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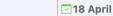












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"Indifference and neglect often do much more damage than outright dislike."

J.K. Rowling, Harry Potter and the Order of the Phoenix

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Bhagwant Singh Mann lar

gely focused his inputs on water-related issues facing his State, but also called for

port from the Centre and spoke about the "step-motherly treatment" being





INSIDE



Top Maoist leader among two killed in Jharkhand

PATINA
Two Maoists , including
Jharkhand Jan Mukti Parishad
supremo Pappu Lohra alias
Suryadev Lohra, were killed by security forces in Latehar district of Jharkhand on Saturday to PAGE 3



+ Display of Meitei flag on Manipur peak sparks row

CHIMARIATE GUMARATI
The display of a flag
representing seven Meitei clans
by Azambai Tenggol on Shirui
peak in Manipur's Tangkhul
Naga-majority Ukhul district
has triggered a row. 30 PAGE 3

Modi calls for Centre-State synergy

At NITI Aavog's Governing Council meet, PM seeks cooperation to speed up development, and asks States to develop world-class tourist hubs; T.N. seeks a higher share of Central tax revenues; Punjab bemoans 'step-motherly treatment

exhorted the States to come together with the Centre to speed up development across the coun-try at the 10th meeting of the NITI Aayog Governing Council on Saturday, sever-al States – such as Tamil Nadu and Punjab – voiced their grievances with the Centre, while others pre-sented plans to boost their Chief Ministers and

most of the States and Unmost of the States and Un-ion Territories as well as Union Ministers attended the meeting chaired by Mr. Modi on the theme of "Vik-Modi on the theme of "Vik-sit Rajay for Vikist Bha-ratig2047". "We have to increase the peed of de-increase the peed of de-termined by the control of the statement. "If the Centre and all the States come to-get the control of the like Team leads to geother like Team leads to deve-ble at least one tourist spot lop at least one tourist spot



to international standards, in line with a "one State, one global destination" ap-proach. "We must work to-wards the inclusion of wo-

ing the meeting that the States currently received just 33.16% from the Cen-tral tax pool, against the promised 41%.

men in our workforce, he said. "We must make laws and policies so that they can be respectfully line grand in the workforce."

Concerns raised for the Volcing concerns for the Minister M.K. Stalin "demanded a rightful share for States in Central taxee". He noted in a post on & follow

government said in its release.

Development plans Andhra Pradesh Chief Mi-nister N. Chandrababu Nai-du suggested the creation of three focused sub-groups of States, which would work with the Centre and NITI Aavog to fast-track progress toward Viksit Bharat by 2047.

The first sub-group should be on GDP growth and aim at boosting "inwestments, manufacturing, exports, and job creation*. The second sub-group control of the second sub-group could focus on "technologies". The third sub-group would focus on "technologies", the second sub-group to the second sub-group to the second sub-group to the second sub-group could focus on the second sub-group could be sub-group could be sub-group to the second sub-group could be subvestments, manufacturing

motherly treatment" being meted out to the State by the Centre. State by the Centre of the State by t

Miss England cites 'ethical concerns' to quit pageant in India

Miss England 2024 Milla Magee has withdrawn from the ongoing Miss World 2025 pageant being hosted in Telangana, citing perso-nal and ethical concerns. The 24-year-old, who arrived in Hyderabad on May 7, returned to the U.K. on

In a statement to British tabloid The Sun, Ms. Magee expressed disappointmen with the pageant's enviror ment, which she said did not align with her expecta-tions of beauty with a purpose. "Constitution were re-portedly expected to wear make-up at all times and remain dressed in ball experiments." The survey of the "Tipping point came when they were allegedly asked to socialise with middle-aged men as a gesture of a gentlement of the survey of the survey of the contributions to the event," The Sun said. Julia Morley, Chairper dorganisation, dismissed nose' Contestante were re-

Organisation, dismissed the claims as 'completely unfounded and



Milla Magee during her arrival in Hyderabad for Miss World

exit, Charlotte Grant, the Miss England runner-up, has arrived in Hyderabad

has arrived in Hyderabad to take her place in the competition, continuing England's representation at the pageant, confirmed World Organisation.

In a statement, Ms. Morley said upon Ms. Maggle's request earlier this month to leave the competition the return to England was arranged, "placing the arranged," placing the arranged, "placing the well-being of the contes-tant and her family first".

Monsoon arrives in Kerala ahead of schedule | Afghan artists, traders get

Jacob Koshy NEW DELHI

The southwest monsoon has arrived in Kerala, the India Meteorological De-partment (IMD) said on Sapartment (IMD) saw or. turday. This is a week ear-lier than the normal onset date, and three days earlier than the department's predicted date of May 27. This is also the earliest the monsoon has reached Ker-ala since 2009.

west-central and north Bay

north-eastern India, sub-Himalayan West Bengal, and Sikkim within the next

three days, the IMD said.

A factor that could have aided the monsoon's early

aided the monsoon's early onset was a pre-cyclonic Konkan-Goa coast that was sexpected to make landfall late on Saturday. Twal in Kerala will translate to early arrivals in other strength of the monsoon currents are continuously sustained. In 2003, despite the continuously in the continuously in Kerala, India reported a 23% shortfall in its monsoon quota.



Shower time: Rain shrouds the Shangumugham beach in Thiruvananthapuram, a significant entry point of the southwest monsoon on mainland India, on Saturday, NIRMAL HARINDRAN

Indian visas after long gap

India has resumed grant

India has resumed granting several categories of visas to citizens of Afghanistan, including to business
people and artists, accordgovernment website.

India had suspended all
kinds of visa after the Taliban took feer the governgust 2021. On August 17
that year, an "e-Emergency
X-Miscellaneous visa" was
announced for stranded
such visas were only grantsuch visas were only grantsuch visas were only grant-ed to those from the Hindu and Sikh communities.

The Indian government has not made any official announcement on the resumption of visa services for Afghan citizens. Howey er, a government source told *The Hindu* that a new online visa module for Afghans was rolled out in the last week of April. "Af-



The Afghan Embassy in New Delhi. India had suspended all visas to Afghan citizens after a regime change in the country. FLE PHOTO

ed on the portal are "stu-dent, business, medical, medical attendant, entry, and UN diplomat." The guidelines say that

the applicant must upload "a recent front facing pho-tograph with white back-ground and photo/bio page of Passport and Na-tional Identity Card (Tazki-ra) containing personal

Artists, cultural personalities, academicians, and last week of April. "Afghans are getting visas for trade, medical [purposes], and other categories," the government source said portation and professionals intending to

category.

Afghans who own pro-perty in India, dependent parents of a student visiting India for higher educa tion, and parents of a stu-dent below the age of 18 may also apply for entry vi sas, the portal said.

Business visa Under the "business" cate

gory, sportspersons and coaches - including those engaged in commercial sports events in India, on contracts with remuneracontracts with remunera-tion – may apply. The cate-gory would be open to Af-ghans coming to establish an industrial or business venture and to those re-quired to travel frequently on long-term business ac-tivities, as well as for inves-tors and their dependents. (With inputs from Kallol ithattacherjee)

Pak. violated Indus treaty spirit: India at UN

Press Trust of India

India has ripped through Pakistan's "disinformation" on the Indus Waters Treaty (NWT) at the UN, as-serting that Islamabad vio-lated the spirit of the treaty that the University of the University thousands of terror attacks on India that sought to hold hostage lives of civi-and economic prosperity. "We are constrained to respond to the disinforma-tion being carried out by the delegation of "Palkstan tion" on the Indus Waters

CM (COM

with regard to the Indus Waters Treaty. India has always acted in a responsible manner as an upper ripar-ian state." Ambassador Parvathaneni Harish, India's Permanent Represen-tative to UN, said on Friday tative to UN, said on Friday
at the UN Security Council
Arria Formula meeting
called by the Permanent
Mission of Slovenia on
Protecting Water in
Armed Conflict - Protecting Civilian Lives'.
Noting that the Preamble of the IWT describes
that it was concluded in a
splitt of good will and

several occasions in the past two years but Islama-bad continues to reject Envoy to the UN calls out 'disinformation' by Pakistan on the Indus Waters Treaty "Pakistan's obstruction that has been held in abeyance by India

friendship', Mr. Harish said that , "Pakistan has violat-ed the spirit of the treaty between the control of the thousands of terror attacks on India." He pointed out that In-dia has formally asked Pa-kistan to discuss the modi-fications of the Treaty on

"Pakistan's obstruction-ist approach continues to prevent the exercise of failer rights by India," he said. Stating that some of the old dams are facing serious that Pakistan has conti-nued to "consistently block" any changes to this modifications of the provi-sions, which is permissible under the Preaty.

Archaeologist

on Keezhadi

excavation

defends report

Archaeologist K. Amarnath Ramakrishna has firmly defended his conclusions on the excavations at Keez-hadi in Tamil Nadu after the Archaeological Survey of India (ASI) requested that he rewrite his report.

INBRIDE



Assam's Nagshankar becomes model for turtle conservation

Zoo, Nagshankar Temple Committee, DBT-NER Biotech Hub Chaiduar College, and conservation groups Turtle Survival Alliance Foundation India, Aaranyak, and Help Earth.

Bengal government bans 137 substandard medicines

The West Bengal Department of Health and The west sengal Department of Health and Family Welfare on Saturday issued a notification to ban 137 medicines that did not meet the drug quality standard. It has also issued a notification to retailers and wholesalers for quality check. to retailers and wholesalers for quality check. This comes as the Central Drugs Standard Gottrol Organisation (CDSCO) found over 196 for the control organisation (CDSCO) found over 196 for the control organisation of the same of the same for the control organisation of the same of the same for the control organisation of the control organisation organisation or the control organisation of the control organisation organisation or the control organisation or the control organisation or the control organisation organisation organisation organisation organisation of the control organisation organisation

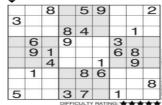
Gujarat man held for sharing sensitive info with Pak. spy

The Gujarat Anti Terrorist Squad (ATS) has arrested a contractual health worker posted in the border district of Kutch for allegedly sharir nsitive information about military establishments with a Pakistani spy, officials said on Saturday. Accused Sahdevsinh Gohil, 28, was lured by a Pakistani agent, who identified herself as Aditi Bharadwaj, to share information about as Ami infaranway, to share information about under-construction as well as existing or an advantage of the state of the state of the infarance of the state of the state of the state of the since june 2023, he had reportedly shared photos and videos with the spy for money. His phone has been sent for a forensic analysis.

Akhilesh questions U.P. govt. over DGP appointment

Samajwadi Party president Akhilesh Yadav on Samajayati Farty president Antinean Yadavon Saturday criticised the Bip government in Uttar Pradesh for its failure to appoint a permanent Director-General of Police (DGP) in the State. If the government couldn't give a permanent DGP, what permanent framework for law and order would it give to the State, he asked. "In the Bip rule, police stations are being raided, police itself ruie, poince stations are being rained, poince itse are filing FIRs against police and also accusing each other of kidnapping. Now the children of U.P. play "police-police' instead of 'thief-police'," he said in a post on X. Since May 2022, the State has appointed many acting DGPs with Devendra Singh Chauhan given the charge for II months.

SUDOKU



Lancet report validates India's stigma study for sickle cell disease, terms it a 'robust tool

ICMR-SCD Stigma Scale for India is the first in India and fourth globally; scales capture information on several aspects of stigma such as familial and reproductive, social disclosure, illness burden, interpersonal, and healthcare interaction challenges; to be available to researchers immediately

ndia accounts for the second-highest preva-lence of sickle cell disience of sickle cell dis-case (SCI) globally, follow-ing sub-Saharan Africa. However, not much re-search has been done, and tool was available to India before the Indian Council of Medical Research (ICMR) recently developed India's first ICMR-SCI Stig-ma Scale for India (BSSI). ble globally were unsuitable globally were unsuita-ble due to India's diversity.

India's stigma scale was developed following global standards, and a recently published study has vali-dated the ISSSI patient scale (ISSSI-Pt) and ISSSI caregiver scale (ISSSI-Cg),

blished in the Lancet (re-gional health South-East Asia) this month, ISSSI is

Asia) this month, ISSSI is the first in India and the fourth globally. Some suffer from severe pain epi-sodes, chronic fraigue, potential organ damage, significantly impacting their quality of life. High control of the control potential organ damage, significantly impacting their quality of life. High control of the control potential organ damage, significantly impacting their deleter of the control to the control of the control to the control of the control to the control of the control of the significant in the control of the control to the control of the significant in the control of the control of the significant in the control of the significant in the control of the control of the control of the significant in the control of the control of the control of the significant in the control of the control of the control of the significant in the control of the control of the control of the significant in the control of the control of the control of the significant in the control of the control of the control of the significant in the control of the control of the control of the significant in the control of the control of the control of the significant in the control of the control of the control of the significant in the control of the control of the control of the significant in the control of the control of the control of the control of the significant in the control of the nal, and healthcare inte-raction challenges. The findings underscore the scales' psychometric roness and utility in clinical and research settings,"



said the article.

It added that the methodological rigour employed in the scale development makes it a robust tool for understanding SCD-related stigma among Indian SCD patients and Indian SCD patients and their caregivers in clinical "The ISSSI will be availa-

searchers immediately," said the article. Meanwhile, the study was conducted across six

SCD-endemic districts in India – Alluri Seetharama Raju in Andhra Pradesh. Anuppur in Madhya Pradesh, Chhoteudepur in Gujarat, Kandhamal in Odisha. Mysuru in Karnataka. nd Udalguri in Assam. These sites were select-

ed to capture a wide range ed to capture a wide range of socio-cultural and geo-graphical contexts. Each district presents unique demographic and socioe-conomic characteristics, including variations in ac-cess to healthcare and

cess to healthcare and awareness of SCD.
Sickle cell disease is caused by the inheritance of two mutated β-globin genes, one from each pa-rent, leading to the pro-duction of abnormal hae-moglobin, known as sickle haemoglobin. SCD is a sig-nificant public health problem in many regions, im-pacting populations in several countries.

