



MAY 2024



*The*

HINDU & EXPRESS NOTES

**EXPLORE. UNDERSTAND. MASTER.**

OVER 200 ARTICLES DISTILLED INTO 170 PAGES OF CLARITY. EACH PIECE COMES WITH KEY TAKEAWAYS, SIMPLIFYING THE COMPLEX. RETAIN BETTER

WITH OUR EASY LANGUAGE SECTION

**TABLE OF CONTENTS**

1st May., 2024 .....	10
Make EPI an ‘Essential Programme on Immunisation- The Hindu Editorial.....	10
The Need for the use of Labor Statistics- The Hindu Editorial.....	11
Cost of meals rose by 71% in 5 years, salaries by just 37%- The Hindu Opinion.....	12
The New productive force- Indian Express Editorial.....	13
Cautious Optimism- Indian Express Editorial.....	14
Why banks can’t seek LOCs to stop debtors from going abroad- Indian Express Explained.....	15
COVID VACCINE LINK TO BLOOD CLOTS: THE LAWSUIT IN UK ON COVISHIELD- Indian Express Explained .....	15
El Niño, anti-cyclone systems : Why large parts of India experienced heatwaves in April- Indian Express Explained	16
2nd May 2024.....	17
The challenge and necessity of ‘balance’ in use of fertilisers .....	17
The question of Article 31C-Indian Express Explained.....	18
WHY IS CHINA MORE IMPORTANT FOR TESLA THAN INDIA?-Indian Express Explained .....	19
Sunlight, science & state-Indian Express Editorial.....	20
Analysing labour on a warming planet-The Hindu Text and Context .....	21
Particles called quarks hold the key to the final fate of some stars-The Hindu Science.....	21
Plastic treaty talks conclude in Ottawa with little progress-The Hindu Science.....	22
The wrong way to fight inequality-The Hindu Editorial .....	23
3rd May 2024.....	24
Prajwal’s flight: How diplomatic passports, visa regimes work-Indian Express Explained .....	24
The global spy game-Indian express explained .....	24
How To Decide Domestic Violence Damages:injury or ability to pay?-Indian express explained .....	25
MPOX-Indian express explained .....	25
The Vishwa Bandhu-Indian Express editorial.....	26
Why are Indian spices facing the heat?-The hindu Text and Context.....	27
A computer science conundrum that could transform healthcare -The Hindu Science.....	27
Liquid nitrogen in foods draws Tamil Nadu’s ire, yet again-The Hindu Science.....	28
Does PMJAY need a design change?-The Hindu Text and Context .....	29
4th May 2024.....	29
DECISION 1952-2019 AHISTORY OFLOKSABHA ELECTIONS PART 6-Emergency, first non-Cong Govt, and a promise belied-Indian Express Explained .....	29





WHAT IS ETA AQUARIID METEOR SHOWER,SET TO LIGHT UP THE NIGHT SKY THIS WEEKEND?-Indian express explained ..... 30

Weather proofing polls-Indian Express Editorial ..... 31

RAREST OF RARE RISK-Indian Express Editorial..... 31

The paradox of India’s global rise, its regional decline-The Hindu Editorial..... 32

This is the year to get the SDG goals back on track-The Hindu Editorial ..... 33

5th May..... 34

    How India’s first voters got their ballot box- Indian Express Opinion..... 34

    Can the new organelle help engineer plants to fix nitrogen?- The Hindu Science ..... 35

    Will R&AW’s overseas operations affect ties?- The Hindu FAQ ..... 36

6th May 2024..... 36

    GOLDENE:A SHEET OF GOLD THAT IS ONLY ONE ATOM THICK-Indian express explained ..... 36

    Latin America’s dengue spike-Indian Express Explained ..... 37

    What is artificial general intelligence why are people worried about it?-Indian Express Explained..... 38

    Jobs picture in perspective-Indian Express Editorial ..... 38

    The hard truth-Indian Express Editorial ..... 39

    It is time to operationalise the Indian Defence University-The Hindu Editorial ..... 40

    An overview of Sudan’s civil war-The Hindu Text and Context..... 40

    Where does ‘us versus them’ bias in the brain come from?-The Hindu Science ..... 41

7th May 2024..... 42

    The ‘Muslim quota’ question-Indian Express Explained ..... 42

    WITH VETERAN SUNITA WILLIAMSON BOARD,BOEING'S STARLINER SET TO LAUNCH:WHAT IS ITS SIGNIFICANCE?-Indian Express Explained..... 43

    What is SFJ, alleged to have links with AAP?-Indian Express Explained ..... 43

    IndiGo's wide-body order:Why is low-cost,long-haul a difficult model?-Indian Express Explained ..... 44

    CLEAR THE BILL-Indian Express Editorial..... 45

    To auction or not-Indian Express Editorial..... 45

    What is carbon farming?-The Hindu Text and Context..... 46

    A mouth bacteria has starring role in colorectal cancer: study-The Hindu Science ..... 47

    Orangutan used plant to treat wound, scientists say-The Hindu Science..... 47

8th May 2024..... 48

    Will higher default limit for pesticides in spices impact health?-Indian Express Explained ..... 48

    3-PHASE CEASEFIRE DEAL THAT HAMAS BACKED;ISRAEL REJECTED AS ‘SOFT’-Indian Express Explained..... 49

    Why EVs lie at the heart of trade frictions between China and Europe-Indian Express Explained ..... 50

    Playing the field-Indian express editorial..... 51

    Sugar and spice, not all nice-Indian Express Editorial..... 52





The unseen effects of climate change on mental health-The Hindu Science.....	52
The Kotak Mahindra Bank controversy-The Hindu Text and Context.....	53
9th May 2024.....	54
Do marriages need to be registered? What happens if they aren't?-Indian Express Explained.....	54
The India-Nepal border issue-Indian Express Explained.....	55
WHY VIETNAM WANTS US TO CHANGE ITS 'NON-MARKET ECONOMY' STATUS-Indian Express Explained .....	56
Giving primacy to human development-The Hindu Editorial.....	57
The delay in Nagaland civic body polls-The Hindu Text and Context .....	57
The socio-ecological effects of LPG price hikes-The Hindu Text and Context .....	58
How the Widal test clouds India's sense of its typhoid problem-The Hindu science .....	59
NASA working out a time standard for the moon-The Hindu Science.....	59
10th May 2024 .....	60
Meeting nutrition challenge: what new guidelines prescribe-Indian express Explained .....	60
Export-import in agri sector-Indian Express Explained.....	61
Unfeasible, illegal:Grounds of challenge to US law forcing TikTok sale-Indian Express Explained.....	63
HOW THE OLYMPIC GAMES GOT THE TORCH RELAY, WHAT IT SYMBOLISES-Indian Express Explained .....	63
The recovery debate-Indian Express Editorial.....	64
Reservation within Constitutional bounds-The Hindu text and Context .....	65
Why did Interpol issue a blue corner notice against Prajwal?-The Hindu Text and Context.....	66
We need to stop the fear mongering on vaccines'-The Hindu science.....	66
Could bird Flu turn into the next pandemic?-The Hindu science.....	67
11th May 2024 .....	68
Turnouts, delays, Form 17C-Indian express Explained.....	68
Israel,SaudiArabia,and churn in the Middle East : the view from India-Indian Express Explained .....	69
CHARGES ARE FRAMED AGAINST BRIJ BHUSHAN:WHAT DOES THIS MEAN?-Indian Express Explained .....	69
The fraying of the model code of conduct-The Hindu editorial .....	70
Freshwater quest, the likely new gold hunt-The Hindu Editorial .....	71
12th May 2024 .....	71
30-year study links ultra-processed food to risk of early death- The Hindu Science .....	71
Will cattle be the next lab for flu host-switching?- The Hindu Science.....	72
The Karnataka HC ruling on EPF benefits- The Hindu FAQ.....	73
How is India streamlining the pharma sector?- The Hindu FAQ .....	74
Opening the gates of hell- The Hindu Profiles.....	75
13th May 2024 .....	75
DECISION 1952-2019 A HISTORY OF LOK SABHA ELECTIONS PART 8-Indian Express Explained .....	75
In their election manifestos, how India's main parties see the world-Indian Express Explained .....	76







WHY KERALA TEMPLES BANNED USE OF OLEANDER FLOWERS AS OFFERINGS-Indian Express Explained .....	77
The poll promise of affordable housing-The Hindu Text and Context .....	78
What is DigiLocker and does it keep your data and documents safe?-The Hindu Text and Context .....	79
This worm develops food habits and its offspring 'inherit' them-The Hindu Science .....	79
Make it farmer friendly-Indian Express Editorial .....	80
A well-intentioned study and a demographic myth-The Hindu Editorial .....	81
14th May 2024 .....	82
India's stakes in Chabahar-Indian Express Explained.....	82
XENOTRANSPLANTATION-Indian Express Explained .....	84
Pain from Pak's economic crisis:why are traders protesting in PoK?-Indian Express Explained.....	85
An overview of the Smart Cities Mission-The Hindu Text and Context .....	85
What is the legal position on live-in relationships?-The Hindu Text and Context.....	86
India's population data and a tale of projections and predictions-The Hindu Text and Context.....	87
Semal trees are being wiped out in Rajasthan due to Udaipur's Holi-The Hindu Science .....	88
Finally, rocky planet with atmosphere found 41 light years away-The Hindu Science.....	89
15th May 2024 .....	90
New FLiRT variant of the Covid virus — should you worry?-Indian Express Explained.....	90
WHAT IS GPT-4O,OPENAI'S LATEST, MOST POWERFUL AI MODEL YET-Indian Express Explained .....	91
Heatwave & climate change-Indian Express Explained.....	92
Ask the children-Indian Express Editorial .....	92
Misreading America's lines-Indian Express Editorial .....	93
On the importance of regulatory sandboxes in artificial intelligence-The Hindu Text and Context.....	94
More solar storms brewing after last week's aurorae as Sun 'wakes up' -The Hindu science .....	95
Young people fade away when there is no vision-The Hindu Editorial .....	95
16th May 2024 .....	96
Why SC said News Click founder's arrest illegal, why bail is significant-Indian Express Explained .....	96
NAKBA-Indian Express Explained .....	96
More than a million in this election, here's how polling stations work-Indian Express Explained .....	97
The CDS that should be-Indian Express Editorial.....	98
C THE SIGNS-Indian Express Editorial.....	99
On Delhi's mounting waste crisis-The Hindu Text and Context.....	99
General, central obesity linked to higher risk of colorectal cancer-The Hindu Science.....	100
Summer 2023 was hottest in 2,000 years, says study-The Hindu Science .....	101
17th May 2024 .....	101
Draft Digital Competition Bill, and why Big Tech opposes it-Indian Express Explained .....	101
Xi, Putin, and the world-Indian Express Explained .....	102





WHAT THE NEW RIGHT-WING DUTCH GOVERNMENT PLANS TODO-Indian Express Explained.....	103
Reporting sick en masse has emerged as a potent tool of industrial action-Indian Express Explained.....	104
A right to fairness-Indian Express Editorial.....	105
The use of AI in drug development-The Hindu Text and Context.....	106
Can parties be de-recognised or de-registered?-The Hindu Text and Context.....	106
Kerala sounds warning on West Nile Virus; neighbouring States on guard-The Hindu Science.....	107
Do no harm: conservative, non-surgical approaches advised over hysterectomy-The Hindu science.....	108
18th May 2024.....	109
Rules for political parties to use state-funded media during polls-Indian Express Explained.....	109
DECISION 1952-2019 A HISTORY OF LOK SABHA ELECTIONS PART10-The Narasimha Rao years-Indian Express Explained.....	109
WHY ARE ORCAS SINKING BOATS?ARE THEY PLAYING,OR ARE THEY ANGRY?-Indian Express explained.....	110
What happens during remand hearings?This is what a study suggests-Indian Express explained.....	111
HURDLES ON PATH TO GREEN-Indian Express Editorial.....	111
Stay invested-The Hindu Editorial.....	112
After the civil war, the stifling impasse in Sri Lanka-The Hindu Editorial.....	113
19th May 2024.....	113
HPV vaccine prevents cervical cancer in deprived groups: study-The Hindu science.....	113
Women with no sexual autonomy twice likely to get STIs: study-The Hindu Science.....	114
Can humans get H5N1 by consuming raw milk?-The Hindu Science.....	115
Why is RBI keeping an eye on gold loans?-The Hindu FAQ.....	116
India's gateway to Central Asia-Chabahar-The Hindu Profiles.....	117
20th May 2024.....	117
Cereal saviours: Punjab-Haryana and India's food security-Indian Express Explained.....	117
Illegal mining in Sariska-Indian Express Explained.....	118
EXTINCT NILE BRANCH HELPED BUILD EGYPT'S EGYPT'S PYRAMIDS:STUDY-Indian Express Explained.....	119
Consistent, coordinated: Evolution & essentials of India's climate Policy-Indian Express Explained.....	120
PUTIN & XI-Indian express Editorial.....	120
Why was Purkayastha's arrest invalidated?-The Hindu Text and Context.....	121
Why is the European Union probing Facebook and Instagram?-The Hindu Text and Context.....	122
Balancing two forms of SNCA protein could help manage Parkinson's-The Hindu Science.....	123
A towering hazard, the height of poor enforcement-The Hindu Editorial.....	123
21st May 2024.....	124
Antarctic Parliament meets in Kochi: what's on the table?-Indian Express Explained.....	124
HOW VENEZUELA LOST ITS LAST GLACIER,AND WHY THIS MATTERS-Indian Express Explained.....	125
Iran after Ebrahim Raisi-Indian Express Explained.....	126





SC to revisit 1995 order on suing doctors in consumer court: here's why-Indian Express Explained..... 126

India-China consumption comparison-The Hindu Text and Context..... 127

An overlooked molecule could solve the Venus water mystery-The Hindu Science..... 128

The baobab's journey from Madagascar to Africa and Australia-The Hindu Science ..... 128

Critical times call for strong judicial adjudication-The Hindu editorial ..... 129

22nd May 2024 ..... 130

EU's Copernicus emergency service, called in to locate Raisi's chopper-Indian Express Explained ..... 130

Resilience of Russia's economy-Indian Express Explained..... 131

Why ICC Prosecutor has sought an arrest warrant against Netanyahu-Indian Express Explained..... 131

TURBULENCE-Indian Express Explained..... 132

A time for para diplomacy-Indian Express Editorial..... 133

Analysing local environmental footprints-The Hindu Text and Context..... 134

RBI's proposed framework to administer project Financing-The Hindu Text and Context..... 134

X chromosome revival in older women increases risk of autoimmune disease-The Hindu science..... 135

The risks of Russia's nuclear posturing-The Hindu Editorial ..... 136

23rd May 2024..... 137

'SILENT DEMISE' OF WORLD'S RANGELANDS: WHY THIS MATTERS-Indian Express Explained..... 137

Gopi Thotakura becomes India's first space tourist:What Is Space Tourism?-Indian Express Explained ..... 137

A CLIMATE SHIELD-Indian Express Editorial..... 138

A NEW MORAL COMPASS-Indian Express Editorial..... 139

On concerns over voter turnout data-The Hindu Text and Context..... 139

What is the value of attributing extreme events to climate change?-The Hindu Science..... 140

Amazon fires off to record start in 2024-The Hindu Science..... 141

A 'No-Limit' bromance that is not just a bilateral matter-The Hindu editorial..... 141

24th May 2024 ..... 142

Johansson, OpenAI, and the question of personality rights-Indian Express Explained ..... 142

Integrated theatre commands-Indian Express Explained ..... 143

BRAIN-EATING AMOEBA-Indian Express Explained ..... 144

Why Stone Age could well be called 'WoodAge' : Evidence From Study-Indian Express Explained..... 145

Model code and context-Indian Express Editorial..... 146

Rising debt strains household savings-The Hindu Text and Context ..... 146

The 'chilling cover-up' of the U.K.'s contaminated blood scandal-The Hindu science..... 147

Should doctors be kept out of the Consumer Protection Act?-The Hindu Editorial..... 148

25th May 2024 ..... 148

Religion as sole factor: Why Calcutta HC quashed OBC quota for Muslims-Indian Express Explained..... 148

What are AI agents and How are they different from LLMS-Indian Express Explained ..... 149





What Jobs data show-Indian Express Explained ..... 150

Why Norway, Ireland, and Spain have decided to recognise Palestine as a state-Indian Express Explained ..... 151

Power play in the sea-Indian Express Editorial..... 151

After the blaze-Indian Express editorial ..... 152

Southern sojourn-The Hindu editorial..... 153

The missing links in IMEC, as shown by the Gaza war-The hindu Editorial..... 153

26th May 2024 ..... 154

    Warming climate intensifies flash droughts worldwide- The Hindu Science ..... 154

    BHU’s Covaxin safety study riddled with major limitations- The Hindu Science..... 155

    How will Iran President’s death impact the region?- The Hindu FAQ ..... 156

    Why COVID vaccine safety needs scrutiny- The Hindu FAQ ..... 156

27th May 2024 ..... 157

    Adani Ports to enter Sensex: how India’s major stock indices work-Indian Express Explained ..... 157

    WATERMELON AT CANNES:HOW THE FRUIT BECAME A PALESTINIAN SYMBOL-Indian Express Explained ..... 158

    Overlapping Territorial Claims,ColdWar:what led to the Antarctic Treaty-Indian Express Explained..... 158

    An overview of Europe’s AI convention-The Hindu Text and Context..... 159

    What is the current status with respect to spice exports?-The hindu Text and Context..... 160

    This century, heatwaves are moving slower and lasting longer-The hindu Science ..... 161

    The spectre of nuclear conflict, once again-The Hindu Editorial..... 161

28th May 2024 ..... 162

    How tiny satellites will track heat loss from Earth’s poles-Indian Express Explained ..... 162

    NEW FINDING MAY IMPROVE ABILITY TO FORECAST SOLAR STORMS-Indian Express Explained ..... 163

    AI in legal cases: what the courts have said-Indian Express Explained ..... 163

    Why dal imports have surged-Indian Express Explained ..... 164

    Letting in light & air-Indian Express Editorial ..... 164

    Menstrual hygiene in Indian prisons-The HinduText and Context ..... 165

    The controversy over eucalyptus planting in Kerala-The Hindu Text and Context ..... 166

    At extremely high strain rate, copper surprises with the strength of steel-The Hindu Science..... 166

29th May 2024 ..... 167

    Why an accused in jail can contest, but cannot vote in an election-Indian Express Explained..... 167

    Danger from landslides-Indian express Explained ..... 168

    How criminals based in southeast Asia are trapping Indians online-Indian Express Explained ..... 169

    THE HEAT STRESS-Indian Express Editorial..... 170

    An outdated nuclear debate-Indian Express Editorial..... 171

    Is RBI dependent on food or Fed?-Indian Express Editorial ..... 172

    On Fire safety regulations in India-The hindu Text and Context..... 172





An altered protein and fussy neurons conspire to cause microcephaly-The Hindu science ..... 173

30th May 2024 ..... 174

Not just Delhi: temperature records are tumbling across the world-Indian Express Explained ..... 174

ANCIENT EGYPTIANS MIGHT HAVE TRIED TO TREAT BRAIN CANCER:STUDY-Indian Express Explained ..... 174

The end of unipolarity-Indian Express Editorial ..... 175

An overview of the AMRUT scheme-The hindu Text and Context..... 176

Why does instability and chaos persist in Haiti?-The hindu Text and Context ..... 176

More volcanism on Venus than was previously known: study-The hindu Science..... 177

New light-based tool could cut cost of spotting viral infections-The hindu Science..... 178

India, liberalism and its crisis of legitimacy-The Hindu Editorial..... 178

31st May 2024 ..... 179

STATUTORY BAIL-Indian Express Explained ..... 179

Turbulence in the air-Indian Express Explained..... 180

Ascertaining an accused’s blood alcohol level-Indian Express Explained..... 180

Heat wave & the worker-Indian Express Editorial ..... 181

The tobacco epidemic in India-The hindu Text and Context..... 182

The rising incidence of paediatric infammatory bowel disease in India-the hindu Science..... 182

Does the Model Code of Conduct need legal teeth?-The Hindu editorial..... 183

India and the ‘managed care’ promise-The Hindu editorial..... 184



# 1st May., 2024

## [Make EPI an 'Essential Programme on Immunisation- The Hindu Editorial](#)

Sociology

### Key Takeaways:

- Milestone Year: 2024 marks 50 years since the WHO launched the Expanded Programme on Immunization (EPI), aiming to build on existing immunization infrastructure post-smallpox eradication efforts. India implemented this as the Universal Immunization Programme (UIP) in 1978.
- Progress in Immunization: Over the past five decades, the number of universally recommended vaccines has grown from six to 13, with additional vaccines for specific contexts, and significant research into vaccines for various pathogens.
- Impact and Cost-Effectiveness: Vaccination programs have greatly improved health outcomes, saving millions of lives and offering substantial economic returns on investment.
- Challenges in Coverage: Despite high coverage rates, recent years have seen a decline, with millions of children globally either not vaccinated or only partially vaccinated, highlighting ongoing disparities.
- Shift to Adult Vaccination: Historically, vaccines targeted children primarily, but the growing prevalence of vaccine-preventable diseases in adults has shifted focus towards broader demographic coverage, including adults and the elderly.
- Policy Recommendations: Increased efforts are needed in India to expand vaccine recommendations and coverage to adults, combat vaccine hesitancy, and utilize professional and social channels to promote vaccination across all age groups.

### Easy Explanation:

The year 2024 is significant for global and Indian immunization programs, marking 50 years since the World Health Organization initiated the Expanded Programme on Immunization. This effort was launched as smallpox was being eradicated and aimed to use the infrastructure and workforce developed during the eradication efforts to expand vaccine coverage for other diseases. India adopted this program in 1978, later renaming it the Universal Immunization Programme.

Since its inception, the range of diseases preventable by vaccines has grown significantly. Initially, vaccines were available for six diseases; now, there are vaccines for 13 universally recommended diseases and additional



| Clear your doubts now.



vaccines for specific situations. This expansion is part of a broader effort to develop vaccines against numerous pathogens, especially those affecting low- and middle-income countries.

Vaccination has proven to be a highly effective health intervention. Not only has it eradicated diseases like smallpox and drastically reduced others like polio, but it has also been economically beneficial. For every dollar spent on vaccination, there is a return of up to eleven times that amount, thanks to reduced healthcare costs and improved health outcomes.

However, recent years have seen challenges, such as a decline in vaccination rates for the first time in over a decade, with millions of children not receiving basic vaccinations. This issue is exacerbated by inequalities in vaccine coverage across different regions and socioeconomic groups.

One major shift in vaccination strategy is the increasing focus on adults and the elderly. Although vaccines have historically been associated with children, they are crucial for all age groups. For instance, the first vaccines developed were actually for adults, and recent initiatives have expanded to include adult vaccinations, such as the HPV vaccine for teenagers and pilot projects for adult BCG vaccination in efforts to combat tuberculosis.

As we move forward, it's clear that government policies must adapt to cover more adults and seniors, and efforts must be made to educate the public and dispel myths about vaccination. This broader approach will help address the lingering inequities in vaccine coverage and ensure that the benefits of immunization continue to protect all segments of the population.

### [The Need for the use of Labor Statistics- The Hindu Editorial](#)

#### Economy

##### **Key Takeaways:**

- **Labor Reform Dynamics:** The reform of labor institutions is continuous, driven by changing variables like technology, market conditions, and labor structures (trade unions, collective bargaining). There are significant discussions on both the substantive issues and procedural aspects of these reforms.
- **Role of Social Dialogue:** The Indian Labour Conference (ILC) serves as a platform for pushing reform agendas through social dialogue, though it has been criticized for lacking in evidence-based discussions and becoming merely a "talking shop."
- **Weak Labor Statistics:** Labor statistics are not as rigorous or comprehensive as economic and industrial data. The Labour Bureau provides some data, but it's mostly administrative and has not evolved significantly over time.
- **Reform Arguments by Employers and Academics:** Employers and some neoliberal academics advocate for reforms like less stringent labor inspections ("Inspector-Raj"), easier retrenchment, and reducing the power of trade unions, often supported by studies like those of Besley and Burgess.
- **Counter Arguments by Trade Unions:** Trade unions have been suggested to gather more comprehensive data on labor inspections and retrenchments to strengthen their position and argue effectively against certain reforms.
- **Current Regulations and Strikes:** Recent changes, like the Industrial Relations Code of 2020, have made legal strikes almost impossible and heavily penalized illegal strikes. Data showing more frequent lockouts could be used to argue against these stringent measures.
- **Need for Improved Labor Statistics:** India has ratified international conventions that obligate it to produce reliable labor statistics. There is a strong call for trade unions to engage more in producing and utilizing such data to support their positions in reforms debates.

##### **Easy Explanation:**





Labor reforms are a constant topic of discussion due to the ever-changing conditions in the product market, technology, trade, investment, and labor institutions like unions and collective bargaining. These reforms are not just about the laws themselves but how they are discussed and decided, which is known as procedural aspects.

One key platform for these discussions in India is the Indian Labour Conference (ILC), which aims to use social dialogue—a way of discussing issues to reach a mutual agreement—to push forward the government's reform agenda. However, there's criticism that the ILC has turned into a place where people talk a lot but don't achieve much, mainly because the discussions often lack solid data to back up the arguments.

Moreover, the data that does exist on labor issues, like strikes or union activities, isn't very detailed or reliable compared to other types of data, like those on industries or the economy. This makes it hard to have informed discussions about labor reforms.

There are ongoing debates about labor reforms. Employers and some academics argue for reducing the powers of labor inspectors, making it easier to fire workers or close businesses, and weakening unions. They believe these changes will benefit the economy, citing studies that support their view, though these studies have their flaws. On the other hand, trade unions argue that more strict labor inspections are necessary and that easing firing laws or weakening unions could harm workers. They believe that if they could collect better data about the real conditions of labor inspections and the actual impact of current laws, they could make a stronger case against these proposed reforms.

Recently, new laws have made it very difficult for workers to legally strike, with severe penalties for illegal strikes. This is concerning because data shows that business closures (lockouts) cause more lost workdays than strikes, suggesting that workers are not the primary cause of work disruptions.

In conclusion, there is a significant need for better labor statistics in India. Trade unions are encouraged to gather and use more accurate data to strengthen their arguments in reform discussions. This approach could make debates about labor issues more fact-based and less influenced by unfounded claims. This could lead to more sensible reforms that genuinely consider the welfare of workers and the health of the economy.

### [Cost of meals rose by 71% in 5 years, salaries by just 37%- The Hindu Opinion](#)

Economy

#### **Key Takeaways:**

- **Rising Cost of Living:** Over the past five years, the cost of making a homecooked vegetarian thali in Maharashtra has increased by 71%, significantly outpacing the 37% increase in average monthly salaries for regular salaried individuals in the state.
- **Comparison of Wages and Food Prices:** While the wages of casual laborers have increased by 67%, closely matching the rise in food prices, they continue to spend a large portion of their income on food.
- **Financial Burden on Households:** For regular salaried workers, the proportion of income spent on meals (two thalis per day) increased from 8.1% to 10.1%. In contrast, casual laborers spend about 21.7% of their monthly earnings on food, up slightly from 21.1%.
- **Data Collection and Analysis:** The analysis used data from the Consumer Affairs Ministry and the National Horticulture Board, focusing on the cost of ingredients like toor dal, potatoes, and other vegetables necessary for preparing two thalis. Where specific data was lacking, prices from Mumbai were used as a proxy.
- **Economic Impact:** The disparity between salary increases and food price hikes suggests that households, especially those with regular salaried earners, might be reducing their expenditure on non-essential and luxury items due to tighter food budgets. Casual laborers, with high food expenses, have less scope for such cuts.

#### **Easy Explanation:**

In Maharashtra, the cost of preparing a basic vegetarian meal (thali) has shot up by 71% in the last five years. Despite this sharp increase, the average monthly salary for regular employees in the state only grew by 37% during the same



| Clear your doubts now.



period. Casual laborers saw a 67% increase in wages, which is more aligned with the rise in food costs, but they were already spending a significant part of their earnings on food.

To understand these changes, researchers calculated the cost of ingredients needed to prepare two thalis per day, which is considered adequate for meeting the daily dietary needs of an average family. This calculation included items like rice, dal, vegetables, and oil. The study observed how the prices of these ingredients have changed over time and compared these costs to the average earnings of workers.

For instance, the cost of toor dal essential for the thalis almost doubled over five years, and the expense of other ingredients like potatoes also increased. This has made the daily cost of preparing two thalis rise from ₹46.2 to ₹79.2 over five years. For a whole month, this cost jumped from ₹1,386 in 2019 to ₹2,377 in 2024.

With salaries not keeping pace with rising food prices, the financial strain on households has increased. Regular salaried workers now spend over 10% of their monthly income on just these two meals a day, up from about 8% five years ago. For casual laborers, about 21.7% of their income goes towards food, which is slightly higher than before. This economic pressure is likely leading families, especially those with fixed salaries, to cut back on non-essential purchases to manage their essential needs.

### The New productive force- Indian Express Editorial

Economy

#### Key Takeaways:

- **Global Tech Policy Importance:** Technology policy, although esoteric, is crucial for India's next government due to rapid technological changes impacting major economies and global geopolitical dynamics.
- **China's Ambitions:** China is intensively focusing on mastering new productive forces to assert global dominance in advanced science and technology, aligning with classical communist theories of technological and social transformation.
- **India's Tech Advancements and Challenges:** India has significantly incorporated technology into its developmental strategy and foreign policy, focusing on digital technologies, renewable energy, and semiconductor production. However, India needs to overhaul its technology departments and increase R&D spending to compete globally.
- **US and Global Tech Strategies:** The US, under President Biden, has passed significant legislation to regain leadership in advanced technology sectors and is forming strategic tech alliances globally, aiming to curtail Chinese technological advancement.
- **Europe's Response:** European leaders like President Macron are calling for increased investment in critical technologies to maintain technological sovereignty and close the gap with the US and China.
- **Need for India's Strategic Overhaul:** To maintain competitive parity, India must modernize its S&T infrastructure, encourage private sector participation, and align its national strategy with global technological advancements.

#### Easy Explanation:

In today's rapidly changing world, technology policy is becoming a critical area for governments, including India's next administration. This policy is key due to the significant impacts of technological advancements on economies and global politics. For example, China is aggressively pushing to lead in new technologies, aiming to surpass the US and dominate global power structures. This is seen in their new campaigns to harness what they call "new productive forces," which is central to their strategic goals.

Meanwhile, in the US, President Biden has been focusing on revitalizing America's tech leadership, supported by major legislative efforts that aim to boost the country's capabilities in high-tech industries. This includes forming alliances and limiting technological exports to China to prevent them from gaining a competitive edge.



| Clear your doubts now.





Europe is also reacting; leaders like France's Macron are advocating for greater investments in cutting-edge technologies to ensure that Europe doesn't fall behind the US and China. He emphasizes the need for Europe to be self-reliant in its technological and industrial capabilities.

In India, technology has been a cornerstone of the country's development strategy for years. Prime Minister Modi has leveraged technology in various sectors, from renewable energy to digital services, and aims to place India at the forefront of semiconductor and AI technologies. However, to truly compete on the global stage, India needs to dramatically improve its technological departments, increase spending on research and development, and involve the private sector more in technological advancements.

The overall message is clear: as technological innovations continue to shape global dynamics, countries like India must invest heavily and wisely in technology to ensure they are not left behind in the global race for technological supremacy. This involves not only investing in technology but also reforming policies and infrastructure to support rapid technological advancement and integration into the global technological ecosystem.

### Cautious Optimism- Indian Express Editorial

Economy

#### Key Takeaways:

- **Robust Economic Growth:** The Indian economy has performed better than anticipated, with growth projections for the year 2024-25 being revised upwards by various global and national financial institutions. Estimates range from 6.5% to 7%, making India likely to remain the fastest-growing large economy in the world.
- **Positive Indicators:** Several factors contribute to this optimistic outlook, including a predicted above-normal monsoon, likely La Nina conditions improving agricultural outputs, healthy corporate and bank balance sheets, and a potential increase in private investment due to rising capacity utilization rates.
- **Global and Domestic Challenges:** Despite positive domestic indicators, global uncertainties such as uneven growth and geopolitical conflicts could impact India. Domestically, there could be a slowdown in government capital expenditure in the initial months of the year due to elections.
- **Long-term Challenges:** The significant challenge for India remains the creation of productive employment opportunities for the millions entering the workforce annually. The government also needs to focus on fiscal consolidation to manage and reduce national debt.

#### Easy Explanation:

Last year, the Indian economy did surprisingly well, with growth reaching 7.6%. This positive trend has caught the attention of major financial organizations like the IMF, which now forecasts that India's economy will grow by 6.8% in the upcoming fiscal year. Other institutions like the Reserve Bank of India and the Asian Development Bank are even more optimistic, expecting growth rates of around 7%.

Several factors are fueling this optimism. For one, the weather forecasts are favorable, with a strong monsoon expected, which is great news for agriculture and could boost rural demand. Financial health indicators are also strong, with banks and companies showing healthier balance sheets than in past years. This financial stability is expected to encourage more private investments.

However, it's not all smooth sailing. The global economic environment remains shaky with potential trade disruptions and geopolitical tensions. Domestically, there might be a temporary slowdown in government spending due to the upcoming elections.

One of the biggest challenges India faces is creating enough good jobs for the millions of young people entering the workforce every year. Along with this, the government needs to keep working on reducing its debt to ensure long-term economic stability. These are critical issues that the next government will need to address to keep India on a path of robust economic growth.





## [Why banks can't seek LOCs to stop debtors from going abroad- Indian Express Explained](#)

Economy

### **Key Takeaways:**

- **Judicial Ruling on LOCs:** The Bombay High Court has ruled that public sector banks (PSBs) cannot recommend or request the issuance of Look Out Circulars (LOCs) against loan defaulters. This decision overturns previous government directives that allowed PSBs such power.
- **Constitutional Rights Violation:** The court found that using LOCs as a means to prevent PSB debtors from leaving the country infringes on fundamental rights under Articles 14 and 21 of the Constitution, describing it as a misuse of power and a violation of legal processes.
- **Government and Petitioners' Positions:** The government defended the use of LOCs as necessary to prevent economic offenders from fleeing the country. In contrast, petitioners argued that these measures unfairly targeted them while not addressing similar issues with private bank debtors.
- **Court's Observations:** The court criticized the government for not proving that debt recovery improved by restricting travel and noted the inconsistency and lack of justification in empowering PSB officials to act like high-ranking police officers.
- **Impact of the Ruling:** The ruling does not affect other legal actions that might restrict travel for debt recovery purposes, such as orders from courts or other legal bodies. PSBs still have avenues through legal channels to address defaulters.

### **Easy Explanation:**

The Bombay High Court has recently made a significant decision affecting how public sector banks deal with loan defaulters. Historically, these banks could request what are known as Look Out Circulars (LOCs) to prevent debtors from leaving India, aiming to ensure that individuals who owe large sums could not evade repayment by moving abroad. This practice was supported by certain government directives that have now been overturned by the court. The court argued that preventing someone from traveling without a robust legal basis infringes on fundamental rights, such as the right to equality before the law and the right to life and personal liberty. Essentially, the court said that using LOCs in this way was a shortcut that bypassed proper legal procedures and thus was not acceptable. The government defended the practice by saying it was necessary to keep economic offenders in the country to recover public money effectively. However, the court found this approach problematic, pointing out that there was no evidence that stopping people from traveling actually helped recover debts. Moreover, it noted that this power was unevenly given only to public sector banks, which could lead to unfair treatment compared to private bank debtors. As a result of this ruling, public sector banks will no longer be able to request LOCs against defaulters purely on their authority. They would need to pursue more traditional legal avenues to prevent defaulters from leaving the country, such as obtaining court orders. The ruling ensures that actions against defaulters must be fair and legally justified, aligning with constitutional rights. This decision is part of a broader conversation about how banks, especially those owned by the government, manage loans and handle defaults. While the ruling restricts one tool banks had, it doesn't leave them powerless but encourages a more balanced and legally sound approach to debt recovery.

## [COVID VACCINE LINK TO BLOOD CLOTS: THE LAWSUIT IN UK ON COVISHIELD- Indian Express Explained](#)

Science Tech

### **Key Takeaways:**

- **Acknowledgment of Risks:** AstraZeneca has acknowledged for the first time a link between its AZD1222 vaccine (marketed as Covishield in India) and Thrombosis with Thrombocytopenia Syndrome (TTS), although it states such cases are very rare.



| Clear your doubts now.



- **Legal Actions and Claims:** The company is facing lawsuits in the United Kingdom with claims potentially amounting to up to £100 million, although it denies that TTS is generically caused by the vaccine.
- **Symptoms and Risks of TTS:** TTS can manifest through symptoms such as breathlessness, chest or limb pain, small red spots or bruising beyond the injection site, and severe headaches. Serious complications can include stroke, heart attack, and significant breathing problems.
- **Global and Indian Response to Vaccine Concerns:** After initial reports of blood clotting, several European countries temporarily halted the use of the vaccine. The WHO and the Indian government, however, have highlighted that the incidence of TTS is very low compared to the number of doses administered.
- **Current Status in India:** In India, where over 175 crore doses of Covishield have been administered, the reported incidence rate of TTS-like events is extremely low at 0.61 cases per million doses. The government maintains that the benefits of the vaccine outweigh the risks, with ongoing monitoring of adverse events.

### Easy Explanation:

AstraZeneca, a pharmaceutical giant, has officially recognized a connection between its COVID-19 vaccine, Covishield (known as AZD1222 globally), and a very rare blood clotting disorder called Thrombosis with Thrombocytopenia Syndrome (TTS). This admission comes amid ongoing legal challenges in the UK, where individuals have reported health issues related to the vaccine.

TTS is associated with several symptoms that can range from mild, like headaches and bruising, to severe, such as strokes and heart attacks. This has led to significant concern, particularly during the initial rollout of the vaccine when some countries paused its use after reports of blood clots.

Despite these concerns, the World Health Organization (WHO) and health authorities, including those in India, stress that the risk of TTS is very low. In fact, the Indian government has cited the incidence of TTS-like events as only about 0.61 cases per million doses of Covishield administered, labeling the risk as "minuscule."

The legal implications for AstraZeneca are still unfolding, with claims in the UK potentially reaching up to £100 million. However, the global and Indian health authorities continue to support the use of Covishield, arguing that its benefits in combating COVID-19 far outweigh the risks of rare adverse events.

This situation highlights the complex balance between rapidly deploying a life-saving vaccine during a pandemic and addressing the subsequent emergence of rare but serious side effects. As more data becomes available, ongoing monitoring and research are crucial to ensuring the safety and efficacy of vaccines.

## [El Niño, anti-cyclone systems : Why large parts of India experienced heatwaves in April- Indian Express](#)

### Explained

Geography

#### Key Takeaways:

- **Widespread Heatwaves:** India has experienced significant heatwave conditions this April, with the southern peninsular and southeastern coastal areas being the most affected. The northern plains have yet to experience similar conditions this season.
- **Heatwave Criteria:** The India Meteorological Department (IMD) declares a heatwave when temperatures exceed normal levels significantly. For plains, a heatwave is declared at 40°C or above and a severe heatwave at 45°C or above.
- **Causes of April Heatwaves:** Two main factors contributed to this April's heatwaves. First, the presence of an El Niño pattern since June 2023, which typically leads to higher temperatures and reduced pre-monsoon rainfall. Second, anticyclonic systems over southern India have blocked cooler sea breezes and intensified land heat.
- **Geographical Impact and Duration:** Except for four days, most of India experienced heat or severe heatwave conditions throughout April. States like Odisha and West Bengal have been under continuous heatwave conditions for over two weeks.



| Clear your doubts now.



- **Climate Change Concerns:** According to experts and reports from the Intergovernmental Panel on Climate Change (IPCC), heatwaves are likely to become more frequent and not confined to traditional heat-prone areas of India, indicating a broader climate change impact.

### **Easy Explanation:**

This April, India has been grappling with intense heatwaves, particularly affecting the southern and southeastern regions, while the northern plains have been spared so far. Heatwaves occur when temperatures rise significantly above normal for a particular area. For instance, if the temperature in a region typically reaches 40°C, it needs to hit at least 45°C to be considered a severe heatwave.

Two main reasons have contributed to the unusual heat this April. The first is the El Niño phenomenon, which started affecting weather patterns since last June, leading to higher temperatures across many parts of the globe, including India. El Niño typically results in warmer ocean waters in the equatorial Pacific, influencing weather far beyond, including increased heat and less rainfall in places like India.

The second reason is related to specific weather patterns over India. Anticyclonic systems, which are large-scale circulation of winds around a central region of high atmospheric pressure, have been prevalent over southern India. These systems push air downwards, warming it up as it compresses near the ground, exacerbating the heat further. Throughout April, only a few days were spared from heatwave conditions, with states like Odisha and West Bengal experiencing prolonged and severe heatwaves. Traditionally, heatwaves last between three to seven days, but this year, some regions have seen them last much longer.

Experts, including those from the Intergovernmental Panel on Climate Change (IPCC), warn that heatwaves are likely to become more frequent and widespread due to climate change. This means areas that haven't historically experienced such extreme heat might start seeing more heatwave conditions, signaling a shift in climate patterns across the country.

## 2nd May 2024

### The challenge and necessity of 'balance' in use of fertilisers

Economy(Agriculture)

### **Key Takeaways**

1. **Increased Urea Consumption:** Urea consumption in India has increased significantly, reaching a record 35.8 million tonnes in the fiscal year ending March 2024. This growth in urea use has persisted despite attempts to regulate and diversify fertilization practices.
2. **Nutrient-Based Subsidy (NBS) Program:** Launched in April 2010, the NBS aimed to encourage the use of fertilizers with a balanced mix of nutrients by providing subsidies. However, the exclusion of urea from this subsidy has led to its continued overuse, as its price remained relatively low compared to other fertilizers.
3. **Imbalance in Fertilizer Use:** The consumption of DAP (Di-Ammonium Phosphate) and MOP (Muriate of Potash) has not decreased adequately, leading to an imbalance where farmers over-apply these fertilizers due to their accessibility and affordability compared to more balanced options.
4. **Regulatory Challenges:** The recent reintroduction of price controls on non-urea fertilizers has not effectively addressed the nutrient imbalances. This has led to distortions in the pricing hierarchy of fertilizers, influencing farmer choices detrimentally.
5. **Opportunities for Reform:** With the decrease in international prices of key fertilizer components, there is an opportunity for the government to rationalize the pricing of fertilizers and promote more balanced fertilization.



| Clear your doubts now.



practices. This could involve major adjustments to the NBS, including the incorporation of urea into the subsidy scheme.

### **Easy Explanation**

The article outlines the growth in urea consumption over the last decade, which has risen despite policy efforts to encourage more balanced fertilization practices. The Nutrient-Based Subsidy (NBS), introduced by the UPA government, was meant to shift farmer preferences towards fertilizers that offered a balanced mix of nutrients. However, the exclusion of urea from this subsidy scheme has led to its continued popularity, driven by its lower cost. DAP and MOP usage has seen some fluctuations but remains high, partly due to the recent price controls that have made these fertilizers cheaper than more balanced, complex fertilizers. This price distortion incentivizes farmers to continue using high concentrations of primary nutrients, which can lead to soil degradation and reduced effectiveness of fertilization over time.

The article highlights the need for a proper pricing hierarchy among fertilizers to correct these imbalances. For instance, DAP should be priced highest due to its high nutrient concentration, encouraging the use of more balanced alternatives for crops that do not require high phosphorus levels.

Finally, the piece notes that the global decrease in fertilizer prices provides a window for the incoming government to revise fertilizer pricing and subsidy policies. This could help promote sustainable and efficient fertilizer use, ultimately benefiting crop yields and soil health while reducing import dependency and subsidy costs.

## **The question of Article 31C-Indian Express Explained**

Polity

### **Key takeaways**

1. **Introduction:** Article 31C was introduced by the Constitution (Twenty-fifth) Amendment Act of 1971. It was designed to protect laws that aim to distribute material resources and prevent the concentration of wealth, aligning with Article 39(b) and (c) of the Directive Principles of State Policy.
2. **Legal Protection:** This Article ensures that laws made to implement specific directive principles cannot be challenged on the grounds of violating the rights to equality (Article 14) or freedoms under Article 19.
3. **Significant Court Cases:**
  - **Kesavananda Bharati (1973):** The Supreme Court introduced the "basic structure" doctrine and ruled that while Article 31C is valid, it cannot make laws immune to judicial review.
  - **Minerva Mills (1980):** Struck down parts of the 42nd Amendment that overly broadened Article 31C, reinforcing that laws protected under Article 31C must still respect the Constitution's basic structure.
4. **Current Considerations:** The Supreme Court is currently reassessing the scope and existence of Article 31C in the context of property rights, particularly regarding whether it allows the government to acquire private property for redistribution without being challenged in court.
5. **Implications:** The outcome of this reassessment will affect the government's ability to implement socio-economic reforms involving the redistribution of material resources, which has significant implications for property rights and economic policy in India.

### **Easy Explanation**

Article 31C of the Indian Constitution, introduced by the Constitution (Twenty-fifth) Amendment Act of 1971, protects laws aimed at equitably distributing material resources and preventing wealth concentration, as stated in Article 39(b) and (c) of the Directive Principles of State Policy. This provision ensures such laws cannot be challenged on the grounds of violating the rights to equality (Article 14) and freedoms under Article 19.

Key Legal Developments

- **Kesavananda Bharati Case (1973):** Established the "basic structure" doctrine, validating Article 31C but allowing judicial review to ensure laws genuinely implement their stated policies.



| Clear your doubts now.





- 42nd Amendment (1976) and Minerva Mills Case (1980): The 42nd Amendment broadened Article 31C's protections, which were later narrowed by the Minerva Mills decision, confirming that laws under Article 31C must adhere to the Constitution's basic structure.

#### Current Context and Impact

The Supreme Court is currently examining Article 31C's validity in a case related to the Maharashtra Housing and Area Development Act, which involves government acquisition of private properties in Mumbai. This review is critical as it will determine the extent to which the government can impose socio-economic reforms on property rights. The court's decision will influence future legislation related to economic inequality and resource distribution, balancing individual property rights with the public good.

### WHY IS CHINA MORE IMPORTANT FOR TESLA THAN INDIA?-Indian Express Explained

#### Economics

##### Key takeaways

1. **Battery Production Dominance:** China is a global leader in battery production, crucial for electric vehicles. Companies like CATL, which supplies Tesla, dominate this sector, ensuring a steady supply of essential components for Tesla's vehicles.
2. **Significant EV Market:** China accounts for over half of global electric vehicle sales, providing a vast market for Tesla's products, unlike India's relatively smaller and developing EV market.
3. **Strategic Manufacturing Hub:** Tesla's Shanghai gigafactory, its largest manufacturing unit, benefits from China's supportive policies allowing fully-owned foreign subsidiaries. This facility significantly boosts Tesla's production capacity.
4. **Stable Regulatory Environment:** China offers a more predictable and supportive regulatory environment for electric vehicles, in contrast to India's history of regulatory inconsistencies.
5. **Emerging Opportunities in India:** Despite the current focus on China, India represents a growing opportunity for future expansion in the EV market, particularly as policies and infrastructure develop further.

##### Easy Explanation

China's pivotal role for Tesla compared to India hinges on several critical factors:

1. **Battery Production Leadership:** China is central to the global electric vehicle (EV) supply chain, primarily due to its dominance in battery production. Home to giants like CATL, which supplies two-thirds of global battery production, China offers Tesla and other automakers essential resources for EV manufacturing.
2. **Large EV Market:** China not only leads in battery production but also in EV consumption, accounting for over half of the global EV sales. This robust market presence makes it an invaluable market for Tesla, which has set up substantial production facilities in the region.
3. **Strategic Manufacturing Capabilities:** Tesla's Shanghai gigafactory, established in 2018, is a testament to China's favorable manufacturing environment. This facility, which produces more than 1 million units annually of Tesla's Model 3 and Model Y, was facilitated by Chinese policies that allow foreign carmakers to establish fully-owned subsidiaries—a significant advantage over many other regions.
4. **Regulatory Stability:** China provides a more stable and predictable regulatory environment for electric vehicles. This stability is crucial for long-term business planning and investment. In contrast, India has experienced several policy changes and delays in formalizing its EV strategy, which has likely contributed to Tesla's cautious approach in the market.
5. **Future Opportunities in India:** Despite the current focus on China, India represents a significant potential growth area for Tesla, given its large population and increasing emphasis on renewable energy. However, as of now, India's EV infrastructure and market demand are still developing, making it less attractive for immediate large-scale investments like those seen in China.





In essence, China's established leadership in battery production, significant EV market size, supportive manufacturing policies, and regulatory stability make it a more critical market for Tesla than India, where the EV sector is still emerging.

### Sunlight, science & state-Indian Express Editorial

Science and technology

#### Key takeaways

1. **Complexity and Ingenuity:** The project, though scientifically feasible and not overly complex for modern astronomers, involved sophisticated calculations and engineering to ensure the sunlight could be precisely directed annually.
2. **Public Funding Controversy:** The use of government-funded scientific institutions for a religious purpose has ignited debate over the ethical and constitutional propriety of such involvement, reflecting a potential shift in the longstanding principle that public institutions should not engage in explicitly religious activities.
3. **Constitutional and Ethical Challenges:** The project exemplifies how actions that blend religious aims with state resources can challenge pre-existing norms about the separation of religion and state, raising concerns about the potential for future government directives to similarly employ scientific resources for controversial or political ends.
4. **Alternative Approaches:** Suggestions have been made that the project could have been handled differently, such as through competitions funded by private or religious entities, which would not implicate public institutions in religious activities.
5. **Political and Social Implications:** The involvement in the Surya Tilak project reflects a possible shift in the Overton window, indicating changes in what is considered acceptable in the use of government resources and the interaction between science, religion, and state.

