.

Indian Express –Environment (GSIII)-page 9

India to sign, ratify High Seas Treaty: Minister

EXPRESS NEWS SERVICE
NEW DELHI, JULY 8

INDIA HAS decided to sign and ratify the High Seas Treaty, a global agreement for conservation and protection of biodiversity in the oceans, that is often compared to the 2015 Paris Agreement in its reach and impact.

The High Seas Treaty, also known as the agreement on Biodiversity Beyond National Jurisdictions (BBNJ), was negotiated in March last year. "India remains committed and proactive to the global cause of environmental conservation and sustainable development. We will be signing (the BBNJ Agreement) and are propitious of subsequently ratifying it through the necessary legislative processes," Science and Technology Minister Jitendra Singh said on Monday following the endorsement of the treaty by the Cabinet on July 2.

"The government is aligned to scientific progress, strengthening international collaboration, and promoting governance, transparency, accountability and the rule of law," Singh said.

The High Seas, the oceans outside the national boundaries of countries, are international commons, open for use by all. The resources found in these ar-

reas, which constitute about 64% of the ocean surface, are open for extraction by anyone. The exact activities, and the manner in which they can be carried out, are governed by international and regional laws. Most notable and wide-ranging of the laws is the UN Convention on the Law of the Seas, or UNCLOS, which defines the rights and duties of the country, and lays down the general principles of acceptable conduct in the oceans.

The High Seas Treaty, once it is ratified by the requisite number of countries and becomes international law, would operate under the UNCLOS framework, and become one of its implementing instruments.

Among other things, the High Seas Treaty would define and demarcate marine protected areas in biodiversity-rich zones of the oceans that are under stress.

The treaty also seeks to ensure that any benefits accruing from ocean life forms, like drug development, is considered a global common, is free of intellectual property rights and equitably shared with everyone.

The treaty would become international law 120 days after at least 60 countries submit their ratification documents. Of now, 91 countries have signed the treaty, but only eight have ratified it.

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Indian Express—Environment –GSIII-Page 14

How climate change fuelled Hurricane Beryl's record early intensification

ALIND CHAUHAN
NEW DELHI, JULY 8

HURRICANE BERYL became the earliest storm on record during the Atlantic hurricane season to have reached the highest Category 5 classification.

The storm, which tore through the Caribbean islands earlier this month, killed at least 11 people after triggering intense floods and dangerous winds in Jamaica, Grenada, Saint Vincent and the Grenadines, and northern Venezuela. On Monday, it made landfall in Texas, United States, as a Category 1 storm, flooding streets and knocking out power for more than two million people in the state.

How are hurricanes formed?

Hurricanes, or tropical storms, form over warm ocean waters near the equator. When the warm, moist air from the ocean surface rises upward, a lower air pressure area is formed below. Air from surrounding areas with higher air pressure rushes into this low pressure area, eventually rising, after it also

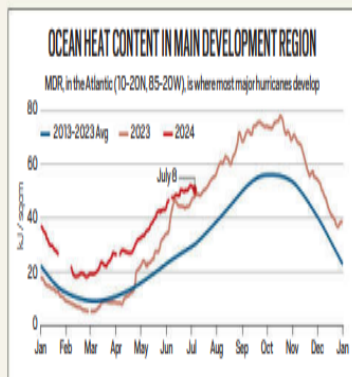
becomes warm and moist.

As warm, moist air rises, it cools down, and the water in the air forms clouds and thunderstorms. This whole system of clouds and winds gains strength and momentum using the ocean's heat, and the water that evaporates from its surface. Storm systems with wind speeds of 119 kmph and above are classified as hurricanes.

Hurricanes are classified using the Saffir-Simpson Hurricane Scale into five categories (Category 1 to Category 5) based on their sustained wind speeds. While Category 1 hurricanes bring winds of 119 to 153 kmph, Category 5 hurricanes, which are the strongest, have winds of 252 kmph or higher. Storms that reach Category 3 and higher are considered major hurricanes due to their potential to inflict significant damage.

How did Beryl become a Category storm?

Within 24 hours of emerging as a tropical depression with winds of 56.3 kmph on June 28, Beryl transformed into a hurricane. Over the next 24 hours, it rapidly intensified to become a Category 4 hurricane. At that



begins in June and lasts until November. Generally, the first major hurricanes do not form until September. This is because till that time, the ocean is not warm enough either at the surface, or deeper down to fuel such strong hurricanes, according to NOAA.

This is what makes Beryl so unprecedented. Although it is difficult to attribute a specific hurricane to global warming, scientists see unusually warmer oceans as the primary reason behind Beryl turning into a powerful storm this early in the season.

Since last year, ocean temperatures in the Atlantic – and across the world – have mostly been in record-breaking territory. Not only are sea surface temperatures rising, ocean heat content (OHC) – a measure of the amount of heat present in ocean water – is also soaring, which is a bigger worry. The graph shows that this year's OHC (in red), for the area of the Atlantic Ocean where most major hurricanes like Beryl form, has been far above the 2013-2023 average (in blue).

"For storms like Beryl... if it were moving over a part of the ocean where the warm water was so deep, it's just going to churn up more warm water. The hot water goes down to probably about 100 to 125 meters deep... It is pretty crazy," Brian McNoldy, an atmospheric scientist at the University of Miami, told Science News last week.

What happens next?

Scientists are still debating over how exactly climate change impacts hurricanes. There is agreement, however, that at the very least, climate change makes hurricanes more prone to rapid intensification – where maximum wind speeds increase very quickly.

The frequency and magnitude of these rapid intensification events in the Atlantic seems to have spiked between 1971 and 2020, according to a 2023 study published in the journal *Nature*.

Therefore, as the world and its oceans continue to become warmer, scientists are concerned that even more powerful hurricanes could form in the near future.

"We're essentially 'stacking the deck' of extreme events against ourselves, making events like Hurricane Beryl not only possible, but more likely," Andra Garner, an assistant professor at Rowan University, told the BBC.

Why did Beryl become a Category 5 hurricane so early?

The hurricane season in the Atlantic be-

Hurricane Beryl became the earliest storm on record during the Atlantic hurricane season to have reached the highest Category 5 classification.

Hurricanes, or tropical storms, form over warm ocean waters near the equator. When the warm, moist air from the ocean surface rises upward, a lower air pressure area is formed below. Air from surrounding areas with higher air pressure rushes into this low pressure area, eventually rising, after it also becomes warm and moist.

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