The development of the

ISSSI represents a signifi-cant advancement in un-

ing the multifaceted impact of SCD, including stigma, India has now an nced the national sick le cell anaemia eliminat sion to eliminate SCD a mission to eliminate SCD as a public health problem, implementing various SCD management interventions and assessing their impact

and assessing their impact is inevitable.

In India, SCD represents a pressing public health concern, particularly with-in tribal communities, where the prevalence is considerably higher when compared with the general population. Limited population. Limited healthcare access, socioe conomic challenges, wi conomic challenges, wi-despread misconceptions, and inadequate knowledge about the disease com-pound the burden of SCD in India.

SC sets aside life imprisonment in murder case on grounds of insanity

The Supreme Court has set aside the life imprison-ment of a man in a case of murder on the ground that there is "reasonable doubt" that he committed the crime in a fit of

The court dismissed the Chhattisgarh Police's argu-ment that a medical examination on the man had found him normal. However, a Bench of his-

tice A.S.Oka, who retired nce A.S Oka, who retired on May 24, said the medi-cal check on the man, Dashrath Patra, was con-ducted five years after the crime, and thus "meaningless".

The trial court had sen-

tenced Patra to life impri-sonment for bludgeoning a man to death in 2018. The State High Court had con-firmed the punishment. The top court order said

the onus of proving a de-fence of insanity lay on the accused. "The burden to prove legal insanity is on the accused. It is enough if reasonable doubt is reated about the mental state of the accused at the time of the commission of the offence. The standard of proof to prove insanity is only a reasonable doubt," only a reasonable doubt," the court observed in the recent order. The court, in its order, referred to judicial prece-



not able to establish con-clusively that he was insane at the time he committed the offence, if the evidence placed before the evidence placed before the court raise a reasonable doubt about the ingre-dients of the offence, in-cluding mens rea [inten-tion] of the accused, the court would be entitled to acquit the accused," the Bench quoted from past

In the current case, the top court found witness testimonies that Patra suf-fered from bouts of

insanity. Under Section 84 of the Indian Penal Code, a person is exonerated on the ground of unsoundness of mind if he, at the time of doing the act, is incapable of knowing the nature of of knowing the nature of the act or that it is contrary

"The law lavs down that no act done by a lunatic is an offence. The reason is an offence. The reason is that a lunatic is not in a po-sition to defend himself. Right to defend a charge is a fundamental right gua-ranteed under Article 21 of the Constitution," the

New COVID variants detected in India, JN.1 is most common

emerging COVID-19 variant NB.1.8.1 and four instances of the LF.7 type have been detected in India, accord-ing to Indian SARS-CoV-2 Genomics Consortium (IN-SACOG) data.

As of May 2025, the World Health Organization (WHO) classifies LF.7 and NB.1.8 subvariants as Var-iants Under Monitoring, iants Under Monitoring, not as Variants of Concern or Variants of Interest. But these are the variants that are reportedly driving the rise in COVID-19 cases in NB.1.8.1 was identified in April in Tamil Nadu, and four cases of LF.7 were de-tected in Gujarat in May. In India, the most common variant remains JN.1, making up 53% of the sam-

ples tested, followed by BA.2 (26%) and other Omicron sublineages (20%). As of May 19, the coun try had 257 active CO-VID-19 cases.

A meeting chaired by the Director-General of Health Services and at Control, ICMR, and othe key health institutions re

Deadlines set to resolve Arunachal film institute issues

The Hindu Bureau

Deadlines have been set for various agencies to re-solve the infrastructure and academic crises in the Film and Television Insti-tute, Arunachal Pradesh (FTI-AP)

(FTI-AP).

The first batch of students at the institute located in jote went on an indefinite academic strike on May 15, barely two months after their two-year postgraduate diploma course started in March. They alleged administrative leged administrative apathy and broken promises regarding basic ameni-ties and academic

necessities.
The FTI-AP is situated at Jote in Papum Pare district, 24 km from the State's cap-ital, Itanagar. Its foundation was laid by Prime Minister Narendra Modi eight

years ago. Taking serious note of the grievances of the stu-dents, Papum Pare Deputy Commissioner Ilken Bomjen convened a meeting with all the stakeholders on Friday. Devesh Budhani, the Ex-

Devesus Budnani, the Ex-ecutive Engineer of the Central Public Works De-partment handling the project, said the classroom theatre building housing the performance labs would be handed over to the FTLAD management by



rime Minister eight years ago

girls' hostel would be rea-dy by June 15, followed by the sound studio and preview theatre. Rajesh Dawe, the Execu

tive Engineer (Electrical) of the State's Department of Power, said an agreement had been signed with the National Institute of Technology nearby to share it express line with the FTI AP for a year to ensure un-interrupted electricity "The film institute should apply for an express line of its own for seamless power

its own for seamless power supply," he said.

On debris falling from the construction site of a water of the campus, the Executive Engineer of the Public Health Engineering Department, Ngurang Nya, water of the partment, Ngurang Nya, water of the partment of the water of the partment of the work as soon as possible; he said.

Nominations window is now open for businessline Changemaker Awards 2025

The Hindu Bureau

If you know of people who have brought about change in your community or in society at large, please support them by nominating them for the businessline Changemaker Awards 2025. Individuals who have been change agents can also nominate

Six editions of the wards have been held since 2018, the year The Hindu businessline stepped into its 25th year of pu-blishing. The 2021 edition could not be held due to the pandemic.

Five categories

Nominations can be made across five categories of awards — Changemaker:

Social Transformation;
Changemaker: Digital Transformation;
Changemaker: Financial Transformation;
Voung Changemation;
Voung Change mation; Young Change-maker and Iconic

thehindubusinessline. CHANGE awards HUMAN STREET

visionary innovator who transformed communica-tion, mobile payments, energy, and entrepreneur-ship in India, pioneering impactful solutions and fostering a thriving ecosysson or an organisation that has ushered in far-reaching change. Once the nominatem at the IIT Madras Re-search Park that has empotion window closes, the applications will be screened and evaluated by business-line along with our knowwered scores entrepreneurs. The awards for 2024 ledge partners (Deloitte and Ashoka). The shortlistwere given away by the Fied nominees will be vali nance Minister Nirmala dated by our validation partner (Niiti Consulting) before the list is sent to an Sitharaman.
Defining the award,

independent jury to pick the winners in each tor, businessline, said,
"The Changemaker
Awards exemplify the fact
that we are always looking ategory. In 2024, the Integral In 2024, the Integral Coach Factory (ICF) in Chennal, the world's largest railway coach manuser gets railway coach manuser either in business or society. These awards fined Indian rail travel with the Vande Bharat trains, setting new benchmarks in was awarded Changemaker of the Year.

The Iconic Changemaker of the Year award went of the Year award went of the Ward Changemaker of the Year award went of Ashok Inaughanwahs.

Govt. ratifies **EPF** interest rate at 8.25% for 2024-25

Press Trust of India

The government has rati-fied the rate of interest or employees' provident fund (EPF) at 8.25% for the financial year 2024-25, ena-bling the retirement fund body EPFO to deposit the

deposits for 2024-25, equa-to the rate provided in the preceding fiscal. The approved rate of interest for 2024-25 was sent for con-

"The Ministry of Fi nance has given concur-rence to an 8.25% rate of interest on the EPF for the 2024-25 fiscal year, and the Labour Ministry sent communication regardin this to the EPFO on Thur day (May 22, 2025)," a La bour Ministry official said. Now. the interes

bour Ministry official said.
Now, the interest
amount as per the rate ratrified for 2024-25 will be
credited into the accounts
of over seven crore subscribers of EPFO.
The decision on interest
rate was made at the 237th
Board of Trustees of the
EPFO, chaired by Minister
Mansukih Mandaviva in

Lancet report validates India's stigma study for sickle cell disease, terms it a 'robust tool'

ICMR-SCD Stigma Scale for India is the first in India and fourth globally; scales capture information on several aspects of stigma such as familial and reproductive, social disclosure, illness burden, interpersonal, and healthcare interaction challenges; to be available to researchers immediately

Bindu Shajan Perappadan

NEW DELHI

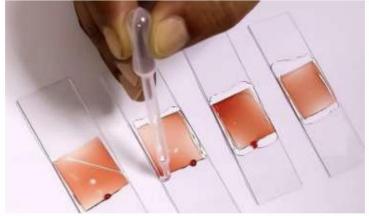
ndia accounts for the second-highest prevalence of sickle cell disease (SCD) globally, following sub-Saharan Africa. However, not much research has been done, and no stigma measurement tool was available to India before the Indian Council of Medical Research (ICMR) recently developed India's first ICMR-SCD Stigma Scale for India (ISSSI).

The three scales available globally were unsuitable due to India's diversity.

India's stigma scale was developed following global standards, and a recently published study has validated the ISSSI patient scale (ISSSI-Pt) and ISSSI caregiver scale (ISSSI-Cg), according to an article published in the *Lancet* (regional health South-East Asia) this month. ISSSI is the first in India and the fourth globally.

People with SCD often suffer from severe pain episodes, chronic fatigue, swelling, infections, and potential organ damage, significantly impacting their quality of life.

"This study explicitly developed and validated the ISSSI. The finalized scales capture multidimensional aspects of stigma, including familial and reproductive, social disclosure, illness burden, interpersonal, and healthcare interaction challenges. The findings underscore the scales' psychometric robustness and utility in clinical and research settings."



The three stigma scales available globally for the disease were unsuitable due to India's diversity. GETTY IMAGES

said the article.

It added that the methodological rigour employed in the scale development makes it a robust tool for understanding SCD-related stigma among Indian SCD patients and their caregivers in clinical and research contexts.

"The ISSSI will be availa-

ble to the mission and researchers immediately," said the article.

Meanwhile, the study was conducted across six SCD-endemic districts in India – Alluri Seetharama Raju in Andhra Pradesh, Anuppur in Madhya Pradesh, Chhoteudepur in Gujarat, Kandhamal in Od-

isha, Mysuru in Karnataka, and Udalguri in Assam.

These sites were selected to capture a wide range of socio-cultural and geographical contexts. Each district presents unique demographic and socioe-conomic characteristics, including variations in access to healthcare and awareness of SCD.

Sickle cell disease is caused by the inheritance of two mutated β -globin genes, one from each parent, leading to the production of abnormal haemoglobin, known as sickle haemoglobin. SCD is a significant public health problem in many regions, impacting populations in several countries.

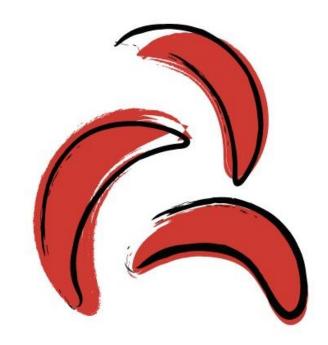
The development of the ISSSI represents a significant advancement in un-

derstanding and addressing the multifaceted impact of SCD, including stigma. India has now announced the national sickle cell anaemia elimination mission to eliminate SCD as a public health problem, implementing various SCD management interventions and assessing their impact is inevitable.

In India, SCD represents a pressing public health concern, particularly within tribal communities, where the prevalence is considerably higher when compared with the general population. Limited healthcare access, socioeconomic challenges, widespread misconceptions, and inadequate knowledge about the disease compound the burden of SCD in India.

What are **Sickle Cell Disorders?**

- A group of disorders that cause red blood cells to become misshapen and break down.
- The cells die early, leaving a short age of healthy red blood cells and can block blood flow causing pain.



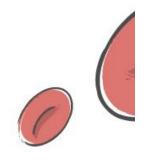
Types:

Sickle Cell Anaemia

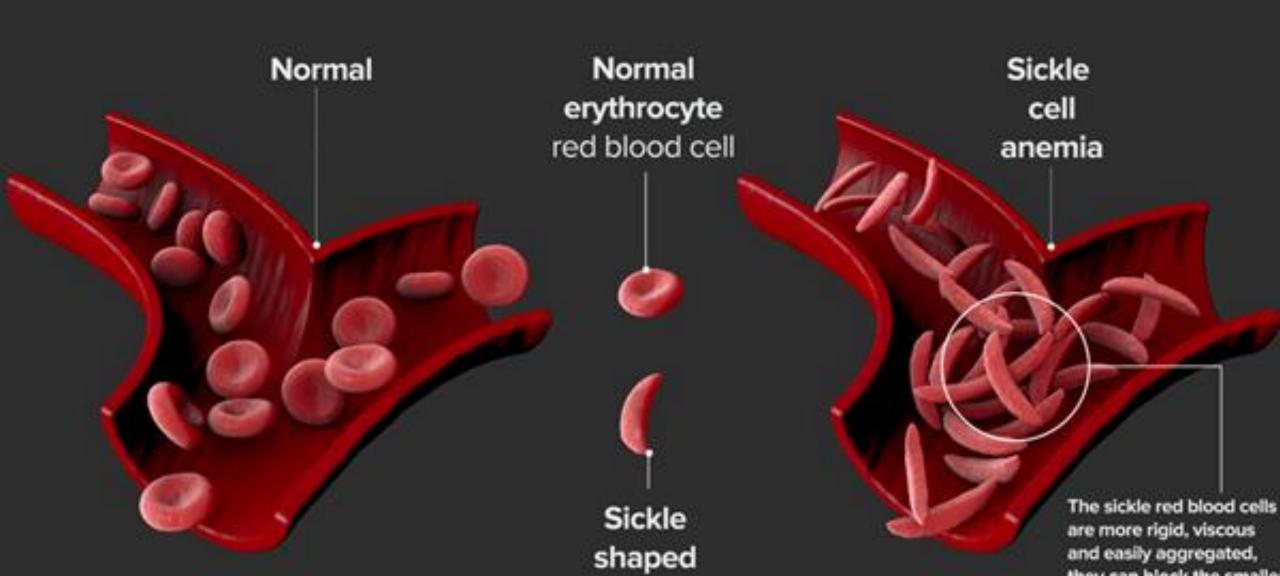
Dysfunctional red cells due to abnormal haemoglobin