#### Easy Explanation

The Surya Tilak project at the Ram temple in Ayodhya involved using government-funded institutions to direct sunlight onto an idol, raising significant public and ethical debates. Here's a condensed synopsis:

Project Overview:

- **Mechanism:** A complex system was designed to align mirrors precisely to the sun's position on specific dates determined by the lunisolar calendar, to illuminate the temple idol annually on Ram Navami.
- **Involvement:** The project was executed by the Indian Institute of Astrophysics and the Central Building Research Institute, both government-funded.

Core Issues:

- **Ethical and Constitutional Questions:** Utilizing public resources for a project with explicit religious objectives challenges the constitutional mandate for secularism in state activities.
- **Public Reaction:** The project received mixed reactions, praised for its technical achievements but criticized for potential violations of secular principles.
- **Potential Precedent:** This involvement sets a concerning precedent for future use of public institutions in religious activities.

Broader Implications:

- **Policy Norm Shifts:** The project may reflect a shift in public policy norms regarding the use of state resources for religious purposes.
- **Alternative Approaches:** Critics suggest that such initiatives should be privately funded or managed through non-state competitions to maintain a clear separation between religion and state.

In essence, the Surya Tilak project highlights the complex interplay between science, religion, and government, sparking a debate on the appropriate use of public scientific resources in religious contexts.





## Analysing labour on a warming planet-The Hindu Text and Context

Sociology

### Key Takeaways

1. The International Labour Organization (ILO) emphasizes the urgent need to climate-proof labor and address evolving work environments due to global warming.
2. Climate change impacts various sectors, including agriculture, construction, and gig employment, leading to health hazards like stress, stroke, and exhaustion.
3. Over 80% of India's workforce is susceptible to heat-related hazards, highlighting the vulnerability of workers in sectors like agriculture and informal MSMEs.
4. Existing laws in India, such as the Factories Act and the Occupational Safety, Health and Working Conditions Code, address workplace safety but face criticisms for inadequate enforcement and outdated regulations.
5. Challenges include the lack of specific regulations for thermal comfort and inadequate provisions for addressing hazards like silica exposure and effluent disposal.
6. Labor unions face pressure from both corporate management and government bureaucracy, impacting their ability to advocate for worker safety and rights.

### Mains easy explanation

The ILO's report underscores the critical need to address the intersection of labor productivity, human health, and climate change, which often receives insufficient attention compared to economic and infrastructure resilience. Climate change presents significant challenges to labor safety and health, with impacts including excessive heat, extreme weather events, and workplace air pollution. Vulnerable sectors like agriculture, construction, and gig employment face heightened risks, with a majority of India's workforce susceptible to heat-related hazards.

Existing laws in India, such as the Factories Act and the Occupational Safety, Health and Working Conditions Code, aim to regulate workplace safety but face criticisms for inadequate enforcement and outdated regulations. Specific challenges include the lack of updated standards for thermal comfort and insufficient provisions for addressing hazards like silica exposure and effluent disposal. Labor unions encounter pressure from both corporate management and government bureaucracy, hindering their ability to advocate effectively for worker safety and rights.

Overall, the report highlights the urgent need for a universally accepted regulatory framework to climate-proof work and protect workers in the face of ongoing climate change.

## Particles called quarks hold the key to the final fate of some stars-The Hindu Science

science

### Key Takeaways

1. Quarks are fundamental particles that make up protons and neutrons, forming hadrons like mesons and baryons.
2. Recent studies suggest a preference for three-quark clumps over two-quark ones under certain conditions, providing new insights into quark behavior.
3. Neutron stars, formed from collapsed cores of massive stars, may contain quark matter, a state of matter where quarks exist without forming protons or neutrons.
4. Understanding quark matter is crucial for refining equations of state and predicting the properties of neutron stars and other celestial objects.
5. Quarks come in six flavors and can have different color charges, forming various combinations in hadrons and experiencing strong nuclear forces mediated by gluons.
6. At high energies, quarks can become deconfined, forming a quark-gluon plasma, a state believed to have existed in the early universe.





7. The existence and properties of quark stars remain an open problem in physics, requiring further research and observational data to elucidate.

### **Mains easy explanation**

Quarks, the fundamental building blocks of protons and neutrons, play a crucial role in understanding the behavior and structure of matter, especially in extreme environments like neutron stars. Recent studies shed light on quark behavior, suggesting preferences for certain clump formations under specific conditions.

Neutron stars, formed from the collapsed cores of massive stars, harbor extreme densities and pressures, potentially leading to the formation of quark matter in their cores. However, direct experiments on neutron stars are challenging, requiring astrophysical observations combined with theoretical models.

The fate of stars hinges on the delicate balance between gravity, which causes collapse, and nuclear fusion, which generates outward pressure. Quark matter, if present in neutron stars, could significantly influence their properties, posing challenges for understanding their behavior and predicting their evolution.

Quarks come in various flavors and color charges, forming different combinations in hadrons like mesons and baryons. At high energies, quarks can become deconfined, forming a quark-gluon plasma, a state believed to have existed in the early universe.

Despite advances in theoretical models and astrophysical observations, the existence and properties of quark stars remain an open problem in physics. Further research and observational data are needed to elucidate the nature of quark matter and its role in stellar evolution.

## **Plastic treaty talks conclude in Ottawa with little progress-The Hindu Science**

Environment

### **Key Takeaways from the Global Plastics Treaty Talks in Ottawa:**

1. **Limited Progress:** The talks were seen as disappointing by environmental groups, with little advancement toward a binding agreement to end plastic pollution.
2. **Complex Challenges:** Key obstacles include the deep integration of plastic production with oil economies, the widespread use of plastics across various industries, and the lack of affordable alternatives.
3. **Environmental Impact:** Persistent plastic pollution significantly harms both marine and terrestrial ecosystems due to the material's slow degradation rate.
4. **Criticism of Approach:** Activists criticized the negotiations for not adequately addressing the core issue of unsustainable plastic production.
5. **Future Actions:** Some progress was made on detailed assessments related to emissions, production, and waste management. The talks are set to continue, with a crucial meeting scheduled in Busan, South Korea, in November 2024.
6. **India's Stance:** India resisted proposals to limit the production of primary or virgin plastics, arguing that such measures exceed the agreed scope of international resolutions and highlighting existing regulations on certain chemicals used in plastics.
7. **Persistent Barriers:** The economic ties between plastic manufacturing and oil industries are major barriers to reducing plastic production and achieving environmental goals.

### **Easy Explanation**

The Global Plastics Treaty negotiations in Ottawa concluded with minimal progress, disappointing environmental groups seeking a binding agreement to tackle plastic pollution. Despite deliberations involving 192 member countries, fundamental challenges persist due to the close connection between plastic production and oil economies, as well as the extensive use of plastics across various industries. Plastics' detrimental environmental impact, characterized by their slow degradation and widespread pollution of marine and terrestrial ecosystems, underscores the urgency of addressing this issue. Criticism was directed at the negotiations for not adequately addressing the root cause of unsustainable plastic production. While some agreements were reached on assessments related to emissions and waste management, a concrete timeline for halting primary plastic production was not established. The talks



| Clear your doubts now.



highlighted the need for continued efforts to address the plastic pollution crisis, with a crucial meeting scheduled for November 2024 in Busan, South Korea. India's resistance to restrictions on primary plastic production further underscored the complexities of international cooperation in tackling this global issue.

### [The wrong way to fight inequality-The Hindu Editorial](#)

Economics

#### **Key takeaways**

French economist Thomas Piketty, along with colleagues, highlights India's alarming economic inequality trends in "Income and Wealth Inequality in India, 1922-2023: The Rise of the Billionaire Raj." Their findings indicate that current inequality surpasses levels during British colonial rule. Despite proposals for a wealth tax on the rich to address inequality, there are significant concerns about its effectiveness.

1. **Historical Trends:** Income and wealth inequality surged in India from the 1980s, coinciding with market reforms. While the economy grew substantially after 1990, income distribution skewed heavily towards the top earners.
2. **Real Income vs. Share:** The bottom 50% experienced a decline in their share of national income but saw real income growth due to the expanding economic pie. However, they face barriers in competing for higher incomes.
3. **Economic Freedom:** Stark income disparities indicate unequal access to economic opportunities. Greater liberalization, particularly in finance and education sectors, could facilitate upward mobility for the poor.
4. **Wealth Inequality:** The top 1% possess significantly more wealth than the bottom 50%, primarily due to government protections rather than market dynamics. Addressing special privileges and fostering competition could reduce wealth disparities.
5. **Wealth Tax Concerns:** A wealth tax might not effectively redistribute wealth and could inadvertently impact lower-income groups by reducing investor returns and affecting worker wages.
6. **Impact on Economic Growth:** Taxing the wealthy could hinder economic growth and ultimately harm living standards. Instead, providing economic freedom to the poor is suggested as a more effective approach to combating inequality.

Overall, the focus should be on enhancing economic opportunities for the poor rather than imposing higher taxes on the wealthy to address inequality.

#### **Easy Explanation**

The analysis explores Thomas Piketty's research on economic inequality in India and challenges the efficacy of wealth redistribution policies in addressing this issue. Despite a surge in inequality since the 1980s, driven by market reforms and economic growth, the real income of the bottom 50% has increased due to the expanding economic pie. However, barriers prevent them from competing effectively in the market, highlighting the need for greater economic freedom. Wealth inequality, largely attributed to government protections rather than market dynamics, could be addressed by removing special privileges and fostering competition. While proposals for a wealth tax aim to redistribute wealth, concerns arise regarding its effectiveness and potential negative impacts on economic growth and living standards. Instead, the analysis advocates for providing economic freedom to the poor as a more sustainable approach to reducing inequality.







# 3rd May 2024

## [Prajwal's flight: How diplomatic passports, visa regimes work-Indian Express Explained](#)

International relations

### Key Takeaways:

1. Diplomatic passports offer certain privileges and immunities as per international law, including immunity from arrest, detention, and certain legal proceedings in the host country.
2. Diplomatic passports ('Type D' passports) are issued by the MEA's Consular, Passport & Visa Division to various categories of individuals, including those with diplomatic status, government-appointed officials, certain ranks of the Indian Foreign Service (IFS), and relatives of officers employed in IFS and MEA.
3. Holders of diplomatic passports can enjoy visa exemptions for certain countries, including Germany, for stays up to 90 days, based on reciprocal agreements between India and those countries.
4. Despite visa exemptions, individuals using diplomatic passports are still required to apply for prior political clearance from the MEA for private visits.
5. Revocation of a diplomatic passport can occur under certain circumstances outlined in the Passport Act 1967, including wrongful possession, suppression of material information during application, conviction by an Indian court, or court orders during criminal proceedings.

### Easy Explanation

The case of Janata Dal (Secular) MP Prajwal Revanna fleeing to Germany on a diplomatic passport after allegations of sexual abuse has raised questions about diplomatic passports and visa regimes. Diplomatic passports offer holders immunity and privileges, and they are issued to various categories of individuals by the MEA. While visa exemptions exist for diplomatic passport holders visiting certain countries, including Germany, for short stays, individuals are still required to obtain prior political clearance for private visits. The revocation of a diplomatic passport can only occur under specific circumstances outlined in the Passport Act 1967, including wrongful possession, suppression of material information, conviction by an Indian court, or court orders during criminal proceedings. The case underscores the complexities surrounding diplomatic passports and the legal procedures involved in their issuance and potential revocation.

## [The global spy game-Indian express explained](#)

International relations

### Key takeaways

1. Allegations of Espionage: Recent reports have accused India of espionage and covert operations in countries such as Australia, the US, the UK, and Canada, sparking international attention and diplomatic tension.
2. Denials and Varied Responses: India has consistently denied these allegations but has responded differently to each case, ranging from dismissal to aggressive rhetoric, reflecting broader policy positions and strategic imperatives.
3. Five Eyes Network Involvement: The countries where allegations surfaced are part of the Five Eyes intelligence-sharing network, indicating potential coordinated pushback against Indian activities and highlighting the seriousness of the accusations.
4. Historical Influence on Foreign Policy: India's foreign policy doctrine, influenced by ancient texts like the Arthashastra, views espionage as a legitimate tool for national security, emphasizing the need to anticipate threats and protect national interests.



| Clear your doubts now.



5. Importance of Intelligence Capabilities: Indian intelligence officials stress the importance of maintaining strong intelligence capabilities to anticipate threats and safeguard national interests, underscoring the ongoing importance of espionage in modern diplomacy and security strategies.

### **Easy Explanation**

Recent reports have implicated India in espionage and covert operations abroad, sparking international attention and diplomatic tensions. Allegations have been reported in various countries, including Australia, the US, the UK, and Canada. India has denied these allegations but has responded differently to each case, with some being dismissed as politically motivated while others elicited more aggressive rhetoric.

The involved countries are part of the Five Eyes intelligence-sharing network, suggesting potential coordinated action against Indian activities. India's foreign policy doctrine draws from ancient texts like the Arthashastra, which justify espionage as a means of national security. Indian intelligence officials stress the importance of maintaining robust intelligence capabilities to anticipate threats and safeguard national interests.

Overall, the situation underscores the complexities of international relations, where espionage, strategic partnerships, and conflicting interests intersect. India must navigate carefully to protect its security while managing diplomatic ties with key partners.

### **How To Decide Domestic Violence Damages:injury or ability to pay?-Indian express explained**

Sociology

#### **Key Takeaways:**

1. Supreme Court Notice: The Supreme Court is deliberating whether compensation in cases of domestic violence should be based on the severity of violence suffered by the victim or the financial capacity of the perpetrator.
2. Domestic Violence Act: The Protection of Women from Domestic Violence Act, 2005 defines domestic violence broadly to include physical, sexual, verbal, emotional, and economic abuse within familial relationships.
3. Compensation Orders: Section 22 of the Act allows magistrates to order the payment of compensation and damages for injuries, mental torture, and emotional distress caused by domestic violence, in addition to other reliefs.
4. Petitioner's Argument: The petitioner argues that compensation should be related to the damages and injuries suffered by the victim and not tied to the standard of living of the parties involved.
5. Legal Precedents: Previous court rulings have emphasized the need for maintenance and compensation to be fair and reasonable, taking into account the status and capacity of the parties involved.

### **Easy Explanation**

The Supreme Court is currently considering whether compensation in cases of domestic violence should be determined based on the severity of violence suffered by the victim or the financial capacity of the perpetrator. This deliberation stems from a petition challenging a compensation order issued by the Bombay High Court, which directed the petitioner to pay Rs3 crore to his wife under the Protection of Women from Domestic Violence Act, 2005.

The Act defines domestic violence broadly and allows for various reliefs, including compensation orders under Section 22. The petitioner argues that compensation should be tied to the damages and injuries suffered by the victim rather than the standard of living of the parties. Legal precedents have highlighted the need for maintenance and compensation to be fair and reasonable, considering the status and capacity of the parties involved.

However, there is a lack of clear precedents and legal knowledge regarding the computation of damages in domestic violence cases. The absence of clear guidelines often leads to the borrowing of propositions from maintenance cases to determine compensation in domestic violence cases. Ultimately, the court has discretionary power to decide the value of damages, taking into account the severity of violence and the financial status of the parties involved.

### **MPOX-Indian express explained**

Science



| Clear your doubts now.



### **Key Takeaways:**

1. **MPOX Outbreak:** Congo is facing its largest outbreak of MPOX, formerly known as monkeypox, with over 4,500 suspected cases and nearly 300 deaths reported since January.
2. **New Form of MPOX:** Scientists have detected a new form of MPOX in a mining town in eastern Congo, which appears to spread more easily among humans. This new phase of the disease is characterized by milder lesions, often on the genitals, making diagnosis trickier.
3. **Transmission and Risk Factors:** The majority of MPOX cases are now believed to be transmitted through sexual contact, with a significant portion occurring in sex workers. The disease's lower death rate compared to previous outbreaks is attributed to this new form.
4. **Genetic Mutations and Testing:** Recent genetic mutations in MPOX indicate adaptation for more efficient human-to-human transmission. The World Health Organization warns of the need for new testing strategies to detect these mutations and prevent silent transmission.
5. **Vaccine and Treatment Challenges:** Congo faces challenges in vaccine availability and treatment options for MPOX. While the country's health ministry has authorized vaccine use in high-risk provinces, there is a lack of investment and support from donors, hindering efforts to contain the outbreak.

### **Easy Explanation**

Congo is grappling with its largest outbreak of MPOX, a viral disease formerly known as monkeypox, with thousands of suspected cases and hundreds of deaths reported since January. Scientists have identified a new form of the disease in a mining town, characterized by milder lesions and more efficient human-to-human transmission, particularly through sexual contact. This new phase of MPOX presents challenges in diagnosis and containment.

Genetic mutations in MPOX indicate adaptation for increased transmission among humans, prompting the need for new testing strategies to detect these mutations. However, Congo faces challenges in vaccine availability and treatment options, with minimal investment and support from donors. Efforts to contain the outbreak are hindered by limited resources and the disease's potential to silently spread if not detected early.

### **The Vishwa Bandhu-Indian Express editorial**

International relations

### **Key Takeaways:**

1. **Vision for Development:** India's path to achieving its developmental goals, including becoming a leading power, requires a clear vision, sustained track record, and political stability.
2. **Multi-Vector Diplomacy:** India's foreign policy emphasizes maximizing partnerships and minimizing problems through a "Bharat First" approach, asserting national interests, and pursuing multi-pronged diplomacy.
3. **Deepening National Strengths:** India aims to develop deep national strengths, particularly through expanding manufacturing and leveraging international collaboration for critical and emerging technologies.
4. **Strategic Autonomy and Security:** In a post-COVID world, strategic autonomy and national security are paramount, necessitating initiatives like "Make in India" to ensure self-sufficiency and resilience in critical infrastructure.
5. **Connectivity and Diplomatic Engagements:** India seeks to enhance connectivity and engage in diplomatic efforts to de-risk global enterprise, ensure security, and promote political balances in a changing world, leveraging initiatives like IMEC corridor and INSTC.

### **Easy Explanation**

India's journey towards becoming a leading power hinges on several factors, including a clear vision, sustained progress, and political stability. Central to this endeavor is a foreign policy guided by a "Bharat First" approach, which emphasizes maximizing partnerships and asserting national interests through multi-vector diplomacy.



Deepening national strengths, especially through expanding manufacturing and leveraging international collaboration for critical technologies, is essential for India's development and security. Initiatives like "Make in India" are vital for ensuring strategic autonomy and self-sufficiency, particularly in critical infrastructure.

In a post-COVID world, connectivity and diplomatic engagements play a crucial role in de-risking global enterprise and ensuring security. India's engagement with initiatives like IMEC corridor and INSTC demonstrates its commitment to enhancing connectivity and promoting political balances.

Overall, India's pursuit of "Vishwa Bandhu" diplomacy, characterized by maximizing partnerships and minimizing problems, is integral to its goal of emerging as a leading power and ensuring its interests are at the core of its global engagements.

### Why are Indian spices facing the heat?-The hindu Text and Context

Governance

#### **Key Takeaways:**

1. **Contamination Concerns:** Investigations are underway in countries like Singapore, Hong Kong, and the U.S. regarding possible contamination of spice mixes from Indian brands MDH and Everest, specifically due to the presence of ethylene oxide (EtO) beyond permissible limits.
2. **Response from Indian Authorities:** The Spices Board of India has responded by mandating testing of exported products and collaborating with exporters to identify the root cause of contamination. Guidelines have been issued to prevent EtO contamination in spice products.
3. **Denial and FDA Involvement:** MDH has denied the allegations of EtO contamination, while the U.S. Food and Drug Administration (FDA) is gathering additional information about the situation.
4. **Health Concerns and Regulatory History:** Ethylene oxide is a prohibited pesticide and its presence in spice mixes raises health concerns, including potential carcinogenic effects. Past instances of spice import rejections by the FDA due to issues like salmonella contamination highlight regulatory challenges.
5. **Challenges in Food Safety:** India faces challenges in ensuring food safety, including diverse food landscapes and operational barriers. Urgent attention is needed to uphold the reputation of the spice trade ecosystem and prevent potential losses.
6. **Potential Impact on Exports:** If regulatory actions expand, Indian spice exports could face a significant downturn, affecting a substantial portion of the country's global spice exports.

#### **Easy Explanation**

The investigation into possible contamination of spice mixes sold by Indian brands MDH and Everest by ethylene oxide (EtO) has sparked concerns globally, leading countries like Singapore, Hong Kong, and the U.S. to initiate probes. The Spices Board of India has responded by implementing mandatory testing and issuing guidelines to prevent contamination. However, MDH has denied the allegations, while the FDA is gathering more information.

The presence of EtO, a prohibited pesticide, in spice mixes raises significant health concerns, including potential carcinogenic effects. Past regulatory history indicates instances of rejections of Indian spice imports by the FDA due to various issues, including salmonella contamination.

India faces challenges in ensuring food safety, including operational barriers and lack of standardization. Urgent attention is needed to maintain the reputation of the spice trade ecosystem and prevent potential losses. If regulatory actions expand, Indian spice exports could face a significant downturn, affecting a substantial portion of the country's global spice exports.

### A computer science conundrum that could transform healthcare -The Hindu Science

Science and technology

#### **Key Takeaways:**



| Clear your doubts now.



1. **P vs NP Problem:** The P versus NP problem in computer science explores whether there's a shortcut to solve complex problems (NP) as quickly as simpler problems (P). Its resolution could revolutionize various fields, including healthcare.
2. **Implications for Healthcare:** If P equals NP, it could expedite solutions to complex healthcare problems like antibiotic resistance, cancer treatment optimization, and insurance premium calculations, leading to improved patient outcomes and resource allocation.
3. **Challenges in Healthcare:** Healthcare faces intricate challenges like scheduling, treatment planning, and insurance determination, which are NP problems. Solving P vs NP could streamline decision-making and resource allocation in healthcare.
4. **Potential Drawbacks:** While solving P vs NP could benefit many fields, it poses challenges for cryptography. Encryption schemes relying on NP problems may become vulnerable if P equals NP, compromising digital security.
5. **Hope for Innovation:** Despite challenges, history shows that seemingly insurmountable problems can be overcome with innovative solutions. Researchers exploring P vs NP may be on the brink of breakthroughs that could redefine healthcare and other industries.
6. **Potential Impact on Antibiotic Resistance:** Quick analysis of bacterial genomes and prediction of resistance patterns could aid in prescribing effective antibiotics, combating antibiotic resistance, and improving patient outcomes.

### **Easy Explanation**

The article delves into the P versus NP problem in computer science and its potential implications for healthcare. It introduces the problem by illustrating the difference between P (polynomial time) and NP (nondeterministic polynomial time) problems using arithmetic examples. It explains how solving the P versus NP problem could revolutionize healthcare by streamlining complex processes like antibiotic resistance analysis, cancer treatment optimization, and insurance premium calculations. Despite potential drawbacks for cryptography, the article highlights the hope for innovation and breakthroughs in various fields. Overall, it emphasizes the transformative impact that solving the P versus NP problem could have on healthcare and human progress.

## **Liquid nitrogen in foods draws Tamil Nadu's ire, yet again-The Hindu Science**

Science

### **Key takeaways**

1. **Viral Video Prompts Action:** A video showing a child consuming food infused with liquid nitrogen went viral on social media, prompting the Tamil Nadu government to take action.
2. **Government Advisory:** The Tamil Nadu government issued an advisory banning the use of liquid nitrogen in food and warned of strict action against violators.
3. **History of Usage:** Liquid nitrogen has been used in food packaging to extend shelf life by displacing oxygen and preventing microbial action. However, it has also been experimented with by chefs to make food more interesting.
4. **Safety Concerns:** There are significant safety concerns associated with liquid nitrogen, as mishandling or consumption can cause severe damage to the skin, mucous membranes, and internal organs.
5. **Medical Applications:** Liquid nitrogen is used in cryotherapy for cancer treatment, but it should only be handled by trained professionals in controlled settings.
6. **Regulatory Response:** The Tamil Nadu Food Safety Department issued a circular restricting the use of liquid nitrogen to preserve packaged food only, with stringent warnings against other uses and potential legal consequences.

### **Easy Explanation**



| Clear your doubts now.





The article discusses the recent uproar in Tamil Nadu regarding the use of liquid nitrogen in food after a video of a child consuming such food went viral on social media. The Tamil Nadu government issued an advisory banning the use of liquid nitrogen in food and warned of strict action against violators. It traces the history of liquid nitrogen usage in food preservation and experimentation, highlighting its benefits in extending shelf life and preserving freshness. However, concerns arose regarding its safety and potential misuse in food preparation. The article emphasizes the dangers of mishandling liquid nitrogen, citing its application in cryotherapy for cancer treatment and the need for trained professionals to handle it safely. The Tamil Nadu Food Safety Department issued a circular restricting the use of liquid nitrogen to preserve packaged food only and warned of legal consequences for any other use.

### [Does PMJAY need a design change?-The Hindu Text and Context](#)

Sociology

#### Key takeaways

1. **PMJAY's Purpose:** PMJAY aimed to bridge gaps in public healthcare but falls short in covering total health costs, raising doubts about its ability to ensure comprehensive universal health coverage.
2. **Facing Challenges:** PMJAY grapples with delays in payments, limited hospital capacity, and issues like claim rejections and fee restrictions, leading to hospitals turning away patients and undermining the scheme's impact.
3. **State Disparities:** Performance gaps exist among states under PMJAY, with some facing low coverage and payment delays, highlighting variations in governance and hospital participation.
4. **Strengthening Public Sector:** The success of PMJAY hinges on bolstering the public healthcare system, as patient preference for private facilities underscores capacity constraints and trust issues in the public sector.
5. **Role of Insurance Model:** While globally adopted for universal health coverage, India's experience questions the efficacy of an insurance-centric approach, urging a focus on enhancing public healthcare quality.
6. **Exploring Alternatives:** Integrating government expenditures with PMJAY funds and adopting purchaser-provider split models emerge as potential solutions to fortify the public health system and address PMJAY's limitations.

#### Easy Explanation

The conversation revolves around India's Pradhan Mantri Jan Arogya Yojana (PMJAY), aimed at achieving universal health coverage. Nachiket Mor and Avani Kapur discuss the scheme's effectiveness and limitations, including delayed payments to hospitals and capacity constraints. They critique the insurance-based model, suggesting a need to bolster the public healthcare sector instead. Emphasizing the disparities among states in PMJAY's performance, they highlight issues such as inactive empanelled hospitals and variations in claim payments. Mor proposes a purchaser-provider split within the public sector to enhance performance, drawing parallels with successful models in other countries like Thailand and Turkey. Kapur stresses the importance of redirecting focus towards strengthening the public health system to address healthcare challenges comprehensively. Overall, the conversation underscores the necessity for a reevaluation of PMJAY's design and a holistic approach towards achieving universal health coverage in India.

## 4th May 2024

### [DECISION 1952-2019 A HISTORY OF FLOKSABHA ELECTIONS PART 6-Emergency, first non-Cong Govt, and a promise belied-Indian Express Explained](#)

Polity

#### Key Takeaways:



| Clear your doubts now.



1. The 1977 Lok Sabha election marked a significant turning point in Indian politics, bringing the country's first non-Congress government to power.
2. Indira Gandhi's popularity waned due to various factors, including student protests, electoral malpractice allegations, and the declaration of the Emergency.
3. The Emergency, declared in 1975, led to widespread arrests, censorship, and the consolidation of power by Indira Gandhi and her younger son, Sanjay Gandhi.
4. The birth of the Janata Party, a coalition of opposition parties, including Morarji Desai's Congress (O), Charan Singh's Bharatiya Lok Dal, and others, posed a formidable challenge to the Congress.
5. The Janata Party emerged victorious in the 1977 election, with Morarji Desai becoming Prime Minister. Indira Gandhi suffered a crushing defeat, losing her own seat to Raj Narain.
6. Despite initial promise, internal conflicts within the Janata Party, coupled with political maneuvering by the Congress, led to its downfall within a few years.
7. Charan Singh briefly assumed the Prime Ministership with Congress support but faced instability and ultimately lost power.

### **Easy Explanation**

The 1977 Lok Sabha election in India marked a historic shift as the country voted out the Congress party, which had dominated politics since independence, and brought the Janata Party to power under the leadership of Morarji Desai. Indira Gandhi's popularity had declined following student protests, allegations of electoral malpractice, and the imposition of the Emergency in 1975. During the Emergency, basic freedoms were curtailed, and dissent was suppressed, with Indira and her son, Sanjay Gandhi, consolidating power.

The Janata Party, formed by a coalition of opposition parties, emerged victorious in the election, with Morarji Desai becoming Prime Minister. However, internal conflicts within the Janata Party, coupled with political maneuvering by the Congress, led to instability. Charan Singh briefly assumed power with Congress support but faced challenges, ultimately resulting in the dissolution of his government.

Overall, the 1977 election and its aftermath marked a significant period in Indian democracy, highlighting both the power of the electorate to effect change and the challenges of maintaining political stability in a diverse and complex nation.

### **WHAT IS ETA AQUARIID METEOR SHOWER, SET TO LIGHT UP THE NIGHT SKY THIS WEEKEND? - Indian express explained**

Science

#### **Key takeaways**

1. **Eta Aquariid Meteor Shower Peak:** The Eta Aquariid meteor shower will reach its peak on May 5th and 6th, 2024, offering skywatchers a dazzling display of shooting stars.
2. **Cometary Origins:** Meteor showers like the Eta Aquariids originate from comets, which are composed of dust, rock, and ice. These celestial bodies shed debris as they orbit the Sun in elliptical paths.
3. **Halley's Comet Connection:** The Eta Aquariids are associated with Halley's Comet, one of the most famous comets known to humanity. Earth passes through the debris trail left by this comet, resulting in the annual meteor shower.
4. **Rapid Speed and Glowing Tails:** Known for their rapid speed, the Eta Aquariid meteors create long-lasting glowing tails as they streak across the sky. This spectacle is particularly remarkable due to the swift motion of the meteors.
5. **Southern Hemisphere Visibility:** The Eta Aquariid meteor shower is best observed from the Southern Hemisphere, where viewers can expect to see approximately 30 to 40 meteors per hour during the peak. Northern Hemisphere observers may still catch a glimpse but with fewer meteors.



| Clear your doubts now.



6. **Optimal Viewing Conditions:** To maximize the viewing experience, it's recommended to find a location with minimal light pollution and clear skies. Additionally, using a basic telescope can enhance the observation of this celestial phenomenon, allowing for a closer look at the shooting stars.

### **Easy Explanation**

The Eta Aquariid meteor shower, originating from the debris left behind by Halley's Comet, will illuminate the night sky on May 5th and 6th, 2024. Comets, composed of dust, rock, and ice, orbit the Sun in elliptical paths, shedding debris along their journey. When Earth passes through these debris trails, meteor showers occur as the particles burn up in the atmosphere, creating streaks of light known as meteors.

The Eta Aquariids are unique for their rapid speed, producing long-lasting glowing tails that can be observed for several minutes. The peak viewing time for this meteor shower is during the early morning hours, with the best visibility in the Southern Hemisphere. However, observers in the Northern Hemisphere can still catch a glimpse, although with fewer meteors.

To observe the Eta Aquariid meteor shower, it's essential to find a location with minimal light pollution, away from the glare of city lights and the Moon. Even a basic telescope can enhance the viewing experience, allowing for a closer look at these celestial phenomena.

## **Weather proofing polls-Indian Express Editorial**

Polity

### **Key Takeaways:**

1. **Voter Empowerment Imperative:** Active participation of citizens isn't just a civic duty; it's the vibrant pulse driving the engine of democracy, amplifying diverse voices.
2. **Weather as a Foe:** The relentless heat of summer serves as a formidable adversary, challenging both the spirit of voters and the logistical machinery of election management.
3. **ECI's Strategic Maneuvers:** The Election Commission of India, displaying commendable foresight, has deployed tactical measures to counter the heatwave onslaught, ensuring voter comfort and safety at polling precincts.
4. **Campaigning Amidst Adversity:** In the battleground of political rallies, campaigners valiantly face the elements, yet the searing temperatures pose health risks and cast shadows over voter engagement.
5. **Climate's Electoral Impact:** As the specter of climate change looms large, rethinking election timing emerges as an urgent necessity, demanding innovative approaches to preserve the essence of democracy in the face of shifting weather dynamics.

### **Easy Explanation**

Amidst the fervor of general elections in India, the challenge of maximizing voter participation takes center stage. This electoral spectacle unfolds against the backdrop of scorching summer heat, presenting formidable obstacles to both voters and election organizers. Despite proactive measures by the Election Commission of India to mitigate the impact of heatwaves and ensure voter comfort at polling stations, concerns linger over the health risks faced by campaigners and the potential dampening effect on voter enthusiasm. Looking beyond the immediate electoral cycle, the looming specter of climate change underscores the imperative of reevaluating election scheduling to navigate evolving weather patterns and uphold the essence of democracy. As stakeholders contemplate innovative solutions to weatherproof the electoral process, the enduring quest for inclusive participation remains paramount, anchoring the democratic ethos in the face of environmental adversity.

## **RAREST OF RARE RISK-Indian Express Editorial**

Science

### **Key Takeaways:**



| Clear your doubts now.



1. **Rare Risk of Vaccination:** The Oxford-AstraZeneca vaccine has been linked to a rare adverse side effect called thrombosis with thrombocytopenia syndrome (TTS), which has raised concerns.
2. **Expedited Vaccine Development:** Unlike traditional clinical trials, COVID-19 vaccine trials followed an expedited development route, making it challenging to detect very rare events like TTS.
3. **Heterogeneous Reporting Rates:** Reporting rates of TTS vary globally, with some countries reporting higher rates and fatality rates compared to others.
4. **Diverging Responses:** Countries like South Africa and several European nations suspended the use of the AstraZeneca vaccine, while others, like the UK and EMA, concluded that the benefits outweighed the risks.
5. **Ethical Dilemmas:** Courts face ethical dilemmas in resolving compensation claims related to vaccine side effects, balancing the need for vaccine confidence with acknowledging rare risks.

### **Easy Explanation**

The recent revelation of a rare adverse side effect linked to the Oxford-AstraZeneca COVID-19 vaccine, known as thrombosis with thrombocytopenia syndrome (TTS), has sparked global concern. Despite being known for several years, the acknowledgment by the manufacturer of the vaccine has prompted legal actions, including class-action lawsuits. The Serum Institute of India, which produces the vaccine under the brand name Covishield, faces potential litigation following the death of a young woman after receiving the vaccine.

TTS, a rare syndrome associated with adenoviral vector COVID-19 vaccines, presents with blood clot formation and low platelet counts, often occurring several days to weeks after vaccination. The rarity of this side effect, combined with the expedited development process of COVID-19 vaccines, has made it challenging to detect during clinical trials. Global reporting rates of TTS vary, with some countries experiencing higher rates and associated fatalities. Divergent responses from countries regarding vaccine usage reflect the complex risk-benefit analysis involved in public health decisions. While some nations suspended the AstraZeneca vaccine, others, including the UK and European Medicines Agency (EMA), concluded that the benefits outweighed the risks.

Courts now face critical ethical dilemmas in resolving compensation claims related to vaccine side effects. Balancing the imperative for vaccine confidence with acknowledging and addressing rare risks poses a significant challenge. Ultimately, the resolution of these ethical dilemmas will shape public perceptions of vaccine safety and influence future vaccination strategies in the ongoing battle against COVID-19.

### **[The paradox of India's global rise, its regional decline-The Hindu Editorial](#)**

International relations

#### **Key Takeaways:**

1. **Global Rise, Regional Decline:** India's foreign policy presents a paradox where the country's global stature is on the rise, yet its influence in the South Asian region is declining relative to China.
2. **Factors Driving India's Global Rise:** India's global ascent is fueled by factors such as robust economic growth, military capabilities, inclusion in key global institutions, and active participation in multilateral groups like the Quad and BRICS.
3. **Challenges in South Asia:** Despite its global prominence, India's influence in South Asia has diminished, attributed to extraneous factors like China's expanding presence, American withdrawal from the region, and India's focus on the Indo-Pacific.
4. **Impact of China's Rise:** China's rise poses the most significant challenge to India's regional power dynamics, leading to geopolitical competition for influence in South Asia and a shift in the regional balance of power in China's favor.
5. **Revisiting Regional Strategies:** India must adapt its traditional approaches to the region, focusing on its strengths, engaging maritime advantages to address continental challenges, and partnering with South Asian neighbors in the Indo-Pacific strategy to counter China's influence.



| Clear your doubts now.



6. Utilizing Soft Power: India should leverage its soft power through informal contacts and conflict management processes to retain influence in the region, recognizing the dichotomy between its global aspirations and regional realities.

### **Easy Explanation**

India's foreign policy faces a complex paradox characterized by a rising global stature but declining regional influence, particularly in South Asia vis-à-vis China. Despite India's robust economic growth, military capabilities, and active participation in global forums like the Quad and BRICS, its influence in the South Asian region has waned due to factors such as China's expanding presence, American disengagement, and India's Indo-Pacific focus.

The rise of China poses the most significant challenge to India's regional power dynamics, leading to geopolitical competition for influence in South Asia and a shift in the regional balance of power in China's favor. India must reassess its traditional approaches to the region, focusing on its strengths, leveraging maritime advantages, and partnering with South Asian neighbors in the Indo-Pacific strategy to counter China's influence.

Furthermore, India should utilize its soft power through informal contacts and conflict management processes to retain influence in the region. Recognizing the dichotomy between its global aspirations and regional realities is crucial for India's future role in international politics and maintaining its position as a pivotal power on the global stage.

## **This is the year to get the SDG goals back on track-The Hindu Editorial**

Sociology

### **Key Takeaways:**

1. Slow Progress: Despite some improvements, progress on SDGs has been slow, largely due to the COVID-19 pandemic and other global crises.
2. Urgent Action: The UN SDG Report underscores the need for sustained government commitments, integrated policies, capacity building, international support, and strengthening of the UN system to accelerate progress towards the goals.
3. Limited Impact: Scholarly analysis suggests that while SDGs have sparked discourse and led to some reforms, their transformative impact on politics at various governance levels remains limited.
4. Systemic Approach: The "Future is Now" report emphasizes the importance of a systemic approach to realizing the potential of the 2030 Agenda. This involves identifying synergies among goals, managing trade-offs, and leveraging governance, finance, action, and technology.
5. Election Year Focus: With 2024 being an election year in many countries, there's a crucial opportunity for newly elected governments to prioritize sustainability in their national policies, potentially driving significant progress towards SDGs.

### **Easy Explanation**

The assessment of progress towards achieving the Sustainable Development Goals (SDGs) reveals a concerning lack of momentum, exacerbated by global crises such as the COVID-19 pandemic. Urgent action is required to address this situation, as outlined in the UN SDG Report, which calls for sustained government commitments, integrated policies, capacity building, international support, and strengthening of the UN system. However, scholarly analysis suggests that while the SDGs have prompted discourse and some reforms, their transformative impact on politics at various governance levels remains limited. To overcome this, a systemic approach is recommended, as advocated in the "Future is Now" report. This approach emphasizes identifying synergies among goals, managing trade-offs, and leveraging various levers of governance, finance, action, and technology. With 2024 being an election year in many countries, there's a crucial opportunity for newly elected governments to prioritize sustainability in their national policies, potentially driving significant progress towards SDGs.







## 5th May

### [How India's first voters got their ballot box- Indian Express Opinion](#)

Polity

#### Key Takeaways:

- **Current Elections Context:** The third phase of Lok Sabha elections is underway, focusing on Gujarat and Karnataka. This phase is pivotal as it will complete voting for over half of the 543 Lok Sabha seats.
- **Historical Perspective:** The right to vote has been a significant issue since colonial times. Despite initial concerns about illiteracy, India's framers implemented universal adult suffrage, a cornerstone for democracy in post-independence India.
- **Electoral Roll and Preparation:** Ornit Shani's book outlines the meticulous process of preparing the first electoral roll in 1947 amid partition challenges, involving a significant portion of India's then illiterate and poor population.
- **Election Commission's Role:** Post-1947, the Election Commission (EC) took over election preparations, facing challenges like state preparedness and natural disasters. The first general elections were held in 1951-1952.
- **Voting Process Innovations:** The EC standardized the voting process by adopting suggestions from the 1932 Indian Franchise Committee, which included distinctive ballot boxes and specific polling station designs.
- **Manufacturing Challenges:** About 19 lakh steel ballot boxes were required for the first elections, involving major manufacturers across India. Some challenges included design inconsistencies and manufacturing delays.
- **Security Measures and Innovations:** The EC introduced security measures like indelible ink for voter identification and detailed guidelines for ballot box security. By 1957, changes were made to simplify the ballot process and address tampering concerns.
- **Evolution of Voting Mechanisms:** Over the years, the EC moved from using physical ballot boxes to Electronic Voting Machines (EVMs) to improve security and efficiency, especially to combat issues like booth capturing.
- **Legacy of the Ballot Box:** While no longer used in general elections, ballot boxes are still employed in elections for the President, Vice President, and Rajya Sabha. The principles from the early electoral processes continue to influence current practices.

#### Easy Explanation:

The article discusses the ongoing Lok Sabha elections in India, particularly focusing on the third voting phase involving Gujarat and Karnataka. This phase is crucial because it will determine the outcome for more than half of the total seats in the Lok Sabha.

The article then takes a historical dive into how voting rights and election processes have evolved in India since independence. Initially, there were doubts about granting the right to vote to every adult because of high illiteracy rates and the lack of political organizations. However, the leaders of independent India decided that democracy must be for everyone, leading to the adoption of universal adult suffrage—meaning every adult could vote, regardless of their education or social status.

Ornit Shani's book provides insight into the enormous task of preparing the first electoral roll right after the partition of India, a time filled with large-scale upheaval and displacement. Despite these challenges, nearly half of India's population at the time was registered to vote, a monumental achievement given the circumstances.

The Election Commission, established post-independence, had the huge task of organizing and standardizing the first general elections. This involved everything from finalizing the voter lists to designing and manufacturing millions of steel ballot boxes, which were made with precision to ensure fair voting. Some manufacturers faced issues, like incorrect ballot box designs, which needed quick fixes.



| Clear your doubts now.

To keep the voting process secure and fair, the EC introduced various measures like marking voters' fingers with indelible ink and creating secure ballot boxes that were tamper-proof. Over time, to address growing concerns about election fraud such as booth capturing, the EC transitioned from physical ballot boxes to Electronic Voting Machines. Today, while the traditional ballot box is no longer used in general elections, it remains a part of certain other types of elections. The principles established during those early years—like ensuring fair access and security in voting—continue to guide electoral practices in India.

### [Can the new organelle help engineer plants to fix nitrogen?- The Hindu Science](#)

Science Tech

#### **Key Takeaways:**

- **Revolution in Understanding Evolution:** Building on Charles Darwin's concept of natural selection, Lynn Margulis introduced the endosymbiotic theory, suggesting that organelles like mitochondria and chloroplasts were once free-living bacteria that became part of eukaryotic cells through symbiosis.
- **Symbiogenesis Theory:** This theory was initially met with skepticism and faced numerous rejections before gaining acceptance, radically altering our understanding of cellular evolution.
- **New Developments:** Recent studies have expanded on the endosymbiotic theory by identifying a nitrogen-fixing cyanobacterium that has co-evolved into a new organelle called the nitroplast in marine algae.
- **Nitrogen Fixation:** The discovery highlights a natural process where nitrogen-fixing bacteria convert atmospheric nitrogen into forms usable by plants, crucial for all living organisms due to nitrogen's role in forming proteins and DNA.
- **Biotechnological Implications:** The identification of nitroplasts opens up potential biotechnological applications, such as engineering plant cells to fix nitrogen efficiently, which could revolutionize agriculture and reduce dependence on industrial ammonia production.

#### **Easy Explanation**

The article discusses an intriguing development in evolutionary biology stemming from the foundational ideas of Charles Darwin and expanded by Lynn Margulis through her endosymbiotic theory. This theory posits that some cellular organelles, specifically mitochondria and chloroplasts, originated from free-living bacteria that integrated into early eukaryotic cells, fundamentally changing the cells' operations.

Margulis's theory, once controversial and widely rejected, is now a cornerstone of evolutionary biology, explaining how complex cells evolved through symbiotic relationships rather than just random mutations. Recently, this theory has been extended further by the discovery of nitroplasts in marine algae. These nitroplasts are newly identified organelles that have evolved from a nitrogen-fixing cyanobacterium, showing another example of a symbiotic relationship that significantly impacts the host organism.

Nitrogen fixation is essential because nitrogen is a critical component of proteins and DNA, but most organisms cannot use atmospheric nitrogen directly. Nitrogen-fixing bacteria convert this inert nitrogen into ammonia, which can then be utilized by plants. The current research highlights how certain marine algae have evolved to house these bacteria as organelles, effectively creating a miniature nitrogen-fixation factory within their cells.

This discovery has profound implications, particularly in agriculture. Currently, ammonia needed for fertilizers is industrially produced, a process that is energy-intensive and environmentally damaging. The study of nitroplasts could lead to new ways to engineer crops that can fix their own nitrogen directly from the atmosphere, greatly reducing the need for synthetic fertilizers and helping to mitigate their environmental impact.

Overall, this research not only deepens our understanding of evolutionary processes but also opens up new possibilities for sustainable agricultural practices, potentially leading to a future where crops are more self-sustaining and environmentally friendly.





## Will R&AW's overseas operations affect ties?- The Hindu FAQ

International Affairs

### Key Takeaways:

- **International Controversy:** India's external intelligence agency, R&AW, is under scrutiny for alleged assassinations of Khalistani separatists globally, involving incidents in the U.S., Canada, Australia, and Pakistan.
- **Specific Charges:** Allegations include an assassination attempt in the U.S. against a Khalistani activist, with investigations also revealing a potential link to the killing of a Canadian activist, leading to diplomatic tensions and actions including expulsions.
- **Diplomatic Reactions:** Canada's Prime Minister Justin Trudeau highlighted potential links to Indian intelligence, leading to significant diplomatic fallout with India. Australia and the U.S. have also responded to related espionage and assassination claims.
- **Historical Context:** R&AW's operations against Khalistani sympathizers trace back decades, with previous incidents of espionage and targeted operations in multiple countries.
- **Legal and Diplomatic Implications:** The ongoing investigations and trials in the U.S. and Canada could determine the extent of India's accountability and the future diplomatic relations with these countries.

### Easy Explanation:

This article discusses recent allegations against India's external intelligence agency, R&AW, involving targeted operations against Khalistani separatists internationally. These operations have led to significant diplomatic confrontations, particularly with the U.S., Canada, Australia, and Pakistan.

Reports suggest that R&AW might have been involved in the assassination of Khalistani activists, with one notable case being an attempted assassination in the U.S. that was foiled last year. This has led to various investigations in the mentioned countries, with the U.S. considering legal actions against involved Indian officials.

In Canada, the situation escalated when Prime Minister Justin Trudeau suggested a potential link between Indian intelligence and the assassination of a Canadian activist, leading to the expulsion of India's intelligence station chief in Ottawa and reciprocal actions by India.

Meanwhile, Australia had previously expelled R&AW operatives in 2020 after they were found to be spying on Khalistani separatists, and Pakistan has reiterated its longstanding accusations of R&AW's involvement in extra-judicial killings on its soil.

India's response has varied by country, ranging from silence and denial to promises of high-level inquiries. Despite the international controversies, countries like the U.S., the U.K., and Australia aim to maintain stable relations with India while they continue their investigations.

The future of these diplomatic relationships and India's global standing may hinge on the outcomes of these investigations and trials, particularly those in the U.S. and Canada, as they seek to establish a clear picture of R&AW's actions and ensure accountability. This scenario highlights the complex interplay between national security measures and international law, where actions taken for national security can sometimes lead to significant international disputes.

**6th May 2024**

[GOLDENE:A SHEET OF GOLD THAT IS ONLY ONE ATOM THICK-Indian express explained](#)

Science and technology



| Clear your doubts now.



### **Key Takeaways:**

1. **Introduction of Goldene:** Scientists at Sweden's Linköping University have created a free-standing sheet of gold, called "goldene", just one atom thick, a first for metals, offering new application possibilities.
2. **Challenges:** Metals typically cluster into nanoparticles, making creating atom-thin sheets difficult. Previous attempts fell short until goldene's development.
3. **Development Process:** Goldene was formed by sandwiching a silicon monolayer between titanium carbide layers, then depositing gold atoms and etching away the titanium carbide, leaving a one-atom-thick gold sheet.
4. **Potential Applications:** Goldene could revolutionize electronics due to its catalytic potential, offering more efficient gold use and cost savings.
5. **Future Prospects:** The technique used for goldene could apply to other metals, expanding 2D material possibilities, with iridium and platinum already under investigation.
6. **Unique Properties:** Goldene's bonding structure, with each gold atom linked to only six others, suggests special qualities for applications like carbon dioxide conversion and hydrogen production.

### **Easy Explanation**

Scientists at Sweden's Linköping University have achieved a groundbreaking milestone by creating a free-standing sheet of gold that is only one atom thick, named "goldene". This achievement, the first of its kind for a metal, holds significant potential for various applications, particularly in the electronics industry. The development process involved sandwiching an atomic monolayer of silicon between layers of titanium carbide, depositing gold atoms on top, and subsequently etching away the titanium carbide layers to leave behind a one-atom-thick layer of gold. Goldene's unique properties, coupled with its economic viability, make it a promising catalyst for future technological advancements. Furthermore, the technique used to create goldene may also be applicable to other metallic objects, opening up new possibilities for the development of 2D metallic materials.