Sickle Cell Crisis

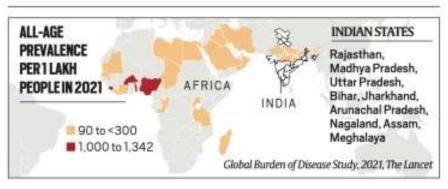
Blockage of blood vessels causing severe pain or organ damage



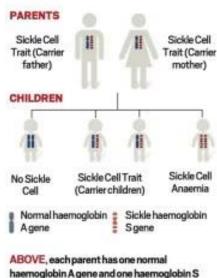
SICKLE CELL ANEMIA



GLOBAL BURDEN OF SICKLE CELL DISEASE



INHERITANCE OF SICKLE CELL



haemoglobin Agene and one haemoglobin S gene. This means each of their children has:

25% CHANCE of inheriting two normal A genes. This child will not have either sickle cell trait or sickle cell disease

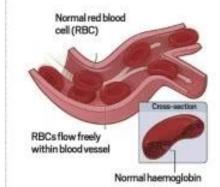
50% CHANCE of inheriting one normal A gene and one S gene. This child will have sickle cell trait, and be a carrier

25% CHANCE of inheriting two S genes. This child will have sickle cell disease

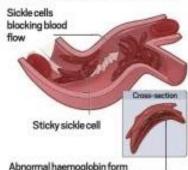
EACH TIME the couple has a child, chances of the child having sickle cell disease remain same

IMPACT ON RED BLOOD CELLS

Normal red blood cells



Abnormal, sickled, RBC (sickle cells)

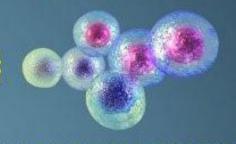


Abnormal haemoglobin form strands that cause sickle shape

US National Institutes of Health (NIH)

SICKLE CELL DISEASE

A child is more likely to get sickle cell disease when he or she receives two sickle cell genes, one from each parent





The disease affects millions of people worldwide, but it is more common in the African, Arabian and Indian origin

A **bone marrow transplant** can cure sickle cell disease, but it comes with a lot of risk





A person with sickle cell disease can live a long and healthy life by following treatments prescribed by the doctor, getting regular checkups and maintaining proper eating habits.



1. Global Prevalence

• India has the **second-highest burden** of Sickle Cell Disease (SCD) globally (after Sub-Saharan Africa).

2. New Tool Developed

- Indian Council of Medical Research (ICMR) created the ICMR-SCD Stigma Scale for India (ISSSI).
- It is India's first and the fourth globally.
- Two forms developed:
 - ISSSI-Pt for patients
 - ISSSI-Cg for caregivers

3. Lancet's Validation

- Published in The Lancet Regional Health South East Asia.
- Termed ISSSI as a robust and validated tool.
- Captures six dimensions of stigma:
 - Familial and reproductive
 - Social disclosure
 - Illness burden
 - Interpersonal challenges
 - Healthcare interaction challenges

Methodology and Deployment

4. Why Existing Tools Didn't Work

- Existing global tools didn't match India's socio-cultural diversity.
- India's ISSSI was created with rigorous methodology and global psychometric standards.

5. Deployment Regions

- Study was conducted in six SCD-endemic districts:
 - Andhra Pradesh: Alluri Seetharama Raju
 - Madhya Pradesh: Anuppur
 - Gujarat: Chhota Udepur
 - Odisha: Kandhamal
 - Karnataka: Mysuru
 - Assam: Udalguri

6. Purpose of Site Selection

Districts were chosen for diverse social, economic, and healthcare access contexts.

SCD in India – Public Health Concern

7. Challenges Faced by SCD Patients

- Pain episodes, fatigue, swelling, infections, organ damage.
- Stigma compounds disease burden—especially in tribal areas.

8. Genetic Basis

Caused by mutations in two β-globin genes, producing abnormal hemoglobin (sinhemoglobin).

9. Government Mission

- India has launched a Sickle Cell Anaemia Elimination Mission.
- Aims to eliminate SCD as a public health problem by:
 - Promoting awareness
 - Providing healthcare access
 - Monitoring and interventions

Consider decriminalising adolescent love: SC to govt

Centre To Set Up Panel, Report By July 25

AmitAnand.Choudhary
@timesofindia.com

New Delhi: To ensure that adolescents don't get sent to jail under the stringent Protection of Children from Sexual Offences Act (Pocso) for being in romantic relationships, Supreme Court has directed the Centre to consider decriminalising such consensual relationships and frame a policy for sexual and reproductive health education in the country.

A bench of Justices Abhay S Oka and Ujjal Bhuyan issued notice to the Centre through the ministry of women and child development to form an expert committee to examine

FLAGS NUANCED APPROACH BY HCs

- > SC says adolescents in consensual relationships must be protected, Pocso Act not meant to criminalise them
- > Points out that several high courts, including Delhi and Madras, have taken a nuanced approach in such cases
- > Calcutta HC has said

'penetration', defined as unilateral act by accused, doesn't hold in consensual intercourse by adolescents

➤ Delhi HC has said 'love is a fundamental human experience, and adolescents have the right to form emotional connections'

An adolescent boy and girl who are in the grips of their hormones and biological changes and whose decision-making ability is yet to fully develop, should essentially receive the support and guidance of their parents and society... These incidents should never be perceived from an adult's point of view...

—Madras HC in 2001

the issue and file a report before it by July 25. The court said it would pass further directions after getting the report.

The trigger for the court order was the legal battle of a woman from West Bengal to protect her husband who was sentenced to 20 years in jail under Pocso for having a relationship with her when she was 14.

The court had appointed two senior women advocates — Madhavi Divan and Liz Mathew — to assist it on the sensitive issue and they suggested that adolescents in consensual relationships needed to be protected. While Pocso Act served an essential purpo-

se in protecting minors from sexual exploitation, its rigid application in cases of adolescent relationships could lead to outcomes that may not align with the best interests of the prosecutrix and her dependants, they suggested.

Accepting the suggestions of the senior advocates, the court impleaded the Centre in the case and issued notice.

The advocates also pointed out that various high courts, including Delhi and Madras, have taken a nuanced approach and interpreted the statement of objects and reasons of Pocso Act as not intending to criminalise consensual romantic relationships. In several cases, Madras high court adopted a legal interpretation that consensual acts did not fulfil the requirement of 'assault' in the offence of 'penetrative sexual assault'.

▶ Continued on P 20

Supreme Court's Directive to Government

- Objective: Prevent adolescents in consensual romantic relationships from being punished under the Protection of Children from Sexual Offences Act (POCSO).
- Key Decision:
 - SC has asked the Centre to consider decriminalising consensual adolescent relationships.
 - A committee of experts will be formed through the Ministry of Women and Child Development.
 - Report to be submitted by July 25, 2025.

Context & Trigger

- The case arose from a West Bengal woman's plea to release her husband, jailed under POCSO for a consensual relationship when she was 14.
- SC Bench: Justices Abhay S Oka and Ujjal Bhuyan.
- The bench noted:
 - "Such cases must be approached from the child's perspective, not the adult's."

Judicial Observations & Concerns

- POCSO Act's Original Intent:
 - Protect minors from sexual exploitation.
 - Not intended to criminalise consensual adolescent relationships.
- Calcutta High Court:
 - Defined 'penetration' as a unilateral act by the accused.
 - Held that consensual acts between adolescents should not attract criminal liability.
- Delhi High Court:
 - Emphasised that "love is a fundamental human experience".
 - Adolescents should have the right to form emotional connections.

Recommendations & Action Plan

- A panel of experts (e.g., from TISS, psychologists, legal experts) to be formed to:
 - Frame policies for comprehensive sex education.
 - Examine sexual and reproductive health awareness.
- UNESCO Recommendations:
 - Sexuality education must begin at the secondary school level.

Special 17: First batch of women cadets set to pass out of NDA

Sandip.Dighe @timesofindia.com

Pune: Cadet Ishita Sharma stands at a pivotal moment, just a week away from a significant milestone not just for her, but for the country. She is part of the first group of 17 women cadets who will graduate from Pune's National Defence Academy (NDA) on May 30, along with around 300 male counterparts.

This achievement marks a historic moment for the Indian Armed Forces, following their decision to allow women to enter the academy in June 2022. "I come from a non-military background. My parents work in the corporate sector, and my brother is an IT professional. I was pursuing a bachelor's degree in economics

when the NDA announced its entry for women. I didn't think twice before applying," Ishita told **TOI**.

The maiden graduating

cadets share the common experience of stringent physical training, military routines, and strong bonds formed over three years at the academy. They echoed that a key aspect of their journey has been personal development, reflecting NDA's reputation for transforming young individuals into accomplished military personnel.Ishita added. "After spending three years here. I can confidently say that my personality underwent a complete transformation."

Achieving several accomplishments along the way, Ishita earned the honorary appointment of 'Division Cadet

Captain' (DCC) for her outstanding performance in all areas of training. "This is how one gets the opportunity to become a leader right from the academy. It develops your leadership character naturally," she remarked. Her fellow graduating cadets echoed similar sentiments about their stint at the academy, acknowledging the significant and transformative impact of training on their confidence.

"Before joining the academy, I was an introvert. Here, I made several friends for life. In fact, my course mates feel like family now. I would not have imagined it. You form unbreakable bonds that last forever," Ishita said, speaking to TOI outside the Sudan Block of NDA.

The cadets emphasised



(L-R) Shriti Daksh, Ishita Sharma, Ritul Duhan, Ishita Sangwan and Harsimran Kaur are from the first group of 17 women cadets who will graduate from the NDA on May 30

that they never had to compete with their male counterparts for opportunities during their training—they received equal chances to excel.

"Equal opportunity naturally empowers each individual. That is what makes the academy unique in all aspects," Ishita added.

All cadets faced challenges during military training in the initial stages. They worked hard on both physical fitness and overcoming mental barriers.

"Once you break that mental barrier, you push your limits to the next level each time. That is what truly matters, not how many push-ups one can do at a time," elaborated Ishita. For cadet Shriti Daksh, the initial weeks at the academy brought about a stark realisation about the realities of military training. "At the academy, I actually understood what the real experience of military training feels like," said Shriti, the daughter of a retired wing commander, who was motivated to follow in her father's footsteps, "I had no other dream or career plan than to join the Indian Armed Forces," she added.

According to Shriti, when NDA opened its doors to women, she was elated as she wanted to join the academy from

which her father graduated decades ago. "It was a significant milestone for me personally. It was a special day for both my father and me when he dropped me off at the academy, a mix of nostalgia and pride for him. Now, I am just a few days away from the moment my father experienced in his life, and I am excited to share that moment with him on May 30."Balancing military training with academics has been one of the most challenging aspects for the cadets. They often feel pressed for time, as participation in various activities alongside their daily schedules tests their mental endurance.

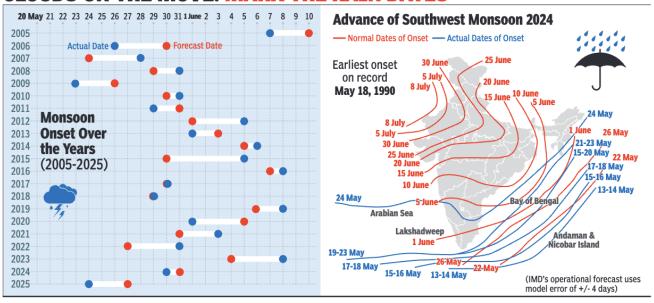
"You are involved everywhere—from the drill square to the swimming pool to equestrian activities. So, maintaining a balance is the most difficult challenge we face. We are always short on time. That's the level of our schedule," Shriti explained.

Ritul Duhan, the first Battalion Cadet Captain (BCC) from the group, is aware of the significant responsibility she carries. "We are not just completing our training; we are paving the way for future leadership and inspiring younger cadets who will follow our path," she said.

Ritul lauded the academy's adaptation to integrate female cadets. "The atmosphere has become increasingly conducive," she said, adding, "I encourage girls to join with a broader purpose, understanding that this training develops every aspect of your personality."

Conditions favourable for advance of SW monsoon

CLOUDS ON THE MOVE: MARK THE RAIN DATES



▶ Continued from P 1

dvance of the monsoon to most parts of Tamil Nadu and some parts of Karnataka on the very first day of the onset is significant but not unusual. It, however, signals the possibility of its fast progress in the next few days.

"Monsoon arrival in Karnataka and Tamil Nadu is not unusual. It invariably happens and the monsoon will now make further progress as per our forecast," IMD chief Mrutyunjay Mohapatra told **TOI**. Announcing the monsoon onset, the Met department said the conditions are favourable forfurther advance of southwest monsoon into entire Goa, some parts of Maharashtra and Andhra Pradesh, some more parts of Karnataka, remaining parts of Tamil Nadu, some more parts of northeastern states, and some parts of sub-Himalayan West Bengal and Sikkim during the next 2-3 days.

Early monsoon onset and its further advance will pave the way for early start of the

kharif (summer crops) sowing operations in the country, specifically in south and central India. Since the IMD predicted 'above normal' monsoon rainfall in most parts of the country this year, the situation may help increase the acreage and production of the summer crops such as paddy, pulses, maize and other coarse cereals and steer the country towards realising its goal of record foodgrains output of 354 million tonne in the 2025-26 crop year.

On Saturday, the mon-

soon advanced into the entire Lakshadweep area, Kerala, Mahe, some parts of Karnataka, remaining parts of Maldives and Comorin area, many parts of Tamil Nadu and some parts of Mizoram. IMD, meanwhile, predicted heavy to very heavy rainfall over west coast (Kerala, Karnataka, coastal Maharashtra & Goa) during the next seven days; coastal and ghat areas of Karnataka till May 27; and ghat areas of Tamil Nadu on May 25-26 due to prevailing weather phenomena.

1. Differential Heating:

The Indian subcontinent, particularly the northern plains and deserts, heats up significantly during the summer months, creating a low-pressure area. This draws in moist air from the sea, which then rises and condenses, leading to monsoon rains.

2. ITCZ Movement:

The ITCZ, a zone of low pressure where the trade winds converge, moves northwards with the sun's movement during the northern summer. This movement of the ITCZ influences the direction of monsoon winds.

3. Pressure Systems:

The presence of a low-pressure area over the Indian subcontinent and high-pressure areas over the Arabian Sea and Bay of Bengal contributes to the movement of monsoon winds.

4. Oceanic Influence:

Oceanic conditions, particularly ENSO (El Niño and La Niña), can significantly impact the intensity and timing of the monsoon.

5. Wind Fields:

The presence of westerlies and the convergence of air masses contribute to the formation of the monsoon trough, which is a key feature of the monsoon system.

6. Moisture Content:

Sustained rainfall and high humidity levels in the air are essential for the monsoon to develop and persist.







The women of Tamil Nadu deserve better A case of 'spectacle over substance' in the State



Sunrisers, Super Kings sign off season in style SPORT » PAGE 16



Israeli strikes leave 38 people dead in Gaza

DEIR AL-BALAR

DEIR AL-BALAH Israeli strikes over the past 24 hours killed at least 38 people in Gaza, including a mother and her two children sheltering in a tent, local health officials said on Sunday. 39 PAGE 14

Overnight strikes by Russia kill 12 people in Ukraine

Russian strikes killed at least 12 persons in Ukraine overnight, officials said on Sunday, as Kyiv and Moscow traded fire. » PAGE 14

Unease in Bangladesh as civil officials protes

Imphal erupts as march to Rai Bhavan is foiled They were protesting over an alleged insult to the identity of the State, its pride and respect

Influential organisation had called for civil disobedience campaign and public boycott of Governor Ajay Bhalla

mphal, the capital of Manipur, descended into chaos on Sunday as people protesting against the alleged "under-mining" of the State's iden-tity clashed with security

personnel during a march to the Raj Bhavan. The clash followed Sa-The clash followed Saturday's call by the Coordinating Committee on Manipur Integrity (COCOMI), an umbrella body of Meitei or ganisations, to participate in a civil disobedience campaign and boycott of Campaign and boycott of Challa.

Scores of protesters res-

Scores of protesters res-ponded to the call and marched towards the Raj Bhavan to stage a protest, but they were stopped along the way by security personnel, leading to scuf-fles. Five protesters were reportedly injured and hospitalised. The Governor has been

Manipur's administrator since President's Rule was imposed on February 13 af-ter N. Biren Singh resigned ter N. Biren Singh resigned as the Chief Minister. The COCOMI has been cross as a pologisting for an incident in which security person-ol regority and of con-tion of the country of the words. "Manipur State Thanpert" displayed on the country of the property of the country of the country of the property of the country of the the country of the country of the the country of the country of the the country of the country of the team was travelling to the

team was travelling to the Shirui Lily Festival in the Naga-dominated Ukhrul

leading to scuffles; 5 injured and hospitalised



ogy from the Governor and the resignation of the dermining the identity of Manipur, its name, pride and respect", making the COCOMI demand an apol-

Singh within 48 hours from State's Security Adviser Kuldiep Singh, Chief Secre-tary P.K. Singh, and Direc-Wednesday midnight. The civil disobedience

Sunday to protest against the "failure" of the Gover-nor to apologise and the government's "reluctance" o remove the three top

the actions of the security

the actions of the security personnel. The present of The resister crowd control was to the security of the se

gation of its members will leave for New Delhi on Monday to hold a meeting

with the officials of the Un-ion Home Ministry the fol-lowing day. The meeting seeks to initiate follow-up action on the resolutions adopted during the Manipur People's Convention held in Imphal on May 3, of the ethnic conflict.

of the ethnic conflict.
The COCOMI said the
agenda for the meeting
blic apology from the Gowernor for the perceived
insult to the people of Mamediate transfer of the
Chief Secretary, the Directhe Security Advisor, "all of
whom are viewed as incompetent and responsidecision, which has added
decision, which has added
decision, which has added decision, which has added

In deep waters



Three arrested for attacking four men suspected of transporting beef in U.P.

Three people were arrest-ed in Aligarh district of Ut-tar Pradesh on Sunday on charges of beating up four people and setting on fire a mini-truck allegedly laden with beef on Saturday.

Two first information reorts (FIR), one based on a setition from the father of one of the injured and the other on the basis of a com-plaint from villagers on ille-gal cow slaughtering, have been registered over the is-sue, Amrit Jain, Superin-tendent of Police, Aligarh

tendent of Police, Aligarh Rural, told The Hindu, ad-ding that there was peace in the locality now. Special police teams have been formed to iden-tify and arrest other attack-ers, and the police are waiting for a lab test report on the meat to proceed

One FIR registered for the attack, and

further in the case.

The four injured indivi-duals are currently receiv-ing treatment at Jawaharlal Nehru Medical College Hospital in Aligarh. Mr. Jain said they were out of danger.

The allegations are being investigated and the meat sample has been sent to Mathura for lab test. We are waiting for the report the Congress, and social groups visited the injured in the hospital. They de-manded that strict action be taken against the on the meat sample to pro-ceed further. Whatever facts come to light during the course of investigation, accused.

accused.
Opposition political par-ties targeted the State go-vernment over the inci-dent, questioning if attack on Muslims and cow vigi-lantism has become a State based on that, arrest and legal action will be taken," Mr. Jain said.

The named individuals accused in the FIR are linked to a fringe right-wing group. lantism has become a State policy.
"What has happened in Allgarh is in continuation of various forms and means of attack on the Muslim community. Com State policy with Muslims being beaten up by ele-

ments and fringe groups close to the BJP... The ad-ministration must punish individuals taking law into their hands," said Shahna-waz Alam, national secre-tary Compress.

tary, Congress.
The SP said that after the Pahalgam terror at-tack, some groups with

norities have been reported in U.P. Some people trying to target the Muslim

Caste count a means to include those left behind: PM | Bypolls to five Assembly seats

Prime Minister Narendra Modi on Sunday said the caste enumeration an-nounced as part of the de-cennial Consus was a sten cennial Census was a step towards his government's model of bringing the mar ginalised and those left be-hind in every field into the

development.
Addressing a conclave
of Chief Ministers and Deputy Chief Ministers belonging to the National De-mocratic Alliance (NDA), Mr. Modi said the success Mr. Modi said the success of Operation Sindoor was a reaffirmation of the achievements the country had made in its push to-wards self-reliance, under-scoring the accuracy and precision of indigenous de-fence technology. Sources present at the

contentious remarks about the Pahalgam terror attack and Operation Sindoor. The conclave is a regu-lar event held over the years, where Chief Minis-ters make presentations of best practices being fol-lowed by their govern-

Big meeting: Prime Minister Narendra Modi with Bihar CM Nitish

Kumar during an NDA conclave in New Delhi on Sunday, PTI

asked leaders to avoid the tendency to speak out of turn, a likely reference to other NDA-ruled States. Two resolutions were passed at the meeting more than one Bharativa Janata Party leader making contentious remarks about one praising the Indian armed forces and the leaarmed forces and the lea-dership of the Prime Minis-ter over Operation Sindoor and another on the deci-sion to undertake a caste census by the Modi government. The resolution on Oper-ation Sindoor was moved

ter Bhajan Lal Sharma and seconded by Maharashtra seconded by Maharashtra
Deputy Chief Minister Eknath Shinde, while the resolution on caste census
was moved by Haryana
Chief Minister Nayab Singh
Saini and seconded by
Andhra Pradesh Deputy
Chief Minister Pawan
Kahan

sion, Mr. Shinde, who is al-so the leader of BJP ally Shiv Sena, said, "The Shiv Sena, said, "The world needs to hear India's resolve (through Operation Sindoor) loud and clear whoever dares to provoke India will be wiped out. The strength of our de-fence forces is the impene-

trable shield protecting the trable sheid protecting the nation." Briefing media after the meeting, BJP president J.P. Nadda said that through the resolution on the caste census, it was being clari-

fied that the NDA "does not believe in caste politics but caste enumeration will help those left behind in different fields to develop". "Enumerating caste was

"Enumerating caste was always part of our political imagination and it was an NDA government, under [Bihar] Chief Minister Nitish Kumar, which had pro-posed to do this first," Mr. Nadda said. The third Narendra Mo-

di government will be completing a year on June 4, with the NDA completing II years in power with Mr. Modi at the helm, which will be marked on June 9.

will be marked on June 9.

"We will on June 25 also be marking the SOth anniversary of the imposition of the sound of the

in four States on June 19: EC

The Election Commission on Sunday announced that byelections to five As-sembly seats in four States will be held on June 19. Byelections will be held in two Assembly consti-

tuencies in Gujarat and one each in Kerala, West Bengal and Punjab. Counting of votes will take place on June 23. The last date for filing nomina-tions will be June 2 and for

withdrawal of candida-ture will be June 5.

ture will be June 5.
These are the first elec-tions since Gyanesh Ku-mat took over as the Chief Election Commissioner in February.
In Gujarat, byelections will be held to the Kadi and Visawadar seats. Kar-

Ballot beckons



n Punjab, and Kaligani in West Bengal

ki, BIP MLA for Kadi, had ki, BJP MLA for Kadi, had passed away. In Visavadar, Bhayani Bhupendrabhai Gandubhai, MLA, re-signed from the Aam Aad-mi party and joined the BJP. The Nilambur seat in Kerala will go to the polls because of the resignation of P.V. Anvar. In the Lud-hiana seat of Punjab, by-

polls are being held due to the death of AAP MLA Gurpreet Bassi Gogi. The Aam Aadmi Party has Aam Aadmi Party has named Rajya Sabha mem-ber Sanjeev Arora as its candidate. In Kaliganj As-sembly seat in West Ben-gal was necessitated fol-lowing the death of sitting Trinamool Congress MLA Nasiruddin Ahamed.

INBRIEF



Government to unveil Bharat Forecasting System today

The government will on Monday unveil a new "Bharat Forecasting System" (BFS) that will enable the weather office to provide more accurate and localised predictions. Developed by the Pune-based Indian Institute of Tropical Meteorology, it will provide forecasts with a 6 km Meteorology, it will provide forecasts with a 6 km resolution – the highest in the world – that it mesolution – the highest in the world – that it may be a few or the weather features accurately. "We will now be able to issue more localised and accurate weather forecasts," M. Ravichandran, Secretary, we will now be a few or the weather forecasts, "M. Ravichandran, Secretary, forecasting model was made possible due to installation of the new supercomputer Arka at the IITM campus last year."

Man arrested in Punjab for vandalising Ambedkar statue

A man was arrested in Hoshiarpur on Sunday for ttempting to vandalise a statue of Dr. B. R. attempting to vandanase a statute of Dr. B. K. Ambedkar and damage a replica of the Constitution near the statue, the police said. The incident took place near the bus stand at Ambedkar Chowk. An FIR has been registered Ambedkar Chowk. An FIR has been registered under relevant provision of the BNS and the Scheduled Castes and Scheduled Tribes (Prevention of Atroctities) Act on the complaint of Sukhdev Singh, secretary of the Punjab Bahujan Samaj Party, an officer said. During the incident, the accused had claimed he did not accept Dr. Ambedkar or the Constitution, the officer said.

Need to go full throttle on indigenous defence systems: ex-DRDO chief

Operation Sindoor has showcased India's capability, and this will lead to a rise in defence exports, says Satheesh Reddy; the industry must gear up and be ready to absorb bulk orders, he says

ndia has shown com-plete dominance dur-ing Operation Sindoor, showcasing its air power and air defence cappower and air defence cap-ability, said G. Satheesh Reddy, former Secretary, Research and Develop-ment, and Chairman, De-fence Research and Deve-lopment. Operations of the com-comment. lopment Organisation (DRDO), while expressing happiness that the majori-ty of them are indigenous

He cautioned that technology is changing very fast, and the process of de-velopment should not be so long that the technology gets outdated by the time it is inducted.

"I want to say that this "I want to say that this war brought many positive things to india. First, many indigenous systems have been used very effectively, so the confidence of the india, said in a conversation with The Hindu. "The international com-munity has seen what Innous equipment has reached all-time highs. I believe this will lead to more vigorous and efficient induction of indige- cant takeaways for India

Many indigenous systems have been used very effectively, so the confidence of the armed forces has reached all-time high. 30 I believe this will lead to more vigorous and efficient induction G. SATHEESH REDDY

nous systems. The morale of the scientists communi-ty today is very high, and this paves the way for the development of many more advanced systems. from this conflict - and they have given an oppor-tunity of growth and chal-lenges to all stakeholders who are also gearing up to meet the same." The country's multi-layered air defence system worked seamlessly during systems, and they should hence gear up and be rea-dy to absorb bulk orders," the conflict from May 7 to May 10, integrating a range of systems from the long-

of systems from the long-range S-400, medium-range surface-to-air missile (SAM) systems, Akash and Spyder, and various air de-fence guns. Dr. Reddy said he is particularly proud of the Akash SAM, one of the missiles developed under dia's capability is, so I feel the exports also will see another period of marked growth. These are signifimissiles developed under the Integrated Guided Mis-sile Development pro-gramme. "It was a project

Abdul Kalam. I heard that our armed forces are ex-tremely happy with the performance of that

system."
Noting that almost all at-tempts of attack by the enemy were neutralised by the system of the system of the systems mid-air itself, Dr. Reddy said that Operation Sindoor proved the effec-tiveness of India's air de-vicences of India's air de-ty of the system of the home-grown, while also showcasing the depth in its attack arsemal to be able to the system of the system of the base to contact the system of the base to contact the system of the system of the base to contact the system of the system of the base to contact the system of the system of the base to contact the system of the system of the base to contact the system of the system of the system of the base to contact the system of the syst base locations of the enemy. On what the country

On what the country should focus on in the near future, he stressed that in-westing in niche technolo-gies is key as also intuitive-by investing in countering of these niche technolo-gies, especially those to target at longer ranges with cost effective means and counter technologies that can counter enemy attacks should focus on in the near future, he stressed that inwesting in niche technologinterest in the technologistic properties of the stressed that inye investing in countering of these niche technologies, especially those to cost effective means and counter technologies that can counter enemy stracks them at farther ranges using both hard-kill and softkill mechanisms.