## **Latin America's dengue spike-Indian Express Explained**

Science

### **Key Takeaways:**

1. **Dengue Spike in Latin America:** The region, including Brazil, is experiencing a significant surge in dengue cases and deaths, attributed to warmer temperatures and increased mosquito-breeding habitats.
2. **Rising Case Numbers:** Global dengue cases saw a ten-fold increase from 2000 to 2019, with a notable surge in 2023. Latin America reported over 6.5 million cases since 2023, with Brazil being the worst affected.
3. **Latin American Surge:** Brazil, Peru, Puerto Rico, and Argentina are among the worst-hit countries. Unseasonal spikes are witnessed in Central American countries and Mexico.
4. **Factors Contributing to Outbreaks:** Warmer temperatures, urbanization, and extreme weather events exacerbate mosquito breeding habitats. The 2023 El Niño worsened the situation.
5. **Challenges in Vaccine Development:** Dengue vaccine development faces hurdles due to the virus's four strains. Existing vaccines like Dengvaxia have limitations, and new candidates face regulatory challenges.
6. **Available Vaccine Options:** Qdenga and Dengvaxia are among the available vaccines, but their efficacy and accessibility vary. Promising vaccine candidates are under development in India, including those by Serum Institute of India and Panacea Biotec

### **Easy Explanation**

Latin America, particularly Brazil, is grappling with an unprecedented surge in dengue cases and fatalities, largely due to warmer temperatures and expanded mosquito-breeding habitats. Global dengue incidences have soared over the years, with Latin America reporting over 6.5 million cases since 2023. Brazil, Peru, Puerto Rico, and Argentina are witnessing severe outbreaks, while Central American nations and Mexico are experiencing unseasonal spikes. Factors such as rising temperatures, urbanization, and extreme weather events exacerbate mosquito breeding sites, compounded by the impact of the 2023 El Niño. Challenges in vaccine development persist due to the virus's four



| Clear your doubts now.



strains, although promising candidates are in progress, particularly in India. Regulatory hurdles pose obstacles to their widespread implementation, necessitating continued efforts to combat the escalating dengue crisis in the region.

### [What is artificial general intelligence why are people worried about it?-Indian Express Explained](#)

Science and technology

#### **Key Takeaways:**

1. **Definition of AGI:** AGI, or Artificial General Intelligence, refers to machines or software that can emulate human cognitive abilities, enabling them to perform any task a human can do, including reasoning, common sense, and abstract thinking.
2. **Difference from Narrow AI:** Unlike Narrow AI, which is limited to specific tasks, AGI envisions a broader, more generalized form of intelligence that is not confined to any particular task, making it more human-like.
3. **Historical Background:** The concept of AGI emerged in 1950 through Alan Turing's work, sparking discussions about the possibility, benefits, and risks of creating such intelligent machines.
4. **Potential Benefits:** AGI holds numerous potential benefits, including advancements in healthcare, finance, business, and education, with capabilities to redefine diagnostics, treatment planning, personalized education, and more.
5. **Apprehensions:** Despite its promise, AGI raises widespread apprehensions due to concerns about environmental impacts, job losses, socio-economic disparity, security vulnerabilities, dependency, and the potential for AGI to outperform and potentially act against human well-being.
6. **Need for Regulation:** Experts advocate stringent regulations to ensure that AGI development aligns with human values and safety standards, mitigating potential risks associated with its deployment.

#### **Easy Explanation**

AGI, or Artificial General Intelligence, represents a significant leap in AI development, aiming to create machines capable of emulating human cognitive abilities across a wide range of tasks. Stemming from the foundational work of Alan Turing in 1950, AGI has the potential to revolutionize various sectors, from healthcare to education, with its ability to process vast datasets and make complex decisions. However, alongside its promise, AGI sparks apprehensions within the global tech community due to concerns about its environmental impact, job displacement, concentration of power, security risks, loss of human skills, and the potential for AGI to act against human interests. Consequently, experts emphasize the need for robust regulations to ensure that AGI development aligns with human values and safety standards, mitigating potential risks and maximizing its benefits for society.

### [Jobs picture in perspective-Indian Express Editorial](#)

Economy

#### **Key Takeaways:**

1. **India Employment Report 2024:** The report, based on official data from Employment and Unemployment Surveys (EUS) and Periodic Labour Force Surveys (PLFS), highlights both positive developments and emerging challenges in the Indian labor market.
2. **Positive Developments:**
  - Improvement in employment quality, shown by a robust Employment Condition Index.
  - Increase in the share of non-farm employment and decline in agriculture employment, indicating structural transformation.
  - Remarkable increase in the female workforce participation rate, although mostly in the agricultural sector.
  - Despite challenges during the COVID-19 pandemic, the labor market bounced back well.



| Clear your doubts now.





### 3. Emerging Challenges:

- Skewed employment pattern towards agriculture, calling for the acceleration of non-farm employment creation.
- Increasing trend of capital and skill-intensive production processes, leading to distortions in the labor market.
- Low women's participation, particularly in less remunerative jobs, highlighting the need for non-farm employment opportunities and investments in rural areas.

4. Youth Unemployment: The principal challenge identified in the report, with educated youth constituting a significant portion of the unemployed population. Unemployment rates rise with higher education levels, indicating qualification and skills mismatches.

### 5. Policy Recommendations:

- Emphasis on making production and growth more employment-intensive, focusing on labor-based manufacturing and employment-generating services.
- Improving the quality of jobs and addressing labor market inequalities, especially regarding women's employment and policies to tackle NEET (Not in Employment, Education, or Training) youth.
- Enhancing the effectiveness of skills training systems and active labor market policies, bridging the supply-demand gap in jobs, and involving the private sector.
- Generating reliable statistics to better understand the complexities of the changing labor market pattern due to rapid technological changes.

#### Easy Explanation

The India Employment Report 2024 highlights positive developments in the labor market, including improvements in employment quality and an increase in non-farm employment. However, it also identifies emerging challenges, such as the skewed employment pattern towards agriculture and the issue of youth unemployment.

Youth unemployment, in particular, is noted as the principal challenge, with educated youth constituting a significant portion of the unemployed population. The report suggests various policy measures to address these challenges, emphasizing the need for more employment-intensive growth, improving job quality, and bridging labor market inequalities, among others.

[The hard truth-Indian Express Editorial](#)

International relations

#### Key Takeaways:

1. Complex Forces in the Petroleum Industry: The petroleum industry faces various challenges influenced by geopolitics, exchange rates, speculation, and the preferences of corporate and political leaders. These factors contribute to volatility in oil prices.
2. International Dynamics: Events such as sanctions on oil-producing countries like Venezuela, Iran, and Russia, as well as geopolitical tensions in regions like the Middle East, impact the global petroleum market.
3. Fragmentation of the Market: Western sanctions have led to the fragmentation of the petroleum market, with trading relations becoming predominantly regional rather than global. Different countries now rely on specific suppliers based on their geopolitical circumstances.
4. Non-Fundamental Factors: Apart from traditional market drivers, factors like net-zero carbon emission commitments and the electricity demand of industries like AI also influence the oil market.

#### Easy Explanation

The petroleum market is influenced by a complex interplay of geopolitical tensions, economic factors, and industry demands. Recent events, including sanctions on major oil-producing nations and shifts in trading patterns, have highlighted the volatility and unpredictability of the market.



| Clear your doubts now.



For oil-import-dependent countries like India, the key lesson is to avoid overinterpreting market trends and instead focus on hedging against volatility. Strategies may include building strategic oil reserves, diversifying energy sources with a greater emphasis on natural gas and renewables, and investing in smart infrastructure and research and development in clean energy technologies.

### [It is time to operationalise the Indian Defence University-The Hindu Editorial](#)

Sociology

#### **Key Takeaways:**

1. **Need for Indian Defence University (IDU):** Several nations, including India's neighbors like Pakistan and China, have established defense universities to enhance strategic thinking and academic rigor in their armed forces. The absence of IDU is concerning, given the changing nature of warfare and the premium on military education.
2. **Professional Military Education (PME):** PME is crucial for empowering officers to navigate complex challenges and evolving responsibilities over their career spans. The evolution of PME in the US, particularly reforms following the Goldwater-Nichols Defense Reorganization Act, provides insights for India's theaterisation aims.
3. **Slow Progress:** Despite discussions dating back to the 1960s and various committees' recommendations, progress on setting up IDU has been slow. While India has world-class training institutions, there's a lack of an integrated PME framework and a multidisciplinary approach to strategic thinking.
4. **Role of IDU:** IDU would address shortcomings in India's PME system by providing a central institution of higher military learning with a qualified faculty mix of academicians and military/civil services personnel. It would unite theory with practice and offer a curriculum relevant to national security and defense.
5. **Urgency for Operationalization:** Delay in establishing IDU hampers defense preparedness, strategic culture, and inter-service integration. Operationalizing IDU is essential to lay the foundation for joint warfare through a futuristic military education curriculum.

#### **Easy Explanation**

The absence of the Indian Defence University (IDU) amidst the changing nature of warfare and the premium on military education is concerning. While other nations have established defense universities, India's progress on IDU has been slow despite discussions dating back to the 1960s.

Professional Military Education (PME) is crucial for empowering officers to navigate complex challenges, yet India lacks an integrated PME framework and a multidisciplinary approach to strategic thinking. The establishment of IDU would address these shortcomings by providing a central institution of higher military learning.

Operationalizing IDU is urgent to enhance defense preparedness, foster a strategic culture, and promote inter-service integration. Delay in establishing IDU comes at the cost of India's ability to cope with evolving security challenges and effectively manage warfare.

### [An overview of Sudan's civil war-The Hindu Text and Context](#)

International relations

#### **Key Takeaways:**

1. **Historical Context:** Sudan's civil war is rooted in a long-standing identity crisis, marked by unfair distribution of wealth and resources, and a lack of shared vision among successive governments since independence in 1956.
2. **Ethnic Diversity:** Sudan comprises 19 major ethnic groups and approximately 597 ethnic sub-groups, with Sudanese Arabs being the largest single ethnic group, making up about 70% of the population.
3. **Root Causes of Conflict:** The civil war is fueled by issues of marginalization, governance, resource sharing, land disputes, social justice, and equality at the national level, particularly affecting marginalized populations in conflict zones like Darfur, South Kordofan, and the Nuba Mountains.



| Clear your doubts now.



4. **Government Policies:** The Sudanese government historically promoted an Arab and Islamic identity, leading to resistance and widespread dissatisfaction among diverse communities.
5. **Rise of Militias:** The emergence of the Rapid Support Forces, supported by the government, intensified civil strife, with the militia strategically deployed to maintain control over key areas and economic interests.
6. **Democratic Transition:** Sudan's transition to democracy faced challenges, including military interventions, failed coup attempts, and the dominance of militia groups, notably the Rapid Support Forces, complicating efforts to establish civilian-led governance.

### **Easy Explanation**

Sudan's civil war is deeply rooted in a complex history marked by an identity crisis, unfair distribution of resources, and a lack of governance that represents the country's diverse population. Since gaining independence in 1956, Sudan has experienced numerous coups and rebellions, fueled by ethnic diversity and government policies promoting Arab and Islamic identity.

The conflict escalated with the emergence of militias like the Rapid Support Forces, supported by the government, which intensified civil strife and maintained control over key areas and economic interests. Despite attempts at democratic transition, military interventions and the dominance of militia groups have hindered progress towards civilian-led governance.

To address Sudan's challenges, a collaborative effort from the international community is needed to support reconstruction and establish transparent, civilian-led governance that represents the Sudanese populace and addresses their grievances. Urgent action is required to rebuild Sudan as an inclusive state that safeguards the rights of all its citizens.

## **Where does 'us versus them' bias in the brain come from?-The Hindu Science**

Science

### **Key Takeaways:**

1. **Implicit Bias:** Despite explicit beliefs in equality, individuals often harbor implicit biases favoring socially advantaged groups, as revealed by psychological studies involving more than 60,000 participants.
2. **Shifting Criteria:** Research indicates that the criteria our brains use to categorize others as "us" or "them" constantly shift, influenced by social identity and perceived differences.
3. **Learned Response:** Bias is not innate but rather a learned response shaped by cultural associations and the brain's biology. Factors such as threat perception and uncertain circumstances can contribute to hostility towards out-groups.
4. **Neurobiological Basis:** Neuroimaging studies highlight the role of brain regions like the amygdala in processing intergroup threats. Activation of the amygdala is associated with detecting threats from out-group members, while cortical activation implies cognitive effort in regulating emotions and impulses.
5. **Impact of Narratives:** Social and cultural narratives can influence biased perceptions, but understanding the underlying biology can help individuals critically evaluate such narratives and make more informed judgments.

### **Easy Explanation**

Despite explicit declarations of equality, implicit biases persist, favoring socially advantaged groups, as evidenced by psychological studies involving a large number of participants. These biases are not fixed but rather influenced by shifting criteria in the brain's categorization of "us" versus "them."

Bias is not inherent but learned through cultural associations and brain biology. Factors such as threat perception and uncertain circumstances can exacerbate hostility towards out-groups. Neurobiological research highlights the role of brain regions like the amygdala in processing intergroup threats, shedding light on the automatic and cognitive aspects of biased responses.

Understanding the neurobiological basis of bias can help individuals critically evaluate social and cultural narratives that perpetuate prejudice. By being aware of our own biology, we can make more informed judgments and contribute to improving intergroup relations and reconciliation efforts.



| Clear your doubts now.



# 7th May 2024

## The 'Muslim quota' question-Indian Express Explained

Polity

### Key takeaways

1. **Constitutional Framework:** The Constitution of India allows for special provisions for the advancement of socially and educationally backward classes, including Scheduled Castes, Scheduled Tribes, and Other Backward Classes, under Articles 15(4) and 16(4). Reservation is considered an extension of equality rather than an exception to non-discrimination clauses.
2. **Muslim Reservation:** Reservation for Muslims has been provided in various states by including Muslim castes within the OBC category. This reservation is based on social and educational backwardness rather than solely on religious grounds.
3. **State Initiatives:**
  - Kerala: Introduced a sub-quota for Muslims within the OBC quota.
  - Karnataka: Implemented reservation for Muslims within the OBC quota based on recommendations from commissions.
  - Tamil Nadu: Passed a law providing a sub-category of Muslims with reservation within the OBC quota.
  - Andhra Pradesh & Telangana: Proposed reservation for Muslims within the OBC quota, but faced legal challenges regarding proper identification of social backwardness.
4. **Legal Challenges:** The inclusion of Muslims within reservation schemes has faced legal scrutiny, with courts emphasizing the need for proper identification of social backwardness and adherence to constitutional principles. However, courts have also affirmed that reservations for Muslims do not violate secularism and can be justified based on social backwardness criteria.
5. **National Efforts:** Committees such as the Sachar Committee and the Ranganath Misra Committee have highlighted the backwardness of the Muslim community and recommended reservation measures. However, implementation has faced challenges, including legal hurdles and political controversies.

### Easy Explanation

The discussion on religion-based reservation in India involves its historical context, constitutional provisions, state initiatives, legal challenges, and national efforts.

1. **Historical Context:** Communal reservation was initially introduced, later replaced by caste-based reservation. States have sought to include Muslims within reserved categories based on social and educational backwardness.
2. **Constitutional Framework:** The Constitution allows for special provisions for backward classes under Articles 15(4) and 16(4), emphasizing affirmative action.
3. **State Initiatives:** States like Kerala, Karnataka, Tamil Nadu, Andhra Pradesh, and Telangana have implemented reservation for Muslims within the OBC quota based on recommendations.
4. **Legal Challenges:** Inclusion of Muslims in reservation schemes faces scrutiny regarding identification of social backwardness and adherence to constitutional principles.
5. **National Efforts:** Committees like the Sachar Committee highlighted Muslim backwardness, recommending reservation measures, but implementation faces challenges due to legal hurdles and political controversies.



| Clear your doubts now.



## WITH VETERAN SUNITA WILLIAMSON BOARD, BOEING'S STARLINER SET TO LAUNCH: WHAT IS ITS SIGNIFICANCE? - Indian Express Explained

Science and technology

### Key takeaways

Boeing's Starliner spacecraft, set to launch with two NASA astronauts, marks Boeing's entry into providing crew transport to the International Space Station (ISS). If successful, Boeing will join SpaceX in this capability.

1. **Starliner Overview:** Starliner, also known as CST-100, is a partially reusable crew capsule consisting of a crew module and a service module. It can accommodate up to seven astronauts and is designed for multiple missions with a six-month turnaround.
2. **Mission Objectives:** The mission aims to test Starliner's performance in space with a crew onboard. Astronauts will manually test various systems, including docking procedures, life support, navigation, and cargo handling. Notably, Starliner will land on the ground rather than in the sea, a departure from other crew capsules.
3. **Boeing's Journey:** Boeing's involvement in space transportation began after NASA retired its shuttle fleet in 2011. Starliner's first uncrewed flight faced multiple delays and technical issues, requiring over 80 fixes. Delays persisted, pushing the first crewed flight to 2024.
4. **Significance of the Mission:** Success is crucial for both NASA and Boeing. NASA seeks multiple options for crew transport to the ISS, reducing reliance on a single provider. For Boeing, success would enhance its reputation amid safety concerns in its airline business.

Overall, the Starliner mission represents a significant milestone in commercial space transportation and carries high stakes for both NASA and Boeing's reputation and future endeavors.

### Easy Explanation

Boeing's Starliner spacecraft is on the verge of a significant milestone with its inaugural crewed test flight to the International Space Station (ISS), positioning Boeing as a key player in crew transport alongside SpaceX. Starliner, a partially reusable capsule, stands out for its versatility and cost-effectiveness, offering a capacity for seven astronauts and featuring plans for a ground landing, a departure from traditional sea landings. Despite facing delays and technical hurdles along its development journey, the mission represents a pivotal moment for both NASA and Boeing. For NASA, the successful deployment of Starliner opens up additional options for crew transport to the ISS, reducing reliance on a single provider and enhancing mission flexibility. This diversification of transportation capabilities strengthens NASA's overall space exploration endeavors and underscores the agency's commitment to fostering innovation in the commercial space sector.

Meanwhile, for Boeing, the Starliner mission carries significant weight in rebuilding its reputation, particularly in light of recent safety concerns surrounding its airline business. Success with Starliner would demonstrate Boeing's capability to deliver reliable and safe space transportation services, reaffirming its position as a leading player in the aerospace industry.

In essence, the upcoming Starliner mission symbolizes the convergence of technological advancement, collaboration between public and private entities, and the pursuit of humanity's exploration beyond Earth's boundaries. As Starliner prepares to embark on its maiden voyage, it signifies not only a new chapter in space exploration but also a testament to human ingenuity and perseverance in unlocking the mysteries of the cosmos.

## What is SFJ, alleged to have links with AAP? - Indian Express Explained

Sociology

### Key takeaways

1. Allegations have surfaced suggesting a connection between AAP and SFJ, prompting a recommendation for an NIA probe by the Delhi Lieutenant-Governor.
2. SFJ, a pro-Khalistan organization founded in 2007 by Gurpatwant Singh Pannun, advocates for Sikh self-determination and the establishment of Khalistan.



| Clear your doubts now.





3. Ashoo Mongia of the World Hindu Federation alleges that AAP received \$16 million from SFJ, raising concerns about political funding.
4. SFJ's activities include the controversial Referendum 2020, aiming for Punjab's secession, which has faced criticism for its questionable practices and lack of credibility.
5. Despite SFJ's advocacy for "ballots not bullets," it has been criticized for glorifying terrorists and issuing veiled threats against non-Sikh members.
6. India has banned SFJ under the Unlawful Activities (Prevention) Act, citing its promotion of secessionism and militant ideology in Punjab.
7. Gurpatwant Singh Pannun, the founder of SFJ, and the organization face numerous legal cases in India, indicating ongoing scrutiny and legal challenges.

### **Easy Explanation**

SFJ, or Sikhs for Justice, is alleged to have ties with AAP, prompting the Delhi Lieutenant-Governor to recommend a National Investigation Agency (NIA) probe. The recommendation stemmed from a complaint by Ashoo Mongia of the World Hindu Federation, accusing AAP of receiving \$16 million from SFJ. SFJ, founded in 2007 by Gurpatwant Singh Pannun, advocates for Sikh self-determination and the establishment of Khalistan. Despite promoting "ballots not bullets," SFJ has faced criticism for its questionable activities, including the Referendum 2020, which aimed for Punjab's secession. SFJ's glorification of terrorists and veiled threats against non-Sikh members have drawn condemnation. India has banned SFJ under the Unlawful Activities (Prevention) Act, citing its promotion of secessionism and militant ideology in Punjab. Numerous cases are registered against Pannun and SFJ in India, highlighting the organization's contentious nature and the ongoing legal scrutiny it faces.

### **IndiGo's wide-body order: Why is low-cost, long-haul a difficult model? - Indian Express Explained**

Science and technology

#### **Key Takeaways:**

1. IndiGo's Wide-Body Order: IndiGo's recent order of 30 Airbus A350-900 planes signifies its global ambitions for long-haul flights from India, following its massive A320-family order last year.
2. Challenges of Long-Haul, Low-Cost Model: Historically, long-haul, low-cost operations have struggled, with airlines like Wow Air and Norwegian Airlines facing difficulties. Wide-body aircraft entail higher costs, including fuel expenses and maintenance.
3. Cost Considerations: Despite the fuel efficiency of wide-body planes like the A350, they are significantly more expensive than narrow-body aircraft and require additional crew and maintenance expenses.
4. Network Planning: Successful long-haul, low-cost carriers focus on point-to-point networks, serving less competitive routes from multiple points instead of centralized hubs.
5. Product Positioning: Long-haul flights necessitate amenities not typical of low-cost carriers, leading some airlines to adopt hybrid models with a mix of low-cost and full-service features.
6. IndiGo's Strategy: While IndiGo's specific plans for its A350s remain undisclosed, it may consider a dual-class cabin configuration and direct international flights from various points in India, leveraging its robust domestic network for international connections.

### **Easy Explanation**

IndiGo, India's largest airline, has made headlines with its order of 30 Airbus A350-900 planes, indicating its aspirations for global long-haul flights. However, the endeavor into long-haul, low-cost operations poses significant challenges. Historically, airlines in this segment, such as Wow Air and Norwegian Airlines, have struggled due to the high costs associated with wide-body aircraft. While the A350 is more fuel-efficient, it remains considerably costlier than narrow-body planes and requires additional crew and maintenance expenses. Successful long-haul, low-cost carriers typically focus on point-to-point networks, operating from multiple points to serve less competitive routes. These carriers often adopt hybrid models to offer amenities suitable for long flights. IndiGo's strategy for its A350s



| Clear your doubts now.



includes a possible dual-class cabin configuration and direct international flights from various Indian points, capitalizing on its strong domestic network for international connections.

### [CLEAR THE BILL-Indian Express Editorial](#)

Economy

#### Key Takeaways:

1. Micro, small, and medium enterprises (MSMEs) play a crucial role in India's economy, contributing significantly to manufacturing output, exports, and employment.
2. Delayed payments are a major challenge faced by MSMEs, leading to cash flow mismatches and increased working capital requirements.
3. The government has introduced measures to address this issue, including the Samadhaan portal and provisions in the Union budget 2023-24 to ensure timely payments to MSMEs.
4. However, unintended consequences have arisen, with larger companies circumventing the new provisions by canceling orders to registered MSMEs and preferring longer payment cycles.
5. This asymmetry in relations has led to MSMEs deregistering to retain orders, highlighting the need for urgent resolution of payment issues.

#### Easy Explanation

Micro, small, and medium enterprises (MSMEs) form a vital component of India's economy, yet they face significant challenges, including delayed payments. Despite government efforts such as the Samadhaan portal and provisions in the Union budget 2023-24 to ensure timely payments, larger companies are circumventing these measures, leading to unintended consequences.

Reports indicate that larger companies are canceling orders to registered MSMEs to avoid shorter payment cycles, opting instead to deal with unregistered MSMEs for greater operational flexibility. This asymmetry in relations has prompted some MSMEs to deregister to retain orders, highlighting the urgent need to address payment issues.

The government has initiated discussions with stakeholders to find solutions and ensure timely clearance of MSME bills. Resolving these issues is crucial to supporting the functioning of MSMEs and facilitating their access to low-cost credit. Immediate action is needed to address payment delays and ensure the sustainability of MSMEs in India.

### [To auction or not-Indian Express Editorial](#)

Governance

#### Key takeaways

1. The 2010 3G spectrum auction, a response to past administrative flaws and scandals, achieved short-term objectives of transparency and revenue generation. However, its current implementation poses challenges to the telecom sector's growth and competitiveness.
2. While auctions initially addressed transparency concerns and provided a mechanism for revenue generation, they may now stifle industry development and downstream competitiveness due to their rigid structure and potential high reserve prices.
3. Recent actions by the Department of Telecommunications (DoT), including moves to allow administrative allocation for select cases, indicate a potential shift in policy towards more flexible spectrum allocation methods.
4. The decision-making authority for spectrum allocation should rest with specialized regulatory bodies like the Telecom Regulatory Authority of India (TRAI) and DoT, which possess the expertise to assess market dynamics and industry needs effectively.





5. Policy decisions regarding spectrum allocation should prioritize the long-term growth and competitiveness of the telecom sector, with regulatory bodies held accountable for ensuring transparency, fairness, and efficiency in the allocation process.

### **Easy Explanation**

The 2010 3G spectrum auction in India aimed to rectify past administrative irregularities, ushering in transparency and revenue generation. However, over time, auctions have become controversial, perceived as impeding industry growth and competitiveness. Recent initiatives by the Department of Telecommunications (DoT) suggest a potential shift towards more flexible spectrum allocation methods. Nonetheless, the authority to decide spectrum allocation should rest with specialized regulatory bodies like the Telecom Regulatory Authority of India (TRAI) and DoT, equipped with the requisite expertise to navigate market complexities effectively. This emphasizes the importance of policy decisions that prioritize long-term industry growth and competitiveness while ensuring transparency and fairness in the allocation process. Ultimately, striking a balance between regulatory oversight and industry needs is crucial for fostering a dynamic and sustainable telecom sector in India.

## **What is carbon farming?-The Hindu Text and Context**

Environment

### **Key takeaways**

1. **Carbon Farming Definition:** Carbon farming involves regenerative agricultural practices aimed at restoring ecosystem health, enhancing agricultural productivity, and mitigating climate change by storing carbon and reducing emissions.
2. **Techniques:** Various techniques are employed, including rotational grazing, agroforestry, conservation agriculture, and integrated nutrient management, each contributing to carbon sequestration and emission reduction.
3. **Challenges:** Effectiveness varies based on factors like geographical location, soil type, and water availability. Financial barriers hinder adoption, particularly in developing countries like India.
4. **Global Initiatives:** Carbon trading and projects such as Kenya's Agricultural Carbon Project incentivize carbon mitigation in agriculture, with initiatives emerging in countries like the U.S., Australia, New Zealand, and Canada.
5. **Opportunities in India:** Regions like the Indo-Gangetic plains and Deccan Plateau are well-suited for carbon farming, offering economic benefits and climate resilience. However, scaling up requires addressing challenges like limited awareness, policy support, and technological barriers.
6. **Potential Impact:** Carbon farming presents an opportunity to combat climate change while enhancing soil health, biodiversity, and economic opportunities, particularly in regions with favorable conditions for adoption.

### **Easy Explanation**

Carbon farming integrates regenerative agricultural practices to restore ecosystem health, improve productivity, and mitigate climate change by enhancing carbon storage and reducing emissions. Techniques include rotational grazing, agroforestry, conservation agriculture, and integrated nutrient management. Challenges include varying effectiveness based on factors like geographical location and water availability, as well as financial barriers, especially in developing countries like India. Global initiatives like carbon trading and projects such as Kenya's Agricultural Carbon Project aim to incentivize carbon mitigation in agriculture. In India, regions with extensive agricultural land are suitable for carbon farming, offering economic benefits and potential for climate resilience. However, scaling up requires addressing challenges like limited awareness, policy support, and technological barriers. Carbon farming presents an opportunity to combat climate change while enhancing soil health and biodiversity, particularly in regions with favorable conditions for adoption.





## [A mouth bacteria has starring role in colorectal cancer: study-The Hindu Science](#)

Science

### **Key Takeaways:**

1. **Fusobacterium & Colorectal Cancer (CRC):** Fusobacterium nucleatum bacteria, usually found in the mouth, are associated with colorectal cancer (CRC) tumors, aiding cancer cell spread in the gut.
2. **Research Findings:** A study by the Fred Hutchinson Cancer Center identified a subtype of this bacteria, F. nucleatum animalis (Fna), prevalent in CRC tumors, suggesting genetic factors enhancing its association with cancer.
3. **CRC Incidence:** Globally, CRC incidence is declining, but early-onset cases are rising alarmingly, posing a significant health concern.
4. **Bacterial Clades:** Researchers identified two distinct clades of Fna bacteria, with Fna C2 significantly associated with CRC tumors, potentially due to genetic and physical differences aiding gut colonization.
5. **Impact on Gut Health:** Fna C2 bacteria induced precancerous adenomas in mouse intestines, demonstrating their role in tumor development and altering metabolic profiles.
6. **Clinical Implications:** Future studies could lead to targeted microbial interventions and diagnostics for CRC, with a focus on early diagnosis and selective targeting of harmful bacteria.
7. **Challenges:** Developing treatments that selectively target harmful bacteria like Fna C2 while preserving beneficial gut flora presents significant challenges in CRC management.

### **Easy Explanation**

The study delves into the intricate relationship between Fusobacterium nucleatum (F. nucleatum) bacteria and colorectal cancer (CRC), shedding light on its potential implications for diagnosis and treatment. Typically residing in the mouth, F. nucleatum's unexpected presence in CRC tumors suggests a deeper connection to cancer progression, prompting further investigation.

Researchers uncovered a specific subtype of F. nucleatum, F. nucleatum animalis (Fna), prevalent in CRC tumors, indicating genetic factors enhancing its association with cancerous tissues. This discovery, coupled with the alarming rise in early-onset CRC cases globally, underscores the pressing need for targeted interventions.

Distinct clades of Fna bacteria, notably Fna C2, exhibited heightened association with CRC tumors, possibly due to genetic variations facilitating gut colonization. Experimental findings in mice demonstrated Fna C2's role in inducing precancerous adenomas, highlighting its potential as a driver of tumor development.

While these findings offer promising prospects for microbial-based therapies and diagnostics, significant challenges lie ahead. Developing treatments that selectively target harmful bacteria without disrupting beneficial gut flora presents a formidable task. However, the study's comprehensive insights pave the way for future research aimed at understanding the dynamics of gut microbiota in CRC progression and devising innovative strategies for early diagnosis and precise treatment.

## [Orangutan used plant to treat wound, scientists say-The Hindu Science](#)

Science

### **Key Takeaways:**

1. An orangutan named Rakus was observed using leaves from a medicinal plant to treat a wound on his cheek, applying the plant juices directly to the injury.
2. This behavior represents the first documented instance of a wild animal applying medicinal plant material directly to a wound.
3. The wound healed within a month without complications, suggesting the effectiveness of the orangutan's self-medication.
4. While this behavior was a single observation, it sheds light on the potential for self-medication among animals in the wild.



| Clear your doubts now.



5. Similar behaviors have been observed in other primate species, such as Bornean orangutans and chimpanzees, indicating a broader pattern of self-treatment in the animal kingdom.

### Easy Explanation

The fascinating behavior of an orangutan named Rakus has captured the attention of scientists, as he was observed utilizing leaves from a medicinal plant to treat a wound on his cheek. This marks the first recorded instance of a wild animal directly applying medicinal plant material to self-treat an injury. The wound healed successfully within a month, showcasing the potential efficacy of the orangutan's self-medication.

While this behavior was a singular observation, it highlights the intriguing phenomenon of self-medication among animals in the wild. Similar behaviors have been documented in other primate species, suggesting a broader pattern of utilizing natural remedies for health issues. This discovery prompts questions about the evolution of medicine and the potential insights it could offer into the natural world.

## 8th May 2024

### Will higher default limit for pesticides in spices impact health?-Indian Express Explained

Governance

#### Key takeaways

The Food Safety and Standards Authority of India (FSSAI) recently raised the default limit for pesticide residues in spices from 0.01 mg/kg to 0.1 mg/kg. This new limit applies only when specific maximum residue limits (MRLs) are not already established by either Indian regulations or international standards. Here are the key points and concerns regarding this change:

1. **Rationale for Increase:** The adjustment in MRLs for spices is based on several factors:
  - **Detection Limits:** Pesticide residues below 0.1 mg/kg are challenging to detect, thus raising the limit aids in more effective monitoring.
  - **Agricultural Practices:** Achieving lower MRLs like 0.01 mg/kg is often impractical in current agricultural settings due to the levels of pesticides that can be effectively controlled.
  - **Breakdown Products:** MRLs account for not only the pesticides themselves but also their metabolites, which can lead to higher detected levels of residues.
2. **Health Impact:** According to the FSSAI and scientists involved in the decision, the new limits still maintain residues at very low levels that are unlikely to pose health risks. MRLs are set well below the levels that could be harmful to humans, considering both the maximum residue expected in crops and safety thresholds.
3. **Regulatory Background:** MRLs are determined and periodically reviewed based on extensive field data regarding the chemical composition of pesticides, their toxic effects, and residue levels in food. In India, more than 295 pesticides are registered for use, with 139 specifically approved for spices.

Concerns:

- **Public Health:** There is concern among activists that the higher default limit could lead to greater accumulation of pesticides in the human body, especially considering the high consumption of spices in India.
- **Regulatory Oversight:** While the FSSAI assures that actions will be taken against the use of pesticides exceeding these limits, there remains a need for rigorous enforcement and monitoring to ensure compliance and safety.

In conclusion, while the increased MRL for spices aims to address practical challenges in pesticide detection and control, it also raises concerns about potential health impacts, necessitating stringent regulatory vigilance and ongoing scientific assessment.

### Easy Explanation



| Clear your doubts now.





The decision by the Food Safety and Standards Authority of India (FSSAI) to increase the default limit for pesticide residues in spices from 0.01 mg/kg to 0.1 mg/kg addresses several operational and scientific considerations:

1. **Detection Challenges:** The previous limit of 0.01 mg/kg was difficult to detect with available technology, prompting a need for a practical threshold that allows for more effective monitoring of pesticide residues.
2. **Agricultural Realities:** The levels of pesticides that can be controlled in agriculture make it challenging to maintain the lower MRL, leading to the need for a more achievable limit given current farming practices.
3. **Scientific Basis:** The new MRL takes into account not only the pesticides but also their breakdown products, which can result in higher detected levels of residues. This adjustment is based on comprehensive field trials and data analysis by the Central Insecticides Board and Registration Committee (CIB & RC).

Despite these adjustments, there are concerns regarding the potential health impacts of allowing higher pesticide residues. Activists argue that this could lead to increased pesticide intake by the population, particularly in a country where spice consumption is high. However, the FSSAI and involved scientists assert that the revised limits are still safe and are set well below harmful levels, based on rigorous scientific evaluation and international standards. Overall, the change in pesticide residue limits in spices is a balance between practical detection capabilities, agricultural practices, and the need to protect public health, with ongoing regulatory oversight to ensure safety.

### [3-PHASE CEASEFIRE DEAL THAT HAMAS BACKED; ISRAEL REJECTED AS 'SOFT' - Indian Express](#) [Explained](#)

International relations

#### **Key takeaways**

The proposed three-phased ceasefire deal between Hamas and Israeli forces, though rejected by Israel, outlines a comprehensive plan for ending hostilities and initiating reconstruction efforts in Gaza. Here's a summary of the key points and phases:

Key Points:

- **Ceasefire Duration and Terms:** The deal included a 42-day ceasefire period during which humanitarian aid would be significantly increased, and exchanges of hostages and prisoners would occur.
- **Humanitarian Aid:** It would allow 600 trucks per day into Gaza, including 50 fuel trucks, aimed at alleviating the humanitarian crisis.
- **Hostage and Prisoner Exchange:** Hamas would release Israeli hostages in stages, with Israel reciprocating by releasing Palestinian women and children from detention.
- **Troop Withdrawal:** Israeli forces would gradually withdraw from key areas in Gaza, reducing military presence and dismantling certain positions.

Phases of the Deal:

- **Phase One:** Focuses on immediate relief through humanitarian aid and the initial exchange of hostages for prisoners, alongside the partial withdrawal of Israeli troops.
- **Phase Two:** Aims to establish a sustained calm, with further troop withdrawals and continued exchanges of captives.
- **Phase Three:** Envisions the end of the Gaza blockade, the exchange of bodies for burial, and the launch of a comprehensive 3-5 year reconstruction plan for Gaza under international supervision.

The rejection of the deal by Israel was based on concerns that the terms had been softened, indicating challenges in negotiations regarding the security and political assurances required by both sides.

#### **Easy Explanation**

The proposed ceasefire deal between Hamas and Israel, structured in three phases, aimed to cease hostilities and initiate a recovery and rebuilding process in Gaza, but was ultimately rejected by Israel due to concerns about the terms being too lenient. Here's a synopsis of each phase in the deal:

Phase One:



| Clear your doubts now.



- This initial phase called for a 42-day ceasefire, during which substantial humanitarian aid would be allowed into Gaza, including daily deliveries of food, medical supplies, and fuel.
- Hamas agreed to release 33 Israeli hostages in stages, with Israel reciprocating by releasing Palestinian children and women prisoners.
- Key moves included the partial withdrawal of Israeli troops from Gaza, cessation of military flights over the area for certain periods, and the dismantling of specific military sites.

#### Phase Two:

- The second phase would continue the 42-day ceasefire and focus on restoring sustained calm in Gaza.
- It involved the complete withdrawal of most Israeli troops and the release of additional hostages and prisoners, further easing the military footprint in Gaza.

#### Phase Three:

- The final phase centered on the completion of the exchange of bodies and the ending of the blockade on Gaza.
- It also outlined the initiation of a 3-5 year reconstruction plan for Gaza, with the rebuilding of homes, civilian facilities, and infrastructure under international supervision, involving countries and organizations like Egypt, Qatar, and the UN.

The deal was designed to create a framework for ending the cycle of conflict and beginning the recovery of Gaza, but its rejection highlights the complexities and deep-rooted tensions in Israeli-Hamas relations, signaling that achieving a lasting peace will require addressing broader political and security concerns.

## Why EVs lie at the heart of trade frictions between China and Europe-Indian Express Explained

### International relations

#### **Key Takeaways:**

1. **Trade Frictions:** The core issue between China and the EU involves the surge of cheap Chinese EVs into European markets, which the EU argues is facilitated by unfair subsidies and restricted market access for European companies in China.
2. **Investigations and Tariffs:**
  - The EU has launched investigations into subsidies for Chinese EVs, branding these as protectionist measures by Beijing.
  - Brussels has warned of potential tariff increases on Chinese EV imports based on these investigations, accusing Chinese manufacturers like BYD, SAIC, and Geely of failing to provide sufficient information to anti-subsidy investigators.
3. **Strategic Visits:**
  - President Xi's itinerary includes stops in France, Serbia, and Hungary. His engagements are strategic, aiming to secure deals (possibly with Airbus in France) and solidify relationships with EU countries that have warmer ties with China, amidst broader EU criticism related to China's stance on Russia's actions in Ukraine.
4. **Market Dynamics:**
  - Chinese-made EVs are gaining significant market share in Europe, projected to constitute over a quarter of all EV sales in 2024. This market shift is partly due to aggressive global expansion plans by Chinese companies and the existing presence of Western brands like Tesla manufacturing in China.
5. **Broader Trade Context:**
  - The trade dispute extends beyond EVs, with the EU also investigating Chinese exports like solar panels and wind turbines, while China has responded with its own probes into European products such as brandy.

#### **Easy Explanation**



| Clear your doubts now.



The ongoing trade tensions between China and the EU are exemplified by the dispute over electric vehicles, where the EU alleges unfair practices by China, leading to an imbalance in trade. President Xi's visit to Europe is timed to address these issues amidst broader geopolitical tensions, including those related to China's support for Russia. His stops in countries like Serbia and Hungary indicate a strategy to strengthen alliances within the EU where possible, while the EU's investigations signal a tough stance on Chinese exports. This backdrop sets the stage for a complex interaction between trade policies, geopolitical strategies, and the global EV market dynamics.

### [Playing the field-Indian express editorial](#)

International relations

#### **Key takeaways**

Xi Jinping's recent visit to Europe is strategically aimed at exploiting the existing divisions within Europe and between Europe and the United States. His engagements in France, Serbia, and Hungary highlight China's approach to influence European politics through economic investments, such as the potential establishment of a Chinese electric vehicle (EV) factory in Hungary. This move reflects China's broader strategy to embed economic ties within Europe, potentially affecting Europe's ambition to develop independent capabilities in key sectors.

Key Dynamics:

- Geopolitical Pressures: Europe is currently navigating complex pressures from the US, Russia, and China, with challenges including US political dynamics under Trump, Russian military actions in Ukraine, and economic pressures from China.
- European Strategic Autonomy: French President Emmanuel Macron emphasizes the need for Europe to achieve strategic autonomy, suggesting a balanced approach in Europe's economic and foreign policies to avoid excessive dependence on either the US or China.

Global Implications:

- Influence on Global Alliances: China's efforts to deepen European divisions and Europe's response seeking more autonomy could reshape traditional alliances and global geopolitical stability.
- Impact on India: The evolving US-China-Russia dynamics are crucial for India, influencing its strategic positioning and engagement with Europe, focusing on enhancing trade relations and addressing security concerns.

Xi's visit underscores China's tactical maneuvers in global politics, exploiting opportunities to enhance its influence at a time when Europe is reassessing its geopolitical and economic alliances.

#### **Easy Explanation**

Xi Jinping's recent European tour underscores China's strategic intent to exploit and deepen divisions within Europe and between Europe and the United States. Stops in France, Serbia, and Hungary highlight China's economic and political maneuvers, particularly with potential projects like the electric vehicle (EV) factory in Hungary. These moves aim to bolster China's influence in Europe and challenge the continent's efforts toward strategic autonomy, as advocated by French President Emmanuel Macron.

Macron's push for European strategic autonomy reflects a broader European reevaluation of its global stance, balancing relationships with major powers such as the US and China. Xi's visit comes at a time when Europe faces complex pressures, including potential shifts in US policy with Trump's possible return and ongoing security threats from Russia's actions in Ukraine. These dynamics complicate Europe's position, forcing a delicate balance between asserting independence and managing international relationships.

Overall, Xi's tour tests European unity and strategic independence, seeking to secure China's interests while potentially widening the gap between Europe and the US. The outcomes of this visit could significantly impact global geopolitical alignments, influencing not just Europe but other nations like India that are strategically recalibrating in response to these developments.





## Sugar and spice, not all nice-Indian Express Editorial

Governance

### Key Takeaways:

1. Recent food safety issues in India, particularly concerning ground spices and baby foods, have raised significant concerns among consumers.
2. Ground spices from popular brands like MDH and Everest were rejected by international markets due to the presence of carcinogenic ethylene oxide and salmonella bacteria.
3. Despite regulations, there are doubts about the effectiveness of the Food Safety and Standards Authority of India (FSSAI) in ensuring the safety of domestic food products.
4. Concerns extend to baby foods, with reports of added sugar in products like Nestle's Cerelac, contradicting regulations and international guidelines.
5. High levels of sugar in various food products targeted at children raise health concerns, including obesity and diabetes.
6. The FSSAI's approach to regulating sugar, fat, and salt content in processed foods has been criticized for its voluntary nature and lack of enforcement.

### Easy Explanation

Recent incidents have highlighted significant food safety issues in India, particularly regarding ground spices and baby foods. Ground spices from popular brands were rejected by international markets due to contamination with carcinogenic substances and bacteria. This has raised doubts about the effectiveness of the Food Safety and Standards Authority of India (FSSAI) in ensuring the safety of domestic food products.

Concerns also extend to baby foods, with reports of added sugar contradicting regulations and international guidelines. High levels of sugar in various food products targeted at children raise health concerns, including obesity and diabetes. The FSSAI's approach to regulating sugar, fat, and salt content in processed foods has been criticized for its voluntary nature and lack of enforcement.

Overall, there is a pressing need for a complete overhaul of the food safety and standards regulatory system in India, with a focus on ensuring citizens' right to safe and healthy food.

## The unseen effects of climate change on mental health-The Hindu Science

Science

### Key Takeaways:

1. Disproportionate Impact: People with mental health conditions, especially those with schizophrenia, are disproportionately impacted by climate change-induced heatwaves.
2. Thermal Regulation Issues: Schizophrenia and the medications used to treat it can impair the hypothalamus, which is essential for regulating body temperature, making individuals more susceptible to heat.
3. Increased Mortality Risk: During extreme heat events, individuals with schizophrenia are at a higher risk of mortality compared to those with other chronic conditions like heart or kidney disease.
4. Medication Effects: Antipsychotic medications, often necessary for managing schizophrenia, can exacerbate heat sensitivity by affecting the body's ability to regulate temperature.
5. Socioeconomic Vulnerability: Factors such as lower economic status, marginalization, and comorbid conditions like diabetes and hypertension heighten the vulnerability of individuals with schizophrenia during heatwaves.
6. Educational and Supportive Measures: There is a critical need for targeted educational programs for caregivers and individuals with schizophrenia to recognize and respond to heat-related illnesses effectively.



| Clear your doubts now.



7. Policy Implications: The findings suggest the need for public health policies that specifically address the risks faced by mentally ill populations during climate-related events, ensuring they receive adequate protection and support.

### **Easy Explanation**

Climate change significantly impacts mental health, particularly for those with conditions like schizophrenia, who are highly vulnerable to heat-related health issues. Research from a 2021 heatwave in British Columbia found that individuals with schizophrenia were more susceptible to heat-related mortality than those with chronic physical conditions. This vulnerability stems from the effects of schizophrenia and antipsychotic medications on the hypothalamus, which regulates body temperature. Additionally, socioeconomic factors, including marginalization and economic constraints, exacerbate their risk during extreme heat events.

Given these insights, there is a critical need for targeted public health measures and policies to protect people with mental health conditions during climate-induced extreme weather. Such measures should include specialized healthcare protocols and community support initiatives to ensure the safety and well-being of this vulnerable population as climate change progresses.

## **The Kotak Mahindra Bank controversy-The Hindu Text and Context**

Economy

### **Key takeaways**

The Reserve Bank of India (RBI) recently imposed restrictions on Kotak Mahindra Bank (KMB), prohibiting it from onboarding new customers on its digital platforms and issuing new credit cards, although existing customers can continue to use these services. This decision stemmed from identified deficiencies in KMB's IT systems and controls, which were deemed inadequate given the bank's scale of operations. The restrictions reflect a broader regulatory effort to ensure the robustness and security of digital banking infrastructure.

Key Points of the RBI Action:

1. Restrictions Imposed: KMB is barred from adding new customers via online and mobile channels and from issuing new credit cards due to deficiencies in IT systems and controls.
2. RBI's Findings: The regulator highlighted "serious deficiencies and non-compliances" in KMB's IT inventory, user access management, data leak prevention strategies, and disaster recovery processes.
3. Past Actions: This is not the first instance of RBI imposing such restrictions; similar actions were taken against HDFC Bank in 2020 and Bank of Baroda in 2023 due to IT-related issues.

Global and Analyst Perspectives:

- S&P Global Ratings: The agency suggests that while the RBI's actions may hinder KMB's credit growth and profitability, particularly in the high-yield credit card segment, they are unlikely to materially affect the bank's overall credit ratings.

Response from KMB's CEO:

- Ashok Vaswani: He emphasized ongoing efforts to address the deficiencies, stating that the financial impact of the RBI's actions is expected to be minimal compared to the potential reputational damage. Vaswani highlighted that technology expenses constitute about 10% of the bank's operating expenses, underscoring the bank's commitment to enhancing its technological capabilities.

In summary, the RBI's restrictions on KMB underscore a critical regulatory focus on strengthening the technological infrastructure and compliance of banks, reflecting a broader trend of ensuring financial stability and consumer protection in the rapidly evolving digital banking landscape.

### **Easy Explanation**

The Reserve Bank of India (RBI) has imposed restrictions on Kotak Mahindra Bank (KMB), barring the bank from onboarding new customers through its online and mobile platforms and from issuing new credit cards. This action was





taken due to deficiencies in KMB's IT systems and controls, which were deemed inadequate for the bank's growth. The restrictions will remain until an external audit, approved by RBI, evaluates the remediation efforts.

This regulatory measure is part of the RBI's broader initiative to ensure the robustness of IT systems across the banking sector, reflecting similar actions taken against other banks like HDFC and Bank of Baroda in recent years.

According to S&P Global Ratings, while these actions may impact KMB's short-term growth, especially in the credit card sector, they are unlikely to affect the bank's long-term credit ratings.

KMB's CEO, Ashok Vaswani, has highlighted the bank's commitment to resolving these issues, emphasizing more the potential reputational impact rather than the financial repercussions. The bank has increased its investment in technology to address the RBI's concerns and is actively working to enhance its systems to meet regulatory standards.

## 9th May 2024

### [Do marriages need to be registered? What happens if they aren't? - Indian Express Explained](#)

Sociology

#### **Key takeaways**

1. Legal Framework for Marriages:
  - Marriages in India are regulated by personal laws and statutes like the Hindu Marriage Act, Special Marriage Act, and Indian Christian Marriage Act.
2. Religious Requirements for Marriage:
  - Different religions have specific requirements for marriage ceremonies, such as rituals for Hindus and Christians, and contractual obligations for Muslims.
3. Distinction Between Solemnization and Registration:
  - Solemnization refers to the religious or secular ceremony of marriage, while registration is a separate legal process, often referring to civil marriages under secular law.
4. Optional Nature of Marriage Registration:
  - While registration of marriage is not mandatory in all cases or states, it serves practical purposes like facilitating visa applications and medical insurance.
5. Limitations of Registration in Validating Marriage:
  - Registration alone does not validate a marriage; additional evidence such as certificates under relevant laws, proof of rituals, or long-term cohabitation may be required.
6. Legal Importance of Valid Marriage Evidence:
  - In legal matters like bigamy trials or inheritance disputes, evidence of a valid marriage is crucial and can include proof of rituals, cohabitation, and acceptance by family and community.