ISS trip draws closer. Shubhanshu Shukla enters quarantine

members of the Axiom-4 (Ax-4) mission to the Inter-national Space Station (ISS) are entering quarantine ahead of the scheduled launch on June 8 from the National Aeronautics and Center in Florida

The Indian astronaut and crew members were given a send-off by em-ployees of Axiom Space Inc. on Sunday. "Thank you so much for your contribution, I may

not know you personally but I understand that it is each one of you that have contributed to this mission being a success and am sure it will be a success," Group Captain Shukla, the pilot of the Ax-4 mission, told Axiom Space



bor Kapu of Hungary. A SpaceX Falcon 9 rock-et will launch the Ax-4 crew aboard a SpaceX Dra at the Kennedy Space

Research Organisation's

'Children are unique, parents have an influence on their development'

The Hindu Bureau

There is no alternative to a balanced diet, good sleep, and physical activity in raising a happy, normal, and active child, doctors underlined at a webinar on "How to raise a healthy child" on Sunday.

The webinar, organised by The Hindu in collabora-tion with Naruvi Hospitals, Vellore, was the 11th edi-

and promote well-being.
Focusing on child health
and the development of
newborns to adolescents, the panellists highlighted



youngsters. Delivering a talk on maternal health and healthy newborns, Murugesan A., Assistant Professor in the Depart-rect of Neonstellon Jone. harlal Institute of Postgrad-uate Medical Education and Research, Puduchermake use of the Mother and Child Protection (MCP) card, and guidelines

tool," he said, adding, "It carries pictorial documen-tation of what needs to be done in each month of pregnancy and the newborn's growth, detailing on vaccines and immunisation, breastfeeding and nutrition. Every family should utilise this

"Every child is unique and parents have an im-mense influence on their development," Sonia Mary Kurian, head of the Depart-ment of Paediatrics at Na-ruvi Hospitals, Vellore,

feed a child up to two years of age along with other weaning foods but if a child is bottle-fed longer, they don't get enough nutrients that are available online in local languages, free of the risk of becoming obese cost.

"The MCP card is a valuable but underused pressure and diabetes later in life,"

Dr. Kurian warned.

watch out for delayed mil-estones in their babies from two months to three years. These could include delayed walking and talk-ing, lack of visual fixation and social smiles, no head control, lack of response to sounds and objects, and unintelligible speech and

V. Nagarajan, consultant V. Nagarajan, consultant paediatrician at Naruvi Hospitals, Vellore, spoke about the cognitive, physi-cal, and psychological de-velopment in 10- to 19-year-olds. He said anaemia, anxie-tre disorders.

seen in adolescent years. and it was for the parents to understand their child to understand their child and provide a safe, loving, and supportive environ-ment to help them grow in-to independent and confi-dent young people.

Meghalaya's new cave-dwelling fish adapts to streams overground: study

An underground cave in Meghalaya, in focus for a conflict over a Shivalinga-like stone formation, has vielded a new-to-science fish that adapts to streams overground. A team of zoologists, led

A team of zoologists, led by Kangkan Sarma of Gau-hati University's Depart-ment of Zoology, has re-corded Schistura densiciava as a new species of troglophile loach from Krem Mawjymbuin in the State's East Khasi Hills

nimal that can thrive and eproduce in epigean, or boveground, environ-

Mr Sarma and D Khlur



Schistura densiclava, a new species of troglophile loach, was found in East Khasi Hills district. SPECIAL ARRANGEMENT

sue of the Journal of Fish Biology. The other authors are Hrishikesh Choudhury, Rajdeep Das, Rejani Chandran, Rajeev K. Singh, Dei-sakee P. Warbah, Wandalin Lyngdoh, Uttam Kumar

Sarkar, and Dandadhar Sarma. The newly described loach, a bottom-dwelling

According to the authors it retains pigment and eye-sight, unlike other cave-dwelling fishes.

signi, unine orner cave-dewelling fashes. Gescribed loach has a pale yellow-green body "marked with 14-20 greyish black to faint black bars" and a thick stripe near the dorsal fin. This stripe gave the loach its name - densiclow, which means "thick stripe" in Latin. densicher trans densicher males are slimmer with irregular pat-terns and puffer cheeks,

from the mouth, was found in a cool, fast-flow-ing stream about 60 metres inside the cave, where the temperature was 18 degrees Celsius and terns and puffier cheeks markings.

"Genetic testing con-firmed it as a completely new species... The distri-bution of the new species is limited to the cave, which suggests endemism in this cave system," the re-

TH CROSSWORD + 14494 TH CROSSWORD + 14494

Spouse returned blame and then split (7)

ÇM (IIII)

- 19 Black ship's water tank (6) Jealous of blended vino - English and American bottles (7)
 Journey to ends of capital in submarine for performance venue (5,4)
- 24 Love to go in for a rough style (5)
 26 Stockpile of unopened jam (7)
 27 Loose relative loses foot to snake (7)

- visus or morasts [4]
 Viller is up around new gym, at the centre of library (6)
 Lots of adult nock's contrived (6)
 Often young violas lacking strings essentially are transported from former Serbia? (8)
 Filter before services.
- 5 Entire bird's anatomic heart is at medium speed (10) Earnings for climbing into mine (6)
- carriangs are climbing into mine (s)

 Drawbacks of having no interest in stars (4)

 Make clothes colourful, even, and mostly positive (3-3)

 Delay in revoking Artificial Intelligence paper rebel gets lift (10)
- 14 Metal's tasty on the outside, surprisingly bitter in the middle (9) 16 Amateur experiment exploded, setter escaped (8)
 17 A boy - one taking drugs is an offender (6)
 18 Middle-East General, softly dozing (6)
- 21 Musical direction: 5, 4... 1 (6) 22 Gel rubbed on bottom of knee gives happiness (4 25 Prod animal with end of rod, squeezing top of tail (4)

SUDOKU



FAITH

Saintly conduct

oxygen levels were low.

Belonging to the Nemacheilidae family. Schistura

densiclava is adapted to the dark, subterranean en-

Whenever a person feels overwhelmed by problems in life, he would go to a temple or unburden himself to a gu-ru and seek his blessings to overcome the same. This was particularly true of the 68th Pontiff of the Kanchi Math, Sri Chandrasekharendra Saraswati Sankaracharya, fondly known as Maha Periyava, said P. Swaminathan in a

discourse.

A saint known for his travels to every nook and cranny, he was also known to camp in cities as well. Nearly 80 years ago, Maha Perlyaav was camping in the Sankara Math at Thambu Chetty Street in Parry's, Chennal. One day, after finishing his discourse, he suddenly entered the tall, ander instanting its discourse, it estationly effected the Kallkambal temple there and deeply impressed with the vibe, turned to the young son of the priest and blessed him to prepare well for a divine career in the temple. The young lad in later days came to be known as Sivachariar. Once, Siyachariar and Tiruverkadu Ramadas Swami wer heading to the airport to take a flight to Hyderabad when they met with an accident. Passers-by stood nonplussed they met with an accident. Passers-by stood nonplussed on how to help, when the then Chief Minister, en route to Delhi, stopped at the accident site, ensured top medical aid for the two spiritualists, who were rushed to the go-lar to the property of the property of the property has been as the property of the property of the pro-hen. A steef rod was implanted in Swachariar's right hand, which could have got in the way of his spiritual ac-tivities. For, as the priest, he had to perform certain mu-dras to the temple deity. Swachariar sought an audience priest not use head polysically but also boosted his morale. priest not just heal physically but also boosted his morale



Government to unveil Bharat Forecasting System today

The government will on Monday unveil a new "Bharat Forecasting System" (BFS) that will enable the weather office to provide more accurate and localised predictions. Developed by the Pune-based Indian Institute of Tropical Meteorology, it will provide forecasts with a 6 km resolution – the highest in the world – that would allow forecasters to predict small-scale weather features accurately. "We will now be able to issue more localised and accurate weather forecasts," M. Ravichandran, Secretary, Ministry of Earth Sciences, said. The new forecasting model was made possible due to installation of the new supercomputer Arka at the IITM campus last year. PTI

9

Time for a new India-Africa digital compact

frica Day (May 25) marks the founding of the Organisation of African Unity in 1963 bolises the cor ongoing journey towards unity, independence, and developme To usher in a new era of growth, the African Union's Digital the African Union's Digital Transformation Strategy (2022-2030) positions digital agenda. It recognises the need for solutions that can accelerate the construction of the construction the evolving paradigm is also reshaping india's approach to development diplomacy in Africa state-led financing with socially

state-led financing with socially embedded solutions, ranging from capacity-building through technical training to infrastructure projects backed by concessional lines of credit. Increasingly, social enterprises delivering low-cost, high-impact innovations have also become part of New Delhi's engagement, reflecting a shift toward more inclusive and

A digital partnership

now entering a new phase, technology-driven partnershi This builds on early initiatives such as the Pan-African e-Network, launched in 2009, which provided tele-medicine and tele-education through satellite and fibre-optic infrastructure, implemented by TCIL on behalf of

and note-optic intrastructure,
and note-optic intrastructure,
the Indian government.

Expanding on this, and building
on the success of its Digital Public
Infrastructure (DPI) systems, such
DISSIA, India is now focusing on
sharing and co-creating digital
solutions to rackle fundamentaly
challenges. This shift comes at a
crucial moment for Africa, where
many governments are advancing
national and continental digital
such as the Policy and Regulatory
such as the Policy and Regulatory A new India-Africa digital compact, anchored in mutual respect. co-development and long-term institutional partnerships. could serve as scalable framework for advancing digital inclusion



<u>Veda</u> Vaidyanathan Fellow, Foreign Policy and Security Studies, Centre for Social and Economic Progress

Initiative for Digital Africa and the Smart Africa Alliance, aimed at harnessing technology for inclusive and sustainable

inclusive and sustainable the control of the control of a digital partnership between India and Africa are a leaved yemerging. In a digital partnership between India and Africa are always and a model of the control o

Initiative, a national effort to advance digital transformation across government services. In 2024, the Bank of Namibia signed a pact with the National Payments Corporation of India for developing a UPI-like instant payment system. Ghana, too, is transactions. These partnerships reflect a growing interest in India's DPI model, which offers affordability, scalability, and a public-oriented design.

India's digital diplomacy in Africa are not occurring in a vacuum. As research by Folashadé Soulé highlights, African governments typically choose digital partners not based on ideological partners not based on ideological by the partners of the partners o highlights, African governments

as a digital public good, open-source, and adaptable.

However, these advances of

India's DPI model offers a public-oriented alternative to a more surveillance-driven or proprietary approach. The opportunity lies in adapting these tools to local contexts through genuine state-led collaboration,

beyond technology transfer. In this context, the establishment of the first overseas establishment of the first overseas campus of the Indian Institute of Technology Madras in Zanzibar represents a strategic intervention programmes in Data Science and AI and integrating with Indian private sector partners to fundan private sector partners to fundan rechnical capacity-building with broader socio-economic goals. If scaled effectively, such models could power Africa's digital infrastructure.

Challenges
However, challenges persist.
Africa is home to the world's
largest digital divide. This
exclusion is shaped by the high
costs of data and devices, stark rural-urban disparities in connectivity, and a persistent gender gap in digital access and teracy. Moreover, the expansion of digital infrastructure hinges on reliable energy supply, a critical bottleneck in many African countries. Meeting the growing energy demands of digital transformation will require coordinated investments in

coordinated investments to condinated investments and grid expansion.

Regardles power generation and grid expansion.

Regardles power generation and grid expansion.

Regardles gree is absencing, about 85% of African countries now have national ID systems with cow have national ID systems with conditions of the power of the powe

The wait for judicial finality

Why the Kerala government is keenly watching the Waqf proceedings in Court

K.S. Sudhi

he Kerala government, which is opposed to the Waqf (Amend ment) Act, 2025, is closely watching the legal proceed-ings in the Waqf case in the Su-preme Court.

ings in the Waqt case in the Su-preme Court. Waqf Board in Kerala staked claim over more than 400 acres of land in Mu-nambam, a coastal village in Ernakulam district. The in-habitants of Munambam are mostly Christian families num-bering around 600. When sev-ean demanding restoration of gan demanding restoration of the revenue rights of their holdings, the State BJP saw an opportunity. The party un-leashed a campaign arguing that enactment of the new law would resolve the issue. It also hoped that this pitch would help it make some inroads into the Christian votes of the State, However, its hopes were dashed when it later emerged that the law would be of little thelp in solving the issue as there are no specific provi-sions in the 2025 amendmen that will directly address the issue. BJP leaders have themselves clarified that they will

issue. apressed in the threat issue. apressed is a legal battle to get the issue solved.

In the issue solved. The prosition LTDF are united in their opposition to the Ward (Amendment) Act and wasted against what they termed as against what they termed as adeciental acts of the BIP to "deceived in a threat of the BIP to Immediately, BIP leaders, in Immediately, BIP leaders, in Immediately and the solvent on a damage-control exercise. From political embarrassment and from the possibility of lost ing the trust of the residents of



Munambam residents and Christian voters by requesting them to wait for just three them to wait for just three weeks. They contended that the Rules of the amended Act would be notified in this pe-riod. However, the Union go-vernment is yet to publish the Rules, even as the constitu-tional validity of the Act is be-ing challenged in the Suprema ing challenged in the Supreme Court. The intense legal battle may take time to conclude and ould further delay the notifi-

cation of the Rules.

To add to the BJP's woes, legal experts have been cautioning the residents of Munambam against being too optimistic about the changes that the Rules could bring in to support their cause. They say no Rule can prescribe anythsupport their cause. They say
ing which has not already
been mentioned in the parent
ing which has not already
been mentioned in the parent
enabling provisions of the parent law; they are nothing but
make the parent law; they are nothing but
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ing the make the parent
ing in Thrissur, will have to
regarding Munambam, initiarical two years ago, and challengest raised regarding the 2025
Act have left the Kerala Waqf
Board, which is on an extendflow, the parent law the present
the parent parent
the present board, which is on sheaded by
a nomine of the CPI 06, ended

on December 19, 2024. The Kerala High Court had asked the Board to continue in office for two more months or until the election for picking up members, whichever is ear-lier, was completed. Its order came before the legislation came before the legislation was enacted. The 2025 legislation, which has done away with the election process, has one of the second property of the property of the many property of the many property of the many property of the board, which has come under legal challenge before under legal challenge before the board has to put on hold the Board has to put on hold the the Supreme Court. The Board has to put on hold the

process of reconstitution even after the expiry of its term. The State government, which had earlier thought of reconstituting the Board as prescribed in the Waqf (Amendment) Act, appears to have decided not to act in haste and wait for the Court's verdict as it had raised objections to several provisions of the Act. After hesitating for some time, the Kerala govern ment decided to implead in the litigation before the top court challenging the constitutional validity of the 2025 le gislation. The Board had acted in this direction much before

goathor. The boatumes access
the government took a call on
challenging the new legislation. The post of the Chief Extion. The post of the Chief Extion and political. With the
legal battle to be over to
decide its next steps, both egal and political. With the
legal battle to be over to
decide its next steps, both
ethe semi-finals to the Assembby polis to be held next year,
around the corner, the State
ful path. It does not want to
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Share of cardiac and diabetic deaths soar in India

COVID-19 interrupted India's long-term shift in mortality patterns from communicable to non-communicable diseases

DATA POINT

Vignesh Radhakrishnan

he share of Indians dying from cardiovascular dis-saeses and diabetes has surged, while deaths from malaria, diarrhoea, tuberculosis, and peri-natal conditions have declined. natal conditions have declined. Notably, the share of deaths from fevers of unknown origin has in-creased over the years. In con-trast, the share of deaths due to cancer has remained relatively flat. Over time, while more and from non-communicable discusses.

from non-communicable diseases, fewer have been dying from com-municable diseases. However, this trend reversed during the pan-demic, when deaths from CO-VID-19 surged (Chart I). The share of men who died

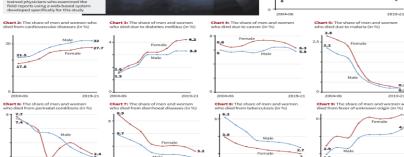
from cardiovascular diseases rose from 21.5% in 2004-06 to 32% in from 17.8% to 27.7% (Chart 2).

Deaths due to diabetes mellitus among men increased from 1.5% to 3.3% over the same period. Among women, the share rose from 1.6% to 4.2% (Chart 3).

women, the share rose from 1.6%
The share of men and women
who died from cancer has re
mained flat in the range of 6-7% ovmained flat in the range of 6-7% ovto the share of men and women who
died due to perinatal conditions
the share of men and women who
died due to perinatal conditions
(Chart 7) and tuberculosis (Chart 8) has come down. The share of
men and women who died due to
to 25%. For diarrhoea, the corresponding numbers were 6-9% to
2-3%, and for tuberculosis, from
The share of people who died
from fevers of unknown origin
went up from 2% among men to
6-5% (Chart 9).
Also, the share who died due to

Also, the share who died due to ill-defined causes is higher now than it was two decades ago. ÇM C

What's killing Indians? Data sourced from the published by the Office of the Registrar General of India Bharat A. Ramana, Raida NM, Christiya Jose J, R.P Josmani Joan, Shane Mathew. P and Rithinn



FROM THE ARCHIVES The Mindu.

FIFTY YEARS AGO MAY 26, 1975

Curbs on export of rare

birds and mammals

Calcutta, May 25: The Centre has further listed 44 rure species and endangered categories of under the Wildlife (Protection) Act 1972, according to an official source. Besides, three species of reptiles and 37 Besides, three species of reptiles and 37 to the control of the purview of the restrictive order which came into force this month.

is month. e the birds include munias, mynas. While the birds include munias, mynas, finches and pigeons (except blue rock pigeons), the reptiles are chameleon, rat snake and water snake. Among the mammals Andaman wild pig, Assamese macaque, common dolphin, hyena, Nilgiri thar and jackal are listed.

Nilgiri thar and jackal are listed.
Under the order only registered exporters of wildlife and wildlife products will be allowed to despatch the listed birds, reptiles and mammals through the major ports of Calcutta, Bombay and Madras and Delhi on production of a wild cortificate to be issued by the State's Chief

Wildlife Warden. Earlier, the Centre under the Act had totally banned trade in 70 rare and endangered species of mammals, 18 reptiles and 44 birds to protect and preserve wildlife in the country. The trade in butterflies and moth and dragonfly had also been banned.

While a separate policy in regard to rhesus monkeys, bonnet monkeys and peacock-tail feather has yet to be announced, the export of non-poisonous live snakes will be allowed on shipping bills by the registered exporters of wildlife in all permissible destinations with a

A HUNDRED YEARS AGO MAY 26, 1925

Earthquake in Japan

:::

Osaka, May 23: It is estimated that 200 persons have been killed and 500 injured at Toyoka as the control of th

What's killing Indians?

Data sourced from the 'Cause of Death' statistics published by the Office of the Registrar General of India

Bharat A. Ramana, Raida NM, Christiya Jose J, R.P Josmani Joan, Shane Mathew. P and Rithinn Andrewson R, who are interning with The Hindu Data Team, collated the data

The assignment of cause of death involved medical evaluation by two independent trained physicians who examined the field reports using a web-based system developed specifically for this study

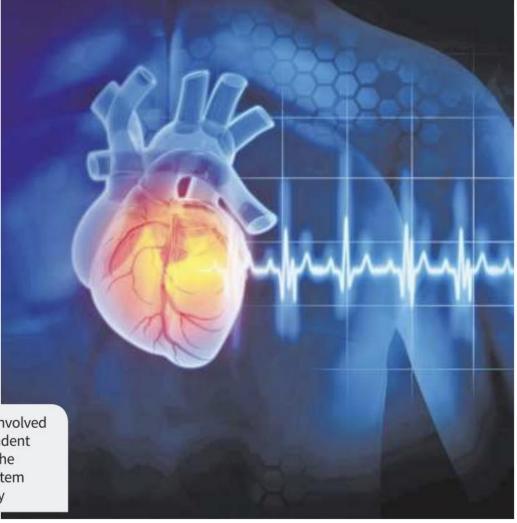
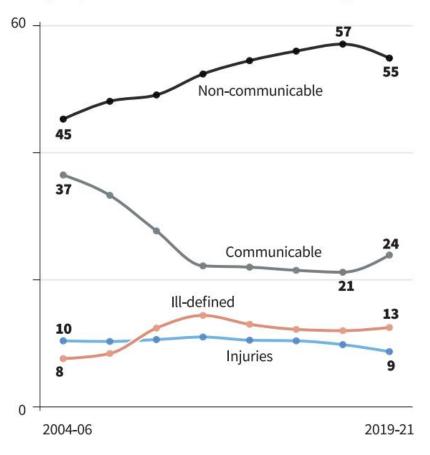


Chart 1: While more and more Indians have been dying from non-communicable diseases, fewer have been dying from communicable diseases. However, this trend reversed slightly during the pandemic, when deaths from COVID-19 surged



2004-06 2019-21

Chart 2: The share of men and women who died from cardiovascular diseases (in %)

30

2004-06

Male 32 27.7 Female 17.8

Chart 3: The share of men and women who died due to diabetes mellitus (in %)

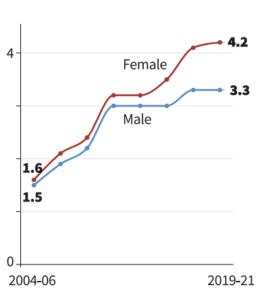


Chart 4: The share of men and women who died due to cancer (in %)

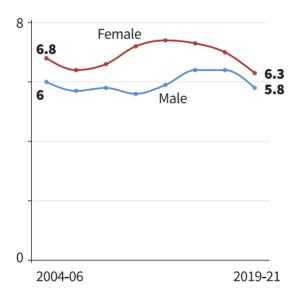


Chart 5: The share of men and women who died due to malaria (in %)

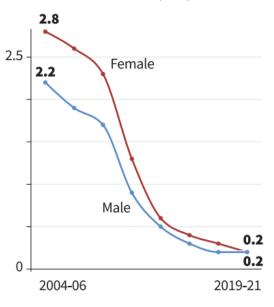


Chart 6: The share of men and women who died from perinatal conditions (in %)

2019-21

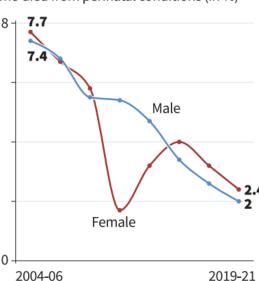


Chart 7: The share of men and women who died from diarrhoeal diseases (in %)

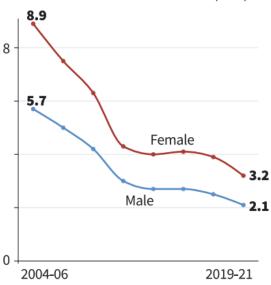


Chart 8: The share of men and women who died from tuberculosis (in %)

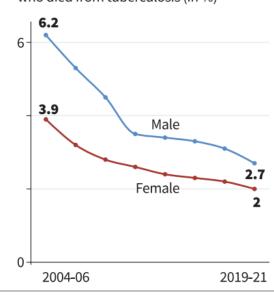
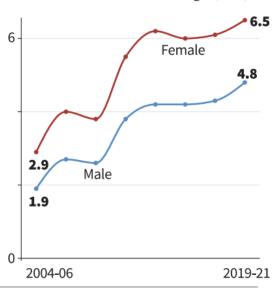


Chart 9: The share of men and women who died from fever of unknown origin (in %)



Google's AI Matryoshka: restructuring the search giant

The technology behemoth's recent I/O conference revealed a layered AI strategy, promising immense power but also raising profound questions about data, intellectual property, and user privacy

oogle's annual I/O developer conference in 2025 was less a showcase of disparate product updates and more a systematic unwelling of an At-centric future. The whole and a systematic unwelling of an At-centric future. The whole and the state of the system of th enterprises alike, prompting a re-evaluation of the firm's responsibilities concerning the data that fuels this transformation.

"More intelligence is available, for "More intelligence is available, for everyone, everyone, everyonere," declared Sundar Pichal, and Congress and the parent of the parent of the property of the user privacy are brought into sharper focus, forming a critical, if less

It has been nearly two years since Satya Nadella of Microsoft described Google as an "800-pound gorilla" challenged to perform new AI tricks. Google's response, particularly evident at I/O 2025, suggests the gorilla is learning to

pirouette.

At the innermost core of Google's AI strategy lie its foundational models. The keenly awated Gemin! 2.5 Flash and Pro models, now nearing general awailability, represent more than incremental improvements; they are a refined engine for AI experiences. The "enhanced" reasoning mode in Gemini 2.5 Pro," dubbed Deep Think, leverages parallel processing, demonstrates impressive capabilities in complex mathematics and coding, even achieving a notable score or the 2025 USAMO, a demanding mathematics benchmark. While Deep mathematics benchmark. While Deep Think will initially be available to select testers via the Gemini API, its potential to grapple with highly complex problems signals a significant advancement in AI

Workhorse upgraded Gemini 2.5 Flash, the workhorse model, has also received substantial upgrades, the substantial upgrades, every dimension. 'It boasts increased efficiency, using 20-30% fewer tokens (the units of data processed by Al models), and is set to become the default in the Gemini application. These models, enhanced with native audio output for more naturalistic conversatio interactions in 2.5 Pro and Flash, and a pioneering multi-speaker text-to-speech function supporting two voices across 24 languages, constitute the powerf nucleus from which all other AI

This computational prowess is built



nce in Mountain View. California on May 20, 2025. AFF

upon Google's proprietary Tensor Processing Units (TPUs). The seventh generation TPU, Ironwood, is said to deliver a tenfold performance increase over its predecessor, offering a formidable 42.5 exaFLOPS of compute per pod. Such hardware forms the bedrock for training and deploying these sophisticated AI

systems.

However, the very power of these generative models, especially Imagen 4 and Veo 3 for visual media, and Lyria 2 for music generation, necessitates a closer look at their training data. The creation of rich, nuanced outputs depends on ingesting colossal datasets. Persistent industry-wide concerns

revolve around the use of copyrighted material without explicit consent or emuneration for original creators. Google highlighted tools such as SynthID, designed to watermark Al-generated content, and a new SynthID Detector for its verification. Yet, these are mitigations

provenance and fiduciary responsibility

Platform proliferation

One layer out from the core models are the platforms and APIs that democratise access to this AI. The Gemini API and access to this Al. The demini API and Vertex AI are pivotal here, serving as the primary conduits for developers and enterprises. Google aims to improve the developer experience by offering "thought summaries" providing. developer experience by offering "thought summaries," providing transparency into the model's reasoning, and extending "thinking budgets" to Gemini 2.5 Pro, giving developers more control over computational resources. Critically, native software developmen

kit (SDK) support for the Model Context Protocol (MCP) has been incorporated into the Gemini API. This represents a significant move towards fostering a mor nterconnected ecosystem of AI agents, collaborate with greater efficacy by sharing contextual information. This inter-agent communication, while

information flows between potentially diverse systems. Project Mariner, a research tool, is also being integrated into the Gemini API and Vertex AI, allowing users to experiment with its task automation capabilities.