#### **Easy Explanation**

Marriages in India are governed by a complex interplay of personal laws and statutes, including the Hindu Marriage Act, Special Marriage Act, and Indian Christian Marriage Act. Each religion has its own requirements for marriage ceremonies, from rituals for Hindus and Christians to contractual obligations for Muslims. While registration of marriage is not universally mandatory, it serves practical purposes like facilitating official documentation for visa applications and medical insurance.

It's important to note the distinction between the solemnization of marriage, which involves the religious or secular ceremony, and the registration process, which is a separate legal requirement. Registration alone does not validate a marriage; additional evidence such as certificates under relevant laws, proof of rituals, or long-term cohabitation may be necessary.



| Clear your doubts now.



In legal contexts like bigamy trials or inheritance disputes, evidence of a valid marriage is crucial. This evidence can include proof of rituals, cohabitation, and acceptance by family and community. Overall, the legal recognition and validity of a marriage depend on adherence to religious requirements, registration procedures, and the availability of supporting evidence in legal matters.

### [The India-Nepal border issue-Indian Express Explained](#)

International relations

#### **Key takeaways**

Here are the key takeaways from the India-Nepal border dispute:

1. **Historical Basis:** The dispute originates from the Treaty of Sugauli (1814-1816) which defined the Kali River as a boundary. Different interpretations and map representations over the years have fueled the disagreement over territories of Limpiyadhura, Lipulekh, and Kalapani.
2. **Recent Escalation:** Nepal's decision to depict the disputed area on its Rs 100 currency note has intensified tensions with India, which sees this act as a unilateral provocation that does not alter the actual territorial control.
3. **Diplomatic Efforts:** Both countries have committed to resolving the dispute through diplomatic channels, but progress has been sluggish, and recent actions by Nepal may complicate these efforts.
4. **Impact on Bilateral Relations:** The border dispute has strained India-Nepal relations, impacting broader aspects of their bilateral engagements. Historical grievances, like the 2015 blockade, have also influenced current dynamics, pushing Nepal closer to China.
5. **Resolution Prospects:** While both sides agree on resolving the issue diplomatically, there is no set timeline or concrete steps visible, and the recent actions by Nepal's government could further delay or derail these efforts.

#### **Easy Explanation**

The India-Nepal border dispute primarily revolves around a contested 372-square-kilometer area at the trijunction with China, encompassing Limpiyadhura, Lipulekh, and Kalapani. The dispute traces back to varied interpretations of the



| Clear your doubts now.

Treaty of Sugauli (1814-1816), which set the Kali River as the boundary marker, but subsequent maps have shown different origins for the river, leading to conflicting territorial claims.

In recent developments, tensions have escalated after Nepal included the disputed map on its Rs 100 currency note, a move criticized by India as a unilateral action that complicates the situation on the ground. This decision has also faced



internal criticism within Nepal as being provocative and not conducive to diplomatic resolution.

Both nations have historically agreed to resolve the issue through diplomatic discussions, yet progress has been minimal. High-level diplomatic talks and promises during state visits have yet to yield a resolution, and the recent actions by Nepal might pose new challenges to these diplomatic efforts.

The border dispute has broader implications for India-Nepal relations, affecting trade, security, and diplomatic interactions. Historical issues, such as the 2015 blockade by India, have also contributed to a complex relationship, with Nepal seeking to diversify its economic and strategic partnerships, notably with China.

Efforts to resolve the dispute continue, but the lack of concrete progress and the absence of a clear timeline for resolution suggest that this longstanding issue may persist, potentially complicating future bilateral interactions and regional stability.

### [WHY VIETNAM WANTS US TO CHANGE ITS 'NON-MARKET ECONOMY' STATUS-Indian Express](#)

[Explained](#)

International relations

#### **Key takeaways**

Here are the key takeaways from Vietnam's push to change its classification from a "non-market economy" to a "market economy" by the United States:

1. **Purpose of Reclassification:** Vietnam seeks to reclassify its economy to avoid high anti-dumping duties imposed by the U.S., which currently uses the costs in a third country to calculate these duties.
2. **Criteria for Non-Market Economies:** The U.S. considers several factors to classify a country as a non-market economy, including state control over economic decisions, foreign investment restrictions, and the method of determining wages.
3. **Vietnam's Argument for Change:** Vietnam claims that its recent economic reforms, including allowing foreign investments and market-based wage determination, align with the criteria for a market economy status.
4. **Economic Benefits:** By achieving market economy status, Vietnam hopes to reduce the anti-dumping duties on its exports to the U.S., making its products more competitive in the American market.
5. **Opposition:** Some U.S. industries and lawmakers oppose Vietnam's reclassification, citing ongoing restrictions and potential benefits to Chinese firms using Vietnam as a backdoor to circumvent U.S. tariffs.

This decision is under review and expected to be resolved by late July, marking a critical point in U.S.-Vietnam economic relations.

#### **Easy Explanation**

Vietnam is currently lobbying the Biden administration to reclassify its economic status from a "non-market economy" to a "market economy." This reclassification is crucial for Vietnam as it seeks to reduce the high anti-dumping duties



| Clear your doubts now.

that the U.S. imposes on its exports. These duties are currently calculated based on the costs in a third country, a practice that often results in higher tariffs than would be the case if Vietnam's own prices were used.

The U.S. labels countries as non-market economies based on factors such as state control over pricing and resources, currency convertibility, and the nature of wage determination. Vietnam argues that its recent economic reforms, which include more liberal foreign investment policies and market-determined wages, align it more closely with the characteristics of a market economy.

However, there is significant opposition within the U.S. to Vietnam's reclassification. U.S. industries, such as steelmakers and shrimp processors, as well as several lawmakers, argue that Vietnam still maintains significant state control over its economy, and that its labor laws remain weak. They also express concerns that reclassifying Vietnam could indirectly benefit Chinese companies that have invested in Vietnam to circumvent U.S. tariffs on Chinese goods. The decision, expected by late July, has substantial implications for trade relations between the U.S. and Vietnam, affecting the competitiveness of Vietnamese goods in the U.S. market.

### [Giving primacy to human development-The Hindu Editorial](#)

Sociology

#### Key Takeaways

1. **Human Development Focus:** The recent Human Development Report emphasizes the need for a renewed focus on human development as a key aspect of India's growth strategy. Political parties are recognizing the importance of this area as a significant electoral issue.
2. **Improvements and Challenges:** India has shown slight improvement in its Human Development Index (HDI) ranking but continues to face significant challenges in terms of gender inequality and income disparity.
3. **Income Inequality Insights:** A study by the World Inequality Lab highlights extreme income inequality in India, with the top 1% earning disproportionately more than the rest of the population, and the bottom 50% earning significantly less.
4. **Economic Implications:** This stark inequality has broad implications for aggregate demand, consumption patterns, and overall human welfare in India.
5. **Urgency for New Growth Strategy:** The data suggests that India's current economic growth strategy may not be sustainable and calls for a new approach that prioritizes human development to ensure more equitable growth and improved quality of life for all citizens.

#### Easy Explanation

Recent reports on India's human development and income inequality highlight the pressing need for a strategic shift in the country's development approach. While India has marginally improved in the UN Human Development Index, significant challenges remain, particularly with respect to income inequality and gender disparities. The data reveals that the wealth gap is widening, with the richest 1% earning 23 times more than the average Indian, and the bottom 50% earning substantially below the national average. These disparities have critical consequences for the country's economic stability and social cohesion. The situation is further exacerbated by high household debt levels and low savings, underscoring the urgency for a development strategy that places human welfare at the forefront. This shift will require strong political will and a rethinking of the current growth models, moving beyond short-term gains to ensure sustainable and inclusive development.

### [The delay in Nagaland civic body polls-The Hindu Text and Context](#)

Polity

#### Key Takeaways

1. Nagaland's urban local body (ULB) elections were stalled for 20 years due to opposition to the mandated 33% reservation for women in municipal bodies.



| Clear your doubts now.

2. The reservation clause was seen as conflicting with special provisions granted by Article 371A of the Constitution to Nagaland.
3. Efforts to hold elections faced protests and violence, leading to indefinite postponement and legislative back-and-forth over reservation.
4. The amended Nagaland Municipal Act of 2023 retained the 33% reservation but eliminated reservation for the chairperson's post and taxation on immovable property.
5. Reservation of wards for women was decided, with eight out of 23 wards in Dimapur, six out of 19 in Kohima, and six out of 18 in Mokokchung being reserved.
6. Opposition from some tribal bodies persists, with the Eastern Nagaland People's Organisation (ENPO) opting out of the polls in protest against New Delhi's failure to create an autonomous Frontier Nagaland Territory.

### **Easy Explanation**

In Nagaland, the impending urban local body (ULB) elections mark a significant juncture after a protracted delay of two decades. Central to this electoral process is the contentious issue of the mandated 33% reservation for women in municipal bodies. This reservation clause has been met with resistance, primarily due to concerns over its compatibility with Nagaland's special constitutional provisions, particularly Article 371A, which grants the state certain autonomy in matters of governance and administration.

Despite legislative attempts to reconcile these conflicting mandates, including the amendment of the Nagaland Municipal Act in 2023, opposition to the reservation clause persists among certain tribal bodies. Notably, the Eastern Nagaland People's Organisation (ENPO) has chosen to boycott the polls, citing grievances with New Delhi's failure to address broader issues, such as the creation of an autonomous Frontier Nagaland Territory.

This electoral saga underscores the delicate balance between constitutional imperatives, regional autonomy, and indigenous rights in Nagaland's political landscape. It reflects the ongoing tension between local aspirations for self-governance and the overarching authority of the central government. As Nagaland navigates these complexities, the outcome of the ULB elections holds significant implications for the state's political future and the broader dynamics of governance in the region.

## **The socio-ecological effects of LPG price hikes-The Hindu Text and Context**

Economy

### **Key Takeaways**

1. LPG's high cost is a significant barrier to its adoption and continued use in rural poor households in India, with many resorting to solid cooking fuels.
2. Government initiatives such as the Rajiv Gandhi Gramin LPG Vitrak scheme, PAHAL scheme, 'Give it Up' program, and Pradhan Mantri Ujjwala Yojana (PMUY) have aimed to increase LPG uptake by providing subsidies and incentives.
3. Despite government efforts, LPG prices in India are among the highest globally, leading to continued reliance on solid cooking fuels in many areas.
4. A study in Jalpaiguri district, West Bengal, highlighted the dependence on fuelwood and the socio-ecological impacts of forest degradation due to cooking fuel needs.
5. Suitable alternatives to fuelwood, such as efficient cooking stoves and multi-stakeholder resource governance meetings, are being explored to mitigate environmental and socio-economic challenges.
6. The rise in LPG prices over the past decade poses socio-ecological crises in areas lacking viable alternatives to fuelwood, emphasizing the need for affordable LPG and sustainable solutions.

### **Easy Explanation**

The high cost of LPG poses a significant barrier to its adoption in rural poor households in India, leading to continued reliance on solid cooking fuels. Despite government initiatives like the PMUY, LPG prices in India remain among the



| Clear your doubts now.



highest globally. A study in Jalpaiguri district underscores the socio-ecological impacts of fuelwood dependence, highlighting the need for viable alternatives to mitigate environmental degradation and socio-economic challenges. Efforts are underway to explore alternatives such as efficient cooking stoves and multi-stakeholder resource governance. However, the persistently high LPG prices over the past decade threaten socio-ecological stability in areas lacking viable alternatives. Future strategies must prioritize affordability of LPG while promoting sustainable solutions to alleviate dependence on solid fuels, safeguarding both local livelihoods and ecosystems.

### [How the Widal test clouds India's sense of its typhoid problem-The Hindu science](#)

Science

#### **Key takeaways**

1. **Widal Test Limitations:** The widespread use of the Widal test in India for diagnosing typhoid obscures the true burden of the disease due to its potential for erroneous results.
2. **Diagnostic Challenges:** Factors such as improper sampling times, lack of kit standardization, and poor quality control contribute to the test's unreliability.
3. **Inadequate Diagnosis:** A single positive Widal test result does not confirm active typhoid infection, leading to misdiagnosis and inappropriate treatment.
4. **Cross-Reactivity Concerns:** The test's susceptibility to cross-reactivity with antibodies from other infections or vaccinations further complicates accurate diagnosis.
5. **Impact on Treatment:** Patients may receive unnecessary treatment based on unreliable Widal test results, leading to financial strain and contributing to antimicrobial resistance.
6. **Need for Better Tests:** There is a pressing need for improved point-of-care tests to accurately diagnose typhoid and guide appropriate treatment.
7. **Infrastructure Improvement:** Enhanced surveillance and diagnostic infrastructure are necessary to address the root cause of typhoid and mitigate its impact effectively.
8. **Regional Data Importance:** Access to regional data on antibiotic susceptibility and carriers is crucial for informed decision-making and targeted interventions in combating typhoid.

#### **Easy Explanation**

The widespread use of the Widal test for diagnosing typhoid in India obscures the true burden of the disease due to its high potential for erroneous results. Factors such as inadequate awareness of proper sampling times, lack of kit standardization, and poor quality control exacerbate this issue. The test's limitations include its inability to confirm active infection with a single positive result, variations in cut-off values among different manufacturers, and susceptibility to cross-reactivity with antibodies from other infections or vaccinations. Consequently, patients may receive inappropriate treatment based on unreliable diagnoses, leading to financial strain and contributing to antimicrobial resistance. Better point-of-care tests are needed, along with improved surveillance and diagnostic infrastructure to address the root cause of typhoid and mitigate its impact effectively. Additionally, regional data on antibiotic susceptibility and symptom-free carriers are essential for informed decision-making and targeted interventions.

### [NASA working out a time standard for the moon-The Hindu Science](#)

Science

#### **Key takeaways**

Here are the key takeaways from NASA's initiative to establish a Coordinated Lunar Time (LTC):

1. **Purpose of LTC:** NASA is tasked with developing a standardized time system, the Coordinated Lunar Time, for the moon to support ongoing and future lunar missions.



| Clear your doubts now.



2. **Relation to UTC:** The LTC will be standardized and synchronized with Earth's Coordinated Universal Time (UTC), ensuring a consistent timekeeping framework between Earth and lunar operations.
3. **Collaborative Effort:** The project involves collaboration across multiple U.S. federal departments, reflecting its importance to national and international space activities.
4. **Implementation Deadline:** NASA and its international partners are expected to deliver a strategy for implementing LTC by December 31, 2026.
5. **Future Implications:** LTC is envisioned to support not only mission coordination but also the foundation for a lunar satellite navigation system by 2030, similar to Earth's GPS system.

These efforts mark a significant step towards standardizing timekeeping in space, facilitating better coordination of international space missions and long-term lunar habitation plans.

### **Easy Explanation**

NASA is developing the Coordinated Lunar Time (LTC) to standardize timekeeping on the moon, directed by the White House Office of Science and Technology Policy (OSTP). This effort is part of the broader National Cislunar Science and Technology Strategy, supporting upcoming Artemis missions and future lunar activities.

LTC will align with Earth's Coordinated Universal Time (UTC), ensuring consistent timekeeping between Earth and lunar operations. The project, involving collaboration across multiple U.S. departments, aims to finalize the LTC implementation strategy by December 31, 2026.

The system is designed to be scalable, accurate for navigation and science, and resilient in communication losses. It will facilitate international mission coordination and is foundational for a potential lunar navigation system by 2030, similar to Earth's GPS. This initiative is crucial as global space agencies move towards establishing a permanent human presence on the moon.

## 10th May 2024

### **[Meeting nutrition challenge: what new guidelines prescribe-Indian express Explained](#)**

Sociology

#### **Key takeaways**

The National Institute of Nutrition (NIN) in India has issued new comprehensive guidelines focusing on the diet of vulnerable groups including pregnant women, children, and the elderly, to address the rising incidence of noncommunicable diseases (NCDs) such as cardiovascular diseases, cancer, and diabetes. These guidelines emphasize the importance of reducing salt intake and avoiding highly processed foods. They highlight that an unhealthy diet contributes to 56.4% of India's total disease burden and that proper diet and physical activity can prevent many chronic health issues.

Key recommendations include:

1. **Optimal Nutrition:** Ensuring optimal nutrition from conception until the age of 2 years is critical for proper growth and development and can prevent undernutrition, micronutrient deficiencies, and obesity.
2. **Dietary Patterns:** The guidelines suggest a balanced intake from at least eight food groups and recommend reducing the proportion of cereals in the diet while increasing the intake of proteins and essential fats. This aims to correct the "faulty dietary pattern" that increasingly includes affordable, unhealthy processed foods.
3. **Group-Specific Guidelines:**
  - **Pregnant Women:** Small, frequent meals are suggested, especially for those experiencing nausea, with a focus on fruits and vegetables high in iron and folate.
  - **Infants and Children:** Exclusive breastfeeding is recommended for the first six months, followed by the introduction of complementary foods.



| Clear your doubts now.



- Elderly: A diet rich in proteins, calcium, micronutrients, and fiber is recommended, along with regular exercise to maintain bone density and muscle mass.

The guidelines also address the dual challenge of undernutrition and diseases of overnutrition, noting the continuing issues with anemia and the rising rates of obesity. By following these guidelines, the report suggests significant strides can be made in improving public health outcomes across various demographic groups in India.

### Easy Explanation

The new dietary guidelines issued by the National Institute of Nutrition (NIN) in India aim to address the significant health challenges posed by noncommunicable diseases (NCDs) like cardiovascular diseases, cancers, and diabetes, particularly among vulnerable populations including pregnant women, children, and the elderly. Here's a concise overview:

<b>YOUNG &amp; UNHEALTHY</b>			
	1-4 yrs	5-9 yrs	10-19 yrs
<b>DISEASES OF OVERNUTRITION (%)</b>			
Overweight		3.7	4.9
Obesity		1.3	1.1
Pre-diabetes		10.3	10.4
Diabetes		1.2	0.6
Hypertension			4.9
High total cholesterol		3.2	3.7
<b>DISEASES OF UNDERNUTRITION (%)</b>			
Anaemia	40.6	23.5	28.4
<b>MICRONUTRIENT DEFICIENCIES (%)</b>			
Iron	32.1	17.0	21.5
Vitamin D	13.7	18.2	23.9
Vitamin A	17.5	21.5	15.6
Vitamin B12	13.8	17.2	30.9
Zinc	19.0	16.8	31.7

*Source: ICMR-National Institute of Nutrition Report on Dietary Guidelines for Indians*

1. **Health Concerns and Statistics:** The guidelines respond to the concerning rise in NCDs among all age groups, including children and adolescents. Unhealthy diets are linked to over 56% of India's disease burden.
  2. **Dietary Adjustments and Principles:**
    - Reduce the consumption of salt and highly processed foods.
    - Diversify diets to include more proteins and essential fats while reducing reliance on cereals.
    - Emphasize the consumption of natural and nutrient-rich foods across eight recommended food groups.
  3. **Targeted Nutritional Strategies:**
    - **Pregnant Women:** Focus on nutrient-dense, frequent small meals to manage common issues like nausea.
    - **Infants and Children:** Exclusive breastfeeding for the first six months followed by balanced complementary foods.
    - **Elderly:** Ensure a diet high in proteins, calcium, and micronutrients, coupled with regular physical activity.
- These guidelines are designed to combat both undernutrition and overnutrition through tailored recommendations that promote

balanced diets and healthy lifestyle choices across different life stages. They address specific nutritional needs and also the broader dietary patterns that contribute to the high prevalence of NCDs and obesity in India.

### Export-import in agri sector-Indian Express Explained

Economy

#### Key takeaways

The Indian agricultural sector experienced a significant decline in exports by 8.2% in the fiscal year 2023-24, primarily due to government-imposed restrictions on the export of key commodities such as rice, wheat, sugar, and onions. This decline followed a record high in exports during the previous fiscal year. The curbs were enacted in response to domestic concerns over availability and inflation, impacting the total value of agricultural exports, which dropped from \$53.15 billion in 2022-23 to \$48.82 billion in 2023-24.

Key Points from the Report:

1. **Impact of Export Restrictions:** The most affected commodities were sugar and non-basmati rice. Restrictions on sugar exports led to a sharp decrease in its export value, while similar curbs on non-basmati rice exports resulted in a decline from \$6.36 billion in 2022-23 to \$4.57 billion in 2023-24.



| Clear your doubts now.



- Wheat and Onion Exports: Wheat exports were stopped in May 2022, and onion exports faced restrictions until just before the Lok Sabha polls in 2023. The sudden changes and restrictions in policy significantly impacted these sectors, leading to lower export values.
- Growth in Other Sectors: Despite the overall decline, some agricultural sectors such as basmati rice and spices saw growth in exports, with basmati rice exports reaching a new high of \$5.84 billion in 2023-24.
- Import Trends: The overall decrease in agricultural imports by 7.9% was largely due to reduced costs of edible oils influenced by global market trends. However, imports of pulses almost doubled, highlighting a domestic shortfall.

**Policy Implications and Recommendations:**

- **Need for Stability and Predictability:** The agricultural community benefits from stable and predictable policies. Sudden export bans and restrictions can disrupt markets and impact farmers significantly.
- **Balanced Approach:** Future government policies should aim for a more balanced approach that protects both producers and consumers while also aligning with long-term agricultural and environmental goals.
- **Promoting Crop Diversification:** Current policies on imports, particularly low or zero tariffs on certain pulses and oils, conflict with the goal of promoting crop diversification. This needs alignment to encourage the cultivation of less water-intensive and highly imported crops like pulses and oilseeds.

Overall, the report underscores the need for a more rational and consistent policy framework in India's agricultural export and import sectors to better balance domestic needs with global market opportunities.

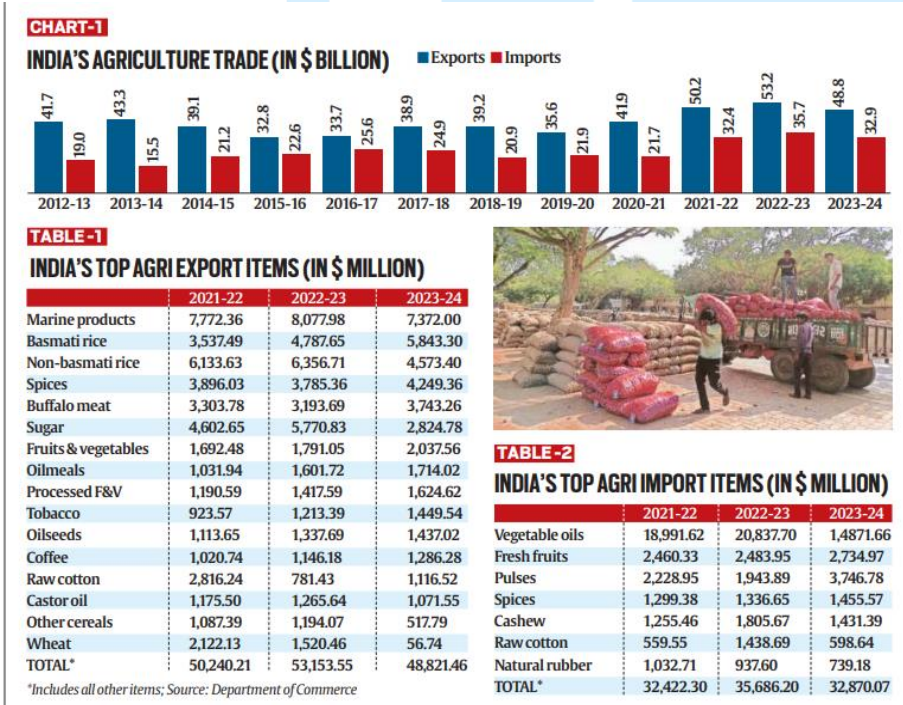
**Easy Explanation**

India's agricultural exports have declined by 8.2% in the fiscal year 2023-24, amounting to \$48.82 billion, influenced by government-imposed restrictions on the shipment of key commodities such as rice, wheat, sugar, and onions. These restrictions were a response to concerns over domestic availability and inflation, resulting in a drop from the previous fiscal's record high of \$53.15 billion.

The export of non-basmati rice and sugar was notably affected, with significant decreases in their respective export values.

While some agricultural products like basmati rice and spices witnessed growth, reaching new export highs, overall agricultural imports decreased by 7.9%. This decrease was primarily due to a reduction in the cost of imported edible oils, which had spiked due to global market

fluctuations following geopolitical events like the Russia-Ukraine conflict. Conversely, the import of pulses saw a considerable increase, nearly doubling to \$3.75 billion, indicating a domestic shortfall.



The fluctuating policies, characterized by sudden restrictions and bans, have led to calls for more stable and predictable government policies in the agricultural sector. Analysts suggest that such instability harms both market development and farmers' interests, advocating for a balanced policy approach that protects both producers and consumers while promoting sustainable agricultural practices and crop diversification. Future policies should also consider the long-term goals of the agricultural sector, including environmental sustainability and the strategic development of domestic markets.



| Clear your doubts now.





## [Unfeasible, illegal: Grounds of challenge to US law forcing TikTok sale-Indian Express Explained](#)

International relations

### Key Takeaways:

1. **Legal Challenge:** TikTok and ByteDance are challenging the US law, which mandates the sale of TikTok to a company not controlled by a "foreign adversary" by January 2025.
2. **Divestiture Infeasibility:** The feasibility of creating a standalone US TikTok platform is questioned due to global integration, technological hurdles, and export restrictions, rendering it impractical within the given timeframe.
3. **Proposed Agreement:** Despite proposing a comprehensive National Security Agreement with stringent data protection measures, Congress proceeded with passing the law without considering these proposed safeguards.
4. **Congressional Action:** Congress enacted the law without providing sufficient legislative findings on the tangible threat posed by TikTok, relying instead on hypothetical scenarios, which falls short of legal standards.
5. **Inclusivity Concerns:** Critics argue that the law is under-inclusive, allowing similar platforms to continue operating, while over-inclusive by applying broadly to all ByteDance-owned applications, without demonstrating specific risks or addressing alternative measures.

### Easy Explanation

TikTok and ByteDance are contesting a US law mandating TikTok's sale to a non-foreign adversary-controlled entity by January 2025. They argue that creating a separate US TikTok platform is unfeasible due to global integration and technological complexities. Despite proposing a robust National Security Agreement with stringent data protection measures, Congress passed the law without acknowledging these proposed safeguards. Critics assert that Congress failed to provide sufficient evidence of TikTok's actual threat and instead relied on hypothetical scenarios. Additionally, concerns are raised about the law's inclusivity, allowing similar platforms to operate while targeting all ByteDance-owned applications without demonstrating specific risks. The dispute highlights the clash between national security concerns and technological feasibility, with TikTok and ByteDance challenging the practicality and fairness of the law's requirements. As the legal battle unfolds, it raises broader questions about regulatory approaches to emerging technologies and the balance between security interests and innovation in the digital age.

## [HOW THE OLYMPIC GAMES GOT THE TORCH RELAY, WHAT IT SYMBOLISES-Indian Express Explained](#)

International relations

### Key takeaways

The Olympic torch relay is a cherished tradition of the modern Olympic Games, symbolizing peace, continuity, and heritage. Originating in Olympia, Greece, the birthplace of the ancient Olympics, the torch for the upcoming Paris Summer Games was lit on April 16. It traveled across Greece before heading to France, culminating in Paris for the opening ceremony on July 26.

Historical Background and Symbolism:

- The Olympic Games trace back about 3,000 years, featuring the Olympic Truce to ensure athletes' safe travel. The modern Olympics revived in 1894 led to the first torch relay in 1936 for the Berlin Games, starting a tradition of lighting the flame in Olympia using a parabolic mirror to ensure its purity.

Evolution and Inclusivity:

- The relay now features thousands of diverse torchbearers globally, symbolizing unity and inclusivity. Initially limited to young male athletes, the inclusion of women and individuals with disabilities began with the 1972 Munich Games.



| Clear your doubts now.





The Olympic torch relay embodies the ideals of the Olympic movement, promoting peace and unity through a symbolic journey that connects nations

### **Easy Explanation**

The Olympic torch relay, an integral tradition of the modern Olympic Games, embodies peace, continuity, and heritage. It originated in Olympia, Greece, the site of the ancient Olympics, and the torch for the upcoming Paris Summer Games was lit there on April 16. After being carried around Greece, it was transported to France, heading to Paris for the opening ceremony on July 26.

Historically, the Olympic Games date back around 3,000 years, originally held in Olympia and associated with the Olympic Truce, which ensured safe passage for athletes even during wartime. The modern revival of the Olympics occurred in 1894, initiated by Pierre de Coubertin, with the first modern games taking place in Athens in 1896. The torch relay itself was introduced in 1936 for the Berlin Games, inspired by ancient Greek torch races, and has since become a staple of the Olympic tradition.

The relay has evolved into a global spectacle where the torch is passed between thousands of people across different countries, symbolizing global unity and inclusivity. Initially restricted to young male athletes, the role of torchbearer has expanded over the years to include women and people with disabilities, starting with the 1972 Munich Games. This evolution reflects broader changes within the Olympic movement towards inclusivity and representation.

## **The recovery debate-Indian Express Editorial**

Economy

### **Key takeaways**

The discussion on India's economic growth post-2010 and especially after the pandemic revolves around two viewpoints. One suggests that India's stunted growth results from inherent flaws requiring new policies for recovery. The other viewpoint posits that recent reforms have set the stage for a sustainable growth cycle, maintained by counter-cyclical policies and supply-side improvements.

Support for Sustainable Growth:

- India has experienced consistent growth, controlled inflation, and poverty reduction in recent years, suggesting that current policies are effective. Growth figures have even been revised upwards, challenging initial skepticism.

Counter Arguments and Critiques:

- Critics argue discrepancies in inflation measures and GDP calculations might distort real growth figures. However, deeper analysis suggests that even with these discrepancies, the evidence of robust economic activity remains strong based on high-frequency data.

GDP Measurement and Economic Indicators:

- India's GDP measurement, primarily robust on the production side, aligns with global discrepancies observed in GDP calculations. Despite falling household financial savings, physical savings have increased, indicating a shift towards investment over consumption. This shift, along with lower private credit ratios and significant private capital expenditure, points to a healthy, investment-led growth path.

In summary, while debates on data accuracy continue, the broader indicators reflect a resilient and progressing economy, with policies that support stability and encourage private investment essential for sustaining growth.

### **Easy Explanation**

India's economic growth debate centers around two perspectives: one claims that growth has been hindered by inherent systemic flaws needing new policy interventions, while the other argues that recent reforms have already set a sustainable growth cycle in motion. Here's a concise breakdown of the arguments and evidence:

Support for Sustainable Growth:



| Clear your doubts now.



- Post-pandemic, India has shown consistent economic growth, managed inflation, and reduced poverty, indicating effective current policies. This is reinforced by upward revisions in growth figures, contrary to initial skeptic forecasts.

Critiques and Rebuttals:

- Critics point to discrepancies in inflation indices and GDP calculations as potentially misleading, suggesting inflated growth figures. However, if higher Wholesale Price Index (WPI) inflation traditionally underestimates growth, then the actual growth could be even higher than reported during periods of high WPI inflation.

Robustness of GDP Measurements:

- GDP measurement in India is deemed more reliable from the production side, with discrepancies between production and expenditure-side measurements similar to those seen internationally. High-frequency data supports strong ongoing economic activity, underscoring the robustness of India's growth.

Economic Health Indicators:

- Despite a decrease in household financial savings, increased household physical savings indicate a shift toward investment over consumption. Low private credit ratios and significant private capital expenditures suggest a sustainable, investment-led growth trajectory.

Overall, the evidence points to a resilient Indian economy, where existing policies have fostered a stable and growing economic environment. The need for continued policy stability and support for private investment remains critical to sustain this growth.

## Reservation within Constitutional bounds-The Hindu text and Context

Polity

### **Key Takeaways:**

1. **Constitutional Basis:** Articles 15 and 16 of the Indian Constitution ensure equality and provide for special provisions for the advancement of OBC, SC, and ST communities. The Supreme Court has upheld reservations for these communities, imposing a 50% cap unless under exceptional circumstances.
2. **Debate Over Inclusion of Muslims:** There's a debate regarding the inclusion of Muslims in the OBC quota in Karnataka. While some argue it aligns with the Constitution's aim of social justice, others oppose it due to historical opposition to reservation solely based on religion.
3. **Need for Sub-Categorization:** Suggestions include sub-categorization within reserved categories to address the concentration of reservation benefits. This aims to ensure fair representation for all communities within the reserved categories.
4. **Extension of Reservation:** There are calls to extend reservation benefits to Dalit Christians and Muslims, who also face discrimination and lack of opportunities. This aligns with the aim of ensuring social justice for marginalized communities.
5. **Deliberation on Reservation Limit:** There's a need for deliberation on increasing the reservation limit beyond 50% to accommodate the diverse needs of different communities. However, this must be done while maintaining a harmonious balance with the equality guaranteed in the Constitution.

### **Easy Explanation**

The debate surrounding reservation in India is multifaceted, revolving around its alignment with the constitutional principles of social justice and equality. Articles 15 and 16 of the Indian Constitution guarantee equality and provide for special provisions for the advancement of OBC, SC, and ST communities, with the Supreme Court imposing a 50% cap on reservations unless under exceptional circumstances. However, recent discussions have emerged regarding the inclusion of Muslims in the OBC quota in Karnataka, sparking controversy due to historical opposition to reservation solely based on religion.



Amidst this debate, suggestions have been made to address the concentration of reservation benefits by implementing sub-categorization within reserved categories. Additionally, there are calls to extend reservation benefits to Dalit Christians and Muslims, who also face discrimination and lack of opportunities. Deliberation on increasing the reservation limit beyond 50% is also on the table, although this must be approached cautiously to maintain a balance with the equality guaranteed in the Constitution.

Overall, the discourse surrounding reservation in India underscores the ongoing pursuit of social justice while navigating complex issues of representation and equality across various communities.

### [Why did Interpol issue a blue corner notice against Prajwal?-The Hindu Text and Context](#)

Internal security

#### **Key Takeaways:**

1. **Interpol Alert System:** Interpol issues notices to alert member countries about wanted criminals. These notices use a color-coded system to share requests for crime-related information among member countries and global organizations.
2. **Blue Corner Notice:** Interpol issued a blue corner notice against Prajwal Revanna, a sitting MP from Karnataka, who is accused of sexual abuse. Blue notices are issued for missing persons, seeking information about their identity, location, or criminal record for ongoing investigations.
3. **Purpose of Blue Notice:** Unlike red notices, which are issued for extradition or serving a sentence, blue notices are aimed at gathering information about a person of interest in an investigation. They are typically issued in the early stages of an inquiry.
4. **Role of SIT and CBI:** The Special Investigation Team (SIT) formed by the Karnataka government sought the help of the Central Bureau of Investigation (CBI) in the case. The SIT issued a lookout circular against Prajwal Revanna after he failed to appear before the panel.
5. **Ongoing Investigation:** The SIT intends to arrest Prajwal Revanna to expedite the investigation once his whereabouts are known. The issuance of the blue corner notice signifies the early stages of the investigation, with criminal charges yet to be filed.

#### **Easy Explanation**

The issuance of a blue corner notice by Interpol against Prajwal Revanna, a sitting MP from Karnataka accused of sexual abuse, has intensified the ongoing investigation. This notice, typically reserved for missing persons, seeks information about the individual's identity, location, or criminal record for ongoing investigations. Unlike red notices, which are issued for extradition purposes, blue notices are aimed at gathering information about a person of interest in an investigation.

The Special Investigation Team (SIT) formed by the Karnataka government sought assistance from the Central Bureau of Investigation (CBI) in the case, highlighting the seriousness of the allegations. Prajwal Revanna's failure to appear before the panel prompted the issuance of a lookout circular by the SIT. His whereabouts remain unknown, with reports suggesting his departure to Munich, Germany, following the Lok Sabha elections.

The SIT's move to issue a blue corner alert against Prajwal Revanna indicates that the investigation is in its early stages, with criminal charges yet to be filed. However, the team is determined to expedite the investigation and intends to arrest the accused once his whereabouts are confirmed. This development underscores the gravity of the allegations and the authorities' commitment to ensuring justice in the case.

### [We need to stop the fear mongering on vaccines'-The Hindu science](#)

science

#### **Key Takeaways:**



| Clear your doubts now.



1. **Fear-Mongering on Vaccines:** Amid the COVID-19 pandemic, misinformation about vaccines, including rare complications like thrombosis with thrombocytopenia syndrome (TTS), has led to fear and skepticism, even among healthcare professionals.
2. **Understanding TTS:** TTS is a rare post-vaccination complication associated with certain COVID-19 vaccines, occurring in a very small proportion of recipients, mainly young women. Despite its rarity, the condition has sparked concerns and disinformation campaigns.
3. **Risk vs. Benefit Analysis:** Despite the rare occurrence of TTS, the benefits of COVID-19 vaccination, such as significant protection against severe illness and death, outweigh the risks for most individuals. The risk of TTS is much lower than other everyday risks, such as dying in a road accident.
4. **Alternative Options:** Different countries have responded differently to reports of TTS, with some pausing the use of specific vaccines. However, considering the available alternatives and risk-benefit analyses, many countries, including India, have chosen to continue vaccination efforts.
5. **Need for Research and Education:** Further research is necessary to better understand vaccine-related complications and develop safer alternatives. Additionally, efforts to combat vaccine misinformation and promote vaccination are crucial to public health.

### **Easy Explanation**

The fear-mongering surrounding COVID-19 vaccines, particularly regarding rare complications like TTS, has led to skepticism and misinformation. Despite the rarity of TTS, the benefits of vaccination far outweigh the risks, with vaccines providing significant protection against severe illness and death. Countries like India have continued vaccination efforts, considering the risk-benefit analyses and available alternatives.

However, there are challenges, including the lack of comprehensive data on vaccine side effects and the need for ongoing research to improve vaccine safety. Additionally, efforts to combat vaccine misinformation and promote vaccination are essential to ensure public health. Despite these challenges, vaccines remain one of the most effective tools in combating infectious diseases, and efforts should focus on increasing vaccine uptake and improving public understanding of their importance.

### **Could bird Flu turn into the next pandemic?-The Hindu science**

Science

### **Key takeaways**

1. **Highly Pathogenic Avian Influenza (HPAI) Concerns:** Several Indian states are on alert after the detection of HPAI, which has also spread to cattle in multiple U.S. states, raising fears of a global zoonotic animal pandemic.
2. **WHO's Warning:** The World Health Organization (WHO) is deeply concerned about the increasing transmission of H5N1 bird flu to various species, including humans, and warns about the potential for the virus to evolve to infect humans and transmit between humans.
3. **Previous Outbreaks in India:** HPAI was first detected in Maharashtra in 2006, leading to annual outbreaks in different regions and substantial economic losses, with over 9 million birds culled to control its spread.
4. **Cattle as New Hosts:** The recent detection of H5N1 in cattle in the U.S. is alarming, as cows were not previously known hosts for the virus, raising concerns about the challenges of controlling its spread in valuable livestock species.
5. **No Human-to-Human Transmission Yet:** While there is currently no evidence of human-to-human transmission, the mortality rate remains high among those infected through contact with animals, emphasizing the importance of vigilance and preventive measures.

### **Easy Explanation**

The recent emergence of Highly Pathogenic Avian Influenza (HPAI) in India, coupled with its spread to cattle in the U.S., has raised significant global alarm. The World Health Organization (WHO) expresses deep concern about the



| Clear your doubts now.



escalating transmission of the virus to humans and the potential for it to evolve into a form capable of human-to-human transmission. Despite continuous efforts to control HPAI since its initial detection in India in 2006, the virus persists, inflicting substantial economic losses and posing formidable public health challenges. The detection of H5N1 in U.S. cattle presents a novel challenge, as culling is not a viable option for these valuable livestock. The ubiquitous nature of the virus and the high level of interaction between humans and cattle heighten concerns about its potential impact. International collaboration and heightened surveillance are imperative to monitor and contain the spread of HPAI, mitigating the risk of a widespread outbreak. Governments and health organizations must remain vigilant and proactive, implementing stringent measures to prevent further dissemination of the virus and safeguard both animal and human populations from its adverse effects.

## 11th May 2024

### [Turnouts, delays, Form 17C-Indian express Explained](#)

Polity

#### **Key Takeaways:**

1. **Rejection of Allegations:** The Election Commission of India (ECI) strongly refuted allegations by Congress president Mallikarjun Kharge that the delay in releasing final voter turnouts was an attempt to manipulate the final results.
2. **Revision of Voter Turnout Data:** The data on voter turnout is initially estimated and is revised as more detailed reports arrive from various polling stations. These revisions account for ongoing voting at stations where polling extended beyond the scheduled cut-off time, and late submissions of data by Returning Officers (ROs).
3. **Details of Voter Turnout Adjustments:**
  - For the first phase of polling, initial figures reported over 60% which later were finalized to 66.14%.
  - In the second phase, initial turnout was reported at 60.96% and later revised to 66.71%.
4. **Timeline for Publishing Data:** The ECI explained that the timeline for releasing official turnout figures (11 days for phase 1 and 4 days for phase 2) is consistent with past practices and necessary due to the time required to collect and verify data from a large number of polling stations, including remote locations.
5. **Form 17C and Its Role:**
  - Form 17C contains the total numbers of electors and voters at each polling station and is issued to candidates' agents at the close of polling.
  - This form plays a crucial role in ensuring transparency and is used for verifying results on counting day against the EVM (Electronic Voting Machine) counts.
6. **Continued Updates:** The final turnout data is not considered complete until postal ballots are counted and added on the day of counting.
7. **ECI's Response to Allegations:** In response to allegations of undue delay, the ECI provided details of previous elections' data release timelines to demonstrate that there was no unusual delay.

#### **Easy Explanation**

The controversy surrounds the timing and revisions of voter turnout data released by the ECI. Allegations of potential tampering were strongly denied by the ECI, explaining that revisions and delays are normal parts of the process, driven by logistical challenges and the need for accuracy in data collection from diverse geographical locations. The process involves multiple phases of data collection, verification, and revision, which are essential to ensure the integrity and accuracy of the electoral process. Form 17C is central to this process, providing a legal and factual basis for any electoral disputes. The ECI maintains that their procedures are transparent and in line with legal requirements, aiming to dispel concerns about the integrity of the turnout data.



| Clear your doubts now.





## [Israel, Saudi Arabia, and churn in the Middle East : the view from India-Indian Express Explained](#)

International relations

### Key Takeaways:

1. Strategic Shifts in the Middle East:
  - The United States is negotiating a mutual defense treaty with Saudi Arabia, aiming to integrate Saudi Arabia more closely with Western defense mechanisms and potentially influence Saudi economic policies, such as maintaining oil pricing in U.S. dollars.
  - The U.S. is also assisting Israel in its conflicts with Hamas and Iran, which reflects a strategic balance and positioning in the region.
2. Conditions for Saudi-Israel Normalization:
  - According to Thomas Friedman, for Saudi Arabia to normalize relations with Israel, certain conditions might need to be met by Israel, such as withdrawing from Gaza, halting settlement construction in the West Bank, and progressing towards the establishment of a Palestinian state.
3. Implications for U.S. Foreign Policy:
  - These diplomatic moves are crucial for President Joe Biden, especially in the context of the upcoming U.S. presidential election, as they could demonstrate U.S. re-engagement and leadership in the Middle East.
4. India's Perspective and Interests:
  - India views the evolving dynamics in the Middle East as an opportunity to enhance its economic and strategic ties, particularly with Saudi Arabia and Israel.
  - With major economic stakes and a large diaspora in the region, India stands to benefit from stability and stronger relations with key Middle Eastern countries.
5. Economic and Diplomatic Engagements:
  - India has significantly increased its trade and strategic ties with both Saudi Arabia and Israel, with substantial investments flowing between these nations and collaborations in sectors like energy, defense, and technology.
  - Initiatives like the I2U2 summit and the India-Middle East-Europe Economic Corridor highlight India's proactive diplomatic and economic outreach in the region.
6. Challenges Amidst Regional Conflicts:
  - Recent conflicts, such as the October 7, 2023, attacks by Hamas and the ongoing tensions between Israel and Palestine, pose challenges to India's diplomatic strategy in the region, which aims for stability and peace.

### Easy Explanation

The article discusses significant geopolitical shifts in the Middle East, with the United States actively engaging in forming a mutual defense treaty with Saudi Arabia and supporting Israel in its regional conflicts. These developments are part of a broader U.S. strategy to assert its influence in the region amidst growing Chinese presence. For India, these changes offer a chance to strengthen economic and strategic ties, especially given its substantial trade relations and investments in Saudi Arabia and its growing defense and technological collaboration with Israel. The ongoing regional conflicts, however, present ongoing challenges to these diplomatic efforts, requiring careful navigation by countries like India that have significant stakes in the region's stability and prosperity.

## [CHARGES ARE FRAMED AGAINST BRIJ BHUSHAN:WHAT DOES THIS MEAN?-Indian Express Explained](#)

Polity

### Key Takeaways:



| Clear your doubts now.



1. **Charges Framed Against Brij Bhushan Singh:** Brij Bhushan Singh, a BJP MP and former Wrestling Federation of India chief, has been charged with Sections 354 and 354A of the Indian Penal Code (IPC), along with other sections, based on allegations of sexual harassment by several women wrestlers.
2. **Chargesheet and Investigation:** The charges were framed after an FIR was registered by the police, followed by an investigation and the filing of a chargesheet detailing the alleged offences and evidence collected.
3. **Meaning of Framing Charges:** The framing of charges indicates that the trial judge has found sufficient evidence to proceed with the trial, but it doesn't imply guilt. It acknowledges that there are grounds to continue with the legal proceedings.
4. **Trial Process:** After the charges are framed, if the accused pleads innocent, witnesses are summoned for cross-examination. Both sides present their arguments, and upon completion, the judge may reserve judgment or pronounce a verdict.
5. **Sections of the Penal Code:** Sections 354 and 354A deal with offences against women, including assault or criminal force to outrage modesty and sexual harassment. Criminal intimidation charges were also framed against Brij Bhushan Singh.

### Easy Explanation

Brij Bhushan Singh, a BJP MP and former Wrestling Federation of India chief, faces charges under Sections 354 and 354A of the Indian Penal Code (IPC) for alleged sexual harassment of women wrestlers. The charges were framed following an investigation and the filing of a chargesheet by the police. The framing of charges signifies that the trial judge found adequate evidence to proceed with the trial, though it does not indicate guilt. The legal process involves summoning witnesses for cross-examination and presentation of arguments from both sides. The court will eventually render a judgment based on the evidence and arguments presented. Additionally, charges of criminal intimidation were also framed against Brij Bhushan Singh. This case sheds light on the legal mechanisms in place to address allegations of sexual harassment and highlights the importance of thorough investigation and fair legal proceedings in such cases.

### [The fraying of the model code of conduct-The Hindu editorial](#)

polity

### Key Takeaways:

1. **Violations of Model Code of Conduct:** The model code of conduct, established by the Election Commission of India (ECI) for fair elections, is often violated by politicians during election campaigns. This leads to distortions, false claims, and communal tensions.
2. **Constitutional Mandate of ECI:** The Constitution empowers the ECI to ensure free and fair elections. Article 324 grants the Commission plenary powers to maintain the purity of the electoral process.
3. **Provisions of Model Code of Conduct:** The code prohibits activities that may aggravate differences or create communal hatred. Criticism of political parties should focus on policies, and no appeal to caste or communal feelings is allowed. Corruption and other electoral offenses are also prohibited.
4. **Enforcement and Deterrence:** While the model code of conduct is not legally enforceable, the ECI can take action against violators. This includes suspension or withdrawal of recognition of a party, depriving it of its reserved symbol. However, recent years have seen less decisive action by the ECI compared to the era of T.N. Seshan.
5. **Role of Religion in Elections:** The use of religion in electoral campaigns violates the spirit of the Constitution, which upholds secularism. Politicians using religion to divide society should be dealt with seriously by the ECI and the courts.

### Easy Explanation

The model code of conduct, established by the Election Commission of India, is frequently violated by politicians during election campaigns, leading to distortions, communal tensions, and other malpractices. Despite not being legally



| Clear your doubts now.



enforceable, the ECI holds significant powers to maintain the integrity of the electoral process. However, recent years have seen less decisive action from the ECI, contrasting with the era of T.N. Seshan. The misuse of religion in electoral campaigns undermines the secular fabric of the country and requires serious intervention from the ECI and the judiciary. Ensuring the purity of elections, free from corrupt and divisive practices, is essential for upholding democracy in India.

### [Freshwater quest, the likely new gold hunt-The Hindu Editorial](#)

Geography

#### **Key Takeaways:**

1. **Discovery of Freshwater Under the Sea:** Significant volumes of freshwater have been discovered beneath saline oceans, including rivers beneath the sea. This freshwater represents a potential new resource for countries facing scarcity.
2. **Depletion of Freshwater:** With freshwater being a depleting resource, countries are likely to explore and exploit freshwater sources both above and below the ocean bed within their maritime zones.
3. **Expansion of Exploration:** As freshwater becomes scarcer, countries may expand exploration beyond their Exclusive Economic Zones (EEZ) into the "Area" governed by the United Nations Law of the Sea Convention (UNCLOS), which is considered the common heritage of mankind.
4. **Legal Framework:** While UNCLOS primarily governs ocean governance, customary international law and earlier conventions also play a significant role. UNCLOS prevails over earlier conventions among states parties, but non-signatory states may not recognize its provisions.
5. **Regulation of Freshwater Extraction:** The definition of "resources" under UNCLOS includes minerals, but it's unclear if freshwater falls under this definition. The International Seabed Authority is empowered to regulate activities in the Area, but regulation of freshwater extraction beyond national jurisdiction remains ambiguous.

#### **Easy Explanation**

The discovery of freshwater under the sea presents a potential solution to the global freshwater crisis. As countries face increasing water scarcity, exploration and exploitation of underwater freshwater sources are likely to expand, potentially leading to conflicts over resources. However, the legal framework governing such activities is complex, with UNCLOS and earlier conventions playing key roles. Regulation of freshwater extraction beyond national jurisdiction remains unclear. India, with its commitment to Sustainable Development Goals, has the opportunity to take a lead role in shaping non-controversial legislative texts to address gaps in the laws of the sea, particularly concerning exploratory activities for freshwater extraction. This would not only benefit mankind but also contribute to sustainable resource management on a global scale.

## 12th May 2024

### [30-year study links ultra-processed food to risk of early death- The Hindu Science](#)

Science Tech

#### **Explained in Easy Language**

The article discusses a comprehensive 30-year study conducted in the United States, which explored how eating ultra-processed foods affects people's health, particularly their risk of dying from various causes. The participants included thousands of health professionals and nurses who did not have chronic diseases like cancer, heart disease, or diabetes when the study started.



| Clear your doubts now.



Every two years, these participants shared details about their health and lifestyle, and every four years, they filled out a detailed survey about what they ate. This allowed researchers to examine the link between ultra-processed food consumption and health over a long period.

Ultra-processed foods are those significantly altered from their original form and often contain additives like sweeteners, preservatives, color enhancers, or flavor enhancers. Examples include ready-to-eat meat products, sugary drinks, dairy-based desserts, and highly processed breakfast foods.

The findings showed that participants who ate the most ultra-processed foods (about seven servings per day) had a slightly higher risk of dying during the study period compared to those who ate the least (about three servings per day). Specifically, there was a noticeable increase in deaths from neurodegenerative diseases like Alzheimer's among those who consumed more ultra-processed foods. However, no clear link was found between ultra-processed food consumption and deaths from cancer, cardiovascular disease, or respiratory diseases.

The study suggests that the overall quality of one's diet plays a more significant role in long-term health than merely the amount of ultra-processed foods eaten. In essence, focusing on improving the overall diet quality, which includes eating more whole and minimally processed foods, might have a greater impact on health than just reducing ultra-processed foods.

#### Key Takeaways

- **Long-Term Study:** Researchers analyzed data from over 113,000 health professionals over 30 years to investigate the impact of ultra-processed foods on health outcomes.
- **Risk of Death:** High consumption of ultra-processed foods was linked to a modest increase in the overall risk of death, especially from neurodegenerative diseases, though no significant associations were found for deaths due to cancer, cardiovascular, or respiratory diseases.
- **Specific Foods:** Certain ultra-processed foods, like ready-to-eat meat products, sugary drinks, and dairy-based desserts, showed the strongest links to increased health risks.
- **Dietary Quality:** The study highlights the importance of overall dietary quality in influencing long-term health, suggesting that improving diet quality may be more beneficial than simply reducing ultra-processed food intake.
- **Public Health Implication:** The findings support public health recommendations to limit certain types of ultra-processed foods to enhance long-term health and longevity.

### [Will cattle be the next lab for flu host-switching?- The Hindu Science](#)

Science Tech

#### Explained in Easy Language

The article explores a surprising discovery related to cattle and the influenza A virus, specifically the H5N1 strain.

Traditionally, cattle have not been considered major hosts for the influenza A virus, but recent findings challenge this view.

Researchers found that the H5N1 virus, which is a type of bird flu, has infected numerous cattle herds across several states in the U.S. This was initially discovered in dairy cattle in Texas and has since spread. Interestingly, the virus was found in high concentrations in the milk of infected cattle, more so than in their respiratory systems. This suggests that the virus behaves differently in cattle compared to other mammals.

Further investigations revealed that the mammary glands of cows (where milk is produced) have a high expression of certain receptors that both human and bird flu viruses can attach to. These receptors are distributed across the mammary gland but not in other parts of the gland. In contrast, the cow's respiratory tract mostly expressed receptors commonly associated with bird flu.

The presence of both human and bird flu receptors in cows' mammary glands suggests that cows could play a role similar to pigs in the evolution of the flu virus. Pigs are known as "mixing vessels" for flu viruses because they can host both avian and human flu viruses, which can exchange genetic material and potentially lead to new flu strains that



| Clear your doubts now.

might infect humans more easily. The study suggests that similar processes could occur in cows, making them a new point of interest for studying flu virus evolution and transmission between birds and humans.

### **Key Takeaways**

- **New Host for H5N1:** Cattle, traditionally not considered susceptible to influenza A viruses, have been found to host the H5N1 virus in significant numbers across the U.S.
- **Virus Detection in Milk:** The H5N1 virus has been detected in high concentrations in the milk of infected dairy cattle, suggesting a unique path of infection and virus behavior in cattle.
- **Receptor Expression:** Cows have a high expression of both human and bird flu receptors in their mammary glands, making them potential hosts for the virus and facilitators of genetic mixing between human and bird flu viruses.
- **Potential Risks:** The presence of flu receptors in the mammary glands of cows indicates that cattle, like pigs, could serve as "mixing vessels" for the creation of new influenza A virus strains with zoonotic potential, meaning they could be transmitted to humans.
- **Implications for Public Health:** Understanding how influenza viruses adapt and spread in new hosts like cattle is crucial for preventing future outbreaks and managing zoonotic disease risks.

## **The Karnataka HC ruling on EPF benefits- The Hindu FAQ**

Polity

### **Explained in Easy Language**

The Karnataka High Court recently made a significant ruling regarding the inclusion of foreign workers in India's Employees' Provident Fund (EPF), which is a key part of the country's social security system. The court struck down a 15-year-old law amendment that required foreign workers in India to contribute to the EPF, calling it "unconstitutional and arbitrary." This law had made it mandatory for expatriates working in India for at least six months to contribute to the EPF based on their entire salary, unlike Indian workers who contribute based on a capped salary limit of ₹15,000 per month.

Social Security Agreements (SSAs) are deals between two countries that ensure workers don't have to contribute to social security programs in both countries simultaneously, preventing what is known as double coverage. India has such agreements with 21 countries, which help manage the pension contributions of Indian workers abroad and vice versa.

The court pointed out that the rules were unfairly treating foreign and Indian workers differently. For instance, an Indian working abroad in a country with an SSA still contributes to India's PF system based on the capped amount, whereas a foreign worker in India had to contribute based on their entire salary. The court found no valid reason for this disparity, stating it didn't align with the original purpose of the EPF legislation, which is to provide retirement security primarily for lower-income workers.

Following the court's decision, the EPFO (Employees' Provident Fund Organisation), which manages the EPF, indicated plans to appeal the decision, stressing that these special provisions for foreign workers were meant to protect the interests of Indian workers abroad. The ruling could affect how India's SSAs are implemented and might require changes to ensure that foreign workers are treated similarly to Indian workers, which could also influence foreign investment in India.

### **Key Takeaways**

- **Court Ruling:** The Karnataka High Court declared special provisions for foreign workers under the EPF scheme unconstitutional, affecting how expatriates contribute to social security in India.
- **Impact on Foreign Workers:** Previously, foreign workers had to contribute to the EPF based on their full salary without the salary cap applicable to Indian workers, which the court found discriminatory.



| Clear your doubts now.





- **Social Security Agreements (SSAs):** These agreements between countries aim to protect workers from double social security contributions. The court's decision calls into question the current framework of SSAs, especially regarding contributions from foreign workers in India.
- **EPFO's Response:** The EPFO is preparing to appeal the decision, emphasizing the need to maintain special provisions that protect Indian workers abroad. They are consulting stakeholders to address concerns and plan the next steps.
- **Broader Implications:** The decision may influence how PF authorities enforce provisions outside Karnataka and could lead to legislative changes to align the treatment of foreign and domestic workers under India's PF system. This alignment could potentially make India more attractive to foreign investors and affect international labor mobility.

### [How is India streamlining the pharma sector?- The Hindu FAQ](#)

Science

#### **Explained in Easy Language**

India's drug regulatory authority, the Central Drugs Standard Control Organisation (CDSCO), has recently made a significant change by revoking the ability of state licensing authorities to issue no-objection certificates (NOCs) for the production of unapproved, banned, or new drugs for export. This decision means that from now on, CDSCO will be the only entity responsible for issuing these manufacturing licenses.

This move comes at a time when India's pharmaceutical sector has faced international scrutiny for allegedly supplying substandard drugs that have raised health concerns in various countries. By centralizing the issuance of NOCs, the government aims to tighten controls and ensure that drugs manufactured for export meet high quality standards. India plays a major role in the global pharmaceutical market, ranking third in production volume and supplying a significant portion of the world's vaccines. This centralization is expected to impact drug manufacturers and exporters, as it could streamline processes and help India capitalize on opportunities like patent expirations that allow for the production of generic drugs.

Challenges in the sector include dealing with intellectual property rights, boosting research and development, and adapting to various external factors such as economic and legal changes. The centralization effort is seen by industry experts as a positive step towards enhancing efficiency and consistency in the pharmaceutical industry, ultimately aiming to strengthen India's position in global markets.

#### **Key Takeaways**

- **Regulatory Change:** The CDSCO has centralized the power to issue NOCs for the manufacture of certain drugs for export, previously a role held by state authorities.
- **Global Role:** India is a major player in the global pharmaceutical market, particularly in vaccine supply, with significant exports worldwide.
- **Impact of Centralization:** This move is expected to streamline the approval process for drug exports, potentially increasing efficiency and helping India's pharma industry take advantage of new market opportunities as patents expire.
- **Challenges and Industry Perspective:** The pharmaceutical industry in India faces challenges such as compliance with global manufacturing standards and adapting to international market demands. Industry leaders view the centralization as a positive development that will help formalize and improve the export process.
- **Quality Control Measures:** Recent actions, including the crackdown on companies for poor manufacturing practices, indicate a concerted effort by the government to improve drug quality and restore confidence in Indian pharmaceutical products internationally.



| Clear your doubts now.



This centralization of licensing is seen as a strategic move to better regulate the industry, ensuring that drugs exported from India meet international standards and helping to maintain India's prominent position in the global pharmaceutical market.

### [Opening the gates of hell- The Hindu Profiles](#)

International Relations

#### Explained in Easy Language

The situation in Rafah, a city in the Gaza Strip, has become dire since Israel launched a military campaign in response to an attack by Hamas on October 7, 2023. Rafah, now heavily populated with displaced Palestinians, is facing extreme conditions. The city, with a pre-war population of 170,000, now shelters about 1.5 million people, many living in makeshift camps under poor conditions.

The conflict escalated after Israel directed over a million Palestinians from northern Gaza to evacuate southward, leading many to seek refuge in Rafah. This has strained resources and heightened the risk of disease due to overcrowded living conditions. The international community, including the U.S., has voiced concerns about the humanitarian implications of Israel's plans for a full-scale invasion of Rafah, fearing significant civilian casualties. Diplomatically, there have been efforts to broker a ceasefire. Proposals facilitated by the U.S., Egypt, and Qatar involve complex negotiations, aiming for a phased de-escalation that includes the release of hostages taken by Hamas and the withdrawal of Israeli forces from Gaza. Despite these efforts, the Israeli government has resisted agreeing to a ceasefire, citing the need to achieve its objectives of dismantling Hamas and securing the release of all hostages. The tension between the strategic objectives of Israel and the humanitarian crises facing the Palestinians in Rafah has led to significant international concern and criticism, particularly regarding the potential for large-scale civilian harm.

#### Key Takeaways

- **Humanitarian Crisis:** Rafah has transformed into a massive refugee camp due to the influx of displaced Palestinians, resulting in critical living conditions and health crises.
- **Military and Diplomatic Developments:** The recent military actions by Israel in Gaza have led to significant civilian displacement and destruction. Diplomatic efforts are underway to negotiate a ceasefire, but challenges remain, particularly regarding the conditions set by both Israel and Hamas.
- **International Concerns:** The potential full-scale invasion of Rafah by Israeli forces has raised alarms internationally, with the U.S. and other global entities warning against actions that would further endanger civilian lives.
- **Political Dynamics:** Israeli Prime Minister Netanyahu faces internal and external pressures regarding the strategy in Gaza. While there is strong rhetoric about proceeding with military actions irrespective of international pressures, the complexity of the situation involves balancing military objectives with the growing humanitarian and political costs.
- **Potential Outcomes:** The decisions made by Israel in the coming days could significantly impact its international relationships, especially with the U.S., and shape the future political landscape in the region, especially concerning the Israeli-Palestinian conflict.

## 13th May 2024

[DECISION 1952-2019 A HISTORY OF LOK SABHA ELECTIONS PART 8-Indian Express Explained](#)

Polity



| Clear your doubts now.



## **Key takeaways**

The article provides an in-depth look at the political landscape of India during and following the 1984 Lok Sabha elections, a pivotal event in the nation's history marked by the aftermath of Prime Minister Indira Gandhi's assassination.

1. **Rajiv Gandhi's Ascension and Mandate:** After Indira Gandhi was assassinated in 1984, her son Rajiv Gandhi was thrust into the role of Prime Minister. Capitalizing on a wave of sympathy, Rajiv's Congress won a landslide victory, securing 404 of the 514 seats in the 1984 Lok Sabha elections, the only time a party surpassed the 400-seat mark.
2. **Quick Dissipation of Goodwill:** Despite the overwhelming initial support, Rajiv Gandhi's tenure as Prime Minister quickly faced challenges. His administration was marred by a significant corruption scandal involving Bofors, a Swedish arms manufacturer, which eroded public trust and led to his loss of power in 1989. The Congress party never regained a majority on its own in the Lok Sabha after that election.
3. **Political Turbulence and Opposition Dynamics:** The period saw significant political fragmentation and reorganization. Various factions emerged from the Janata Party, and new parties and alliances formed, reshaping the opposition landscape. Notably, the BJP formed the National Democratic Alliance (NDA) in 1983, although this initial alliance did not last.
4. **Violence and Electoral Controversies:** The assassination of Indira Gandhi led to horrific anti-Sikh riots, claiming thousands of lives. The subsequent election campaign saw allegations of misuse of official machinery and communal tactics, which were controversially cleared by the Election Commission.
5. **Notable Political Developments and Elections:** The elections saw prominent figures like Amitabh Bachchan and future President K R Narayanan winning seats. N.T. Rama Rao's Telugu Desam Party and the CPI(M) also made significant gains. The BJP secured only two seats, marking a low point that contrasted sharply with their later successes.
6. **Shift in Political Power and Legacy:** The 1984 elections marked a turning point, ushering in a new era in Indian politics with younger leaders and newly formed parties gaining prominence. The later years of the 1980s were characterized by political instability and the formation of coalition governments.
7. **Accords and Legislative Changes:** Rajiv's term also saw the signing of the Rajiv-Longowal Accord and the Assam Accord, aimed at resolving longstanding regional conflicts. Additionally, his government's response to the Shah Bano case by enacting legislation to override a progressive Supreme Court decision was a significant and controversial move.

This period in Indian political history was crucial for setting the stage for the subsequent decades of coalition politics, regional party empowerment, and the central role of corruption in political discourse.

## **Easy Explanation**

The 1984 Lok Sabha elections marked a significant turning point in India's political landscape, with Rajiv Gandhi ascending to power following the assassination of his mother, Prime Minister Indira Gandhi. Capitalizing on a nationwide sympathy wave, his Congress party secured an unprecedented victory, winning 404 of the 514 seats. However, Rajiv's tenure was marred by the infamous Bofors scandal, leading to a loss of public trust and his defeat in 1989, after which Congress struggled to regain a majority on its own.

The period also saw considerable political fragmentation, with the emergence of regional parties and realignments within the opposition. The anti-Sikh riots following Indira Gandhi's assassination highlighted deep-seated communal tensions, affecting national unity. Rajiv's administration faced criticism for overturning a progressive Supreme Court decision in the Shah Bano case, a move seen as a retreat from secularism.

This era reshaped Indian politics, setting the stage for coalition governments and emphasizing the influence of corruption in political discourse, defining challenges for the decades that followed.

[In their election manifestos, how India's main parties see the world-Indian Express Explained](#)



### **Key Takeaways:**

1. **Changing Foreign Policy Consensus:** India's historical consensus on foreign policy is breaking down, with divergent views among political parties, particularly evident during election campaigns.
2. **BJP's Worldview:** The BJP emphasizes India's civilizational values, economic transformation, global partnerships, and soft power. It sees India as a trusted global partner and aims to assert its influence through international alliances and initiatives.
3. **Congress's Perspective:** The Congress aims to restore India's international image, emphasizing continuity in foreign policy shaped by past leaders like Nehru. It pledges to pursue peaceful co-existence, strategic autonomy, and bilateral engagement.
4. **CPI(M) Stance:** The CPI(M) advocates for non-alignment and criticizes the BJP for aligning with US interests, emphasizing cooperation among developing countries to counter global hegemony.
5. **Neighborhood Relations:** Parties have varied approaches to neighboring countries, with the BJP focusing on its "Neighborhood First Policy" and regional parties addressing specific bilateral issues.
6. **Global South Engagement:** All parties stress solidarity with the Global South, with the BJP highlighting its role as a voice for developing countries and promoting technology cooperation.
7. **Diaspora Engagement:** Both the BJP and Congress acknowledge the importance of the Indian diaspora but provide limited space for their involvement in foreign policy.

### **Easy Explanation**

India's political landscape reflects a shifting consensus on foreign policy, evident in divergent views among major parties. The BJP celebrates India's economic and civilizational resurgence, emphasizing global partnerships and soft power initiatives. In contrast, the Congress seeks to restore India's international image based on past principles of peaceful co-existence and strategic autonomy. The CPI(M) criticizes the BJP's alignment with US interests and advocates for non-alignment and cooperation among developing nations. Despite differences, parties stress solidarity with the Global South and recognize the significance of engaging the Indian diaspora. However, manifestos offer broad principles rather than specific commitments on international issues, signaling an inward-looking perspective with limited emphasis on foreign policy specifics. Overall, India's foreign policy discourse is evolving, navigating between traditional principles and emerging global dynamics, as parties position themselves within an increasingly complex geopolitical landscape.

## **WHY KERALA TEMPLES BANNED USE OF OLEANDER FLOWERS AS OFFERINGS-Indian Express**

### **Explained**

Environment

### **Key takeaways**

1. **Oleander Ban:** Following the tragic death of a young woman from oleander poisoning, two Kerala temple boards, managing numerous temples, banned the use of oleander flowers in offerings, reflecting a proactive response to public safety concerns.
2. **Accidental Poisoning:** The woman's death was a result of accidental ingestion of oleander leaves, highlighting the need for awareness regarding the toxicity of certain plants, even those used for ornamental or religious purposes.
3. **Oleander Overview:** Oleander, also known as rosebay, is a common shrub with colorful flowers grown in tropical and subtropical regions like Kerala. Despite its ornamental use and mention in Ayurvedic texts for medicinal purposes, oleander is highly toxic due to cardiac glycosides present in all parts of the plant.
4. **Global Recognition of Toxicity:** Oleander's toxicity is well-recognized worldwide, with historical instances of its use in suicides and medicinal preparations. The ingestion of even small amounts can lead to severe symptoms such as nausea, vomiting, irregular heartbeats, and, in extreme cases, death.



| Clear your doubts now.



5. **Need for Caution:** The incident underscores the importance of caution in handling and using plants with known toxic properties, emphasizing the need for public awareness and education, particularly in regions where such plants are prevalent.

### **Easy Explanation**

Two Kerala government-controlled temple boards, managing over 2,500 temples, banned the use of oleander flowers in offerings after a 24-year-old woman died from accidental oleander poisoning. The woman chewed oleander leaves outside her home, mistaking them for something harmless. Oleander, also known as rosebay, is a shrub with colorful flowers grown for ornamental and landscaping purposes, including in Kerala. While the Ayurvedic Pharmacopoeia of India mentions oleander's use in treating skin diseases, its toxicity is well-recognized globally. The plant contains cardiac glycosides, such as oleandrin, which affect the heart and can lead to nausea, vomiting, irregular heartbeats, and even death. Despite its medicinal uses, oleander has been historically exploited for suicide and can be toxic even through inhalation of its smoke. This incident highlights the importance of awareness regarding the toxicity of certain plants and the need for caution in their use, especially in religious or cultural practices.

## **The poll promise of affordable housing-The Hindu Text and Context**

Sociology

### **Key takeaways**

1. **Housing Crisis:** India faces a significant housing shortage, with an estimated 18.78 million more houses needed according to a 2012 government report. Urban housing shortage rose by 54% from 2012 to 2018, reaching 29 million.
2. **Affordable Housing Challenge:** Affordable housing remains a challenge due to high land and construction costs, leading to a decline in its share of overall housing sales. The class in most need of affordable housing often cannot afford it without subsidies.
3. **Government Interventions:** Various housing schemes have been implemented, starting with the Indira Awaas Yojana in 1985 for rural housing. Urban housing came into focus post-2004 with programs like JNNURM, followed by Housing for All schemes launched by the Modi government in 2015.
4. **Pradhan Mantri Awas Yojana (PMAY):** PMAY consists of two wings - PMAY (Gramin) and PMAY (Urban). PMAY-U aims to provide houses for urban homelessness, but as of March 2024, it has achieved only around 67% of its target. PMAY-G targets rural housing and has completed 2.6 crore houses as of April 2024.
5. **State Initiatives:** States like Andhra Pradesh have introduced housing schemes like Navaratnalu-Pedalandariki Illu to address the housing crisis. These schemes aim to empower women beneficiaries and cater to the housing needs of the population.

Overall, while government interventions like PMAY have made progress, the housing shortage remains a pressing issue, requiring continued efforts and innovative solutions to ensure adequate housing for all segments of society.

### **Easy Explanation**

India faces a significant housing crisis with millions of homes needed to meet the demand, especially in urban areas. Despite various government interventions over the years, including schemes like the Indira Awaas Yojana and the Jawaharlal Nehru National Urban Renewal Mission, the shortage persists. The Modi government's Housing for All schemes, including the Pradhan Mantri Awas Yojana (PMAY), aim to address this issue, with separate wings focusing on rural and urban housing.

However, challenges remain in providing affordable housing, particularly in urban areas where land and construction costs are high. PMAY has made progress, but as of March 2024, it has only achieved around 67% of its urban housing target. States have also introduced their own housing schemes, such as Andhra Pradesh's Navaratnalu-Pedalandariki Illu, with a focus on empowering women beneficiaries.







The housing shortage underscores the need for continued efforts and innovative solutions to ensure adequate housing for all segments of society. Addressing this crisis requires not only government initiatives but also collaboration with the private sector and civil society to overcome challenges and provide affordable, quality housing for all.

### What is DigiLocker and does it keep your data and documents safe?-The Hindu Text and Context

Science and technology

#### **Key Takeaways:**

1. **DigiLocker Overview:** DigiLocker, launched in 2015, is a government app aimed at storing users' digital records securely. It has over 270 million registered users and has facilitated the retrieval of nearly 6.7 billion documents, including Aadhaar, insurance policies, PAN records, and driving licenses.
2. **Purpose and Usage:** DigiLocker allows users to access, verify, and store essential documents digitally, eliminating the need to carry physical copies. It aids in proving identity during travel, applying for passports, and accessing marksheets. The app aligns with the government's paper-free initiative to streamline document management.
3. **Security Measures:** DigiLocker implements standard security protocols, including RSA SSL encryption, multi-factor authentication, consent systems, timed logouts, and regular security audits. However, being a government database, it is a target for potential hackers, despite efforts to maintain strict security.
4. **Issues and Challenges:** While DigiLocker offers convenience, some users may face challenges with its usage, especially those unfamiliar with smartphones or navigating apps. Issues like inconsistent document details or variations in issuer data can hinder document retrieval. Moreover, there is inconsistency in how different government authorities accept virtual documents versus hard copies.
5. **Passport Processing:** While DigiLocker is not mandatory for passport processing, some passport offices encourage its use to expedite the application process. However, the implementation of this policy varies across regions, leading to confusion among applicants.

Overall, DigiLocker serves as a valuable tool for digital document management, but its effectiveness depends on user familiarity, consistency in document details, and the alignment of government procedures nationwide.

#### **Easy Explanation**

DigiLocker, a digital document storage platform launched by the Indian government in 2015, has gained significant traction with over 270 million registered users and nearly 6.7 billion documents retrieved through the app. It serves as a convenient solution for users to access, verify, and store essential documents digitally, aligning with the government's paper-free initiative.

Despite its widespread adoption, DigiLocker faces challenges related to user familiarity, inconsistencies in document details, and varying acceptance by different government authorities. While the platform implements standard security measures to safeguard user data, it remains a target for potential hackers.

The use of DigiLocker for administrative processes, such as passport applications, varies across regions, leading to confusion among users. While some passport offices encourage its use to expedite processes, others may still require physical copies of documents.

Overall, DigiLocker offers convenience and efficiency in document management but requires continued efforts to address usability issues, ensure data security, and achieve uniform acceptance across government agencies. Its role in streamlining administrative procedures underscores the ongoing digital transformation in India.

### This worm develops food habits and its offspring 'inherit' them-The Hindu Science

Science

#### **Key takeaways**

Here are the key takeaways from the research on *Caenorhabditis elegans* and their inherited avoidance behavior:



| Clear your doubts now.



1. **Inherited Avoidance:** *C. elegans* worms can inherit the ability to avoid a harmful bacterium, *Pseudomonas vranovensis*, from their ancestors. This avoidance behavior persists across several generations, up to the great-great-grand progeny.
2. **Mechanism of Inheritance:** The behavior is transmitted through small RNA molecules (sRNAs) from the bacteria, which alter the worms' feeding behavior. This process is facilitated by RNA interference, a biological mechanism first discovered in *C. elegans*.
3. **Generational Memory Decay:** The inherited avoidance behavior decays by the fifth generation, suggesting a natural limit to how long this acquired knowledge lasts within the worm populations.
4. **Broader Implications:** The findings prompt further investigation into whether humans could also inherit behavior modifications through sRNAs from the microbes in our own bodies, potentially affecting our behavior and that of our descendants.
5. **Scientific Significance:** This study adds to the extensive use of *C. elegans* in genetic and neurological research and underscores the worm's utility in uncovering fundamental biological processes that may also be relevant to humans.

### **Easy Explanation**

Researchers at Princeton University have discovered that the nematode *Caenorhabditis elegans* can inherit the ability to avoid harmful bacteria from their ancestors, a trait that persists for up to four generations. After consuming the disease-causing bacterium *Pseudomonas vranovensis*, these worms acquire small RNA molecules (sRNAs) that alter their feeding behavior, helping them to avoid consuming this bacterium again. This learned behavior is then transmitted to their progeny and remains effective through the great-great-grand progeny, diminishing only by the fifth generation. This study, published in the journal *PLoS Genetics*, highlights the mechanism of RNA interference, initially observed in *C. elegans*, as pivotal in this trans-generational transmission of acquired traits. These findings raise the intriguing possibility that humans might also inherit certain behavioral traits acquired from the sRNAs of microbes present in our bodies.

The research not only deepens our understanding of genetic memory and inheritance but also underscores the significant role of *C. elegans* in scientific research, which has led to several Nobel Prize-winning discoveries. This could pave the way for exploring how microbial interactions influence human behavior and health across generations.

### **[Make it farmer friendly-Indian Express Editorial](#)**

Economy

### **Key takeaways**

1. **Declining Momentum:** Agricultural exports in India have witnessed a significant decline in growth momentum, falling short of ambitious targets set by the government.
2. **Domination of Rice:** Rice holds the top position in India's agricultural export basket, followed by marine products, spices, bovine meat, and sugar.
3. **Factors Influencing Exports:** Agricultural export growth is influenced by global price dynamics and export policies, including restrictions and bans on sensitive commodities driven by domestic food inflation concerns.
4. **Lessons from Export Restrictions:** The case of rice export restrictions highlights the need for prudent policies that balance export quantities with global market dynamics to maximize export revenue.
5. **Ecological Concerns:** Issues such as groundwater depletion and resource-intensive farming practices underscore the importance of sustainable agriculture for long-term export growth.
6. **Investments for Competitiveness:** Strategic investments in research, development, and efficient farming practices are necessary to enhance productivity and global competitiveness in agricultural exports.
7. **Consumer Bias in Policies:** Existing export policies demonstrate a consumer bias, disadvantaging farmers and hindering income augmentation efforts.



| Clear your doubts now.



8. **Policy Reassessment Needed:** To revitalize agricultural exports and support farmers' livelihoods, policymakers must reassess export policies, promote sustainable farming practices, and prioritize the welfare of agricultural communities over consumer interests.

### **Easy Explanation**

The current state of agricultural exports in India reflects a significant decline in momentum, falling short of ambitious targets set by the government. Despite previous periods of robust growth, recent years have seen sluggish progress, impacting trade surplus and potential income growth for farmers.

Rice dominates India's agricultural export basket, followed by marine products, spices, bovine meat, and sugar. The growth of agricultural exports is influenced by global price dynamics and export policies. However, export restrictions and bans on sensitive commodities have hindered trade, driven by concerns over domestic food inflation.

Lessons from export restrictions on rice highlight the need for prudent policies that balance export quantities with global market dynamics. Additionally, ecological concerns, such as groundwater depletion and resource-intensive farming practices, underscore the importance of sustainable agriculture.

Addressing these challenges requires strategic investments in research, development, and efficient farming practices to enhance productivity and global competitiveness. However, existing policies demonstrate a consumer bias, disadvantaging farmers and hindering income augmentation efforts.

To revitalize agricultural exports and support farmers' livelihoods, policymakers must reassess export policies, promote sustainable farming practices, and prioritize the welfare of agricultural communities over consumer interests. Achieving true export competitiveness requires a holistic approach that balances economic growth with environmental sustainability and farmer prosperity.

### **A well-intentioned study and a demographic myth-The Hindu Editorial**

Sociology

#### **Key takeaways**

The Prime Minister's Economic Advisory Council (PM-EAC) report on the status of religious minorities in India, particularly Muslims, has stirred debate by using outdated data to address concerns about population growth among Muslims.

1. **Report Overview:** The PM-EAC report aims to reassure that minorities, especially Muslims, are safe and not discriminated against in India. However, its reliance on old data and highlighting demographic statistics, such as a significant increase in the Buddhist population and the Total Fertility Rate (TFR) decline among Muslims, has sparked controversy.
2. **Demographic Concerns:** The report appears in the context of ongoing narratives about the rapid growth of the Muslim population posing a threat to the Hindu majority. This idea has been historically used to fuel communal tensions, despite demographic data showing that fears of Hindus becoming a minority are unfounded.
3. **Political and Social Implications:** The report is used politically to counter claims of discrimination against Muslims and to refute the notion of a so-called "population jihad". It argues that if Muslims were facing state-supported difficulties, their population would not be growing.
4. **Fertility Rates and Education:** High fertility rates among Muslims are highlighted as indicative of social and economic disadvantages rather than a demographic threat. The report and other demographic studies suggest that with improved literacy and economic conditions among Muslims, particularly Muslim women, fertility rates have declined significantly.
5. **Population Policies:** Discussions around population control laws and policies are critiqued in the report. Historical and current approaches favor socio-cultural interventions like education and healthcare over coercive measures, aligning with international human rights standards that India has committed to.





6. **Future Demographics:** Projections indicate that both Hindu and Muslim populations in India are stabilizing, with fertility rates approaching or below replacement levels. This trend suggests a future where fears of major demographic shifts are less likely to materialize.

In summary, while the PM-EAC report is designed to dispel myths about minority endangerment in India, its methods and data usage have themselves become points of debate. The broader narrative contests the politicization of demographic data and emphasizes the need for policy focus on education and economic empowerment to address real issues faced by minorities.

### **Easy Explanation**

The Prime Minister's Economic Advisory Council (PM-EAC) report on the status of religious minorities in India has sparked debate by using outdated data to discuss the growth of the Muslim population. Intended to reassure that minorities are safe and not discriminated against, the report instead highlighted demographic changes, feeding into the narrative of a demographic threat and sparking controversy.

Critics argue that the report oversimplifies minority experiences by suggesting that an increasing Muslim population is evidence of their well-being, ignoring more pressing socio-economic issues. The discourse also revisits the myth of Hindus becoming a minority, despite demographic trends showing a stable Hindu majority.

The report opposes coercive population control measures, advocating for socio-cultural solutions like improved education and healthcare, particularly for Muslim women, to naturally reduce fertility rates. Overall, while aiming to dispel myths about minority endangerment, the report's approach and data usage have themselves become points of debate.

**14th May 2024**

[India's stakes in Chabahar-Indian Express Explained](#)

International relations  
**Easy Explanation**



| Clear your doubts now.





India's long-term contract with Iran to operate a terminal at the Chabahar Port marks a significant step in India's strategic and economic vision for Central Asia and beyond. The port, located in Iran's Sistan-Baluchistan province,

offers India direct access to Afghanistan, circumventing Pakistan. Chabahar's development has faced numerous challenges, including geopolitical tensions and delays due to India's alignment with US policies. However, the project gained momentum post-2015, with significant investments and infrastructure developments by India. The port is a key component of the International North South Transport Corridor (INSTC), which aims to connect India with Central Asia, Russia, and Europe through multimodal transport routes. Despite complications from the Russia-Ukraine war, the INSTC remains a crucial element of India's connectivity strategy.

India's commitment to Chabahar is also driven by the need to counter China's Belt and Road Initiative, highlighting the port's importance in regional geopolitics.



The strategic and economic importance of Iran's Chabahar port will be greatly enhanced by its integration with the planned INSTC corridor (in red).

### Key Takeaways

#### 1. Strategic Importance:



The strategic and economic importance of Iran's Chabahar port will be greatly enhanced by its integration with the planned INSTC corridor (in red).

- Chabahar Port in Iran is critical for India's strategic and economic ambitions in Central Asia and beyond.
  - The port provides a direct route to Afghanistan, bypassing Pakistan.
- #### 2. Long-term Contract:
- India and Iran signed a 10-year contract for the operation of a terminal at Chabahar Port.
  - India Ports Global Ltd (IPGL) will invest \$120 million to equip and operate the port.
  - India has offered a \$250 million credit line for infrastructure projects related to the port.
- #### 3. Historical Context:



| Clear your doubts now.





- Initial discussions on Chabahar began in 2002, but the project faced delays due to India's growing ties with the US and sanctions on Iran.
  - Significant progress was made after 2015 following the Iran nuclear deal framework.
4. Recent Developments:
    - Since 2018, IPGL has operated the port, handling substantial cargo and humanitarian aid.
    - India has provided cranes and other equipment worth \$25 million.
  5. Chabahar and INSTC:
    - Chabahar is part of the International North South Transport Corridor (INSTC), linking India with Central Asia, Russia, and Europe.
    - The INSTC involves multimodal transport routes through Iran to the Caspian Sea and further to Europe.
    - The war in Ukraine has complicated the future of the INSTC.
  6. Geopolitical Dynamics:
    - The project aligns with India's need to counter China's Belt and Road Initiative.
    - US sanctions and diplomatic dynamics have historically impacted the project, but India secured waivers to continue development.

### XENOTRANSPLANTATION-Indian Express Explained

Science

#### Easy Explanation

Xenotransplantation, the process of transplanting living cells, tissues, or organs from one species to another, represents a significant advancement in addressing the shortage of human donor organs. Recently, the first recipient of a pig kidney transplant died two months post-surgery, though the death was not attributed to the procedure. This highlights both the promise and the challenges of xenotransplantation.

Pig organs are preferred due to their anatomical and physiological similarities to human organs, and their ease of breeding. Genetic modifications using technologies like CRISPR-Cas9 are essential to make pig organs compatible with human bodies by reducing immune rejection. However, recipients must take immunosuppressants, which increase their vulnerability to infections and complications.

Despite the potential risks, xenotransplantation could bridge the gap between the high demand for organ transplants and the limited supply of human donors. It also opens possibilities for treating certain neurodegenerative disorders and diabetes with animal cells and tissues. Continued research and advancements in genetic modification and immunosuppressive strategies are crucial to making xenotransplantation a viable and safe option for patients in need of organ transplants.

#### Key Takeaways

1. Definition:
  - Xenotransplantation refers to the transplantation of living cells, tissues, or organs from one species to another, particularly from animals to humans.
2. Recent Case:
  - The first person to receive a pig kidney died two months after surgery, though the death was not directly linked to the transplant.
3. Procedure:
  - Animal organs undergo genetic modifications to prevent rejection by the human body.
  - CRISPR-Cas9 gene-editing technology is used to modify pig genes and improve organ compatibility.
4. Use of Pigs:
  - Pigs are anatomically and physiologically similar to humans.
  - They can be bred easily and cost-effectively.



| Clear your doubts now.



- Pigs have been used for over 50 years for heart valve replacements.
5. Complications:
- Ensuring the human body does not reject the transplanted organ is a major challenge.
  - Patients need immunosuppressants, increasing vulnerability to diseases.
  - Transplanted organs may carry infectious agents, posing risks of disease transmission.
6. Need for Xenotransplantation:
- There is a significant shortage of donor organs compared to the number of patients needing transplants.
  - Xenotransplantation could help bridge this gap and provide new treatment options for certain diseases.

### [Pain from Pak's economic crisis:why are traders protesting in PoK?-Indian Express Explained](#)

International relations

#### Easy Explanation

Recent protests in Pakistan Occupied Kashmir (PoK) have erupted due to economic distress and perceived discrimination, fueled by the collapse of trade with India and soaring inflation. Led by traders' organizations, these demonstrations underscore broader economic challenges within Pakistan, including high inflation and stagnant growth. The cessation of trade with India has disproportionately affected PoK's economy, intensifying grievances against Islamabad's perceived neglect.

Allegations of unfair resource allocation and power distribution have further fueled discontent among PoK's populace, highlighting the failure of the Islamabad government to address these economic concerns adequately. The protests emphasize the pressing need for significant reforms and international support to stabilize Pakistan's economy and promote equitable development across its regions, including PoK.

To address these issues, Islamabad must enact meaningful reforms and engage constructively with regional stakeholders, such as India, to ease trade tensions and promote stability. Prioritizing socio-economic development in PoK and ensuring fair resource distribution are essential steps for the government to take.

These protests serve as a reminder of the urgency for Islamabad to address socio-economic disparities and work towards sustainable solutions for inclusive growth and stability in PoK and beyond.

#### Key takeaways

1. Protests in PoK: Recent protests in Pakistan Occupied Kashmir (PoK) stem from economic distress and perceived discrimination, exacerbated by trade tensions with India and soaring inflation.
2. Traders' Grievances: Led by traders' organizations, the demonstrations highlight broader economic challenges within Pakistan, including high inflation and stagnant growth.
3. Impact of Trade Cessation: The collapse of trade with India has disproportionately affected PoK's economy, intensifying grievances against Islamabad's perceived neglect.
4. Allegations of Discrimination: Allegations of unfair resource allocation and power distribution have further fueled discontent among PoK's populace, highlighting the failure of the Islamabad government to address economic concerns adequately.
5. Need for Reforms: The protests underscore the pressing need for significant reforms and international support to stabilize Pakistan's economy and promote equitable development across its regions, including PoK.

### [An overview of the Smart Cities Mission-The Hindu Text and Context](#)

Sociology

#### Easy Explanation

The Smart Cities Mission (SCM), initiated by the NDA-1 government, aimed to transform urban centers into technologically advanced hubs for improved living standards. However, the mission encountered numerous challenges



| Clear your doubts now.

and criticisms. Initially defined as integrating communication networks akin to Silicon Valleys, the SCM lacked a clear and universally accepted definition of a smart city.

With a focus on area-based development and ICT-driven solutions, the SCM aimed to address urban challenges comprehensively. However, its implementation faced setbacks, as evidenced by a reduction in total project outlay and incomplete projects. Moreover, the selection process, targeting only 1% of a city's area, was criticized for its exclusionary nature, failing to address broader urban issues effectively.

One major criticism was the misalignment of SCM's governance structure, particularly the Special Purpose Vehicle (SPV) model, with the 74th Constitutional Amendment, leading to objections from various cities and stakeholders. Furthermore, SCM's infrastructure development overlooked existing water channels and contours, exacerbating urban flooding issues.

Overall, the SCM highlighted the need for a more inclusive and holistic approach to urban development in India, addressing diverse urban realities and stakeholders' needs comprehensively. Despite its ambitious goals, the SCM's challenges underscored the complexities of urban governance and the imperative for adaptable and responsive policies in addressing urban issues.

### **Key takeaways**

1. **Smart Cities Definition:** Initially envisioned as technologically advanced urban centers resembling Silicon Valleys, smart cities integrate various communication networks and infrastructure to enhance urban living.
2. **SCM Status:** The Smart Cities Mission (SCM) faces implementation challenges, with only a fraction of planned projects executed and a reduction in total project outlay, highlighting operational difficulties.
3. **Exclusionary Nature:** SCM's selection process, focusing on developing only 1% of a city's area, disregards the dynamic urban realities of India, resulting in an exclusionary approach that fails to address broader urban issues comprehensively.
4. **Alignment with Constitutional Amendment:** SCM's governance structure, particularly the Special Purpose Vehicle (SPV) model, lacks alignment with the 74th Constitutional Amendment, leading to objections from various cities and stakeholders.
5. **Consequences and Criticisms:** SCM's implementation has led to the displacement of marginalized communities, disruption of urban commons, and increased urban flooding, highlighting shortcomings and criticisms of the mission's approach.
6. **Infrastructure Development:** The focus on infrastructure projects within SCM overlooks existing water channels and contours, exacerbating urban flooding issues and environmental concerns.
7. **Need for Holistic Urban Development:** Criticisms and challenges facing the SCM underscore the necessity for a more inclusive, holistic approach to urban development in India, addressing diverse urban realities and stakeholders' needs comprehensively.

### **What is the legal position on live-in relationships?-The Hindu Text and Context**

Polity

#### **Easy Explanation**

The Lucknow bench of the Allahabad High Court recently ruled that a Muslim cannot assert rights in a live-in relationship if they have a living spouse, citing it as contrary to Islamic tenets. This judgment was made during a writ petition by Sneha Devi and Mohammed Shadab Khan seeking protection from a kidnapping case filed by Devi's parents against Khan. The court emphasized that Article 21 of the Constitution, protecting life and personal liberty, cannot unconditionally support such relationships, particularly when one party is already married.

Previous court orders have also grappled with the complexities of live-in relationships. The Punjab and Haryana High Court asserted that couples cohabiting without divorcing their previous spouses cannot be classified as in a "live-in relationship" akin to marriage, potentially constituting bigamy. India lacks specific legislation addressing live-in partnerships, but the Supreme Court has recognized them as part of the right to life. Judicial precedents suggest that



| Clear your doubts now.



when a man and woman live together long-term, even without marriage, their relationship is presumed marital, subject to applicable laws.

In summary, the legal landscape on live-in relationships in India remains nuanced, with courts balancing constitutional rights, social norms, and legal principles in adjudicating cases involving such arrangements.

### **Key takeaways**

1. Allahabad High Court ruled that Muslims cannot claim rights in a live-in relationship if they have a living spouse, citing it as contrary to Islamic tenets.
2. The court emphasized that Article 21 of the Constitution does not unconditionally support such relationships, particularly when one party is already married.
3. Previous court orders, including one from the Punjab and Haryana High Court, have grappled with the complexities of live-in relationships, particularly regarding the marital status of the partners.
4. India lacks specific legislation addressing live-in partnerships, but the Supreme Court has recognized them as part of the right to life.
5. Judicial precedents suggest that when a man and woman cohabit long-term, even without marriage, their relationship is presumed marital, subject to applicable laws.

## **India's population data and a tale of projections and predictions-The Hindu Text and Context**

Sociology

### **Easy Explanation**

Recent studies, including one by the Institute for Health Metrics and Evaluation (IHME), project that India's population will peak mid-century and then sharply decline. The UN estimates a population of 1.64 billion by 2050, while IHME projects 1.61 billion by 2048, diverging significantly by 2100 with IHME predicting a decline to 1.09 billion or even 724 million.

This demographic shift is driven by a sharp reduction in fertility rates, which have dropped from nearly six children per woman in the 1950s to 2.2 today. Socio-economic transformations since the 1990s, such as decreased reliance on agriculture and increased educational enrollment, have influenced this decline. Aspirational parents now focus on investing more in fewer children.

Despite these changes, public discourse often relies on outdated language, focusing on high fertility rates among specific groups or regions. This underscores the need for accurate demographic data and projections to inform policy. Strengthening health and family welfare systems to provide adequate contraception and reproductive health services is essential to support individuals' reproductive choices and continue the trend of declining fertility.

### **Key Takeaways**

1. Population Projections:
  - The UN projects India's population to be 1.64 billion by 2050, while IHME projects 1.61 billion by 2048.
  - By 2100, the UN predicts 1.45 billion, and IHME predicts a sharp decline to 1.09 billion, possibly as low as 724 million.
2. Fertility Decline:
  - India's fertility rate has dropped significantly from nearly six children per woman in the 1950s to 2.2 today.
  - Factors include socio-economic changes and increased aspirations, leading parents to invest more in fewer children.
3. Family Planning Policies:
  - Despite past emphasis, family planning has lost primacy in policy discourse.
  - The Cairo conference in 1994 led to abandoning coercive family planning targets.
4. Socio-Economic Transformation:





- Economic changes since the 1990s, including reduced reliance on agriculture and increased educational enrollment, have influenced fertility rates.
  - Aspirational parents now invest more in fewer children, emphasizing quality over quantity.
5. Public Discourse:
- Discussions on fertility rates often use outdated language, focusing on high fertility among certain groups or regions.
  - There is a need to align public discourse with current demographic realities.
6. Data and Projections:
- IHME projections rely heavily on current contraceptive use data, potentially underestimating future fertility rates.
  - Accurate data collection and projection models are crucial for reliable forecasts.
7. Policy Recommendations:
- Strengthening the health and family welfare system to provide adequate contraception and reproductive health services is essential.
  - Ensuring individuals can have the desired number of children will support continued fertility decline.

### Semal trees are being wiped out in Rajasthan due to Udaipur's Holi-The Hindu Science

Environment

#### Easy Explanation

In Udaipur, the tradition of using semal trees (*Bombax ceiba* L.) for the Holika Dahan bonfire during Holi has led to significant ecological and legal concerns. Despite the tree's ecological importance, providing resources and habitat for wildlife and tribal communities, large quantities of semal are cut annually, violating the Rajasthan Forest Act 1953 and the Forest (Conservation) Act 1980. The commercial exploitation of semal, with prices ranging from ₹500 to ₹1,500 per tree, has led to its decline and disruption of the forest ecosystem.

Conservation efforts, led by Dr. Vartika Jain, focus on raising awareness about the semal tree's importance and advocating for alternative practices during Holi celebrations. Dr. Jain's Semal Conservation Mission has been working since 2008 to protect the species through educational campaigns and planting initiatives. However, the urban demand for semal trees, driven by Holi festivities, continues to challenge conservation efforts.

The widespread cutting of semal trees not only affects the local biodiversity but also highlights the need for sustainable practices and better enforcement of conservation laws. Awareness and action at the urban level are crucial to preserving this ecologically valuable species.

#### Key Takeaways

1. Holi Tradition:
  - The semal tree (*Bombax ceiba* L.) is central to the Holika Dahan bonfire during Holi celebrations in Udaipur. Traditionally, the debarked stem or branch of a semal tree is used as the main pillar for the bonfire, leading to its widespread cutting.
2. Ecological Importance:
  - The semal tree is ecologically significant, providing essential resources and habitat for a variety of wildlife, including insects, birds, and mammals. It supports the ecosystem by offering food, shelter, and breeding sites for species such as rock bees, moth larvae, and sparrows.
3. Legal Violations:
  - The practice of cutting semal trees for Holika Dahan contravenes several laws, including the Rajasthan Forest Act 1953 and the Forest (Conservation) Act 1980. Despite these protections, enforcement has been inadequate, leading to ongoing illegal felling.
4. Conservation Efforts:







- Dr. Vartika Jain, through her Semal Conservation Mission, has been actively advocating for the protection of semal trees. Efforts include raising public awareness, publishing articles, distributing educational materials, and planting over 500 semal trees in and around Udaipur.

#### 5. Commercial Exploitation:

- In southern Rajasthan, semal trees are harvested and sold in Udaipur for prices ranging from ₹500 to ₹1,500 per tree, depending on size. This commercial exploitation is driven by the high demand for Holi celebrations, putting significant pressure on the species.

#### 6. Impact on Forests:

- The extensive cutting of semal trees has led to a noticeable decline in their population, disrupting the forest ecosystem. This decline affects various species that rely on the semal for food and habitat, contributing to broader ecological imbalances.

#### 7. Urban Demand:

- The demand for semal trees is predominantly driven by urban areas, especially for Holi festivities. Urban residents' lack of awareness about the ecological impact of this tradition exacerbates the problem. Conservation efforts emphasize the need for alternative practices and increased awareness to reduce this demand.

### Finally, rocky planet with atmosphere found 41 light years away-The Hindu Science

#### Science

##### Easy Explanation

Astronomers have discovered a rocky exoplanet, 55 Cancri e (Janssen), located 41 light-years away in the constellation Cancer, with a substantial atmosphere. This "super-earth," about 8.8 times more massive than Earth, orbits very close to its host star, completing an orbit every 18 hours, resulting in a surface temperature of approximately 1,725 degrees Celsius. Infrared observations from the James Webb Space Telescope indicate an atmosphere likely rich in carbon dioxide or carbon monoxide, potentially containing water vapor and sulphur dioxide, though the exact composition and thickness remain uncertain.

The planet, probably tidally locked, always presents the same face to its star, and its host star is part of a binary system with a red dwarf. This discovery marks significant progress in exoplanet exploration, as it is the first rocky planet found with an atmosphere, pushing the boundaries of our understanding of such celestial bodies.