AI meets the user The outermost layers of Google's AI Matryoshka are where users most directly encounter AI, often without fully comprehending the sophisticated infrastructure beneath. This is where Google is reimagining search, commerce

coding, and application integration.
The "Al Mode" in Search, scheduled The "Al Mode" in Search, scheduled for rollout to users in the United States, will offer enhanced reasoning and long the states, will offer enhanced reasoning and by a customised version of Cenniul 2.5. A feature within this mode, Deep Search, is cited reports. The quality and impartiality of these citations, especially when generated by Al, will be an area for which will be supported to the state of the

inherently requires access to sensitive personal and financial data, raising questions about data min curity, and the potential for profiling

The all-in-one app
The Gemini application itself is being
significantly augmented. The Live feature
is now generally available on Android and
10S, and the app incorporates image
generation. For subscribers to the new
Google Al Ultra tier, the app will feature
the latest video generation tool, complete
function within the area on now draw function within the app can now draw upon users' private documents and images. While potentially offering powerful personal insights, this feature dives deep into personal data pools, demanding robust privacy safeguards and transparent consent mechanisms. How this data is firewalled, processed, and

protected from misuse or overreach will be paramount.

Canvas, the creates workspace within Canvas, the creates workspace within Canvas, the creates are intuitive with the Geniul 2.5 models, facilitating the creation of interactive infographics, quizzes, and even podcast-xyle Audio Overviews in 45 languages. Furthermore, Genniul is being integrated into the Chrome browsee (initially for Pro users to query and summarise weboage users to query and summarise weboage. users to query and summarise webpag

For developers, the new asynchronous coding agent, Jules, is now in public beta globally where Gemini models are accessible. It integrates directly with existing code repositories, understanding project context to write tests, build eatures, and rectify bugs using Gemini

Mr. Pichai's "new phase of the AI platform shift" is undeniably underw platform shift" is undeniably underway. Google's introduction of a new Google AI Ultra subscription tier offers users differentiated access to its most advanced AI capabilities. This stratification, however, prompts questions about whether the most robust privacy-enhancing features or responsible AI controls will be universally available or if a "privacy premium" could emerge, where deeper safeguards are reserved for paying customers. As Google rearchitects itself around AI, the intricate dance between innovation, unity, and the stewardship of data will define its next chapter. The layers of the Matryoshka are still being revealed, and with each one, the responsibilities grow.



Perhaps there's no surer sign of economic fortune than towering skyscrapers. This quiz takes a closer look at six iconic ones

Vasudevan Mukunth

he Tokyo Skytree is the world's tallest tower. Its architecture com traditional Japanese styles with , an avant garde mov of the early 21st century with roots in the work of Buckminster Fuller, among others. Fill in the blank.

QUESTION 2

The construction of this towering building began in 2004 and the outer structure was completely in 2009. It was originally to be named after its host city but the city's political head changed it to the name of his counterpart in a neighbouring territory for the latter's help shoring up its developer's finances during the 2008 recession. Name the building tion of this towerin

tructure built in 2000 and operated by an American nultinational company. The structure is notable for eing one of the tallest in world, even though most of ported by buoyancy because it stands in vater. Name the company.

OUESTION 4

rdeka 118 in Kuala Lumpur is the second-tallest building in the world. Its development costs were footed by the Malaysian government. Name the Malaysian prime minister who defended the ense but whose endorse

OUESTION 5

belong to a class of structures called ____ skyscrapers — an apt name given their height. There are only four in the world. Fill in the blank.

____ methods are both used to lity in a process known as nuclear generate supercriticality in a process known as nuclear fission. **Ans: Gun and implosion** 2. This was a programme in the U.S. to develop and use

aclear explosives for peaceful purposes, especially in enstruction. Ans: Operation Plowshare 3. When a nuclear weapon explodes, one of the effects is called the electromagnetic pulse. Gamma radiatio collides with air molecules to produce high-energy electrons. Name this effect. Ans: Compton effec electrons. Name this effect. Ans: Compton effect
4. The only way to create a purely fusion nuclear bomb is
to use naturally occurring isotopes that exist in an
elevated energetic state. Name those isotopes. Ans:
Nuclear Isomers
5. In 1955, a document was released in London by two

Visual: Name this Soviet facility. Ans: Obninsk Nuclear Power Plant Early Birds: Tamal Biswas| Piyali Tuli| Sunil Madhavan| Dodo Jayaditya| Gaurang Sharma



My teacher was debarred from college

The thesis was interesting and had a couple of great points. But, as a whole, it was undercooked

"Come on in! The look on your face "Come on in! The look on your face suggests that you have bad news." "On my way here, I got a call from my sister and she was..." "I hope she and her family are okay, and there's nothing..." "They're all doing fine. It's her

husband's younger brother. He's a lawyer, and several judges have threatened to debar him."

"Debar him or disbar him?" "Don't they mean the same thing? I was told that..."

"No. they don't: they have different "No, they don't; they have different meanings. Both 'debar' and 'disbar' are mostly used as verbs, and both have the stress on the second syllable."

'de-BAR' and 'dis-BAR."

"That's right When you 'debar' an individual from doing something, what you're doing 'debar' something, what you're doing 'debar' something, what you're doing 'debar' something."

"You're dofficially torably thing they are the are they are the they are the they are the they are they are

"You are officially prohibiting the person from doing it. It could be a law

that stops one."
"I see. How about this example? The two debarred teachers were instructed not to set foot on campus again."
"That sounds like a good example! The expelled Diplomat was debarred from entering the country."
"I think I understand what 'debar'

"I think I understand what 'debar' means. Tell me what 'disbar' means." "It is a term that's mostly used in legal contexts. When you say that a lawyer has been 'disbarred', what you're suggesting is that he's been kicked out of the legal

is that he's been known onto the legal profession."
"Meaning he cannot practise law anymore for he's no longer a lawyer!"
"Very good! The lawyer has done something seriously wrong, and his licence to practise law has been revoked." "I didn't know what to do because both my lawyers had been disbarred." "That's interesting. What did you do?"

"That was just an example. Called you several times around 6 o'clock yesterday, and got no response. Where were you?"
"I was in the theatre watching the

"I was in the theatre watching the movie you'd recommended." Resally? You're full of surprises! I hope you liked the movie as much as I did." You like the movie as much as I did." was entertaining. But I thought the story was undercooked. You see, the hero... "The story was undercooked? What are you talking about? Vegetables can be undercooked, but not stories." sorries can be. When you say that a story or a

can be. When you say that a story or a plot has been undercooked, what you're suggesting is that it hasn't been fully developed." "In other words, there's something

lacking. It lacks depth.

Word of the day

the hearing and determination of a dispute by an impartial referee agreed to by both parties (jurisprudence); the act of deciding as an arbiter; giving authoritative judgment

Synonym: mediation

For feedback and suggestions for Text & Context of letters@thehindu.co.in with the subject Text & Context

Google's AI Matryoshka: restructuring the search giant

The technology behemoth's recent I/O conference revealed a layered AI strategy, promising immense power but also raising profound questions about data, intellectual property, and user privacy

oogle's annual I/O developer conference in 2025 was less a showcase of disparate product updates and more a systematic unveiling of an Al-centric future. The unspoken theme was that of a Matryoshka doll: at its core, a refined and potent artificial intelligence, with each successive layer representing a product or platform drawing life from this central intelligence. Google is not merely sprinkling Al across its offerings; it is fundamentally restructuring its vast ecosystem around it The result is an increasingly interconnected and agentic experience, one that extends to users, developers, and enterprises alike, prompting a re-evaluation of the firm's responsibilities concerning the data that fuels this transformation.

"More intelligence is available, for everyone, everywhere," declared Sundar Pichai, CEO of Google and its parent company, Alphabet, "And the world is responding, adopting Al faster than ever before," This statement signals a push towards a more intelligent, autonomous, and personalised Google. Yet, as each layer of this AI Matryoshka is peeled back, the data upon which this intelligence is built, the convrighted material ingested by its models, and the implications for user privacy are brought into sharper focus, forming a critical, if less

It has been nearly two years since Satva Nadella of Microsoft described Google as an "800-pound gorilla" challenged to perform new AI tricks. Google's response, particularly evident at I/O 2025, suggests the gorilla is learning to At the innermost core of Google's AI

strategy lie its foundational models. The keenly awaited Cemini 2.5 Flash and Promodels, now nearing general availability, represent more than incremental improvements; they are a refined engine for Al experiences. The "enhanced reasoning mode in Gemini 2.5 Pro," dubbed Deep Think, leverages parallel processing, demonstrates impressive capabilities in complex mathematics and coding, even achieving a notable score on the 2025 USAMO, a demanding mathematics benchmark. While Deep Think will initially be available to select testers via the Gemini API, its potential to grapple with highly complex problems signals a significant advancement in AI

Workhorse upgraded

Gemini 2.5 Flash, the workhorse model, has also received substantial upgrades, purportedly becoming "better in nearly every dimension." It boasts increased efficiency, using 20-30% fewer tokens (the units of data processed by Al models), and is set to become the default in the Gemini application. These models, enhanced with native audio output for more naturalistic conversational interactions in 2.5 Pro and Flash, and a pioneering multi-speaker text-to-speech function supporting two voices across 24 languages, constitute the powerful nucleus from which all other AI functionalities radiate.

This computational prowess is built



Complete change: Google CEO Sundar Pichai addresses the crowd during Google's annual I/O evelopers conference in Mountain View, California on May 20, 2025. AFP

upon Google's proprietary Tensor Processing Units (TPUs). The seventh generation TPU, Ironwood, is said to deliver a tenfold performance increase over its predecessor, offering a formidable 42.5 exaFLOPS of compute per pod. Such hardware forms the bedrock for training and deploying these sophisticated AI

However, the very power of these generative models, especially Imagen 4 and Veo 3 for visual media, and Lyria 2 for music generation, necessitates a closer look at their training data. The creation of rich, nuanced outputs depends on ingesting colossal datasets.

Persistent industry-wide concerns revolve around the use of copyrighted material without explicit consent or remuneration for original creators. Google highlighted tools such as SynthID, designed to watermark Al-generated content, and a new SynthID Detector for its verification. Yet, these are mitigations, not comprehensive solutions, to the intricate and ongoing debate surrounding copyright and fair use in an era increasingly defined by generative AI. The

rovenance and fiduciary responsibility over the data remain complex issues.

Platform proliferation

One layer out from the core models are the platforms and APIs that democratise access to this Al. The Cemini API and Vertex AI are pivotal here, serving as the primary conduits for developers and enterprises. Google aims to improve the developer experience by offering "thought summaries," providing transparency into the model's reasoning, and extending "thinking budgets" to Gemini 2.5 Pro, giving developers more control over computational resources.

Critically, native software development kit (SDK) support for the Model Context Protocol (MCP) has been incorporated into the Gemini API. This represents a significant move towards fostering a mor interconnected ecosystem of Al agents, enabling them to communicate and collaborate with greater efficacy by sharing contextual information. This inter-agent communication, while powerful, also introduces new vectors for data security considerations, as

information flows between notentially diverse systems. Project Mariner, a research tool, is also being integrated into the Gemini API and Vertex AL allowing users to experiment with its task automation capabilities.

AI meets the user

The outermost lavers of Google's Al Matryoshka are where users most directly encounter AL often without fully comprehending the sophisticated infrastructure beneath. This is where Google is reimagining search, commerce coding, and application integration.

The "Al Mode" in Search, scheduled for rollout to users in the United States. will offer enhanced reasoning and multimodal search capabilities, powered by a customised version of Gemini 2.5. A feature within this mode, Deep Search, is designed to generate comprehe cited reports. The quality and impartiality of these citations, especially when generated by AI, will be an area for careful scrutiny

Within AI Mode, a novel shopping experience will allow users to virtually try on clothes by uploading their own photographs. Once a product is selected, an "agentic checkout" feature, initially available in the U.S., promises to complete the purchase. Such a feature inherently requires access to sensitive personal and financial data, raising questions about data minimis security, and the potential for profiling.

The all-in-one app The Gemini application itself is being significantly augmented. The Live feature is now generally available on Android and iOS, and the app incorporates image generation. For subscribers to the new Google AI Ultra tier, the app will feature the latest video generation tool, complete with native audio. A "Deep Research" function within the app can now draw upon users' private documents and images. While potentially offering powerful personal insights, this feature dives deep into personal data pools, demanding robust privacy safeguards and transparent consent mechanisms. How this data is firewalled, processed, and protected from misuse or overreach will

Canvas, the creative workspace within Gemini, has been made more intuitive with the Gemini 2.5 models, facilitating the creation of interactive infographics. guizzes, and even podcast-style Audio Overviews in 45 languages. Furthermore Gemini is being integrated into the Chrome browser (initially for Pro and Ultra subscribers in the U.S.), enabling users to query and summarise webpag

For developers, the new asynchronous coding agent, Jules, is now in public beta globally where Gemini models are accessible. It integrates directly with existing code repositories, understanding project context to write tests, build features, and rectify bugs using Gemini

Mr. Pichai's "new phase of the AI platform shift" is undeniably underway. Google's introduction of a new Google AI Ultra subscription tier offers users differentiated access to its most advance AI canabilities. This stratification. however, prompts questions about whether the most robust privacy-enhancing features or responsible Al controls will be universally available or if a "privacy premium" could emerge, where deeper safeguards are reserved for paying customers. As Google rearchitects itself around AL the intricate dance between innovation, utility, and the stewardship of data will define its next chapter. The layers of the Matryoshka are still being revealed, and with each one, the responsibilities grow.

Main Theme

- Google's I/O 2025 focused on Al-centric transformation.
- The concept of a "Matryoshka" doll metaphor represents:
 - Multiple Al layers
 - Each layer refining the previous
 - Drawing intelligence from a core engine (Gemini AI)

Strategic Restructuring

- Google is reorganising its full ecosystem around Al.
- Move affects:
 - Users
 - Developers
 - Enterprises
 - Data policies and responsibilities

Foundational AI Models

- Gemini 2.5 Flash and Pro
 - More than incremental updates
 - Introduced enhanced search, commerce, coding, multimodal AI
 - Flash: Speed-focused
 - Pro: Power-focused
- "Deep Think" reasoning mode
 - Multimodal capability
 - Supports coding, math, logic



AI in Search

- Deep Search Mode:
 - Customized with Gemini 2.5.A
 - Multimodal and analytical
 - Creates detailed, cited reports

AI in Shopping

- "Agentic Checkout" feature:
 - Users upload product images
 - Al handles product comparison and checkout
 - Raises data security and financial privacy concerns

- Gemini API, Gemini Flash and Gemini Pro now public
- Project Turing, Tensor Processing Units, and DeepMind all contribute backend infrastructure
- Project Astra introduced for task automation
- Model Context Protocol (MCP):
 - Aims for Al interoperability
 - Facilitates cross-app knowledge sharing

Jury out on pay-per-view service for Sitaare Zameen Par

Aamir Khan tests economics of digital film distribution

URVI MALVANIA Mumbai, May 25

IN A CLASSIC high-risk, high-reward play, actor Aamir Khan is rolling the dice in a way few Bollywood stars have dared to.