##### Key Takeaways

#### 1. Discovery of Rocky Planet with Atmosphere:

- Astronomers have identified a rocky exoplanet, 55 Cancri e (Janssen), with an atmosphere, located 41 light-years away in the constellation Cancer.

#### 2. Characteristics of 55 Cancri e:

- This "super-earth" is about 8.8 times more massive than Earth, with a diameter twice that of our planet.
- It has a surface temperature of approximately 1,725 degrees Celsius, making it uninhabitable.

#### 3. Orbit and Host Star:

- 55 Cancri e orbits very close to its host star, completing an orbit every 18 hours.
- The host star is part of a binary system, gravitationally bound to a red dwarf.

#### 4. Atmospheric Composition:

- The atmosphere is likely rich in carbon dioxide or carbon monoxide and may contain water vapor and sulphur dioxide.
- The thickness of the atmosphere remains unclear, potentially as thick as Earth's or even thicker than Venus's.

#### 5. Tidal Locking:





- The planet is probably tidally locked, meaning it always shows the same face to its star.
6. Significance of Discovery:
- This is the first rocky exoplanet found with an atmosphere, as previous discoveries with atmospheres were all gaseous planets.
  - The James Webb Space Telescope's observations represent a significant advancement in exoplanet exploration.

## 15th May 2024

### [New FLiRT variant of the Covid virus — should you worry?-Indian Express Explained](#)

Science

#### **Easy Explanation**

The new coronavirus variant KP.2, nicknamed FLiRT, has been linked to rising cases of Covid-19 in the US, UK, South Korea, and has been in circulation in India since November 2023. It is a sub-variant of the Omicron lineage with mutations that allow it to evade antibodies. India has reported about 250 KP.2 sequences, primarily from Maharashtra, making up 29% of its Covid-19 sequences on GISAID. While KP.2 can evade immunity from vaccines and previous infections, it does not appear to cause more severe illness than other strains. Symptoms include fever, cough, fatigue, and digestive issues, similar to earlier variants. However, due to its heightened transmission rate, it could drive a wave of infections. Preventive measures remain the same as earlier in the pandemic, focusing on social distancing, proper respirator use, and improved indoor ventilation. Current Covid-19 vaccines in India are not updated to target the KP.2 variant, making booster shots less effective.

#### **Key Takeaways**

1. New Variant Overview:
  - The KP.2 variant, nicknamed FLiRT, is a descendant of the JN.1 variant and is a sub-variant of Omicron.
  - It has two immune escape mutations, allowing it to evade antibodies.
2. Prevalence in India:
  - KP.2 has been in circulation in India since November 2023.
  - INSACOG has reported about 250 KP.2 sequences, with the highest number found in Maharashtra.
  - KP.2 made up 29% of Covid-19 sequences uploaded by India to GISAID over the last 60 days.
3. Severity and Symptoms:
  - Symptoms are similar to earlier variants, including fever, cough, fatigue, and digestive issues.
  - No current indicators suggest KP.2 causes more severe illness than other strains.
4. Transmission and Precautions:
  - KP.2 has a heightened transmission rate and may drive a wave of infections.
  - Stringent precautions are needed, especially for those with compromised immune systems and senior citizens.
5. Preventive Measures:
  - Preventive measures include social distancing, wearing well-fitting respirators (like N95s or KN95s), and increasing airflow and filtration in indoor spaces.
  - Vulnerable groups should be particularly cautious.
6. Booster Shots:
  - Current vaccines in India target the original virus variant, making additional shots unlikely to help against KP.2.



| Clear your doubts now.



- WHO advises using the JN.1 lineage for upcoming vaccine formulations, but Indian vaccines are not yet updated.

## WHAT IS GPT-4o, OPENAI'S LATEST, MOST POWERFUL AI MODEL YET-Indian Express Explained

Science and technology

### Easy Explanation

OpenAI has introduced GPT-4o, a new large language model (LLM) that is billed as the fastest and most powerful AI model so far. GPT-4o enhances human-computer interactions by allowing inputs and outputs in text, audio, and image formats, making it a significant improvement over previous models. This multimodal AI model can assist with tasks such as real-time translations and spoken conversations, and it has updated memory capabilities to learn from past user interactions.

GPT-4o is a single model trained across various modalities, unlike its predecessors that used multiple models for different tasks. This allows for a more holistic processing and understanding of inputs, including tone and emotional context in audio inputs. The model responds to queries as fast as a human, with response times between 232 to 320 milliseconds.

The introduction of GPT-4o comes amidst an intensifying AI race, with tech giants like Meta and Google also developing powerful LLMs. GPT-4o is expected to benefit Microsoft, a major investor in OpenAI, by enhancing its existing services. However, GPT-4o is still in the early stages of exploring its potential in unified multimodal interaction, with some features initially limited. OpenAI has incorporated safety measures to address risks such as cybersecurity, misinformation, and bias.

### Key Takeaways

1. Introduction of GPT-4o:
  - OpenAI introduced GPT-4o, its fastest and most powerful AI model to date, aimed at enhancing ChatGPT.
  - Unlike GPT-4, which is available only to paid users, GPT-4o will be freely available.
2. Features of GPT-4o:
  - GPT-4o is a multimodal AI model, allowing input and output in text, audio, and image formats.
  - It can assist with various tasks, such as real-time translations and spoken conversations.
  - The updated ChatGPT with GPT-4o has improved memory capabilities, learning from previous user interactions.
3. Technological Advancements:
  - GPT-4o uses a single model trained across text, vision, and audio modalities, unlike predecessors that used multiple models for different tasks.
  - It processes inputs holistically, understanding tone, background noises, and emotional context in audio inputs.
  - GPT-4o responds to queries in around 232 to 320 milliseconds, similar to human conversation speed.
4. Significance in the AI Race:
  - The AI race is heating up with Meta and Google also developing powerful LLMs.
  - GPT-4o could benefit Microsoft, which has invested in OpenAI, by embedding the model in its services like its search engine.
  - The release came just before Google's I/O developer conference, where updates to Google's Gemini AI model are expected.
5. Limitations:
  - GPT-4o is still in the early stages of exploring unified multimodal interaction, with certain features like audio outputs initially limited.





- Further development is needed for handling complex multimodal tasks seamlessly.
- OpenAI has implemented safety measures such as filtered training data and refined model behavior to address risks like cybersecurity, misinformation, and bias.

### [Heatwave & climate change-Indian Express Explained](#)

Environment

#### **Easy Explanation**

A recent study by World Weather Attribution attributes the extreme heatwaves experienced in parts of eastern and southern India in April to climate change. This is the third consecutive year that such heatwaves have been linked to climate change, highlighting the increasing impact of global warming. Heatwaves, defined by abnormalities in temperature rather than just high temperatures, are becoming more frequent, intense, and prolonged in India's northern, central, and eastern regions due to climate change.

In recent years, heatwaves have occurred even during atypical periods, such as February, which is typically a winter month in India. The outlook for this year predicted more prolonged and severe heatwaves, particularly in eastern India. Prolonged exposure to heat can have severe health impacts, including dehydration, cardiovascular and respiratory diseases, and even sudden deaths.

Mitigation measures such as heat action plans are implemented in vulnerable states, focusing on providing relief and preventing illnesses and deaths. However, more funding and stricter regulations are needed to effectively address the increasing severity of heatwaves. Data collection on heat-related illnesses and deaths is also improving but remains incomplete, highlighting the need for continued efforts to accurately assess and mitigate the impacts of heatwaves exacerbated by climate change.

#### **Key takeaways**

1. **Attribution to Climate Change:**A recent study confirms that extreme heatwaves in eastern and southern India during April are about 45 times more likely due to climate change. This highlights the urgent need to address the escalating impacts of global warming.
2. **Frequency and Intensity of Heatwaves:**Heatwaves across India are becoming more frequent, intense, and prolonged due to climate change, posing significant challenges for public health and infrastructure.
3. **Recent Heatwave Events:**Recent years have seen heatwaves occurring even during atypical periods, exacerbating challenges for vulnerable communities, particularly in eastern India.
4. **Impact on Health:**Prolonged exposure to extreme heat can lead to severe health consequences, especially for vulnerable populations, underscoring the need for improved public health interventions.
5. **Mitigation Measures:**While various mitigation measures, such as heat action plans, have been implemented, more robust funding and stricter regulations are needed to effectively address the increasing severity of heatwaves driven by climate change.

### [Ask the children-Indian Express Editorial](#)

Sociology

#### **Easy Explanation**

The Delhi High Court's recent judgment introducing the concept of "virtual touch" aims to equip minors with the knowledge to navigate online interactions safely, drawing parallels between digital and physical contact. While well-intentioned, this approach overlooks the nuanced understanding and agency of teenagers, who often educate their elders about technology and rely on peers for guidance. The judgment fails to address teenagers' inherent risk-taking behavior and the gap between awareness and action. Additionally, the Protection of Children from Sexual Offences Act, 2012 (POCSO Act) is critiqued for stigmatizing normal adolescent behavior, which discourages reporting abuse and perpetuates conditions of desire, shame, and silence. The article advocates for a more comprehensive approach to online safety education that recognizes teenagers as evolving individuals with their own agency, emphasizing the need



| Clear your doubts now.



for robust, victim-centric response systems and educational frameworks that consider the developmental realities of adolescence.

### **Key Takeaways:**

1. Concept of "Virtual Touch":
  - The Delhi High Court judgment introduces "virtual touch," equating digital interactions with physical contact, and recommends incorporating this concept into the "good touch/bad touch" education for children.
2. Teenagers' Digital Proficiency:
  - The judgment overlooks the fact that teenagers are often more digitally proficient than their parents and prefer to turn to peers and older siblings for guidance on internet-related risks.
3. Risk-Taking Behavior:
  - Teenagers are naturally inclined towards risk-taking behavior, and while they may be aware of online risks, this awareness doesn't always translate into cautious behavior.
4. Disconnect Between Awareness and Action:
  - The judgment highlights the crucial gap between knowing about online risks and taking action to avoid them, a challenge that affects both teenagers and adults.
5. Critique of POCSO Act:
  - The POCSO Act stigmatizes normal adolescent behavior, discouraging teenagers from seeking help or reporting abuse, thereby perpetuating conditions of desire, shame, and silence.
6. Need for Comprehensive Approach:
  - The article calls for a more robust and victim-centric response system and an education framework that acknowledges teenagers as active participants in their own lives, both physical and virtual, rather than just passive recipients of adult guidance.

### **Misreading America's lines-Indian Express Editorial**

International relations

### **Easy Explanation**

The article challenges the notion that American foreign policy is primarily driven by a mission to spread political liberalism. It argues that while there is significant debate about Indian democracy in the West, particularly regarding its perceived backsliding, American interests are primarily defined by economic and security concerns rather than ideological missions.

The author highlights the ongoing US domestic debates, including the upcoming general election, geopolitical tensions with China and Russia, and the war in Gaza, which have significant implications for global politics. Despite these critical issues, Indian media often overlooks them in favor of focusing on perceived US interference in Indian affairs.

Furthermore, the article criticizes the Western media's coverage of Indian elections and the discourse on Indian democracy. It argues that Western narratives often overlook geopolitical realities and prioritize ideological agendas over pragmatic foreign policy objectives.

### **Key takeaways**

1. American Foreign Policy Complexity: The article challenges the simplistic view that American foreign policy is solely driven by a mission to spread political liberalism globally.



| Clear your doubts now.





2. **Geopolitical Realities:** Amidst ongoing domestic debates and tensions with countries like China and Russia, the article underscores the significant implications of these factors for global politics.
3. **Media Critique:** Criticizing sensationalism in both Indian and Western media, the article calls for more nuanced reporting that considers broader geopolitical realities rather than simplistic narratives.
4. **Domestic Focus:** Emphasizing the importance of addressing internal challenges, the article suggests that the battle for Indian democracy primarily lies within the country itself.
5. **Role of Rhetoric vs. Reality:** It highlights the disparity between rhetoric and reality in foreign policy, suggesting that geopolitical contingencies and commercial interests often outweigh political values in shaping US engagement with the world.
6. **Need for Substantive Analysis:** The article advocates for a shift towards substantive analysis in media coverage and policymaking, focusing on internal issues rather than external perceptions or interference.

### On the importance of regulatory sandboxes in artificial intelligence-The Hindu Text and Context

Science and technology

#### **Easy Explanation**

Regulatory sandboxes have become pivotal instruments in evaluating and regulating AI innovations globally. As AI technologies continue to advance, concerns surrounding ethical implications, data privacy, and potential risks have prompted governments and regulatory bodies to adopt innovative approaches. These sandboxes provide a controlled environment for experimentation within defined time frames, offering insights into AI capabilities, limitations, and potential societal impacts. Globally, countries like India are embracing regulatory sandboxes to strike a balance between fostering AI innovation and ensuring responsible development. By fostering collaboration between regulators, industry players, and stakeholders, these sandboxes play a crucial role in shaping effective and adaptive regulatory frameworks for AI, positioning nations at the forefront of responsible AI governance.

#### **Key Takeaways:**

1. **Regulatory Sandboxes in AI Governance:**
  - Regulatory sandboxes are instrumental in evaluating AI innovations within defined time frames under regulatory oversight, fostering responsible AI development while promoting innovation.
2. **Global Adoption of Regulatory Sandboxes:**
  - Various countries, including India, the UK, and Spain, have implemented or proposed regulatory sandboxes to assess AI innovations across industries, highlighting their global significance in AI governance.
3. **Benefits of Regulatory Sandboxes:**
  - Regulatory sandboxes provide a controlled environment for experimentation, offering insights into AI capabilities and limitations, promoting transparency, accountability, and responsible innovation.
4. **AI Regulation Trends Globally:**
  - Globally, there is a competitive race to regulate AI, with the EU, US, UK, China, and Singapore adopting various approaches to harness AI's potential while addressing ethical and societal concerns.
5. **India's Approach to AI Regulation:**
  - India has outlined a national strategy for AI and proposed the Digital India Act, emphasizing economic ambitions, ethical considerations, and societal welfare in regulating AI.
6. **Role of Regulatory Sandboxes in India:**





- In India, regulatory sandboxes are envisioned as preparatory measures preceding formal legislation, fostering collaboration between regulators, industry players, and stakeholders to shape effective regulatory frameworks for AI.

### [More solar storms brewing after last week's aurorae as Sun 'wakes up' -The Hindu science](#)

Science

#### **Easy Explanation**

The recent surge in aurorae, visible even in non-polar regions like Ladakh, signifies increased solar activity as the Sun nears the peak of its 11-year cycle. Solar events, such as coronal mass ejections (CMEs), can induce geomagnetic storms on Earth, posing risks to technological infrastructure and necessitating early warnings from organizations like the Center of Excellence in Space Sciences India (CESSI). Despite efforts to forecast solar storms, including instruments like Aditya-L1, accurate prediction remains challenging due to the complexity of solar phenomena. The 2003 event serves as a reminder of the significant impact of solar activity on Earth's magnetic field and technology-dependent systems. Continued research and collaboration in solar physics are essential for advancing our understanding and management of solar events and their implications for Earth.

#### **Key takeaways**

1. Solar activity is increasing as the Sun approaches the peak of its 11-year cycle, evidenced by heightened aurorae visible even in non-polar regions like Ladakh.
2. Coronal mass ejections (CMEs) from the Sun can trigger geomagnetic storms on Earth, posing risks to technological infrastructure and necessitating early warnings from organizations like the Center of Excellence in Space Sciences India (CESSI).
3. Despite efforts to forecast solar storms using instruments like Aditya-L1, accurate prediction remains challenging due to the complexity of solar phenomena.
4. The 2003 solar event serves as a reminder of the significant impact of solar activity on Earth's magnetic field and technology-dependent systems.
5. Continued research and collaboration in solar physics are crucial for advancing our understanding of solar events and their implications for Earth's technology and society.

### [Young people fade away when there is no vision-The Hindu Editorial](#)

Sociology

#### **Easy Explanation**

The prevalence of suicides among young people in India, particularly in Kota, Rajasthan, due to the stress of competitive entrance examinations, underscores a pressing societal issue. The focus on academic success often neglects the well-being of students, leading to tragic consequences. The rise of coaching institutes exacerbates the pressure on students, compromising their holistic development and social skills.

Efforts to reform entrance examinations, such as the introduction of the Common University Entrance Test (CUET), aim to address these issues but face challenges. The overemphasis on exam scores undermines the importance of holistic education and personal talents. Instead, there should be a balanced approach that includes personal interviews to assess students' abilities beyond academic achievements.

Investing in the improvement of government schools and recruiting quality teachers is essential to provide a strong educational foundation. Additionally, fostering a supportive environment that values students' well-being over academic performance is crucial for preventing further tragedies.

Ultimately, policymakers, educators, and parents must prioritize the mental health and overall development of young people to prevent further loss of life and ensure a brighter future for the next generation.

#### **Key takeaways**



| Clear your doubts now.



1. Suicides among young people, particularly in Kota, Rajasthan, due to the stress of competitive entrance exams, highlight a serious societal issue in India.
2. The intense pressure from academic expectations, exacerbated by coaching institutes, compromises students' mental well-being and holistic development.
3. Reforms like the Common University Entrance Test (CUET) aim to address issues in the examination system but face challenges in implementation.
4. There is a need to shift focus from exam scores to holistic evaluation, including personal interviews, to assess students' abilities accurately.
5. Strengthening government schools and prioritizing students' mental health over academic achievements are crucial steps to prevent further tragedies.
6. Policymakers, educators, and parents must prioritize students' well-being to ensure a brighter future for the younger generation.

## 16th May 2024

### [Why SC said News Click founder's arrest illegal, why bail is significant-Indian Express Explained](#)

Polity

#### **Easy Explanation**

The Supreme Court's ruling to release NewsClick founder-editor Prabir Purkayastha emphasized the importance of due process and proper procedure, even in terror cases. Purkayastha's arrest was deemed illegal because the police failed to inform him of the grounds for his arrest before taking him into custody. Purkayastha was arrested early on October 3, 2023, by Delhi Police's Special Cell under the Unlawful Activities (Prevention) Act (UAPA), alleging pro-China propaganda. His remand hearing was held without prior notice to his lawyers, and discrepancies in the remand order indicated procedural misconduct. The Supreme Court highlighted the necessity of adhering to constitutional protections, such as informing the arrested person of the grounds of arrest, as mandated by Article 22(1) of the Constitution. This ruling is significant given the high bar for bail in cases under stringent laws like UAPA and PMLA.

#### **Key Takeaways:**

1. **Emphasis on Due Process:** The Supreme Court underscored the importance of following proper legal procedures and due process, even in cases involving serious charges like terrorism.
2. **Grounds of Arrest:** The police must inform the arrested person of the grounds of their arrest at the time of taking them into custody, as mandated by the Constitution.
3. **Procedural Misconduct:** The remand order for Purkayastha showed signs of post-facto additions, indicating procedural misconduct.
4. **Constitutional Protections:** Article 22(1) of the Constitution protects individuals against arbitrary arrest and ensures they are informed of the grounds of arrest and have the right to legal counsel.
5. **High Bar for Bail:** In cases under stringent laws like UAPA, the bar for granting bail is very high, making adherence to procedural safeguards even more critical.
6. **Supreme Court Precedent:** The ruling in Purkayastha's case aligns with the Supreme Court's stance in similar cases, reinforcing the need for written grounds of arrest to be provided to the arrested person.

### [NAKBA-Indian Express Explained](#)

International relations

#### **Easy Explanation**



| Clear your doubts now.



Nakba, meaning "Catastrophe" in Arabic, refers to the mass displacement of Palestinians in 1948 due to the creation of Israel. Palestinians observe May 15 as Nakba Day. Jewish migration to Palestine increased in the late 19th and early 20th centuries, facilitated by British support and leading to significant demographic changes. The UN's 1947 partition plan, which allocated 55% of Palestine to a Jewish state, was rejected by Arabs, leading to conflict. Zionist militias expelled around 711,000 Palestinians, a tragedy remembered as the Nakba.

Dispossession continued after the 1967 Arab-Israeli War, with Israel occupying additional territories and displacing another 430,000 Palestinians. Today, Israel controls about 80% of historical Palestine, with ongoing settlement expansion and restrictions on refugee returns exacerbating the conflict.

#### **Key Takeaways:**

1. **Nakba Significance:** The Nakba, or "Catastrophe," marks the mass displacement of Palestinians in 1948 with the creation of Israel. Observed on May 15, it symbolizes the enduring plight of Palestinian refugees.
2. **Jewish Migration:** Significant Jewish migration to Palestine occurred in the late 19th and early 20th centuries, facilitated by British support. By 1945, the Jewish population had increased substantially, creating tensions with the Arab population.
3. **UN Partition Plan:** The 1947 UN partition plan, which allocated 55% of Palestine to a Jewish state, was rejected by Arabs, leading to conflict and setting the stage for mass displacement.
4. **Mass Expulsions:** During the 1948 conflict, approximately 711,000 Palestinians were expelled from their homes, an event known as the Nakba, resulting in a large and enduring refugee population.
5. **Ongoing Dispossession:** Palestinian displacement continued after the 1967 Arab-Israeli War, with Israel occupying additional territories and displacing another 430,000 Palestinians.
6. **Israeli Control:** Israel now controls about 80% of historical Palestine, with ongoing settlement expansion and restrictions on Palestinian refugees' return, perpetuating the conflict.

#### **[More than a million in this election, here's how polling stations work-Indian Express Explained](#)**

Polity

#### **Easy Explanation**

Polling stations are central to the election process in India, where nearly 970 million electors vote at over a million polling stations. Under the Representation of the People Act, 1951, the District Election Officer is responsible for setting up these stations, ensuring they are accessible and adequately equipped.

Each polling station serves up to 1,500 electors, with provisions for smaller stations in remote areas. The layout includes separate entrances and exits, voting compartments, and assured minimum facilities such as proper lighting, seating, and drinking water. Special accommodations are made for extreme weather conditions and for Persons with Disabilities (PwD), including ramps, wheelchairs, and accessible electronic voting machines.

Access to polling stations is restricted to authorized personnel, including electors, polling officers, candidates, and observers. A polling party typically consists of a Presiding Officer and three Polling Officers, each with specific duties to ensure smooth voting. Critical polling stations, identified based on security concerns and voting patterns, receive extra security and monitoring to maintain the integrity of the election process.

#### **Key Takeaways:**

1. **Central Role of Polling Stations:** Polling stations are essential for the election process, serving nearly 970 million electors at over a million locations.
2. **Setup and Regulations:** District Election Officers (DEOs) set up polling stations as per the Representation of the People Act, 1951, ensuring accessibility and proper facilities for up to 1,500 electors per station, with smaller stations in remote areas.
3. **Facilities and Layout:** Stations have designated entrances and exits, private voting compartments, and assured minimum facilities like furniture, lighting, and signage. Separate toilets for male and female voters are also provided.



| Clear your doubts now.



4. Special Provisions for Weather and PwD: Stations in extreme weather areas have tents, fans, and drinking water. For Persons with Disabilities (PwD), stations include ramps, wheelchairs, accessible EVMs, and priority in voting lines. PwDs can use the ECI's Saksham app for assistance.
5. Access Control: Only authorized individuals, including electors, polling officers, candidates, and observers, can enter polling stations. Polling parties, consisting of a Presiding Officer and three Polling Officers, ensure smooth operations.
6. Critical Polling Stations: Stations identified as vulnerable or with unusual voting patterns receive extra security, including Central Armed Police Forces (CAPF) and Micro Observers, to maintain voting integrity.
7. Verification and Updates: Polling station lists are verified and updated annually, incorporating feedback from local political parties and citizens, and approved by the Election Commission of India (ECI).
8. Support and Security Personnel: Sector Officers, Zonal Magistrates, Booth Level Officers (BLOs), and security personnel ensure smooth election operations and assist voters. Digital photographers document key events for transparency.

### The CDS that should be-Indian Express Editorial

Internal Security

#### **Easy Explanation**

The Indian military is undergoing significant structural changes with the aim of enhancing jointness and combat efficiency through the integration of service branches into unified theatre commands. The appointment of a Chief of Defence Staff (CDS) was initiated by Prime Minister Narendra Modi in 2019, marking a major reform in India's defense organization. The role of the CDS is complex, involving leadership as a four-star general among the service chiefs, serving as Secretary to the Government in the Ministry of Defence, and acting as the principal advisor to the Defence Minister on inter-service issues.

Recently, discussions have included the potential introduction of a Vice Chief of Defence Staff and a Deputy Chief of Defence Staff to further streamline military command and enhance operational coordination. However, the process has been slow and fraught with challenges, including bureaucratic delays and the tragic death of General Bipin Rawat, the first CDS, in December 2021. The ongoing deliberations reflect a cautious approach to restructuring, influenced by diverse viewpoints from different branches of the military, particularly concerns from the Air Force.

#### **Key Takeaways:**

1. Structural Military Reforms: India is moving towards integrated theatre commands to enhance military efficiency and inter-service jointness, a shift that involves significant organizational changes.
2. Role of CDS: The Chief of Defence Staff serves multiple critical roles, balancing between military leadership and bureaucratic responsibilities within the Ministry of Defence.
3. Challenges and Delays: The implementation of new command structures and the appointment of high-level military officials have been delayed by administrative challenges and the untimely death of the first CDS.
4. Diverse Military Opinions: The restructuring efforts have had to accommodate various perspectives within the armed forces, indicating a complex consensus-building process.
5. Future Developments: Proposals for additional roles such as a Vice CDS and Deputy CDS suggest an ongoing evolution of India's military leadership structure to better address modern defense challenges.
6. National Security Implications: The restructuring is part of broader efforts to prepare the Indian military for contemporary and future security challenges, reflecting lessons learned from past conflicts and the changing global strategic environment.

This strategic shift aims to align India's military structure with those of larger global powers, where such integrated commands have been in place for decades, albeit recognizing that such transformations are intricate and time-consuming.



| Clear your doubts now.





## C THE SIGNS-Indian Express Editorial

Governance

### Easy Explanation

The Niti Aayog report highlights significant gaps in cancer detection and screening programs in India, despite government initiatives like the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Disease and Stroke. While there has been emphasis on screening for cervical, oral, and breast cancers, particularly through health and wellness centers (HWCs) under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY), the report reveals that less than 10 percent of these centers have completed one round of screening for non-communicable diseases, including cancer.

Despite successful pilot programs utilizing low-tech approaches to cancer screening, such as involving community-level workers like ASHA workers, the report indicates insufficient investment in educating and training these frontline professionals. There is a crucial need for increased awareness among ASHA workers about cancer prevention protocols and screening techniques. Additionally, working conditions for these workers need improvement. The report suggests that upgrades in training and support for frontline workers have not been adequately implemented.

### Key Takeaways:

1. **Gaps in Cancer Detection:** The Niti Aayog report underscores significant deficiencies in cancer detection and screening programs in India, despite government initiatives aimed at early detection.
2. **Underutilization of Health and Wellness Centers:** Health and wellness centers, intended to be nodal points for cancer detection under AB-PMJAY, have not effectively implemented screening programs, with less than 10 percent completing one round of screenings for non-communicable diseases, including cancer.
3. **Role of Community-Level Workers:** ASHA workers play a vital role in grassroots-level health initiatives, including cancer screening, but they lack adequate training and support. There is a need for increased awareness among ASHA workers about cancer prevention and screening.
4. **Training and Education:** The National Institute for Cancer Prevention and Research should play a central role in training frontline healthcare workers in cancer screening techniques. Online training programs could be effective in disseminating knowledge and skills among healthcare professionals.
5. **Holistic Approach Needed:** Addressing India's cancer burden requires efforts in multiple directions, including improving screening programs, enhancing frontline worker training, and increasing public awareness about cancer prevention and early detection.
6. **Government Action Required:** The Union Ministry of Health must prioritize the implementation of recommendations from the Niti Aayog report to strengthen cancer detection and screening initiatives in India.

## On Delhi's mounting waste crisis-The Hindu Text and Context

Environment

### Easy Explanation

Delhi faces a significant solid waste management (SWM) crisis, highlighted by the Supreme Court's recent criticism. With a population expected to reach 2.32 crore in 2024, the city generates approximately 13,000 tonnes of waste per day (TPD), which could increase to 17,000 TPD by 2031. Despite having waste-processing facilities with a collective capacity of about 9,200 TPD, Delhi struggles with unprocessed waste. About 3,800 TPD of waste ends up in landfills, causing environmental and health issues.

The city's waste-processing capacity needs significant scaling up to handle the increasing waste. Challenges include inadequate waste segregation at source, lack of large land parcels for processing plants, insufficient public awareness, and poor coordination among municipal bodies. To manage the waste effectively, the Municipal Corporation of Delhi (MCD) must design a comprehensive waste-management plan, focusing on both centralized and decentralized processing solutions. Biodegradable waste should be composted or used for biogas generation, while non-recyclable dry waste should be converted to refuse-derived fuel (RDF) for waste-to-energy projects.



| Clear your doubts now.



### **Key Takeaways:**

1. **Waste Generation and Processing:** Delhi generates about 13,000 tonnes of waste daily, expected to rise to 17,000 tonnes by 2031. The city's current processing capacity is inadequate, leading to significant amounts of untreated waste in landfills.
2. **Environmental Impact:** Untreated waste in landfills generates methane, leachates, and causes fires, posing serious environmental and health risks. The accumulation of legacy waste amounts to 2.58 crore tonnes over 200 acres.
3. **Challenges in SWM:** Major issues include lack of waste segregation at source, insufficient land for processing plants, public unawareness, irregular waste collection, illegal dumping, and poor coordination among stakeholders.
4. **Scaling Up Processing Capacity:** The MCD needs to enhance its waste processing capacity to handle future waste volumes, aiming for a design capacity of 18,000 tonnes per day. This includes setting up more composting and biogas plants for wet waste and waste-to-energy projects for non-recyclable dry waste.
5. **Decentralized Waste Management:** Implementing decentralized options like ward-level micro-composting centers and dry waste collection centers can manage significant portions of the waste. Collaboration with neighboring states for composting and adopting best practices can further improve efficiency.
6. **Public Awareness and Coordination:** Raising public awareness on proper waste management practices and improving coordination among municipal bodies are crucial for effective waste management in Delhi.

### **General, central obesities linked to higher risk of colorectal cancer-The Hindu Science**

Science

#### **Easy Explanation**

A recent study reveals a nuanced relationship between obesity and colorectal cancer (CRC) risk, highlighting differences in susceptibility based on body shape and genetic pathways. While obesity has long been associated with increased CRC risk, this research identifies specific subtypes of obesity, such as "generally obese" and "tall and centrally obese," that face higher risks. These findings underscore the importance of considering body shape beyond BMI for assessing CRC risk and suggest potential implications for future screening tools. Moreover, the study uncovers novel genetic variations associated with different body shapes and their respective CRC risks, offering insights into divergent physiological mechanisms underlying CRC development. Despite its strengths in leveraging large datasets, the study prompts further research into the long-term impact of body shape changes on CRC risk and the CRC risk profiles of obese individuals without other common obesity-related health conditions.

### **Key Takeaways:**

1. **Obesity and CRC Risk:** While obesity has long been linked to an increased risk of colorectal cancer, this study reveals that not all obese individuals face the same level of risk. Instead, those categorized as "generally obese" and "tall and centrally obese" are particularly susceptible.
2. **Body Shape and Genetic Pathways:** The study emphasizes the importance of considering body shape beyond BMI for assessing CRC risk. Different genetic pathways may explain how CRC develops in various obesity subtypes, shedding light on the heterogeneity of obesity-related cancer risks.
3. **Impact on Screening Tools:** Insights from this research could contribute to the development of more targeted screening tools for colorectal cancer in the future. By understanding the specific risk profiles associated with different body shapes, healthcare providers may improve early detection and intervention strategies.
4. **Distribution of Body Fat:** Traditional measures like BMI do not account for the distribution of body fat, which plays a crucial role in predicting obesity-related health outcomes. Waist circumference, hip circumference, and waist-to-hip ratio provide valuable insights into body fat distribution and associated health risks.





5. **Genetic Variations and Tissue Expression:** The study identifies novel genetic variations associated with different body shapes and their respective CRC risks. These variations show distinct tissue expressions, suggesting divergent physiological mechanisms underlying CRC development in various body shapes.
6. **Future Research Directions:** While the study provides valuable insights, further research is needed to explore how changes in body shape over time may impact CRC risk. Additionally, future studies could investigate the CRC risk profiles of obese individuals without other common obesity-related health conditions.
7. **Strengths and Limitations:** The study's strengths lie in its use of large independent datasets to support its findings. However, it does not address how changes in body shape over time may affect CRC risk, highlighting a potential area for future investigation.

### [Summer 2023 was hottest in 2,000 years, says study-The Hindu Science](#)

Geography

#### **Easy Explanation**

Recent research suggests that the summer of 2023 was not only the warmest on record but also the warmest in approximately 2,000 years, driven by intense northern hemisphere heatwaves. This conclusion, supported by analyses of meteorological records and tree ring data, underscores the unprecedented nature of recent global warming. The study indicates that summer temperatures in 2023 were significantly higher than pre-industrial averages, with the warming trend exacerbated by the El Niño climate pattern. Heatwaves associated with rising temperatures have already led to a substantial number of heat-related deaths globally, particularly in Asia and Europe. These findings highlight the urgent need for mitigation and adaptation measures to address the health and environmental impacts of extreme heat events in a warming world.

#### **Key takeaways**

1. **Unprecedented Heat:** The summer of 2023 was not only the warmest on record but also the hottest in approximately 2,000 years, according to recent research.
2. **Global Impact:** Intense heatwaves affected regions across the northern hemisphere, leading to wildfires, infrastructure damage, and strain on power grids.
3. **Scientific Evidence:** The conclusion is supported by analyses of meteorological records dating back to the mid-1800s and temperature data derived from the analysis of tree rings at nine northern sites.
4. **Warming Trend:** Summer temperatures in 2023 were significantly higher than pre-industrial averages, highlighting the dramatic impact of recent global warming.
5. **El Niño Influence:** The El Niño climate pattern amplified the heatwaves, resulting in longer and more severe heatwaves, as well as extended periods of drought.
6. **Health Impacts:** Heatwaves have already resulted in a substantial number of heat-related deaths globally, particularly in Asia and Europe, emphasizing the urgent need for adaptation and mitigation measures.
7. **Call to Action:** The findings underscore the importance of addressing the health and environmental impacts of extreme heat events through immediate action and long-term climate strategies.

**17th May 2024**

### [Draft Digital Competition Bill, and why Big Tech opposes it-Indian Express Explained](#)

Science and technology



| Clear your doubts now.

### Easy Explanation

The draft Digital Competition Bill, 2024, introduces significant regulatory changes aimed at curbing anti-competitive practices by major tech companies. Drawing inspiration from European regulations, the bill proposes an ex ante framework to prevent market abuses before they occur. This shift from the current ex post facto system aims to better address the rapidly evolving digital market landscape. Key provisions include the designation of Systematically Significant Digital Enterprises (SSDEs) and Associate Digital Enterprises (ADEs), which will face stringent restrictions to prevent practices like self-preferencing and unfair data sharing. The bill has faced substantial opposition from Big Tech due to concerns over increased compliance burdens and potential negative impacts on innovation and market dynamics.

### Key Takeaways

1. Ex Ante Framework:
  - Shifts from regulating market abuses after they occur (ex post facto) to predicting and preventing them beforehand.
  - Aims to address potential harms in the fast-evolving digital market more effectively.
2. Systematically Significant Digital Enterprises (SSDEs):
  - Designation based on turnover, market value, and user base criteria.
  - Prohibited from engaging in self-preferencing, anti-steering, and restricting third-party applications.
  - Violations can result in fines up to 10% of global turnover.
3. Associate Digital Enterprises (ADEs):
  - Designated based on their role in data sharing within tech conglomerates.
  - Subject to similar obligations as SSDEs to prevent anti-competitive practices.
4. Big Tech Opposition:
  - Concerns over significant compliance burdens and potential stifling of innovation.
  - Fears of arbitrary decision-making by the Competition Commission of India (CCI).
  - Potential negative impacts on start-ups and smaller businesses relying on data-sharing and platform access.
5. Need for Digital Competition:
  - High market barriers and dominance of a few tech giants limit new entrants.
  - Aims to create a fairer competitive environment and address surveillance-based advertising concerns.
6. Potential Outcomes:
  - Increased regulatory oversight could lead to improved market conditions for smaller competitors.
  - Risks of decreased efficiency and increased costs for major tech companies.

### [Xi, Putin, and the world-Indian Express Explained](#)

International relations

### Easy Explanation

Russian President Vladimir Putin's 19th visit to China highlights the deepening Sino-Russian relationship amid the ongoing Ukraine war. Putin and Chinese President Xi Jinping reaffirmed their "everlasting" friendship and strategic partnership during a ceremonial meeting in Beijing, marking 75 years of diplomatic ties. The West anticipates that Xi will use his influence to persuade Putin to end the conflict, but the partnership between Russia and China, established shortly before Russia's 2022 invasion of Ukraine, remains strong.

China has provided significant support to Russia, including dual-use technology critical for military operations. Despite Western pressure, Xi pledged to control the flow of such goods while maintaining strong ties with Putin. This alliance has raised concerns globally, especially for India, which relies heavily on Russian defense supplies and is engaged in a



border standoff with China. India's strategic calculations are influenced by the potential impacts of Western sanctions on Russia and the evolving Sino-Russian defense axis.

The historical context of Sino-Russian relations, evolving from Cold War rivals to strategic partners, underscores the complexities of current geopolitical dynamics. India's position is precarious as it navigates its relationships with both powers amid shifting global alliances.

### **Key Takeaways**

#### 1. Putin's Visit to China:

- Putin and Xi met at the Great Hall of the People in Beijing, signaling strong bilateral ties.
- The visit marked the 75th anniversary of diplomatic relations between Russia and China.
- Both leaders emphasized the non-opportunistic and non-antagonistic nature of their relationship.

#### 2. China-Russia Strategic Partnership:

- China and Russia signed a "no-limits" strategic partnership days before the Ukraine invasion in February 2022.
- Russia continues to rely on Chinese dual-use items, crucial for sustaining its military efforts in Ukraine.
- Despite Western concerns, Xi assured European leaders that China would control the flow of military-related goods to Russia.

#### 3. Western Concerns:

- The West, led by the US, is worried about China's support to Russia in terms of technology and logistics, which are crucial for the war effort.
- US officials have highlighted China's role in supplying dual-use items that bolster Russia's military capabilities.

#### 4. Expectations from Xi:

- The West expects Xi to use his influence to encourage Putin to end the war.
- Xi has pledged that a political settlement to the Ukraine crisis is the "right direction," while reaffirming strong Sino-Russian relations.

#### 5. Historical Context:

- The Sino-Russian relationship has evolved from rivalry during the Cold War to a strategic partnership, particularly after the West's hostile stance towards Russia post-2014 Crimea annexation.
- Economic relations form the strategic basis of their partnership, with China being Russia's biggest trading partner.

#### 6. Implications for India:

- India is wary of the China-Russia defense axis due to its heavy reliance on Russian defense supplies amidst ongoing border tensions with China.
- There are concerns about Russia becoming a "junior partner" to China and the potential impact of Western sanctions on the Russian defense industry.
- Historical instances, such as the Soviet Union's stance during the 1962 and 1971 wars, add to India's strategic calculations regarding its defense posture and alliances.

### **[WHAT THE NEW RIGHT-WING DUTCH GOVERNMENT PLANS TODO-Indian Express Explained](#)**

International relations

#### **Easy Explanation**

Dutch ultranationalist Geert Wilders and his coalition partners have agreed to form a government, focusing on stringent immigration policies, energy independence, and fiscal reforms. They plan to implement the strictest asylum policies in the EU, including opting out of common EU migration rules, limiting family reunifications, and prioritizing citizens for housing. The coalition aims to expand offshore natural gas extraction and nuclear energy production,



| Clear your doubts now.



adhering to international climate goals without additional national restrictions, and scrapping plans for a national carbon emissions tax.

In agriculture, the coalition will not force farmers to reduce livestock and will ease EU environmental regulations, making diesel cheaper for farmers and increasing highway speed limits to 130 kmph. Fiscal reforms include lowering energy and income taxes, scrapping levies on share buybacks, halving healthcare user contributions by 2027, and increasing childcare subsidies, funded by 14 billion euros in spending cuts through 2028, including a freeze on government salaries and limiting unemployment welfare to 18 months.

Internationally, the coalition will sustain support for Ukraine, legally bind defense spending to at least 2% of GDP, cut foreign development aid by 2.4 billion euros, oppose EU enlargement without fulfilling criteria, and move the Dutch embassy in Israel to Jerusalem.

### **Key Takeaways**

1. **Immigration:**The Dutch coalition plans the strictest EU asylum policies, opting out of common EU rules, limiting family reunifications, prioritizing citizens for housing, and expelling those denied asylum elsewhere. Labor migration will be curbed, with stricter regulations for recruiting agencies.
2. **Energy:**The coalition will expand offshore natural gas and nuclear energy production, adhere to international climate goals without extra national restrictions, and scrap plans for an additional national carbon emissions tax.
3. **Agriculture and Environment:**Farmers won't be forced to reduce livestock. The coalition will ease EU environmental regulations, avoid stricter domestic rules, make diesel cheaper for farmers, and increase highway speed limits to 130 kmph.
4. **Taxes and Spending Cuts:**Energy and income taxes will be lowered, levies on share buybacks scrapped, healthcare user contributions halved by 2027, and childcare subsidies increased. These will be funded by 14 billion euros in spending cuts, including a freeze on government salaries and limiting unemployment welfare to 18 months.
5. **International Stance:**The coalition will maintain support for Ukraine, legally bind defense spending to at least 2% of GDP, cut foreign development aid by 2.4 billion euros, oppose EU enlargement without full criteria, and move the Dutch embassy in Israel to Jerusalem.

### **[Reporting sick en masse has emerged as a potent tool of industrial action-Indian Express Explained](#)**

Governance

#### **Easy Explanation**

Recent disruptions in the operations of Indian airlines Vistara and Air India Express were caused by mass sick leave taken by pilots and senior cabin crew. This form of protest, known as a "sickout," is a coordinated effort by employees to call in sick en masse, leaving little time for management to respond. Sickouts have become a potent tool of industrial action, especially in the aviation sector, where critical staff roles are essential for operations. Unlike formal strikes, which are legally recognized and involve procedures and notices, sickouts are informal and swift, making them harder to manage and address.

The decline of formal strikes is attributed to weakened unions, restrictive regulations, and lack of supportive legislation, especially in the private sector. As a result, sickouts have become more common, not just in aviation but across various sectors worldwide. Sickouts are challenging for management to counter as they are often informal, making it difficult to prove malicious intent or pinpoint leaders. This trend reflects broader issues in labor relations, where employees resort to sickouts due to an inability to legally strike, particularly in essential services.

#### **Key Takeaways**

1. **Sickouts as Industrial Action:**Recent sickouts by Vistara and Air India Express staff disrupted operations by having pilots and senior cabin crew call in sick en masse. This left management little time to respond. Unlike formal strikes, sickouts are informal, swift, and harder to manage.



| Clear your doubts now.



2. **Weaker Unions and Decline of Strikes:** Strikes require formal procedures, recognized unions, and legal frameworks. Trade unions have weakened due to restrictive regulations and lack of supportive legislation. This has led to fewer formal strikes and more reliance on informal sickouts.
3. **Sickouts in Aviation and Beyond:** Sickouts are effective in sectors with critical operational roles, such as aviation, and are used when legal strikes are not possible. Examples include Amazon workers in the US during COVID-19 and public school teachers in Detroit protesting poor working conditions.
4. **Challenges for Management:** Sickouts make it difficult for management to take punitive action as proving malicious intent is challenging. Informal organization of sickouts makes it hard to identify leaders, reflecting broader labor relations issues where legal strikes are restricted.
5. **Global Trend:** Sickouts have been observed in various sectors and countries, reflecting a growing trend of using sickouts as a bargaining tool due to constraints on formal strikes.

### [A right to fairness-Indian Express Editorial](#)

Polity

#### Easy Explanation

The recent Supreme Court verdict in the Newsclick case highlights the critical importance of due process in protecting individual rights within India's legal system. Beyond procedural formalities, due process serves as a substantive safeguard against arbitrary state actions. Despite its exclusion from the final Constitution draft, the judiciary has progressively upheld its significance, particularly regarding the right to life and personal liberty. This evolution underscores a commitment to justice and the rule of law, ensuring fairness in legal proceedings.

The Court's recognition of due process emphasizes its role in upholding constitutional principles and safeguarding citizens from state overreach. Despite challenges posed by preventive detention laws, the judiciary has consistently ensured strict adherence to procedural requirements, preventing potential abuses of power. However, India grapples with stringent preventive detention laws, highlighting the need for ongoing judicial scrutiny and advocacy for individual rights.

The verdict reflects broader societal and legal dynamics, signaling a continued commitment to constitutional values amid evolving legal frameworks. By affirming due process, the judiciary reaffirms its role as a guardian of fundamental freedoms, promoting fairness and accountability in governance. This judicial stance bolsters public trust in the legal system and underscores the importance of constitutional principles in shaping India's democratic ethos.

#### Key takeaways

1. **Supreme Court Verdict:** The recent Supreme Court verdict in the Newsclick case underscores the vital significance of due process within India's legal framework.
2. **Beyond Procedure:** The ruling emphasizes that due process serves as more than just a procedural requirement, extending to substantive protection against arbitrary exercise of state power.
3. **Evolutionary Significance:** Despite its exclusion from the final Constitution draft, the judiciary has progressively upheld the importance of due process, particularly in safeguarding the right to life and personal liberty.
4. **Commitment to Justice:** The Court's recognition of due process reflects a commitment to justice and the rule of law, ensuring fairness and accountability in legal proceedings.
5. **Challenges:** India faces challenges posed by stringent preventive detention laws, highlighting the need for ongoing judicial scrutiny to prevent potential abuses of power.
6. **Guardian of Rights:** By affirming due process, the judiciary reaffirms its role as a guardian of fundamental freedoms, promoting public trust in the legal system.
7. **Constitutional Values:** The verdict underscores the importance of constitutional principles in shaping India's democratic ethos and legal landscape.





## The use of AI in drug development-The Hindu Text and Context

Science and technology

### Easy Explanation

The integration of AI in drug development is revolutionizing the traditionally expensive and time-consuming process by expediting target discovery and drug-target interaction understanding. The development begins with identifying target proteins, which are crucial biological molecules to which drugs bind. AI tools like AlphaFold 3 and RoseTTAFold All-Atom, developed by DeepMind and the University of Washington, predict the three-dimensional structures of proteins and their interactions with drugs, enhancing efficiency and accuracy. These tools employ deep neural networks and generative diffusion-based architectures to predict interactions between various biological molecules.

Despite their potential, AI tools have limitations, such as a maximum of 80% prediction accuracy and significant drops in accuracy for protein-RNA interactions. They mainly assist in target discovery, with pre-clinical and clinical phases still required. Challenges include model hallucinations due to insufficient training data and restricted access to the latest AI tool codes, limiting broader utilization.

India, with its rich history in structural biology, has potential to leverage AI in drug development but faces hurdles such as the need for large-scale computing infrastructure and skilled AI scientists. The country could lead in applying AI tools for target discovery and drug testing within its growing pharmaceutical sector.

### Key Takeaways

1. **Identifying Target Proteins:**The drug development process starts by identifying and validating target proteins, which are the biological molecules drugs bind to for therapeutic effects. Computational models are used to avoid lengthy lab experiments.
2. **AI Tools for Protein Prediction:**AI tools like AlphaFold 3 and RoseTTAFold All-Atom predict the three-dimensional structures of proteins and their interactions with drugs, significantly reducing time and increasing accuracy using deep neural networks and generative diffusion-based architectures.
3. **Advantages of AI in Drug Development:**AI can revolutionize drug development by speeding up target discovery, improving the accuracy of drug-target interaction predictions, and saving money. These tools can predict interactions for various biological molecules, including proteins, DNA, RNA, small molecules, and ions.
4. **Limitations of AI:**AI tools have a prediction accuracy of up to 80%, which drops for certain interactions like protein-RNA. They mainly assist in the early stages of drug discovery, with pre-clinical and clinical phases still necessary. Challenges include model hallucinations and restricted access to the latest AI tool codes.
5. **Global Context:**Developing new AI tools requires extensive computing infrastructure and skilled scientists. Countries like the U.S. and China have advanced significantly in this field due to their resources and expertise.
6. **India's Position:**India needs better computing infrastructure and more skilled AI scientists to develop new AI tools for drug development. Despite a strong background in structural biology, India has potential in applying AI tools within its growing pharmaceutical sector but needs significant investment and development.

## Can parties be de-recognised or de-registered?-The Hindu Text and Context

Polity

### Easy Explanation

The Election Commission of India (ECI) has raised a debate about its powers to address violations of the Model Code of Conduct (MCC) by star campaigners. Under Section 29A of the Representation of the People Act, 1951 (RP Act), political parties must meet specific requirements to be registered with the ECI, including allegiance to the Constitution and principles of socialism, secularism, and democracy. Registered political parties receive legal benefits, while recognized parties, which meet additional criteria, receive further concessions like reserved symbols and more star campaigners. The ECI currently lacks explicit powers to de-register political parties under the RP Act, although it can de-register parties in exceptional circumstances such as fraud or ceasing allegiance to the Constitution. The Law Commission and ECI have recommended legal amendments to empower the ECI to de-register parties for failing to



| Clear your doubts now.

contest elections or comply with MCC. These recommendations, if implemented, could help ensure adherence to electoral laws.

### **Key Takeaways**

#### Registered Parties

- Under Section 29A of the RP Act, political parties must declare allegiance to the Constitution and principles of socialism, secularism, and democracy to be registered with the ECI. Registered parties receive tax exemptions, common symbols, and star campaigners.

#### Recognized Parties

- Recognized as 'national' or 'State' parties under the Election Symbols Order, 1968, based on election performance. They enjoy additional benefits like reserved symbols and more star campaigners.

#### Issues with RUPPs

- Less than a third of Registered Unrecognised Political Parties (RUPPs) contest elections. The ECI lacks explicit power to de-register parties that fail to contest elections or meet other requirements, raising concerns about misuse of benefits.

#### Supreme Court Ruling

- The Supreme Court in 2002 ruled that the ECI cannot de-register political parties under the RP Act except in cases of fraud or lack of allegiance to the Constitution.

#### MCC Violations

- Recognized parties often violate the MCC by using caste, communal feelings, bribing, or intimidating voters. The ECI typically imposes short-term campaign bans on leaders but lacks stronger enforcement mechanisms.

#### Recommended Reforms

- The ECI and Law Commission have suggested amending laws to empower the ECI to de-register parties that fail to contest elections for 10 consecutive years. Paragraph 16A of the Symbols Order allows the ECI to suspend or withdraw recognition for MCC violations, though this has been rarely used.

### **[Kerala sounds warning on West Nile Virus; neighbouring States on guard-The Hindu Science](#)**

#### Science

##### **Easy Explanation**

Kerala has issued a warning about the West Nile Fever (WNF) outbreak, with several suspected cases and two deaths reported. WNF, spread by Culex mosquitoes, often goes undiagnosed due to its asymptomatic nature in many cases. The virus poses a higher risk to older adults and immunocompromised individuals. While the state has consistently reported WNF since 2011, the northern districts are now seeing more cases, possibly due to improved diagnostics or virus spread. The presence of large stagnant water bodies and migratory birds creates an ideal environment for the virus. The health department urges public vigilance and protective measures to prevent mosquito bites, noting the neurological complications that can arise from WNF infections.

##### **Key Takeaways**

#### Early Warning and Cases

- Kerala has issued an alert for West Nile Fever, with 20 suspected cases and two deaths so far.
- The virus is endemic in Kerala, with many cases likely going unreported due to asymptomatic nature.

#### Symptoms and Diagnosis

- Symptoms include fever, headache, fatigue, and sometimes severe neuroinvasive diseases like encephalitis or meningitis.
- Diagnosing WNF is challenging, with few cases recorded officially.

#### Disease Transmission and Risk

- The disease is primarily spread by Culex mosquitoes breeding in stagnant water.
- Severe disease occurs in 1 in 150 cases, with older adults and immunocompromised individuals at higher risk.





### Historical Outbreaks

- Kerala has experienced several outbreaks of acute encephalitis syndrome (AES) since 1996, with the role of WNV considered in many cases.
- The 2011 outbreak in Alappuzha provided conclusive evidence of WNV presence.

### Improved Diagnostics

- Increased reporting from northern districts could be due to better diagnostic facilities or virus spread.
- The virus is maintained in a mosquito-bird-mosquito transmission cycle, with many bird species acting as reservoirs.

### Public Health Measures

- The health department has issued public alerts and urged protective measures against mosquito bites.
- Although WNF has a lower mortality rate than other mosquito-borne diseases like JE or dengue, it can leave neurological sequelae in survivors.

## [Do no harm: conservative, non-surgical approaches advised over hysterectomy-The Hindu science](#)

### Science

#### **Easy Explanation**

In India, the frequent performance of hysterectomies, particularly among young women, has raised significant health concerns. Recent data from the Longitudinal Aging Study in India (LASI) revealed that a large number of these surgeries might be unnecessary. Common reasons cited for hysterectomy include heavy menstrual bleeding, fibroids, and uterine prolapse, but the prevalence and necessity of these surgeries vary significantly across different regions. The Union Ministry of Health and Family Welfare has responded by issuing guidelines advocating for conservative treatments over surgical interventions, highlighting the severe long-term health impacts associated with hysterectomy, such as increased cardiovascular risks, early menopause, and cognitive declines. This situation underscores the need for better regulatory measures, improved patient education, and the promotion of non-surgical alternatives to address gynecological issues.

#### **Key Takeaways**

##### High Prevalence of Hysterectomy

- Hysterectomy is one of the most common surgeries among women globally and in India, with a significant proportion of these surgeries potentially being unnecessary.

##### Variability in Reasons

- The most cited reasons for hysterectomy in India include heavy menstrual bleeding, fibroids, and uterine prolapse. However, there's a concerning trend towards unnecessary surgeries.

##### Serious Health Consequences

- Hysterectomy carries long-term health ramifications, including early menopause, increased cardiovascular risks, and potential cognitive impairments.

##### Guidelines and Recommendations

- The Ministry of Health has issued guidelines advocating for conservative, non-surgical approaches first, stressing the importance of exploring all possible non-invasive treatments before opting for surgery.

##### Demographic Insights

- The study reveals a higher propensity for hysterectomies among women from lower socio-economic backgrounds, those with less education, and those in rural areas, often driven by misinformation and the lack of access to alternative treatments.

##### Need for Better Education and Regulation

- There is a critical need for better education about the consequences of hysterectomy and stricter regulation to prevent unnecessary surgeries, as well as an emphasis on alternative treatments and women's long-term health.





# 18th May 2024

## Rules for political parties to use state-funded media during polls-Indian Express Explained

Polity

### Easy Explanation

During the run-up to the 2024 Lok Sabha elections in India, certain speeches made by opposition leaders on state-funded media were censored by Prasar Bharati, following Election Commission of India (ECI) guidelines. Sitaram Yechury of the Communist Party of India (Marxist) and G Devarajan of the All India Forward Bloc were asked to make specific changes to their speeches aired on Doordarshan and All India Radio (AIR). This included removing references to the Electoral Bonds scheme, avoiding terms deemed inflammatory or communal, and replacing certain critical phrases.

Recognized political parties are allocated specific broadcast times on state-owned media during elections. National and state parties are given broadcast time based on their performance in previous elections. The ECI sets rules to ensure the content of speeches does not include criticism of religions, communities, or individuals, and maintains the unity and integrity of the nation.

### Key Takeaways

1. **Censorship by State Media:** Opposition leaders' speeches were edited by Prasar Bharati following ECI guidelines.
2. **Specific Edits:** Yechury's references to the Electoral Bonds scheme and certain critical terms were removed; Devarajan was asked to omit the word "Muslims" from his speech.
3. **Allocation of Broadcast Time:** The ECI allocates specific broadcast times to national and state parties based on their previous election performance.
4. **Content Guidelines:** The ECI's rules prohibit content that criticizes religions, communities, or individuals, and ensures the unity and integrity of the nation.
5. **Opposition's Discontent:** Both leaders expressed dissatisfaction with the imposed changes, viewing them as an infringement on their right to dissent.

## DECISION 1952-2019 A HISTORY OF LOK SABHA ELECTIONS PART10-The Narasimha Rao years-Indian Express Explained

Polity

### Easy Explanation

From 1991 to 1996, Prime Minister P.V. Narasimha Rao led India through significant political and economic changes. He was the first non-Nehru-Gandhi family member to complete a full term as Prime Minister. His tenure saw the liberalization of the Indian economy, initiated by Finance Minister Manmohan Singh, which set the stage for rapid growth.

However, Rao's term was also marked by the demolition of the Babri Masjid in Ayodhya in 1992, which triggered widespread communal riots and political repercussions, including the dismissal of BJP-led state governments. Rao faced numerous scandals, including the Harshad Mehta stock market scam, and internal strife within the Congress Party, particularly from leaders close to Sonia Gandhi. Despite these challenges, Rao's government stabilized Punjab with elections in 1992 but continued to face violence, including the 1993 Mumbai bomb blasts.

As his term ended, internal discord within Congress grew, yet Rao's economic reforms left a lasting impact on India's economic landscape.

### Key Takeaways



| Clear your doubts now.



1. **Rajiv Gandhi's Assassination:** Rajiv Gandhi was assassinated by an LTTE suicide bomber in the middle of the 1991 Lok Sabha elections, leading to a fractured political landscape.
2. **Election Outcome:** The Congress won 232 out of 521 seats, forming a minority government with P.V. Narasimha Rao as Prime Minister. Notable leaders, including future Prime Ministers and Presidents, were elected during this period.
3. **T.N. Seshan's Reforms:** As Chief Election Commissioner, T.N. Seshan enforced strict election rules, significantly impacting how elections were conducted in India.
4. **Economic Liberalization:** Rao's government initiated significant economic reforms, leading to the liberalization of the Indian economy, a pivotal moment in the country's economic history.
5. **Babri Masjid Demolition:** The demolition of the Babri Masjid in 1992 by kar sevaks triggered widespread communal riots and political repercussions. Rao dismissed BJP-led state governments and banned the RSS temporarily.
6. **Political Turmoil and Scandals:** Rao's tenure was marked by numerous scandals, including the Harshad Mehta stock market scam and various other corruption cases involving prominent politicians.
7. **Congress Party Dynamics:** Rao faced significant opposition within his party, particularly from leaders close to Sonia Gandhi. This internal strife weakened the party's organizational strength.
8. **Legacy and Aftermath:** The period saw significant violence, including the Mumbai bomb blasts of 1993. Rao's efforts to stabilize Punjab with elections in 1992 were successful but followed by further turmoil, including the assassination of Chief Minister Beant Singh. As his tenure ended, the Congress faced increased pressure and internal discord.

## [WHY ARE ORCAS SINKING BOATS? ARE THEY PLAYING, OR ARE THEY ANGRY? - Indian Express](#) explained

Environment

### Easy Explanation

Since 2020, orcas (killer whales) have had over 700 interactions with boats near the Strait of Gibraltar, sometimes causing significant damage. This unusual behavior has perplexed scientists, who are exploring two main theories. One theory suggests that orcas might be playing or engaging in a fad-like behavior. Orcas are known to be highly intelligent and curious, and some researchers believe that young orcas might have learned to push boats as a form of play, which they then repeat.

The other theory posits that the orcas' behavior is a reaction to negative experiences. Some scientists suspect that a traumatic event, possibly involving entanglement in fishing lines, might have triggered aggressive behavior in one or more orcas. This behavior could then be imitated by others in the population. A specific orca, named White Gladis, is thought to have experienced such trauma, leading to the initial instances of boat targeting.

Regardless of the reason, this phenomenon is causing concern among researchers. Continued interactions could endanger the lives of mariners and create conservation issues for orcas. Understanding and addressing this behavior is crucial for ensuring the safety of both humans and these marine mammals.

### Key Takeaways

1. **Increase in Incidents:** Since 2020, there have been over 700 interactions between orcas and boats near the Strait of Gibraltar, some resulting in significant damage.
2. **Two Main Theories:**
  - **Play Behavior:** Some scientists believe orcas may be engaging in playful behavior, pushing boats out of curiosity or as a form of play.
  - **Response to Trauma:** Other researchers think negative experiences, such as entanglement in fishing lines, may have caused some orcas to react aggressively toward boats.
3. **Possible Causes:**



| Clear your doubts now.



- Intelligence and Curiosity: Orcas are highly intelligent and curious, which might explain their interest in interacting with boats.
  - Traumatic Events: A specific orca, named White Gladis, is suspected to have experienced trauma, possibly influencing the behavior of other orcas.
4. Risks and Concerns: Continued orca-boat interactions pose risks to mariners' safety and could become a conservation issue for orcas.
  5. Need for Further Research: Understanding the exact cause of this behavior is crucial for developing strategies to mitigate these incidents and protect both humans and orcas.

### [What happens during remand hearings? This is what a study suggests-Indian Express explained](#)

Polity

#### **Easy Explanation**

Remand hearings, a critical stage in the criminal legal process, involve the judicial review of an arrested person's detention. However, a recent Supreme Court case highlighted violations of constitutional rights during this process. The accused must be produced before a magistrate within 24 hours of arrest, where further detention may be authorized. An ethnographic study revealed shortcomings in the handling of remand hearings in Delhi's magistrate courts. While paperwork is emphasized, meaningful interaction with the accused is lacking, leading to potential violations of their rights. Standard procedures for documenting arrests and medical examinations are inconsistent, and legal representation for the accused is often inadequate. Structural barriers, including heavy workloads and lack of transparency, further hinder the proper conduct of remand proceedings. These findings underscore the need for judicial scrutiny and adherence to safeguards to ensure the protection of the accused's rights during remand hearings.

#### **Key Takeaways**

1. Remand Hearings Importance: Remand hearings play a crucial role in the criminal legal process, involving the judicial review of an arrested person's detention.
2. Constitutional Rights Violations: Recent cases, like that of journalist Prabir Purkayastha, have highlighted violations of constitutional rights during remand hearings, such as the right to know the grounds of arrest.
3. Judicial Scrutiny: The magistrate's role during remand hearings involves judicial scrutiny to ensure statutory and constitutional safeguards are upheld.
4. Ethnographic Study Findings: Observations from magistrate courts in Delhi reveal shortcomings in remand hearings, including inadequate interaction with the accused and inconsistencies in documentation.
5. Shortcomings in Procedures: Standard procedures for documenting arrests and medical examinations lack consistency, and legal representation for the accused is often insufficient.
6. Structural Barriers: Challenges such as heavy workloads and lack of transparency in court proceedings hinder the proper conduct of remand hearings, compromising the rights of the accused.

### [HURDLES ON PATH TO GREEN-Indian Express Editorial](#)

Environment

#### **Easy Explanation**

The recent heatwave underscores the urgency of addressing climate change, especially in sectors like power and industry, which contribute significantly to carbon emissions. While India is the third-largest emitter globally, government initiatives like the PLI scheme and the National Green Hydrogen Mission signal a commitment to transitioning to green energy. However, substantial investments of around Rs 11-12 lakh crore in renewable energy by 2030 are needed, along with investments in transmission infrastructure and storage capabilities to achieve the targeted share of non-fossil fuel-based installed capacity. To ensure reliable power supply from renewable sources,



| Clear your doubts now.

hybrid projects and energy storage systems are essential. Additionally, hard-to-abate sectors like steel and cement require innovative solutions like carbon capture utilization and storage (CCUS) to mitigate emissions. Despite challenges, many entities are voluntarily embracing green technologies, highlighting the importance of government support in hastening the transition. This support may include policy interventions, subsidies, or tax benefits. As stakeholders increasingly advocate for green initiatives, addressing transition risks such as policy, regulatory, technological, and market challenges becomes crucial, emphasizing the need for collaborative efforts between government, industries, and other stakeholders to achieve India's climate goals.

### **Key Takeaways**

1. **Climate Change Urgency:** The recent heatwave highlights the critical need to address climate change, particularly in sectors contributing significantly to carbon emissions.
2. **Government Initiatives:** India has launched various initiatives to transition to green energy, such as the PLI scheme, viability gap funding, and the National Green Hydrogen Mission, to reduce carbon emissions.
3. **Voluntary Transition:** Some entities are voluntarily transitioning to green technology, while stakeholders are increasingly advocating for the same, despite the lack of a government mandate.
4. **Transition Risks:** Entities transitioning to green technology face multiple risks, including policy, regulatory, technological, market, reputation, and legal risks, with technological challenges being the most significant.
5. **Sector-specific Challenges:** Industries like power, steel, cement, and refining face specific challenges in transitioning to green technology, necessitating innovative solutions like carbon capture, utilization, and storage (CCUS) and the adoption of green hydrogen.
6. **Government Support:** While voluntary efforts are underway, government support, in the form of policy interventions, subsidies, duty exemptions, or tax benefits, will be crucial to accelerate the technology transition in these hard-to-abate sectors.

### **Stay invested-The Hindu Editorial**

International relations

### **Easy Explanation**

India's decision to sign a 10-year agreement with Iran to develop and operate the Chabahar port signifies a deepening of infrastructure and trade ties between the two countries. Despite previous delays caused by American sanctions on Iran, India has persisted in its commitment to the project, viewing it as critical for its connectivity plans. The Chabahar port offers an alternative route to Afghanistan and Central Asia, bypassing Pakistan and facilitating better trade relations. Additionally, it is expected to be integrated into the International North-South Transport Corridor (NSTC), enhancing India's trade links with Europe and reducing time and costs associated with intercontinental trade. Furthermore, the port's proximity to Gwadar, where China is developing a port as part of its Belt and Road Initiative (BRI), underscores India's strategic interests in the region.

### **Key Takeaways**

1. **Deepening Ties with Iran:** India's agreement to develop and operate the Chabahar port signifies a deepening of infrastructure and trade ties with Iran, despite past challenges posed by American sanctions.
2. **Geopolitical Significance:** The Chabahar port offers India an alternative route to Afghanistan and Central Asia, bypassing Pakistan and enhancing trade connectivity with the region.
3. **Integration with NSTC:** Integration of the Chabahar port into the International North-South Transport Corridor (NSTC) holds the potential to significantly improve India's trade links with Europe and reduce costs associated with intercontinental trade.
4. **Strategic Importance:** The port's proximity to Gwadar, where China is developing a port as part of its Belt and Road Initiative (BRI), underscores India's strategic interests in the region and its desire to expand geopolitical influence in Central Asia.



5. **Staying Invested:** Despite changes in U.S. foreign policy and interests in the region, India should remain committed to the Chabahar project and seek to enhance its trade and connectivity projects with Central Asia, which are crucial for India's continued growth and influence.

### [After the civil war, the stifling impasse in Sri Lanka-The Hindu Editorial](#)

International relations

#### **Easy Explanation**

Fifteen years after Sri Lanka's civil war, the country remains mired in economic stagnation, political polarization, and social unrest. Despite initial signs of reconstruction, recent crises—such as the Easter 2019 bombings, the COVID-19 pandemic, and a severe economic downturn—have derailed progress. The Tamil middle class aspires to join the diaspora, while the working class in the north and east faces destitution. Political leaders have failed to address local livelihood concerns, with infrastructure projects and diaspora investments proving insufficient. Polarization persists, fueled by Sinhala Buddhist nationalism and mirrored by Tamil nationalist rhetoric, hindering reconciliation. The 2022 'Aragalaya' protest offered hope for a united future, but true progress requires rejecting divisive politics and fostering equality and freedom for all Sri Lankans.

#### **Key Takeaways**

1. **Economic Stagnation:** Reconstruction efforts in Sri Lanka's north and east have stalled due to successive crises, including the Easter 2019 bombings, the COVID-19 pandemic, and a severe economic downturn, exacerbating existing challenges and halting progress.
2. **Political Polarization:** Deep political divisions persist, with Sinhala Buddhist nationalism promoted by the Rajapaksa regime and mirrored by Tamil nationalist rhetoric, preventing meaningful reconciliation and fostering a polarized political environment.
3. **Ineffective Investments:** Expectations that Tamil diaspora investments and international aid would revive the local economy have proven false. Investment funds have been meager, leaving many families in poverty and debt.
4. **Neglected Livelihoods:** Political leaders have neglected local livelihood concerns, focusing more on international accountability. Infrastructure projects and individual assistance programs have not effectively addressed the needs of war-affected communities, often leading to dependency rather than empowerment.
5. **Unresolved Social Issues:** The Tamil middle class aspires to join the diaspora, while working people in the north and east face limited economic opportunities and ongoing destitution. Migration is not an option for many, and hunger has become a new norm.
6. **Barriers to Reconciliation:** Efforts to build social and economic bridges between communities and to devolve power have been repeatedly thwarted by political expediency and intransigence from national leaders, undermining reconciliation and peacebuilding efforts.
7. **Future Path:** The Tamil community must reject isolationist and divisive politics, forging alliances with all Sri Lankans to pursue a democratic future based on equality and freedom. The 2022 'Aragalaya' protest, which united diverse ethnic and religious groups against authoritarianism, offers inspiration for a more inclusive and just future.

## 19th May 2024

### [HPV vaccine prevents cervical cancer in deprived groups: study-The Hindu science](#)

Science

#### **Easy Explanation**



| Clear your doubts now.





A significant study funded by Cancer Research UK and conducted by researchers at Queen Mary University of London has found that the human papillomavirus (HPV) vaccine is effectively reducing cervical cancer incidence across all socio-economic groups in England, with the most substantial impact observed in more deprived groups. Published in the journal BMJ, this study provides the longest follow-up on the effectiveness of the HPV vaccine to date.

The research highlights that in England, where the vaccine has been part of a school-based vaccination program, cervical cancer cases have been prevented at a higher rate among the most deprived groups compared to the least deprived. The findings demonstrate that public health interventions, like the HPV vaccination program, can significantly reduce health inequalities. Over a 12-year period, the vaccine has shown to decrease cervical cancer incidence by nearly 90% and pre-cancerous conditions by around 95% among women who received routine vaccination at ages 12-13.

Despite these successes, Cancer Research UK notes that disparities in cervical cancer rates still exist, largely due to higher risks associated with HPV and lower screening attendance among people from deprived backgrounds. The organization stresses the need for continued efforts to address these inequalities to improve overall public health outcomes.

### **Key Takeaways**

1. **Broad Impact:** The HPV vaccine is reducing cervical cancer cases across the socio-economic spectrum in England, particularly benefiting those in more deprived groups.
2. **Reduction in Health Inequalities:** The success of the school-based vaccination program in England illustrates that well-executed public health interventions can help close gaps in health inequalities.
3. **Significant Effectiveness:** The vaccine has proven highly effective, reducing cervical cancer incidence by nearly 90% and pre-cancerous conditions by about 95% among those vaccinated at 12-13 years old.
4. **Persistent Disparities:** Despite the vaccine's success, disparities in cervical cancer incidence remain, with higher rates observed among individuals from deprived backgrounds. This is attributed to greater HPV risk and lower screening rates in these populations.
5. **Continued Efforts Needed:** There is an ongoing need for initiatives to enhance screening and vaccination coverage, especially among the most deprived groups, to sustain and build on the gains made in reducing cervical cancer rates.

### **[Women with no sexual autonomy twice likely to get STIs: study-The Hindu Science](#)**

Sociology

### **Easy Explanation**

The study examines the association between intimate partner violence (IPV), controlling attitudes of husbands, and the incidence of sexually transmitted infections (STI) or reproductive tract infections (RTI) among married women in India, based on data from the National Family Health Survey-5 (2019-2021). The research, conducted by the Tata Institute of Social Sciences and JNU, highlights that IPV and lack of sexual autonomy significantly increase the risk of STI/RTI. Key findings include that women experiencing IPV are 2.3 times more likely to have STI/RTI. Similarly, those with controlling husbands face a higher risk. Sexual autonomy and decision-making power are crucial in reducing this risk. The study calls for policy measures to combat domestic violence, prevent child marriage, and promote women's autonomy to improve their health outcomes.

### **Key Takeaways:**

1. **Higher STI/RTI Risk for IPV Victims:**
  - Women who experienced intimate partner violence (IPV) had significantly higher rates of sexually transmitted infections (STI) or reproductive tract infections (RTI).
  - 18.4% of women facing IPV reported STI/RTI compared to 9.7% who did not.
2. **Impact of Controlling Attitudes:**



| Clear your doubts now.



- 15.9% of women with controlling husbands reported STI/RTI versus 9.4% without such control.
3. Sexual Autonomy and STI/RTI Risk:
    - Women without sexual autonomy and exposed to IPV were 2.3 times more likely to have STI/RTI.
    - Those without sexual autonomy and with controlling husbands were over twice as likely to have RTI.
  4. Lower STI/RTI Risk with Autonomy:
    - Women with sexual autonomy had a 12% lower likelihood of STI/RTI when sociodemographic factors were controlled.
    - Sexual and decision-making autonomy reduced the likelihood of RTI by 36%.
  5. Age Factor:
    - Higher prevalence of STI/RTI among younger women aged 15-24 (13%) and 25-34 (13.2%) compared to women aged 35-49 (11.6%).
  6. Call for Policy Interventions:
    - Recommendations for preventing child marriage and domestic violence.
    - Need to change regressive social norms limiting women's decision-making and movement.

### [Can humans get H5N1 by consuming raw milk?-The Hindu Science](#)

Science

#### Easy Explanation

There is no reported case of H5N1 infection in humans from consuming raw milk. However, scientists warn that the virus can theoretically be transmitted through raw milk from infected cows. The CDC advises against consuming uncooked dairy products from animals with suspected or confirmed H5N1 infection, as the virus can be found in high concentrations in the milk of infected cattle. Despite this, no viable H5N1 virus has been isolated from raw milk samples, and reports are based on molecular sequencing data rather than actual virus isolation.

Most human cases of H5N1 infection have involved farm workers with direct exposure to infected animals, primarily through airborne transmission. The possibility of H5N1 infection via the oral route from raw milk is considered very low. There is also a misconception in the U.S. that immunity against H5N1 can be developed by drinking raw milk, which has no scientific basis. Raw milk can contain other pathogens, making its consumption risky.

Despite the CDC's warnings, raw milk sales have increased in the U.S. since the H5N1 outbreak in cattle. Nonetheless, it is crucial to avoid raw milk, especially in areas with reported H5N1 outbreaks, due to the potential health risks.

#### Key Takeaways:

1. Risk of H5N1 Transmission via Raw Milk:
  - While no human cases of H5N1 have been reported from consuming raw milk, scientists warn of the theoretical risk of transmission through milk from infected cows.
2. CDC and FAO Warnings:
  - The CDC advises against consuming raw dairy products from animals with suspected or confirmed H5N1 infection.
  - The FAO noted that H5N1 virus can be found in high concentrations in the milk of infected dairy cattle.
3. Lack of Direct Evidence:
  - There are no reports of viable H5N1 virus being isolated from raw milk samples. Studies on viral loads in milk are based on molecular sequencing, not actual virus isolation.
4. Transmission Routes:
  - Most human cases of H5N1 have occurred in farm workers exposed to infected animals, likely through airborne transmission.
  - The likelihood of H5N1 infection via oral consumption of raw milk is very low, as human influenza virus infections are primarily respiratory.





#### 5. Misconceptions and Health Risks:

- There is a misconception that drinking raw milk can provide immunity against H5N1, which has no scientific basis.
- Consuming raw milk is risky due to the presence of other pathogens, which can pose significant health risks.

#### 6. Increase in Raw Milk Consumption:

- Despite CDC warnings, raw milk sales have increased in the U.S. since the H5N1 outbreak in cattle. However, no human infections have been reported from raw milk intake.

These key points highlight the importance of caution and adherence to health guidelines regarding raw milk consumption, especially in regions affected by H5N1 outbreaks.

### [Why is RBI keeping an eye on gold loans?-The Hindu FAQ](#)

Economy

#### Easy Explanation

Earlier this month, the Reserve Bank of India (RBI) tightened its regulatory oversight on Non-Banking Financial Companies (NBFCs) involved in gold loans, following findings of regulatory non-compliance. In March, the RBI banned IIFL Finance from issuing new gold loans due to violations of lending norms. The RBI's gold loan guidelines include a cap on lending amounts (no more than 75% of the gold's value), restrictions on cash disbursements (no more than ₹20,000 in cash), and requirements for fair and transparent gold auctions. These measures aim to ensure lenders maintain sufficient collateral to cover potential losses.

The RBI's heightened scrutiny comes in response to NBFCs' aggressive lending practices and potential overvaluation of gold collateral. This aggressive lending has led to rapid growth in the gold loan portfolios of NBFCs, raising concerns about systemic risks. The RBI's actions are expected to impact the growth and profitability of NBFCs by enforcing stricter compliance, reducing the attractiveness of NBFC gold loans, and increasing operational costs due to enhanced transparency and auction requirements. Despite these challenges, the RBI believes these measures are necessary for long-term sustainability and risk mitigation in the gold loan industry.

#### Key takeaways

1. **Enhanced Oversight:** The RBI has intensified its regulation of Non-Banking Financial Companies (NBFCs) following significant violations in gold loan operations, exemplified by the ban on IIFL Finance for non-compliance with lending norms.
2. **Strict Lending Rules:** The RBI requires that loans not exceed 75% of the value of gold used as collateral to mitigate risk in case of borrower defaults. Furthermore, a limit of ₹20,000 on cash disbursements aims to ensure loans are traceable and secure.
3. **Impact on NBFCs:** The RBI's stricter regulations are expected to impact the growth and attractiveness of NBFC gold loans. Limitations on cash disbursements and the enforcement of conservative loan-to-value ratios are likely to compel NBFCs to adopt more prudent lending practices.
4. **Systemic Risk Mitigation:** The RBI's actions are in response to the rapid growth of the gold loan market post-pandemic and concerns about potential systemic risks due to aggressive lending and overvaluation of collateral. These measures are aimed at promoting sustainable lending practices and preventing financial instabilities.
5. **Future Outlook:** Stricter compliance and transparency requirements may increase operational costs for NBFCs and lead to higher interest rates for borrowers, but are deemed necessary for the long-term stability of the financial sector.



| Clear your doubts now.



## [India's gateway to Central Asia-Chabahar-The Hindu Profiles](#)

International Relations

### **Easy Explanation**

Chabahar Port, situated in Iran's Sistan Baluchistan province, has evolved from a strategic vision to a pivotal gateway for India to Central Asia and beyond. Initiated in the early 2000s, the project has encountered various geopolitical hurdles, notably from U.S. sanctions and regional dynamics, but has seen significant progress due to bilateral agreements between India and Iran.

The historical context of Chabahar, once a prospective site for a U.S. submarine base, underscores its strategic importance, located near the Strait of Hormuz. India's interest in the port was reinvigorated during Prime Minister Narasimha Rao's 1993 visit to Iran, leading to gradual collaborations. By the early 2000s, under the leadership of Prime Minister Atal Bihari Vajpayee and Iranian President Mohammad Khatami, definitive plans were set in motion, culminating in the 2003 Delhi Declaration that established a roadmap for connecting India through Chabahar to Central Asia and Europe.

Recent developments have been more promising, with a new agreement signed in 2023 to further develop the port, demonstrating India's continued commitment despite challenges. The agreement involves a significant financial commitment from India, aimed at expanding the port's capabilities and enhancing its role in regional trade and connectivity.

### **Key Takeaways**

1. **Strategic Gateway:** Chabahar Port serves as a crucial gateway for India to Central Asia and Afghanistan, circumventing Pakistan and providing strategic access to new markets and resources.
2. **Historical Significance:** The port's significance dates back to historical ties and was emphasized during Prime Minister Narasimha Rao's visit in 1993, which revitalized India-Iran relations and initiated discussions on developing Chabahar.
3. **Geopolitical Challenges:** The development of Chabahar has faced numerous challenges, including geopolitical tensions, U.S. sanctions against Iran, and regional rivalries that have influenced the pace and extent of its development.
4. **Bilateral Development Agreements:** Over the years, India and Iran have signed several agreements to develop the port, reflecting its importance in their bilateral relations and shared regional objectives.
5. **Investment and Development:** Recent commitments, including a significant financial outlay from India for the port's expansion and modernization, underscore the long-term strategic importance of Chabahar to India's foreign and economic policies.
6. **Future Potential:** With the latest agreement to further develop and operate the port, Chabahar is poised to become a more significant player in regional trade and logistics, enhancing its role as a critical hub for India's outreach to Central Asia and beyond.

**20th May 2024**

## [Cereal saviours: Punjab-Haryana and India's food security-Indian Express Explained](#)

Economics

### **Easy Explanation**

The article emphasizes the crucial role of Punjab and Haryana in ensuring India's food security, especially in light of climate-induced agricultural challenges. In the 2023-24 marketing season, these states accounted for 75.5% of the total wheat procured for the central food grain pool, the highest since 2015-16. Historically, Punjab and Haryana were



| Clear your doubts now.

dominant in wheat procurement, contributing over 90% until the mid-2000s. Although their share declined to around 50% due to the spread of high-yielding varieties and infrastructure development in other states, recent climate shocks have underscored their importance. Unseasonal heat and heavy rains have adversely affected wheat yields in other regions, but Punjab and Haryana have weathered these conditions better due to longer winters and timely sowing. In rice procurement, these states have also played a significant role, with their share rising to 32.9% in the current crop year despite a general decline over the years. The assured access to irrigation has mitigated the impact of erratic monsoons.

Under the National Food Security Act (NFSA), the government needs to procure 60-65 million tonnes of grain annually to support various welfare schemes. The high yields of Punjab and Haryana ensure their continued significance in the national food security framework, despite desirable shifts towards other crops.

### **Key Takeaways**

1. **Significant Contribution:** Punjab and Haryana together accounted for 75.5% of the total wheat procured for the central food grain pool in the 2023-24 marketing season, the highest since 2015-16.
2. **Wheat Procurement:**
  - These states provided 19.2 million tonnes of wheat out of the 25.5 million tonnes procured.
  - Their share of wheat procurement, which had fallen to around 50% in recent years, has surged due to climate shocks affecting other states.
3. **Climate Impact:**
  - El Niño-induced weather anomalies, such as an unusually warm November-December 2023, have negatively impacted wheat yields, especially in central India.
  - States like Madhya Pradesh saw a significant drop in wheat procurement due to these conditions.
4. **Rice Procurement:**
  - While traditionally dominant in rice procurement, the combined share of Punjab and Haryana has fallen to an average of 28.8% in recent years but rose to 32.9% in the current crop year.
  - Irrigation facilities in these states have mitigated the impact of a patchy monsoon.
5. **Food Security Policies:**
  - The National Food Security Act (NFSA) ensures that 813.5 million people receive highly subsidized grain.
  - The government needs to procure 60-65 million tonnes of grain annually for various welfare schemes.
  - In years of climate stress, the high yields of Punjab and Haryana make them indispensable for meeting national food security needs.
6. **Future Outlook:**
  - Despite shifts towards other crops being desirable, Punjab and Haryana's high per-hectare yields ensure their continued importance in the national food security framework.

### **[Illegal mining in Sariska-Indian Express Explained](#)**

Environment

#### **Easy Explanation**

The Supreme Court of India has repeatedly intervened to address illegal mining in and around the Sariska Tiger Reserve since 1991, focusing on preserving the critical tiger habitat from environmental degradation. The court's consistent efforts include numerous rulings to halt the extraction of marble, dolomite, and limestone, which threaten the reserve's ecosystem. A recent order in May 2023 directed the closure of 68 mines operating within a one-kilometer radius of the reserve, reflecting the ongoing legal and environmental challenges in protecting this vital wildlife sanctuary. The complexities of enforcing these rulings often stem from uncertainties regarding the reserve's boundaries and the slow implementation of Environmental Sensitivity Zones (ESZs) around national parks and sanctuaries. This



| Clear your doubts now.



backdrop of legal and administrative struggles underscores the need for more precise and enforceable conservation measures to ensure the long-term protection of Sariska and its inhabitants.

### **Key Takeaways**

1. **Long-standing Legal Battle:** The Supreme Court has been addressing illegal mining in Sariska since 1991, with various orders intended to protect the tiger reserve's environment from destructive mining practices.
2. **Recent Supreme Court Order:** In May 2023, the court ordered the closure of 68 mines operating within a one-kilometer radius of the Sariska Tiger Reserve, reaffirming its commitment to preserving this critical wildlife habitat.
3. **Issues with Reserve Boundaries:** One of the main obstacles in enforcing mining bans has been the uncertainty about the exact borders of the Sariska Reserve. This has allowed illegal mining to thrive, as operators exploit these ambiguities to continue their activities.
4. **Environmental Sensitivity Zones (ESZ):** Over the years, there has been a push to define and implement ESZs around national parks and sanctuaries, including Sariska, to provide buffer zones that restrict mining and other harmful activities. However, the implementation has been inconsistent and fraught with delays.
5. **Impact on Local Communities:** The demarcation of forest boundaries has been controversial, with local communities alleging that it allows illegal mines to operate under the guise of legality and that it infringes upon the rights of residents by arbitrarily including their lands within the reserve limits.
6. **Opportunity for Corrective Action:** The latest Supreme Court order provides another chance for the Rajasthan government and conservation authorities to correct past mistakes by clearly demarcating no-go zones for mining around Sariska and other affected reserves.

## **EXTINCT NILE BRANCH HELPED BUILD EGYPT'S EGYPT'S PYRAMIDS:STUDY-Indian Express Explained**

Geography

### **Easy Explanation**

A recent study published in the journal *Communications Earth and Environment* has shed light on how ancient Egyptians might have transported heavy materials to build pyramids. The research reveals the existence of an extinct branch of the Nile River, which ran close to the pyramid sites and could have facilitated the movement of stone blocks and other materials. Led by geomorphologist Eman Ghoneim, the team utilized technologies such as radar satellite imagery, historical maps, geophysical surveys, and sediment coring to uncover the buried river branch. This discovery provides substantial evidence supporting the theory that ancient Egyptians used river transport for pyramid construction, significantly aiding logistics in an otherwise arduous task in the harsh Sahara Desert.

### **Key Takeaways**

1. **Discovery of the Nile Branch:** The study identified remnants of a major extinct branch of the Nile, spanning 64 km in length and varying between 200 to 700 meters in width, which likely played a crucial role in transporting materials to the pyramid sites.
2. **Technological Insights:** Advanced methods including radar satellite imagery and sediment coring were critical in mapping the extinct river branch, demonstrating the blend of modern science with archaeological research.
3. **Impact on Pyramid Construction Theories:** The presence of the river branch aligns with historical speculations and provides a practical explanation for the logistics of pyramid construction, showing how waterways were integral to transporting heavy materials.
4. **Architectural and Engineering Marvels:** Beyond logistics, the construction of pyramids remains an impressive feat, highlighting the ancient Egyptians' sophisticated understanding of mathematics and architecture, as exemplified by the precise angles and organization required in building the Great Pyramid of Giza.
5. **Social and Economic Aspects:** The findings also touch upon the social structure and economic organization of the times, with large, organized settlements for workers who were well-supported and managed by a strong





central authority, indicating a highly organized society with substantial resources devoted to monumental projects.

### Consistent, coordinated: Evolution & essentials of India's climate Policy-Indian Express Explained

Environment

#### **Easy Explanation**

India's climate policy, shaped since the early 1990s following the Rio Summit, is informed by the country's unique geography, large population, and significant biodiversity, which make it particularly vulnerable to climate change. This policy emphasizes sustainable development and equitable climate action, guided by the Indian philosophy of harmony with nature and principles of equity and differentiated responsibilities.

The evolution of this policy reflects India's response to the disproportionate impact of climate change caused by the developed world's resource exploitation. As a result, India has emerged as a leader in international climate advocacy, championing initiatives like the International Solar Alliance and promoting the global ethos of "Vasudhaiva Kutumbakam" (the world is one family). This approach integrates environmental sustainability with economic and social development, aiming to set a sustainable development model for other developing nations and advocating for a unified, equitable global response to climate challenges.

#### **Key Takeaways**

1. **Historical Context:** India's involvement in global climate initiatives began in earnest following the 1992 Rio Summit, leading to a gradual but firm development of its national climate change and biodiversity divisions.
2. **Geographical and Demographic Factors:** India's vast biodiversity, significant population, and diverse climatic conditions play a crucial role in shaping its climate policy.
3. **Impact of Climate Change:** India ranks as the fifth most affected country by extreme weather events, highlighting the urgency and importance of robust climate action.
4. **Philosophical and Ethical Foundations:** India's climate policy is deeply influenced by a traditional ethos of living in harmony with nature, championed by figures like Mahatma Gandhi, and modern principles of environmental stewardship.
5. **Strategic Climate Actions:** Despite low historical and per capita emissions, India has actively pursued climate initiatives, evidenced by its leadership in the International Solar Alliance and other global collaborations focused on sustainability.
6. **Policy Evolution and International Leadership:** India's climate policy is characterized by clarity, consistency, and coordination, advocating for integrated growth and the acknowledgment of the unique challenges faced by developing countries.
7. **Vision for the Future:** The principle of "Vasudhaiva Kutumbakam" (the world is one family) underscores India's call for global solidarity and shared responsibility in addressing climate challenges, aiming to set a precedent for other developing nations in sustainable development and equitable climate action.

### PUTIN & XI-Indian express Editorial

International relations

#### **Easy Explanation**

The recent meeting between Russian President Vladimir Putin and Chinese leader Xi Jinping underscores the strengthening of their strategic partnership, driven by shared anti-Western sentiments. This convergence poses significant challenges for India, which must reassess its strategic relationships to mitigate potential adverse effects. Putin's long-standing effort to bolster ties with China has deepened since Xi Jinping's rise to power and his challenge to US dominance in Asia. Their collaboration has intensified, particularly after Russia's invasion of Ukraine, with both leaders seeking to counter Western influence and promote a multipolar world.



| Clear your doubts now.



The summit highlighted their political coordination, mutual support on national priorities (Ukraine for Russia, Taiwan for China), and denunciation of US-led coalitions like the Quadrilateral Forum, which includes India. Despite previous beliefs that Russia and China would not align closely due to competing interests, their partnership has grown stronger. India now faces a strategic dilemma as Moscow becomes increasingly dependent on Beijing, potentially undermining India's efforts to establish a multipolar Asia and exacerbating its security concerns regarding China.

### **Key Takeaways**

1. **Strengthened Sino-Russian Partnership:** The 43rd meeting between Putin and Xi emphasizes their deepening strategic alliance against Western influence.
2. **Strategic Reassessment for India:** India must carefully recalibrate its relationships with major powers to counterbalance the growing Sino-Russian cooperation.
3. **Putin's Shift Towards China:** Putin has consistently sought to strengthen ties with China, a move that has intensified following the Ukraine invasion and the resultant Western sanctions.
4. **Shared Anti-Western Agenda:** Putin and Xi share a common interest in challenging US dominance and promoting a multipolar world.
5. **Political and Strategic Coordination:** The recent summit showcased their mutual support on key issues like Ukraine and Taiwan, and their opposition to US-led initiatives like the Quad.
6. **Dependency Dynamics:** Russia is now more dependent on China, with Beijing emerging as the senior partner in their relationship.
7. **Implications for India:** Putin's alignment with China threatens India's strategy to build a multipolar Asia and increases its security vulnerabilities concerning China.

### **Why was Purkayastha's arrest invalidated?-The Hindu Text and Context**

Polity

#### **Easy Explanation**

The Supreme Court of India ordered the release of NewsClick founder Prabir Purkayastha, declaring his arrest and subsequent remand under the Unlawful Activities Prevention Act (UAPA) by the Delhi Police as legally invalid. This decision was primarily based on procedural deficiencies, particularly the failure to provide written grounds for the arrest as required by Article 22(1) of the Constitution. This article ensures that an arrested individual must be promptly informed of the reasons for their arrest, a fundamental right that facilitates access to legal representation and the ability to contest the legality of the arrest and custody.

The court's ruling emphasized the critical nature of these procedural safeguards, especially under stringent laws like the UAPA, which impose severe restrictions on the accused's liberty and carry a higher burden of proof for bail. The justices highlighted that such safeguards are essential not only for the protection of individual rights but also for maintaining the integrity of the judicial process in the context of democracy and rule of law. This case underscores the judiciary's role in enforcing constitutional guarantees and setting a precedent for law enforcement agencies to follow due process rigorously, regardless of the severity of the charges involved.

#### **Key Takeaways**

1. **Procedural Violations:** The arrest of Prabir Purkayastha was deemed illegal due to non-compliance with the constitutional requirement to furnish written grounds for arrest, crucial for the accused to challenge the remand or seek bail effectively.
2. **Court's Emphasis on Legal Standards:** The Supreme Court stressed the importance of adhering to constitutional safeguards in all arrests, especially under stringent laws like the UAPA, which demands a higher standard of legal procedure given its severe implications on personal liberty.
3. **Dispute Over Legal Interpretations:** The Delhi High Court had previously ruled that the standards set in the Pankaj Bansal case, related to arrests under the Prevention of Money Laundering Act, did not apply to UAPA



| Clear your doubts now.

cases. However, the Supreme Court disagreed, stating that the requirement to provide arrest grounds in writing was equally applicable under the UAPA.

4. **Broader Implications for Law Enforcement:** The Supreme Court's ruling reinforces the necessity for law enforcement agencies to ensure all legal processes are followed meticulously to prevent the undermining of fundamental rights. It also suggested that even in cases involving national security, adherence to legal norms must not be compromised.
5. **Future Guidelines:** The judgment could set a precedent for future arrests under the UAPA, encouraging more stringent adherence to procedural rights and potentially impacting how arrests are conducted in cases involving severe charges like terrorism.

The decision underscores the balance between national security interests and the protection of individual rights, reinforcing the judiciary's role in scrutinizing law enforcement practices to uphold constitutional guarantees.

### [Why is the European Union probing Facebook and Instagram?-The Hindu Text and Context](#)

Science and technology

#### **Easy Explanation**

The European Union has launched an investigation into Meta's Facebook and Instagram platforms amid concerns over their impact on children. Under the Digital Services Act, the probe targets potential exploitation of children's vulnerabilities and the promotion of addictive behavior by Facebook and Instagram's recommendation engines. If found in violation, Meta could face fines of up to 6% of its annual revenue. Despite Meta's efforts to implement measures such as AI-driven nudity protection tools, ongoing scrutiny persists, particularly following backlash in the US over Instagram's facilitation of underage sexual content promotion.

The investigation reflects a broader trend of heightened awareness around online child safety globally. Parents and caregivers are urged to employ safeguards and actively supervise children's online activities to ensure their safety. This includes setting up age-appropriate profiles, monitoring content access, and fostering open conversations about online risks. As children increasingly navigate digital spaces, there's a growing recognition of the need for robust measures to safeguard their online experiences.

Beyond the EU, similar concerns exist globally, with platforms facing scrutiny and pressure to enhance protections for minors. The investigation into Meta underscores the growing importance of addressing digital risks for children and the need for comprehensive measures to ensure their safety and well-being in an increasingly connected world.

#### **Key takeaways**

1. **EU Investigation:** The European Union is probing Meta's Facebook and Instagram platforms over concerns regarding their impact on children, citing potential exploitation of vulnerabilities and promotion of addictive behavior.
2. **Digital Services Act (DSA):** The investigation falls under the DSA, with a focus on Meta's compliance with regulations aimed at protecting minors online. Fines of up to 6% of annual revenue could be imposed if violations are found.
3. **Global Trend:** The scrutiny of Meta's platforms reflects a broader global trend of increased awareness and concern for online child safety, prompting parents and caregivers to adopt stricter safeguards and supervision measures.
4. **Ongoing Concerns:** Despite Meta's implementation of measures like AI-driven nudity protection tools, ongoing concerns persist, exemplified by previous backlash in the US over Instagram's facilitation of underage sexual content promotion.
5. **Need for Protection:** The investigation highlights the pressing need for comprehensive measures to protect children online, emphasizing the importance of proactive supervision and dialogue between parents and children regarding online risks.



## [Balancing two forms of SNCA protein could help manage Parkinson's-The Hindu Science](#)

Science

### **Easy Explanation**

Researchers have long studied the role of the SNCA protein (alpha-synuclein) in Parkinson's disease, known for forming Lewy bodies, which are aggregates found in dopaminergic neurons of affected individuals. A recent study from Swasti Raychaudhuri's lab at the CSIR-Centre for Cellular and Molecular Biology in Hyderabad highlights a dual nature of SNCA in neuronal cells. The study distinguishes between two forms of SNCA aggregates: one that disrupts the structural integrity of cells' nuclei, contributing to disease states, and another that aids in the degradation of misfolded proteins, beneficial for cell health.

The research emphasizes the importance of balancing these two forms of SNCA to effectively manage Parkinson's disease. Current therapeutic approaches mainly address the symptoms of Parkinson's, such as by increasing dopamine levels or transplanting neurons. However, these methods do not tackle the underlying issues caused by SNCA aggregates.

Emerging therapeutic strategies aim to reduce the overall levels of SNCA or prevent the formation of harmful aggregates. Techniques like gene silencing, specifically using tools like CRISPR-Cas9, and small molecule interventions that can cross the blood-brain barrier, are being explored. If successful, these strategies could fundamentally change the treatment of Parkinson's disease, offering a more sustainable solution by addressing the root cause of the neurodegeneration.

### **Key takeaways**

1. **Role of SNCA Protein:** SNCA, or alpha-synuclein, is crucial in the development of Parkinson's disease as it forms Lewy bodies, which are protein aggregates found in the brains of affected individuals.
2. **Impact on Neuronal Integrity:** Research indicates that SNCA aggregates can disrupt the structural integrity of neuronal cells, particularly affecting the nuclei, which leads to neuronal death and disease progression.
3. **Dual Nature of SNCA:** A recent study highlights two forms of SNCA aggregates: one that disrupts cell structure and another that aids in degrading misfolded proteins. Balancing these forms could be key to managing Parkinson's disease.
4. **Current Treatment Limitations:** Current treatments for Parkinson's focus on symptom management, such as increasing dopamine levels or grafting neurons, but do not address the underlying cause related to SNCA.
5. **Potential Therapeutic Strategies:** New approaches are being explored to reduce SNCA levels or prevent harmful aggregates. These include gene-silencing techniques, use of small molecules, and targeted protein degradation.
6. **Challenges in Treatment Delivery:** Effective treatment is hindered by challenges like crossing the blood-brain barrier, which is crucial for delivering therapeutic agents directly to the brain.
7. **Future Directions in Research:** Advancements in balancing the populations of SNCA in neurons could lead to sustainable and effective management strategies for Parkinson's disease, potentially transforming treatment paradigms.

## [A towering hazard, the height of poor enforcement-The Hindu Editorial](#)

Governance

### **Easy Explanation**

The tragic incident in Mumbai, where an unauthorized hoarding collapsed during a dust storm, killing 16 and injuring over 70, has spotlighted the systemic failures in enforcing outdoor advertising regulations in India. This event is part of a pattern of similar accidents, indicating a chronic oversight by municipal bodies like the Brihanmumbai Municipal Corporation (BMC). Despite existing policies that dictate actions against illegal hoardings, enforcement is sporadic and largely reactive. The legal framework, including various city-specific policies, mandates strict measures and periodic



| Clear your doubts now.



reviews of advertising structures. However, the enforcement of these regulations remains weak, and municipal responses are often limited to post-disaster scenarios rather than preventive actions.