At a time when streaming giants rule the digital roost, Khan is pushing boundaries by choosing YouTube's pay-perview service for the digital distribution of his next title – Sitaare Zameen Par.

The jury is out on the move to skip the streaming platforms, with some trade experts hailing it as audacious and visionary, while others are terming it as too risky a bet.

One of the biggest pay-offs of this strategy could be a longer theatrical run since users will have to pay to watch the movie, one way or another. When a film is sold to a streaming platform, it becomes part of

NEW WATERS

■ Aamir Khan is pushing boundaries by choosing YouTube's pay-per -view service for the digital distribution of his next title - Sitagre Zameen Par



■ One of the biggest pay-offs of this strategy could be a longer theatrical run since users will have to pay to watch the movie, one way or another

- Box-office collections of films have been suffering because of streaming platforms as people prefer to watch movies at home
- Taking the movie to YouTube also allows Khan, who has also produced the film, to cast a wider net in terms of audience

its library, often available for free under a subscription or adsupported model. "In this case, people will have to pay anyway, and if the movie does well, it could drive more people to the theatres," says Komal Nahata, leading film trade analyst, editor of film trade magazine 'Film Information' and host of popu-

lar podcast 'Game Changers'.

Box office collections of films have been suffering because of streaming platforms as people prefer to watch movies, especially those without any visual spectacle (like superhero films or those with a 3D/4D release), in the comfort of their homes

on subscribed OTT platforms at the time of their choosing. However, if the film is not available as part of a subscription or membership on digital, people may just feel inclined to go to the movies in the traditional way.

Continued on Page 5

★ Key Strategy:

Aamir Khan opts for YouTube's pay-per-view (TVOD) service for distributing his film Sitaare
 Zameen Par.

& Economics:

- Revenue Share:
 - Producer retains 70%.
 - Platform takes 30%.
- Box Office Boost:
 - Users paying to watch online may also drive theatrical attendance.

■ Expert Views:

- High risk, high reward:
 - If the film works, could democratize film distribution.
 - Could inspire independent filmmakers to adopt similar models.

Challenges:

- Piracy.
- No upfront payments like OTT platforms.
- Dependent on performance and engagement.

Reach & Accessibility:

- YouTube has 2.5 billion users globally, making it the most accessible platform.
- Helps bypass traditional OTT deals and gain direct audience access.

INDIA MAY BECOME 3RD LARGEST ECONOMY BY 2028

After overtaking Japan in 2025, India is projected to surpass Germany by 2028 to become the world's third-largest economy in nominal dollar GDP terms, according to IMF. The projections show India's GDP rising from \$3.9 trillion in 2024 to \$5.58 trillion in 2028 — reflecting not just steady growth but also the country's growing share in the global economy



GDP \$Tn	2024	2025	2026	2027	2028
US	29.2	30.5	31.7	32.9	34.3
China	18.8	19.2	20.4	21.7	23.1
Germany	4.66	4.75	4.91	5.08	5.25
India	3.91	4.187	4.60	5.07	5.58
Japan	4.03	4.186	4.37	4.52	4.71

It is only the US, China and Germany which are larger than India, and if we stick to what is being planned and what is being thought through, in 2.5-3 years, we will be the third largest economy

- B V R SUBRAHMANYAM | CEO, NITI AAYOG



Kala-Azar

• Chad, Djibouti, Ethiopia, Somalia, South Sudan, and Sudan signed a Memorandum of Understanding (MoU) to eliminate Kala-azar, during an event co-organised by the African Union and WHO on the sidelines of the **78th World Health Assembly in Geneva.**

Kala-azar (visceral leishmaniasis)

- Leishmaniasis is caused by protozoan parasites which are transmitted by the bite of infected female phlebotomine sandflies.
- The term "kala-azar," meaning "black disease," refers to the skin discoloration associated with the infection.
- The parasite primarily targets the **reticuloendothelial system**, particularly affecting the bone marrow, spleen, and liver.
- It is one of the 20 **neglected tropical diseases (NTDs)** identified by WHO.
- Symptoms: Prolonged fever, Weight loss, Fatigue, Enlargement of the spleen and liver, Anaemia etc.

Government Interventions



Government of India launched a centrally sponsored **Kala-azar control Programme in 1990-91.**



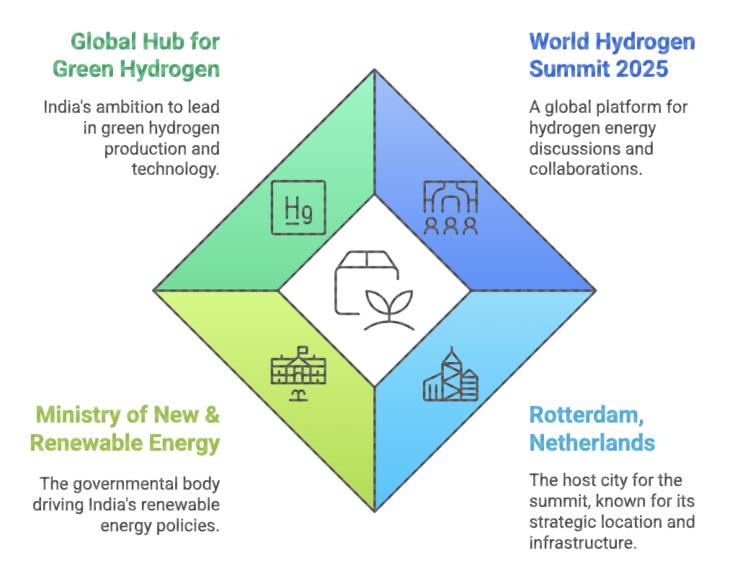
The National Health Policy

(2002) envisaged kala-azar Elimination by 2010 which was revised later to 2015.

The **WHO** aims for its elimination by **2030**.

World Hydrogen Summit 2025

India's Green Hydrogen Vision



Grey Hydrogen

Process:

Steam Reforming

Source:

Natural Gas



Blue Hydrogen

Process:
Steam Reforming
With Carbon Capture

Source:

Natural Gas



Green Hydrogen

Process:

Electrolysis

Source:

Renewable

Energies



Black Hydrogen

Process: Gasification

Source:

Coal



Pink Hydrogen

Process: Electrolysis

Source: Nuclear Energy



Turquoise Hydrogen

Process: Pyrolysis

Source: Natural Gas

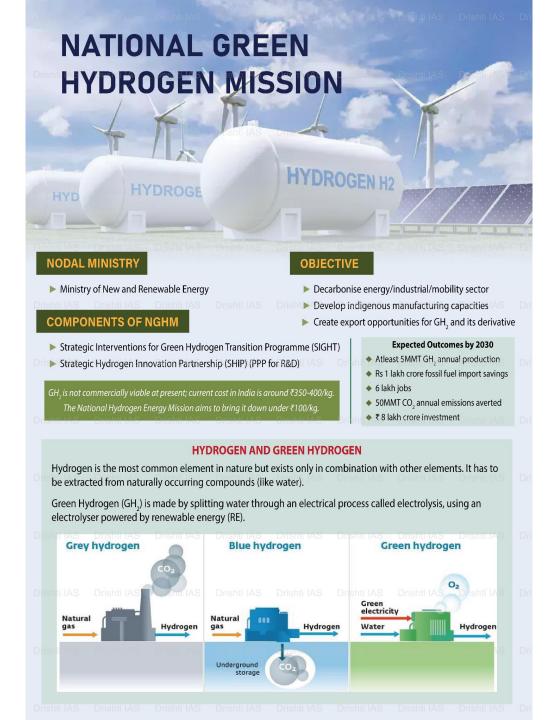


Yellow Hydrogen

Process: Electrolysis

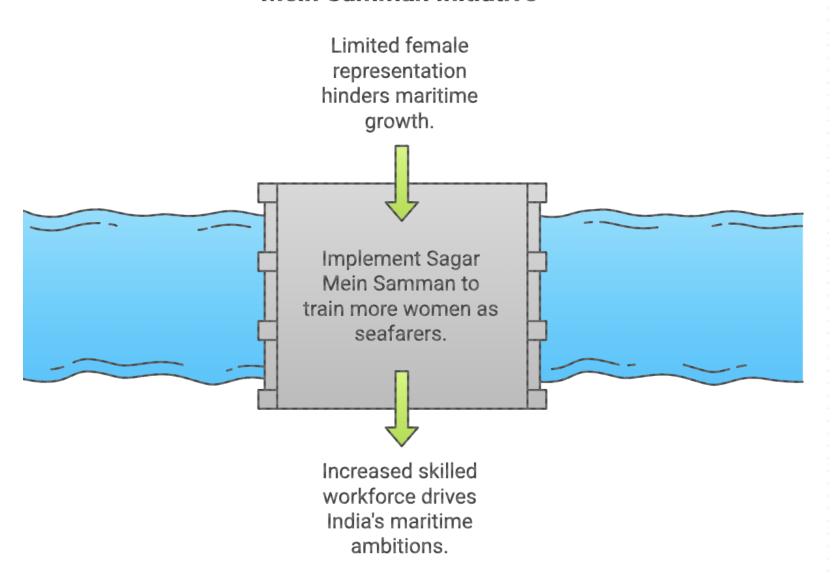
Source: Solar Energy



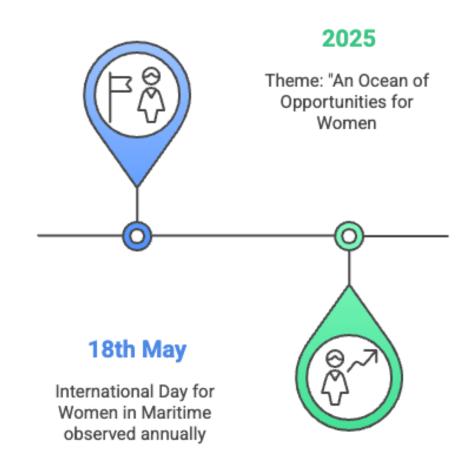


Sagar Mein Samman Initiative

Empowering Women Seafarers through Sagar Mein Samman Initiative



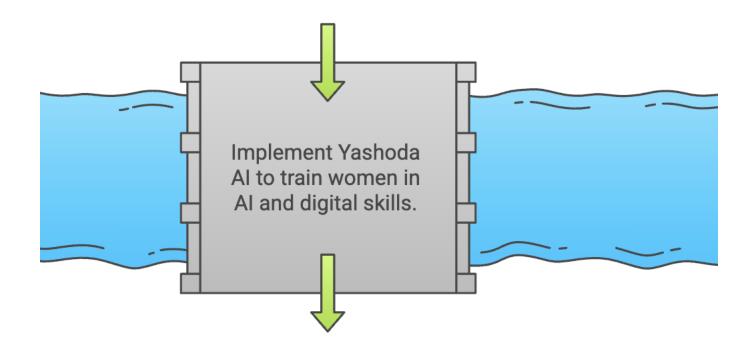
Celebrating Women in Maritime: A Journey to 2025



Yashoda Al

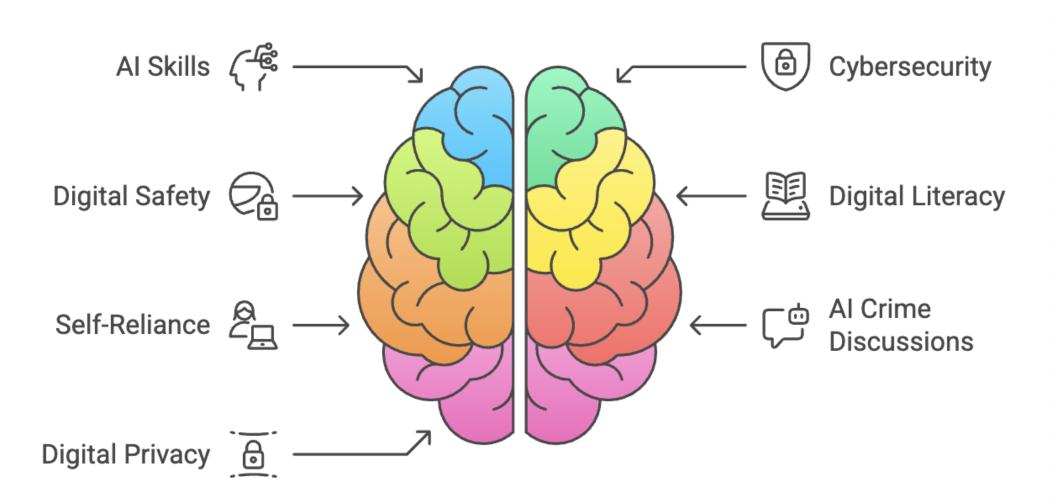
Yashoda AI empowers women through digital literacy.

Women lack AI and digital skills.



Women are skilled and digitally aware.

Empowering Women in the Digital Age



Word of the day

Arbitration:

the hearing and determination of a dispute by an impartial referee agreed to by both parties (jurisprudence); the act of deciding as an arbiter; giving authoritative judgment

Synonym: mediation

Usage: They submitted their disagreement to arbitration.

Pronunciation: newsth.live/arbitrationpro

International Phonetic Alphabet: /ˌaː.bɪˈtɹeɪ.ʃən/, [ˌaː.bəˈt͡ɹeɪ.ʃn̩]