This situation underscores the need for a robust and proactive enforcement mechanism that includes regular inspections, technological interventions like QR codes for monitoring compliance, and inter-departmental collaboration for continuous oversight. Furthermore, there is a critical need for transparency in the processes concerning how complaints are handled and the actions taken against illegal structures. Strengthening these aspects could prevent future accidents and enhance public safety, shifting the focus from reactive measures to a more accountable and systematic regulatory enforcement.

### **Key Takeaways**

1. **Chronic Oversight Failure:** The BMC and other city corporations have consistently failed to enforce regulations concerning outdoor advertising, leading to dangerous situations and loss of life.
2. **Reactive Rather Than Proactive:** Municipal responses to illegal hoardings are typically reactive, taking place after accidents have already occurred, rather than proactive monitoring and enforcement.
3. **Legal and Policy Framework:** While there are policies in place that provide procedures for handling illegal advertisements, such as the Delhi Outdoor Advertising Policy and the Tamil Nadu Urban Local Bodies Rules, these are not effectively implemented.
4. **Need for Stronger Enforcement:** There is a clear need for stronger and more consistent enforcement of advertising regulations to ensure that all outdoor advertising structures are safe and legal.
5. **Inter-Departmental Collaboration:** Implementing periodic, zone-wise inspections by inter-departmental teams could improve enforcement outcomes and compliance with advertising standards.
6. **Technological Solutions:** The use of technology, such as QR codes on authorized hoardings, could enhance monitoring and compliance verification efforts.
7. **Public Safety Risks:** Unauthorized hoardings not only pose a risk to public safety but their continued existence reflects a significant lapse in governance and accountability within municipal operations.

## 21st May 2024

[Antarctic Parliament meets in Kochi: what's on the table?-Indian Express Explained](#)

International relations

### **Easy Explanation**

India is hosting the 46th Antarctic Treaty Consultative Meeting (ATCM46) from May 20-30 in Kochi, organized by the National Centre for Polar and Ocean Research under the Ministry of Earth Sciences. This event brings together representatives from the 56 member countries of the Antarctic Treaty. India last hosted the ATCM in New Delhi in 2007.

The Antarctic Treaty, signed in 1959 and enforced since 1961, designates Antarctica for peaceful purposes and scientific research, prohibiting military activity, nuclear testing, and radioactive waste disposal. India became a consultative party in 1983, participating in decision-making regarding Antarctic governance.

India has conducted Antarctic research since 1983, operating research stations Dakshin Gangotri, Maitri, and Bharati, with plans for a new station, Maitri II, by 2029. These stations support various scientific studies, including oceanographic, geological, and remote sensing research.

At ATCM46, India will advocate for peaceful governance in Antarctica, aiming to prevent geopolitical tensions from affecting the continent. Key agenda items include introducing a working group to regulate tourism and presenting plans for Maitri II. Discussions will cover sustainable resource management, biodiversity, climate change impacts, and international cooperation, reinforcing the principles of the Antarctic Treaty and promoting global collaboration in preserving Antarctica's unique environment.



| Clear your doubts now.

### **Key Takeaways**

1. **Event Hosting:** India is hosting ATCM46 in Kochi from May 20-30, organized by the National Centre for Polar and Ocean Research.
2. **Antarctic Treaty:** Enforced since 1961, with 56 member countries, it designates Antarctica for peaceful use and scientific cooperation.
3. **India's Antarctic Presence:** India has three research stations: Dakshin Gangotri, Maitri, and Bharati, with Maitri II planned by 2029.
4. **Peaceful Governance:** India aims to promote peaceful governance and prevent geopolitical tensions from affecting Antarctica.
5. **Tourism Regulation:** India proposes a new working group to regulate tourism in Antarctica, focusing on environmental protection.
6. **Sustainability and Cooperation:** Discussions will cover sustainable resource management, biodiversity, climate change, and international cooperation.

### **HOW VENEZUELA LOST ITS LAST GLACIER, AND WHY THIS MATTERS-Indian Express Explained**

#### Geography

#### **Easy Explanation**

Venezuela has likely become the first country in modern history to lose all its glaciers, following the reclassification of the Humboldt glacier as an ice field. Venezuela once had six glaciers located at about 5,000 meters above sea level in the Andes, but by 2011, only the Humboldt glacier remained. Expected to last another decade, the glacier has now shrunk to less than 2 hectares.

Glaciers, formed from the accumulation of snow over centuries, are crucial sources of freshwater and help maintain cooler downstream water temperatures, essential for aquatic life. Globally, glaciers are melting at unprecedented rates due to climate change, with two-thirds projected to disappear by 2100.

The Andes have seen a temperature increase of 0.10 degrees Celsius in the past seven decades, contributing to glacier loss in Venezuela. The recent El Niño phenomenon has further accelerated the melting of the Humboldt glacier. Losing glaciers impacts freshwater availability, aquatic ecosystems, and contributes to sea level rise. For Venezuela, the loss also affects cultural identity and local tourism activities.

#### **Key Takeaways**

1. **Loss of Glaciers:** Venezuela has lost all its glaciers, with the Humboldt glacier reclassified as an ice field. This marks the end of the country's glacial regions in the Andes, which once had six glaciers. By 2011, five had vanished, and now Humboldt is less than 2 hectares.
2. **Global Trend:** Venezuela's glacier loss reflects a global trend of accelerated glacier melting due to climate change. A 2023 study projects that two-thirds of the world's glaciers could melt by 2100 if current trends continue, highlighting the severe impacts of global warming.
3. **Formation and Importance:** Glaciers, formed from accumulated snow over centuries, are crucial for providing freshwater and maintaining cooler downstream water temperatures essential for aquatic life. They form in areas with near-freezing temperatures and significant winter precipitation.
4. **Impact of Climate Change:** The Andes, spanning several South American countries, has seen a 0.10 degrees Celsius temperature increase over the past seven decades, contributing to glacier loss. Additionally, the El Niño phenomenon has accelerated the melting of the Humboldt glacier.
5. **Consequences:** Glacier loss affects freshwater availability, with communities and ecosystems now relying on spot rainfall. Reduced glacial runoff leads to higher downstream water temperatures, impacting aquatic species. Melting glaciers also contribute to global sea level rise. For Venezuela, the loss is a cultural blow, affecting regional identity, mountaineering, and tourism.



## [Iran after Ebrahim Raisi-Indian Express Explained](#)

International relations

### **Easy Explanation**

Iran mourns the tragic loss of President Ebrahim Raisi and Foreign Minister Hossein Amirabdollahian in a helicopter crash, marking a significant blow to the nation's leadership. Despite Raisi's pivotal role, his untimely death is not anticipated to instigate substantial political or policy upheaval. Raisi's ascent to power, rooted in his conservative background and close association with Supreme Leader Ayatollah Ali Khamenei, underscored the enduring dominance of conservatism in Iran's political landscape, despite economic challenges and strained relations with the West. Raisi's passing initiates a carefully orchestrated succession process, with Mohammad Mokhber assuming the role of acting President, ensuring continuity in conservative leadership. While Raisi's absence may briefly disrupt Iran's assertive foreign policy stance, the nation's power structure remains resilient, with international engagement expected to persist without significant deviation. Raisi's legacy leaves an indelible mark on Iranian politics, yet the country exhibits steadfast resolve in navigating its future trajectory amidst the loss of its esteemed leaders.

### **Key Takeaways**

1. **Loss of Leadership:** Iran mourns the tragic deaths of President Ebrahim Raisi and Foreign Minister Hossein Amirabdollahian in a helicopter crash, leaving a void in the nation's leadership.
2. **Conservative Dominance:** Raisi's rise to power underscored the enduring dominance of conservatism in Iran's political landscape, shaped by his close ties to Supreme Leader Ayatollah Ali Khamenei.
3. **Stability Amidst Loss:** Despite the loss of key leaders, Iran's political and policy landscape is not expected to undergo significant upheaval, highlighting the nation's resilience and continuity in governance.
4. **Succession Process:** Mohammad Mokhber's appointment as acting President ensures continuity in conservative leadership, following constitutional provisions for succession triggered by Raisi's death.
5. **Foreign Policy Impact:** While Raisi's absence may temporarily disrupt Iran's assertive foreign policy stance, the nation's power structure remains resilient, with international engagement expected to persist without major changes.
6. **Legacy of Raisi:** Raisi leaves behind a significant legacy in Iranian politics, shaping the nation's trajectory and leaving an indelible mark on its governance, despite the tragedy of his untimely death.

## [SC to revisit 1995 order on suing doctors in consumer court: here's why-Indian Express Explained](#)

Polity

### **Easy Explanation**

A two-judge bench of the Supreme Court has recommended revisiting a nearly three-decade-old judgment that permitted doctors to be sued in consumer courts for faulty service. Justices Bela M Trivedi and Pankaj Mithal observed in a recent judgment that the ruling, which allowed consumers to sue medical professionals for providing faulty service, merits reconsideration by a larger bench. The 1995 judgment, known as VP Shantha, held that medical professionals offer a "service" under the Consumer Protection Act and can thus be held liable for providing deficient service. However, the recent judgment made a distinction between professionals and businessmen under the Act, asserting that professionals should not be treated the same as traders. The court emphasized that while doctors provide a service, the purpose of the Consumer Protection Act is to address unfair trade practices, not professional services.

### **Key Takeaways**

1. **Revisiting Legal Precedent:** A Supreme Court bench has recommended revisiting the VP Shantha judgment from 1995, which allowed consumers to sue doctors for faulty service, raising questions about the application of the Consumer Protection Act to medical professionals.





2. **Distinction Between Professionals and Traders:** The recent judgment emphasizes a distinction between professionals and businessmen under the Consumer Protection Act, asserting that professionals should not be subject to the same legal scrutiny as traders.
3. **Purpose of Consumer Protection Act:** The court clarified that while doctors provide a service, the primary purpose of the Consumer Protection Act is to address unfair trade practices, not professional services, highlighting a potential misinterpretation of the law in previous judgments.
4. **Complexity of Legal Proceedings:** Legal proceedings under the Consumer Protection Act are held before Consumer Redressal Commissions, which may lack specific knowledge in medical matters, leading to concerns about their ability to handle complex medical issues.
5. **Definition of 'Service' in Medical Profession:** The court identified three types of services in the medical profession and clarified that medical care provided to certain categories of people, even if free of charge, falls within the definition of 'service' under the Consumer Protection Act to ensure equitable access to healthcare.
6. **Contractual Relationship in Medical Care:** The court held that medical care does not constitute a "contract of personal service" as defined under the law, as there is no employer-employee or master-servant relationship between doctors and patients, ensuring that medical practitioners can be held accountable for deficient service regardless of payment.

### India-China consumption comparison-The Hindu Text and Context

International relations

#### **Easy Explanation**

In 2023, India's burgeoning consumer base became the world's most populous, surpassing China amidst its declining birth rate and negative population growth. This demographic shift significantly impacts the consumption dynamics between the two countries, making India potentially more appealing to foreign businesses. India's Private Final Consumption Expenditure (PFCE) as a percentage of GDP significantly outstrips that of China—58% compared to 38%. Additionally, while China's economic size is larger, its PFCE is only about 3.5 times that of India, indicating a stronger relative consumption intensity in India. Despite a higher PFCE growth in China in recent years, India's steady increase and broader consumer base present a substantial market opportunity for international investors. India's consumption expenditure patterns show a higher spending on basic needs like food, clothing, and transport, typical of a developing market, whereas China's expenditure leans towards a more developed consumer profile with higher spends on housing, recreation, and healthcare. This comparison indicates that India, with its vast consumer growth potential and favorable demographic trends, might increasingly attract foreign investments over China, especially in consumer-driven sectors.

#### **Key Takeaways**

1. **Demographic Advantage:** India's population is growing and younger compared to China's aging demographic, presenting a long-term consumption growth potential.
2. **Consumption Expenditure:** India spends a higher percentage of its GDP on consumption compared to China, indicating a vibrant internal market that could attract foreign businesses.
3. **Economic Comparisons:** Despite the size of China's economy, India's consumption relative to its GDP suggests it may reach China's current levels of consumer spending more efficiently.
4. **Sectoral Spending:** India's expenditure is heavily skewed towards essential sectors such as food, clothing, and transport—typical of a developing economy, while China's spending patterns resemble those of more developed economies.
5. **Market Potential:** The growing Indian market offers significant opportunities for foreign businesses looking to diversify beyond China amidst global supply chain adjustments.





6. Future Outlook: Whether India can capitalize on its demographic and economic advantages to become a preferred destination for foreign businesses over China remains to be seen, influenced by policy environment and market accessibilities.

### [An overlooked molecule could solve the Venus water mystery-The Hindu Science](#)

Science

#### **Easy Explanation**

Scientists investigating Venus' extreme water loss compared to Earth have proposed an overlooked molecular reaction that could explain the disparity. Historically, Venus was wet enough to sustain oceans, but today, its water would only cover the planet by 3 cm. This drastic reduction in water is partly due to Venus' hellish atmosphere and its proximity to the Sun, which causes water molecules to split into hydrogen and oxygen, the former escaping into space.

Researchers from the University of Colorado Boulder have highlighted a potential key player in this process: the formyl cation ( $\text{HCO}^+$ ), a molecule previously studied for its role in water loss on Mars. They suggest that this molecule, through a reaction called dissociative recombination, may have significantly accelerated the loss of hydrogen from Venus' atmosphere, doubling the rate previously estimated by other models. This finding suggests that Venus' oceans may have disappeared quicker than previously thought, possibly influenced by this continuous reaction over billions of years.

#### **Key Takeaways**

1. Revised Understanding of Water Loss: The study introduces the formyl cation ( $\text{HCO}^+$ ) as a crucial factor in Venus' rapid water depletion, proposing that it could have doubled the rate of hydrogen escape from the atmosphere.
2. Impact on Planetary Studies: This discovery prompts a reevaluation of water loss mechanisms on other planets, particularly those with atmospheres and compositions similar to Venus and Mars.
3. Implications for Planetary Habitability: Understanding Venus' dramatic drying helps contrast Earth's abundant water, offering insights into the unique conditions that support life and planetary habitability.
4. Need for Further Research: The study highlights gaps in current knowledge, suggesting that future missions to Venus should focus on detecting  $\text{HCO}^+$  ions to confirm their role in atmospheric chemistry and water loss.
5. Broader Relevance: This research contributes to the broader dialogue on how planetary environments evolve, influencing theories on climate change and atmospheric stability across the solar system.
6. Historical Context: The findings build on decades of data, including observations from past missions like NASA's Pioneer Venus orbiter, underscoring the importance of continuous and targeted exploration in space science.

### [The baobab's journey from Madagascar to Africa and Australia-The Hindu Science](#)

Environment

#### **Easy Explanation**

The baobab tree, known for its distinctive, massive trunk and life-giving properties, originally sprouted from the soils of Madagascar about 21 million years ago, a recent genomic study reveals. This comprehensive research, utilizing both genetic and ecological data, traced the baobab's migration to Africa and Australia over the last 12 million years. The spread was largely facilitated by the Indian Ocean gyre, a strong oceanic current that carried the tree's seed pods vast distances from its Madagascan origin to the African and Australian coasts.

The study highlights how, despite the extinction of two original baobab lineages in Madagascar, their progeny flourished abroad, showcasing the species' incredible adaptability and resilience. Baobabs have become integral to their new ecosystems, providing essential resources such as food and shelter to various species. In Africa and



| Clear your doubts now.





Madagascar, their sweet-smelling flowers attract unique pollinators like bush babies and lemurs, respectively, playing a critical role in sustaining the local biodiversity.

Furthermore, baobabs are culturally significant and economically vital to human communities, offering fruits, leaves, and fibers that are utilized for nutrition, medicine, and crafts. The tree's ability to store large volumes of water in its trunk is especially valuable in arid environments, underscoring its importance in natural and human landscapes. This study not only sheds light on the baobab's past migrations but also reinforces the need for ongoing conservation efforts to protect these ecological and cultural treasures.

### **Key Takeaways**

1. **Ancient Origins:** The baobab tree originated in Madagascar around 21 million years ago, establishing it as a native species with deep historical roots in the island's diverse ecosystem.
2. **Global Migration:** Genetic studies have traced the baobab's spread from Madagascar to Africa and Australia within the last 12 million years, facilitated by natural seed dispersal mechanisms.
3. **Role of Ocean Currents:** The migration was significantly aided by the Indian Ocean gyre, a strong ocean current that carried the baobab's seed pods to distant lands, demonstrating the power of natural elements in species distribution.
4. **Ecological Importance:** Baobabs play a crucial role in their ecosystems by providing food, shelter, and other resources to a variety of wildlife, including unique pollinators such as lemurs in Madagascar and bush babies in Africa.
5. **Cultural and Economic Significance:** Beyond ecological value, baobabs are culturally significant to human communities, providing materials for crafts, medicine, and nutrition, particularly in regions where resources are scarce.
6. **Resilience and Adaptability:** Despite the extinction of some original lineages in Madagascar, the baobab's successful establishment in new environments highlights its adaptability and resilience across diverse ecological landscapes.
7. **Conservation Implications:** The findings underscore the importance of conserving the baobab, not only for its ecological roles but also for maintaining the biodiversity and cultural heritage of the regions it inhabits. This study reinforces the necessity of targeted conservation efforts to protect these iconic trees and their broader ecosystems.

### **[Critical times call for strong judicial adjudication-The Hindu editorial](#)**

Polity

### **Easy Explanation**

The Supreme Court of India is soon expected to examine the constitutionality of the Citizenship (Amendment) Act (CAA) and its associated rules. Concerns have been raised about the clarity of these rules, particularly regarding the fate of applicants whose citizenship requests are denied, potentially leading them to detention centers. Additionally, there are issues surrounding the provision of dual citizenship which contradicts the spirit of the parent Act, raising questions about its constitutionality.

Historically, legislation is presumed valid unless proven otherwise. However, the rise of populist regimes worldwide has led to increasingly targeted or motivated legislation, challenging this presumption and demanding a more assertive judicial approach. Recent Indian cases, such as the non-interdiction of demonetisation and the dilution of Kashmir's special status, highlight the consequences of judicial inaction. Similarly, the reinstatement of the executive's predominant role in appointing the Election Commission, despite the Supreme Court's contrary judgment, underscores the need for a more proactive judicial stance.

### **Key Takeaways**



| Clear your doubts now.



1. **Constitutional Scrutiny of CAA:** The Supreme Court will review the CAA to determine if it aligns with constitutional mandates, amidst concerns over its provisions on the rejection of citizenship applications and dual citizenship.
2. **Challenges of Targeted Legislation:** The current global trend of targeted legislation by populist regimes requires a more robust judicial response to uphold constitutional values and protect minority rights.
3. **Presumption of Validity:** Traditional legal presumptions that view legislative actions as inherently valid are being tested by laws that appear to be motivated by specific political agendas rather than general public interest.
4. **Judicial Response to Populist Measures:** Instances like the non-intervention in demonetisation and Article 370 cases show the potential risks of a passive judiciary, which can lead to irreversible societal impacts.
5. **Importance of Timely Judicial Review:** The Supreme Court's approach to recent legislation affecting the Election Commission illustrates the critical need for timely and decisive judicial review to prevent undermining democratic foundations.
6. **Learning from Past Judgments:** The Supreme Court's historical interdictions, such as in cases involving quotas in education and controversial farm laws, demonstrate the importance of proactive judicial oversight in preventing divisive policies.
7. **Need for a Strong Judicial Review Process:** In light of targeted and potentially unconstitutional legislation, there is a pressing need for the judiciary to adopt a clear, immediate, and strong review process to ensure that laws align with constitutional principles and protect against discriminatory practices.

## 22nd May 2024

### [EU's Copernicus emergency service, called in to locate Raisi's chopper-Indian Express Explained](#)

International relations

#### Easy Explanation

Following the crash of Iranian President Ebrahim Raisi's helicopter, the EU activated its Copernicus Emergency Management Service (EMS) at Iran's request to aid in the search efforts. The wreckage was found after an overnight search in severe weather.

The Copernicus programme, part of the EU's space initiative, monitors Earth's environment using data from satellites and ground stations. Launched in 1998 as GMES, it provides free data for applications in land management, marine environment, atmosphere, emergency response, security, and climate change.

Operational since 2012, Copernicus EMS supplies geospatial information for managing natural and man-made disasters. It includes mapping and early warning components. The mapping component has rapid mapping (RM) and risk and recovery mapping (RRM). RM delivers maps within hours or days for immediate response, while RRM provides long-term disaster management maps. The service offers Reference, First Estimate, Delineation, and Grading Products to assist in disaster response and recovery.

#### Key Takeaways

1. **Incident and Response:**
  - Iranian President Ebrahim Raisi's helicopter crashed.
  - The EU activated its Copernicus EMS rapid mapping service at Iran's request to aid in the search.
  - The helicopter wreckage was found after an overnight search.
2. **Copernicus Programme:**
  - Part of the EU's space programme to monitor Earth's environment.
  - Uses data from satellites (Sentinels), commercial, public satellites, and ground stations.



| Clear your doubts now.



- Provides free data for land management, marine environment, atmosphere, emergency response, security, and climate change.
3. Copernicus EMS:
    - Operational since 2012, providing geospatial information for disaster management.
    - Consists of mapping and early warning components.
    - Mapping component includes rapid mapping (RM) and risk and recovery mapping (RRM).
  4. Rapid Mapping Service:
    - Delivers maps within days or hours for immediate response.
    - Uses satellite imagery, geospatial data, and social media.
    - Offers four products: Reference Product, First Estimate Product, Delineation Product, and Grading Product, each providing different levels of information and analysis.
  5. Service Utility:
    - RM was activated to locate Raisi's crashed helicopter.
    - RRM is used for long-term disaster management and recovery.

### [Resilience of Russia's economy-Indian Express Explained](#)

International relations

#### Easy Explanation

Russia's economy has shown remarkable resilience amid intense Western sanctions initiated due to the ongoing conflict that started in early 2022. The economy managed a growth of 3.6% in 2023, supported by strong job markets and robust consumer spending. This resilience can be attributed to several factors: lenient sanctions on the energy sector allowing continued oil exports, particularly to China and India; a recovery in corporate investment fueled by the defense and manufacturing sectors; and vigorous private consumption driven by a buoyant labor market with record low unemployment. Government spending, particularly on defense, and experienced monetary management by the Central Bank of Russia have also played significant roles in stabilizing the economy. However, the long-term sustainability of this economic stability is uncertain, with projections indicating potential slowdowns and ongoing challenges due to sanctions and other geopolitical dynamics.

#### Key Takeaways

1. Economic Growth Amid Sanctions: Russia's economy grew by 3.6% in 2023, showing resilience despite heavy Western sanctions due to the ongoing war.
2. Factors Supporting Resilience: Key factors include lenient sanctions on the energy sector, allowing continued oil exports; strong corporate investment, particularly in defense and manufacturing; and robust private consumption supported by a strong labor market.
3. Strong Job Market and Consumer Spending: The economy benefits from record low unemployment rates and high consumer spending, contributing to overall economic stability.
4. Role of Government and Central Bank: Government defense spending and strategic monetary policies by the Central Bank of Russia, particularly interest rate adjustments, have helped mitigate the effects of sanctions.
5. Long-term Economic Outlook: Despite current stability, the long-term sustainability of Russia's economic performance is uncertain, with growth projections showing potential slowdowns and challenges ahead.
6. Impact of Geopolitical Dynamics: Ongoing geopolitical tensions and sanctions continue to pose risks to Russia's economic future, impacting investment and resource allocation.

### [Why ICC Prosecutor has sought an arrest warrant against Netanyahu-Indian Express Explained](#)

International relations

#### Easy Explanation



| Clear your doubts now.

The International Criminal Court (ICC) Prosecutor has sought arrest warrants against top Hamas officials and Israeli Prime Minister Benjamin Netanyahu, following events stemming from the October 7, 2023 conflict. This legal move targets severe crimes against humanity and war crimes, reflecting ICC's role in prosecuting international crimes when national jurisdictions fail. Accusations include extermination, murder, and attacks against civilians, implicating both Hamas and Israeli leaders in significant violations of international law.

Palestine's membership in the Rome Statute grants the ICC jurisdiction over its territories, enabling it to address crimes within Gaza and the West Bank despite Israel not being a signatory. The decision to issue warrants now rests with a panel of ICC judges, who will assess if there is sufficient evidence to proceed. If issued, the warrants would compel all Rome Statute member states to arrest and extradite the named individuals, potentially impacting international relations and restricting the travel of those implicated. This case underscores the ICC's ongoing commitment to enforcing global legal standards and addressing impunity in armed conflicts.

### **Key Takeaways**

#### 1. ICC Actions:

- Arrest warrants requested for Yahya Sinwar, Mohammed Deif, Ismail Haniyeh from Hamas, and Israeli Prime Minister Netanyahu and Minister of Defence Yoav Gallant.
- Charges include crimes against humanity and war crimes related to the conflict and events from October 7, 2023.

#### 2. Nature of Accusations:

- Hamas leaders are accused of extermination, murder, rape, and other violent crimes from an attack on southern Israel.
- Israeli leaders are accused of causing starvation, great suffering, and directing attacks against civilians in Gaza.

#### 3. Legal Framework:

- The ICC operates under the principle of complementarity with national courts, stepping in when states are unable or unwilling to prosecute.
- Charges reflect the ICC's jurisdiction over both international and non-international armed conflicts, highlighting the complex legal nature of the Israel-Palestine conflict.

#### 4. ICC Jurisdiction and Process:

- Palestine is a member of the Rome Treaty, allowing the ICC jurisdiction over its territory including Gaza and the West Bank.
- Israel is not a member, but the ICC can still prosecute crimes committed on the territory of a member state.
- The ICC's decisions are binding but depend on member states for enforcement, including arrest and extradition of suspects.

#### 5. Implications:

- If the judges approve the warrants, all member states, including close allies of Israel like Germany and the UK, would be obligated to arrest and extradite the indicted individuals if they enter their territories.
- This situation could significantly impact international travel and diplomatic relations for the individuals involved.

### **TURBULENCE-Indian Express Explained**

International relations

#### **Easy Explanation**

A Singapore Airlines flight from London to Singapore experienced severe turbulence, leading to one fatality and about 30 injuries, which necessitated an emergency landing in Bangkok. Turbulence, a disruption in airflow over aircraft



| Clear your doubts now.



wings causing irregular motion, varies in type and intensity, sometimes leading to severe impacts on flight stability. Common causes include wind shear and mountain waves. In response to turbulence risks, the US Federal Aviation Administration (FAA) advises passengers to always wear seat belts, listen to crew instructions, and follow safety protocols. Airlines are recommended to enhance safety by improving communication, incorporating turbulence into weather briefings, and using advanced atmospheric modeling for rerouting. Past incidents highlight the significance of these measures in preventing injuries and ensuring passenger safety during flights encountering turbulence.

### **Key Takeaways**

1. **Nature of Turbulence:** Turbulence is caused by disrupted airflow over airplane wings, leading to irregular movements. Common types include wind shear and mountain waves, which can dramatically affect an aircraft's stability.
2. **Safety Measures:** The US Federal Aviation Administration (FAA) advises passengers to keep seat belts buckled at all times, listen to flight attendants, adhere to safety briefings, and comply with carry-on restrictions to mitigate injury risks during turbulence.
3. **Airlines' Response to Turbulence:** Airlines can enhance safety by improving dispatch procedures, maintaining open communication channels, integrating turbulence into weather briefings, sharing real-time information between pilots and dispatchers, and utilizing atmospheric modeling for rerouting.
4. **Past Incidents and Risks:** Although turbulence is a common challenge for aircraft, severe cases can lead to accidents, underscoring the importance of training, weather information dissemination, and adherence to safety protocols to prevent serious injuries or fatalities.

### **[A time for para diplomacy-Indian Express Editorial](#)**

International relations

#### **Easy Explanation**

The Shiromani Akali Dal (SAD) proposes para diplomacy as a means to promote national interests, focusing on resolving issues such as the Kartarpur Sahib corridor with Pakistan. While territorial adjustments face formidable hurdles, the manifesto underscores the importance of bolstering economic cooperation through cross-border trade routes. However, Pakistan's reluctance to engage economically with India unless political issues, notably Kashmir, are resolved presents a significant challenge. The suggestion to transform the Punjab border into a special economic zone aims to stimulate economic collaboration and improve bilateral relations. Para diplomacy, involving interactions between sub-national entities, emerges as a potential avenue for engagement beyond traditional national diplomatic channels. Success in this endeavor hinges on fostering consensus between the central government and regional parties, underscoring the imperative for collaborative approaches in shaping India's neighborhood policy.

#### **Key takeaways**

1. **Para Diplomacy Proposals:** The Shiromani Akali Dal (SAD) in its manifesto suggests engaging in para diplomacy or sub-state diplomacy to promote national interests, proposing initiatives like negotiating an exchange of territory with Pakistan for Kartarpur Sahib.
2. **Focus on Economic Cooperation:** Amidst challenges in changing territorial boundaries, there's a push for cross-border trade with Pakistan, emphasizing the importance of economic prosperity through reopening border trade routes like Attari and Hussainiwala.
3. **Pakistan's Stance on Economic Cooperation:** Despite calls for economic cooperation, Pakistan's establishment has shown reluctance, often tying trade to the resolution of the Kashmir issue and suspending trade ties in response to political developments.
4. **Potential for Trans-Border Economic Zones:** SAD proposes converting the entire Punjab border into a special economic zone, fostering economic collaboration and integrated development, potentially improving India-Pakistan relations.







5. **Role of Para Diplomacy:** Para diplomacy involves formal interactions between sub-national entities to pursue shared national goals, offering opportunities for engagement that may not be possible at the national government level.
6. **Need for Consensus and Collaboration:** The success of para diplomacy hinges on constructing a consensus between the central government and regional parties in border provinces, underscoring the importance of cooperation in India's neighborhood policy.

### [Analysing local environmental footprints-The Hindu Text and Context](#)

Environment

#### Easy Explanation

A recent study focused on the environmental impact of affluent households in India, particularly those engaging in luxury consumption, examines the increase in CO<sub>2</sub>, water, and particulate matter (PM<sub>2.5</sub>) footprints. This research uses an input/output analysis to assess the indirect and direct environmental impacts of various consumption patterns across different economic classes. The findings highlight that the environmental footprints, especially in terms of CO<sub>2</sub> and air pollution, increase significantly as household wealth increases. The richest 10% of households show footprints approximately double that of the overall population average, with the most substantial increases in air pollution. The study underscores the need for policy interventions aimed at curbing luxury consumption to align with sustainability goals, as these consumption patterns significantly impact local and regional environments, disproportionately affecting marginalized communities.

#### Key Takeaways

1. **Environmental Footprints Studied:**
  - The study analyzes CO<sub>2</sub>, water, and PM<sub>2.5</sub> footprints.
  - These footprints increase significantly with wealth, particularly in households engaged in luxury consumption.
2. **Impact of Luxury Consumption:**
  - Luxury activities such as dining out and purchasing personal goods significantly contribute to higher environmental footprints.
  - The richest households have a much larger environmental impact compared to the average, highlighting the scale of luxury consumption.
3. **Policy Implications:**
  - Policymakers should focus on reducing luxury consumption among affluent households to mitigate environmental impacts.
  - Efforts should also consider the disproportionate effects on marginalized communities, emphasizing environmental justice.
4. **Local vs. Global Environmental Impact:**
  - While global efforts focus on climate change, local and regional footprints like water usage and air quality are crucial, especially as they affect local communities directly.
  - The study suggests a need for policies that address both global and local environmental challenges.

### [RBI's proposed framework to administer project Financing-The Hindu Text and Context](#)

Economy

#### Easy Explanation

The Reserve Bank of India (RBI) has proposed a new framework to regulate long-gestation period financing for projects in infrastructure, non-infrastructure, and commercial real estate sectors. This framework aims to address challenges such as project delays, cost overruns, and financial viability issues commonly faced in these sectors. Key



| Clear your doubts now.

provisions include an increase in provisioning requirements, mandatory prerequisites before financial closure, and the introduction of guidelines for evaluating changes in repayment schedules. The RBI also emphasizes the importance of maintaining a positive Net Present Value (NPV) for projects and suggests annual independent re-evaluation of NPV to mitigate potential stress build-up. Additionally, the framework proposes limits on repayment tenures and criteria for triggering standby credit facilities to address funding overruns due to delays.

### **Key Takeaways**

#### 1. Purpose of the Framework:

- The framework aims to mitigate credit events such as defaults, extension of project timelines, or diminution in NPV by strengthening regulatory oversight and risk management practices.

#### 2. Key Revisions:

- Provisions include increasing provisioning requirements, ensuring mandatory prerequisites before financial closure, and introducing guidelines for evaluating changes in repayment schedules.

#### 3. Prudential Conditions:

- Prerequisites such as environmental, regulatory, and legal clearances must be in place before financial closure, and disbursements will be based on project progress certified by independent engineers or architects.

#### 4. Repayment Norms:

- The proposed framework limits repayment tenures to not exceed 85% of the economic life of the project and introduces criteria for revising repayment schedules based on project scope and size changes.

#### 5. Initial Observations:

- Initial observations suggest potential impacts on near-term profitability for non-banking financial companies, but major banks express confidence in the proposal's limited impact.

Overall, the framework aims to enhance transparency, risk management, and financial stability in project financing, addressing challenges faced by various stakeholders in infrastructure and real estate sectors.

### **X chromosome revival in older women increases risk of autoimmune disease-The Hindu science**

Science

#### **Easy Explanation**

Recent studies highlight the X chromosome's critical role in influencing sex-specific susceptibility to various diseases, including autoimmune disorders and Alzheimer's. The X chromosome, which encodes around 800 genes, is involved in numerous biological functions beyond determining sex. Its malfunction or abnormal behavior can lead to genetic diseases, some of which are linked to the escape from X chromosome inactivation (XCI).

In females, one of the two X chromosomes is typically inactivated to balance gene expression between the sexes. However, this inactivation is not complete, and up to a quarter of X-linked genes can remain active. Researchers have found that disturbances in the XCI process can lead to the reactivation of previously inactive genes, contributing to the development of autoimmune diseases such as lupus, as seen in studies where the Xist RNA's function was disrupted in female mice.

Additionally, the X chromosome has been implicated in Alzheimer's disease, particularly through the action of the USP11 gene, which escapes XCI and may be more active in females, correlating with the higher prevalence of Alzheimer's in women compared to men.

#### **Key takeaways**

1. X Chromosome's Multifaceted Role: Beyond determining sex, the X chromosome influences various biological functions and disease susceptibilities, highlighting its complexity.
2. Autoimmune Disease Susceptibility: Disturbances in X chromosome inactivation can lead to the reactivation of genes, potentially contributing to autoimmune diseases such as lupus and rheumatoid arthritis.



| Clear your doubts now.



3. Alzheimer's Disease Risk: Certain genes on the X chromosome, like USP11, may escape inactivation and be more active in females, correlating with the higher prevalence of Alzheimer's in women.
4. Incomplete XCI: Up to a quarter of genes on the X chromosome can remain active despite inactivation, indicating a delicate balance in gene expression between sexes.
5. Implications for Research and Treatment: Understanding the X chromosome's role in diseases offers opportunities for developing targeted therapies, especially for conditions with sex-specific differences in prevalence and severity.
6. Complexity of Genetic Inheritance: The interplay between genetic inheritance, epigenetic modifications, and disease manifestation underscores the need for comprehensive studies to elucidate disease mechanisms fully.

### [The risks of Russia's nuclear posturing-The Hindu Editorial](#)

International relations

#### Easy Explanation

Russia's recent nuclear posturing, including drills simulating the use of tactical nuclear weapons and plans to station nuclear arms in Belarus, represents a worrying escalation in its ongoing conflict with Ukraine. This strategy signifies a shift from traditional nuclear deterrence principles, which are founded on the threat of mutually assured destruction to prevent nuclear engagement unless facing an existential threat. Instead, Russia appears to be lowering the threshold for nuclear weapon use, positioning these arms as tools of coercion to deter Western involvement in Ukraine rather than as a last resort. Such actions not only destabilize established norms of nuclear engagement but also risk encouraging other nations to consider similar approaches, potentially undermining global non-proliferation efforts and prompting a reevaluation of nuclear policies worldwide. This shift could lead to increased proliferation risks and blur the lines between nuclear and conventional warfare, heightening the risk of nuclear engagement in regional conflicts and altering the global security landscape.

#### Key takeaways

1. Nuclear Coercion as Strategy: Russia's recent maneuvers involving tactical nuclear weapons and the stationing of nuclear arms in Belarus signal a strategy of nuclear coercion rather than defense against existential threats, intended to deter Western involvement in Ukraine.
2. Deviation from Traditional Deterrence: Russia is lowering the threshold for nuclear weapon use, challenging the traditional nuclear deterrence theory based on mutually assured destruction, where nuclear weapons are considered tools of last resort.
3. Global Proliferation Risks: By making nuclear threats at lower conflict levels, Russia might embolden other nations like Iran and North Korea to leverage their nuclear capabilities more aggressively, potentially increasing global nuclear armament.
4. Undermining Non-Proliferation Efforts: Russia's aggressive nuclear posturing undermines international efforts towards nuclear non-proliferation and disarmament, demonstrating to non-nuclear states the potential disadvantages of disarmament.
5. Potential Policy Shifts in Other Nations: The evolving nuclear doctrine may influence other countries to reconsider their nuclear policies, especially in response to perceived existential threats, thereby affecting global security architectures.
6. Blurring Lines Between Warfare Types: Russia's actions risk blurring the distinctions between nuclear and conventional warfare, increasing the likelihood of nuclear engagement in future regional conflicts and elevating global security threats.





# 23rd May 2024

## ['SILENT DEMISE' OF WORLD'S RANGELANDS: WHY THIS MATTERS-Indian Express Explained](#)

Environment

### **Easy Explanation**

The degradation of nearly half of the world's rangelands, as reported by the United Nations Convention on Combating Desertification (UNCCD), signifies a critical yet largely unnoticed environmental crisis. Rangelands, which cover over half of Earth's land area, are essential ecosystems that act as carbon sinks, freshwater reserves, and barriers against desertification. These lands support diverse vegetation and are vital for the livelihoods of millions of people globally, generating 16% of the world's food production and providing 70% of the feed for domesticated herbivores.

However, the degradation of rangelands, driven by climate change, unsustainable land practices, and land rights uncertainties, is leading to reduced soil fertility, biodiversity loss, and economic hardships for pastoral communities. Pastoralism, a livelihood system based on livestock production, is particularly affected. Globally, there are around 500 million pastoralists, with 13 million in India, contributing significantly to the country's livestock industry. India, the largest producer of milk and a major exporter of meat, relies heavily on the well-being of its rangelands. The "silent demise" of these critical ecosystems demands urgent attention and support for affected communities.

### **Key Takeaways**

1. **Rangelands Degradation:** Nearly half of the world's rangelands are degraded, posing a significant threat to ecosystems and communities reliant on them.
2. **Ecological Importance:** Rangelands cover over half of Earth's land area and are crucial carbon sinks, freshwater stores, and prevent desertification.
3. **Food and Livelihoods:** Rangelands contribute to 16% of global food production and 70% of feed for domesticated herbivores, supporting millions of livelihoods globally.
4. **Silent Crisis:** Unlike the visible impact of deforestation, rangelands' degradation occurs silently, with little public awareness or response.
5. **Pastoral Communities:** Pastoralists, who rely on rangelands for livestock rearing, are severely affected by land degradation, impacting their income and food security. India has a significant pastoralist population contributing majorly to its livestock industry.

## [Gopi Thotakura becomes India's first space tourist:What Is Space Tourism?-Indian Express Explained](#)

Science and technology

### **Easy Explanation**

Gopi Thotakura recently became India's first space tourist, joining five others on a brief sub-orbital flight aboard Blue Origin's spacecraft. Space tourism, a burgeoning industry, involves recreational trips to space, offering passengers a few minutes of weightlessness and views of Earth from high altitudes. Thotakura's journey reached approximately 105 km above Earth, just crossing the Karman line, which marks the boundary of outer space. This mission did not involve orbiting the Earth, distinguishing it as a sub-orbital flight.

The space tourism sector has seen increased activity, especially since 2021, with companies like Blue Origin, Virgin Galactic, and SpaceX leading the charge. While Blue Origin and Virgin Galactic have executed several sub-orbital flights, SpaceX is preparing for more extended missions, including orbital flights and trips to the International Space Station (ISS). However, space tourism remains prohibitively expensive, with sub-orbital flights costing around \$450,000 and longer missions to the ISS ranging from \$20 to \$25 million. Despite the high costs, the industry is



| Clear your doubts now.



exploring more affordable options, such as high-altitude balloon rides, which offer a taste of space travel at a fraction of the cost.

### **Key Takeaways**

1. **First Indian Space Tourist:** Gopi Thotakura became the first Indian to embark on a space tourism trip, joining five others on a Blue Origin flight.
2. **Nature of Space Tourism:** Space tourism involves recreational trips to space, typically via sub-orbital flights that provide a few minutes of weightlessness and views of Earth from high altitudes.
3. **Sub-Orbital Flight Details:** Thotakura's journey reached an altitude of about 105 km, just above the Karman line, marking the boundary between Earth's atmosphere and outer space, without orbiting the Earth.
4. **Leading Private Companies:** Blue Origin, Virgin Galactic, and SpaceX are the main private companies in the space tourism industry, with each offering unique space travel experiences.
5. **High Costs:** Space tourism is currently very expensive, with sub-orbital flights costing around \$450,000, and longer missions to the International Space Station costing between \$20 and \$25 million.
6. **Future of Space Tourism:** While current space tourism is for the super-rich, more affordable high-altitude experiences, such as balloon rides reaching around 30 km, are emerging, offering some aspects of space travel at lower costs.

### **A CLIMATE SHIELD-Indian Express Editorial**

Environment

### **Easy Explanation**

Recent studies emphasize the profound economic and social impacts of climate change, suggesting that the world GDP would be 37% higher today without global warming from 1960 to 2019. A paper by the National Bureau of Economic Research (NBER) highlights the extensive economic costs of a hotter planet, far exceeding previous estimates. Another study in *Nature* projects a nearly 20% reduction in average incomes over the next 26 years due to climate change.

These findings underscore the significant impacts of climate-related events like heatwaves, floods, and droughts on health, productivity, and livelihoods.

Vulnerable ecosystems, particularly drylands and rangelands, face severe degradation, affecting the communities that rely on them. Despite their crucial role as carbon sinks, rangelands receive less attention than forests in conservation efforts. In India, the socio-ecological role of pastoralists who depend on these ecosystems is only recently being acknowledged.

While global climate policy has focused on mitigation, the importance of adaptation is becoming increasingly clear. Efforts to build resilience against climate impacts, such as improving healthcare, drought-proofing agriculture, and protecting against natural disasters, remain underfunded. The upcoming COP in Baku presents an opportunity to address this funding gap and incorporate adaptation strategies into the global climate agenda.

### **Key Takeaways**

1. **Economic Impact of Global Warming:** A new NBER working paper suggests that global GDP would be 37% higher today without global warming from 1960 to 2019, indicating the economic costs of climate change are significantly underestimated.
2. **Income Reduction:** Another study in *Nature* predicts that average incomes will fall by almost 20% in the next 26 years due to climate change impacts.
3. **Disproportionate Regional Impacts:** Vulnerable ecosystems like drylands, including rangelands and desert shrublands, are severely affected by climate change, impacting communities that depend on them.
4. **Need for Adaptation:** The studies highlight the importance of building resilience against climate change effects such as heatwaves, floods, and droughts, emphasizing the need for better healthcare, agriculture, and infrastructure adaptation.



| Clear your doubts now.





5. **Underfunded Adaptation Efforts:** Despite the recognition of adaptation needs, funding for these efforts remains insufficient, necessitating a shift in climate policy focus.
6. **Upcoming Climate Deliberations:** The next UN Climate Change Conference (COP) in Baku must address the imperative of integrating adaptation strategies into the global climate funding paradigm.

### [A NEW MORAL COMPASS-Indian Express Editorial](#)

Ethics

#### **Easy Explanation**

Immanuel Kant's philosophy on rationality, ethics, and perpetual peace remains crucial in today's geopolitical strife and blurred lines between reality and fiction. Celebrating his 300th birth anniversary, his ideas prompt a reevaluation of colonialism, imperialism, and modern multilateralism's challenges. The United Nations still lists 17 Non-Self-Governing Territories awaiting decolonization, highlighting the ongoing relevance of Kant's principles.

Kant's vision of perpetual peace could not have foreseen the complexities of today's global governance, where entities like multinational corporations, terrorist organizations, and AI pose new challenges. The inconsistency in applying democratic values, seen in differing responses to protests in the US and India, underscores the need for a consistent moral framework.

India's strategic culture, rooted in ancient texts like the Ramayana, Mahabharata, Arthashastra, and Tirukkural, emphasizes ethics in statecraft, offering lessons for modern diplomacy. Integrating Kant's ideals with India's ancient teachings can guide global governance towards a more ethical and rational future, providing a new moral compass in an increasingly complex world.

#### **Key Takeaways**

1. **Kant's Enduring Influence:** Immanuel Kant's ideas on rationality, ethics, and perpetual peace continue to resonate in today's fractured global order, emphasizing moral and ethical political action.
2. **Reevaluation of Colonialism and Imperialism:** Kant's rejection of imperialism, colonialism, and slavery remains relevant as the UN still lists 17 Non-Self-Governing Territories awaiting decolonization.
3. **Challenges in Modern Multilateralism:** Kant could not have anticipated the complexities of today's multilateral institutions, which include global terrorist organizations, multinational corporations, and the pervasive influence of AI and autonomous weapons.
4. **Double Standards in Democratic Values:** There is a disparity in how democratic values are applied globally, as seen in the contrasting reactions to campus protests in the US and calls for freedom of expression in India.
5. **Importance of Rationality and Ethics:** Rationality, shaped by history and cultural experiences, must be guided by ethics to navigate contemporary challenges like terrorism and international aggression.
6. **India's Strategic Culture:** India's rediscovery of its indigenous strategic culture, rooted in ancient texts like the Ramayana, Mahabharata, Arthashastra, and Tirukkural, offers a moral framework for global diplomacy and governance.

### [On concerns over voter turnout data-The Hindu Text and Context](#)

Polity

#### **Easy Explanation**

The Supreme Court is set to hear a petition by the NGO Association for Democratic Reforms (ADR) on May 24, requesting that the Election Commission of India (ECI) upload voter turnout data for each polling station within 48 hours of the conclusion of polling for each phase of the Lok Sabha elections. This demand arises from significant discrepancies noted between the initial voter turnout figures released by the ECI and the final percentages published





later. Opposition leaders and civil society members argue that publishing Form 17C data, which contains detailed records of votes polled, would enhance transparency and prevent potential manipulation of results.

The ECI, however, maintains it has no legal obligation to publish this data online and contends that sharing Form 17C with polling agents ensures sufficient transparency. The ECI also expressed concerns that online publication could lead to confusion and misuse of the data. In response, the Supreme Court has questioned the ECI's reluctance to upload voting records promptly. Experts argue that smaller parties and independents face difficulties in accessing Form 17C data due to the logistical challenges of deploying polling agents across numerous booths, underscoring the need for online publication to ensure fair access to all stakeholders.

### **Key Takeaways**

1. **Form 17C Data Demand:** Opposition leaders and civil society members are urging the Election Commission of India (ECI) to publish Form 17C data, which records the number of votes polled at each booth, online for transparency.
2. **Supreme Court Petition:** The NGO Association for Democratic Reforms (ADR) has petitioned the Supreme Court to direct the ECI to upload polling station-wise voter turnout data within 48 hours of polling, citing discrepancies between initial and final turnout figures.
3. **Discrepancies in Voter Turnout:** ADR and other stakeholders have noted significant differences between the initial voter turnout figures released by the ECI and the final percentages, raising concerns about data accuracy and potential manipulation.
4. **ECI's Response:** The ECI has argued it has no legal obligation to publish the absolute number of votes polled, asserting that providing copies of Form 17C to polling agents ensures transparency. The ECI also claimed that publishing this data online could cause confusion and be misused.
5. **Supreme Court's Inquiry:** The Supreme Court, while seeking ECI's response, questioned why the ECI could not upload voting records immediately after polling, considering these are available by the end of the polling day.
6. **Challenges for Smaller Parties:** Experts highlight that smaller parties and independents struggle to deploy polling agents in all booths, making it difficult for them to obtain Form 17C data, thus necessitating online publication for fair access.

### **What is the value of attributing extreme events to climate change?-The Hindu Science**

Science

#### **Easy Explanation**

The attribution of extreme weather events to climate change has evolved significantly, moving from skepticism to regular scientific assessments. However, this field still faces challenges, particularly with accurately capturing rainfall and extreme events using climate models. Attribution is vital for the "loss and damage" process, where developing countries seek compensation from richer nations for climate-related impacts. The methodologies used in attribution, such as comparing current conditions with a counterfactual world without climate change, are crucial but complex. A recent report by World Weather Attribution (WWA) highlighted that climate change made heatwaves in Asia 45 times more likely. These findings, while critical, must be interpreted with caution due to the inherent uncertainties and the various methods used. Attribution science must consider not only the extreme events but also the vulnerabilities and exposures of affected populations.

As governments and international bodies discuss climate adaptation, mitigation, and loss and damage funding, reliable attribution exercises are essential. These exercises can inform legal accountability and influence policy decisions. However, they must be integrated into a comprehensive climate action framework to address the multifaceted impacts of extreme weather events and ensure effective resource allocation.

### **Key Takeaways**

1. **Evolution of Attribution Science:** The understanding and methodology of attributing individual weather events to climate change have advanced, though significant uncertainties remain.



| Clear your doubts now.



2. Importance for Loss and Damage (L&D): Attribution exercises are critical for assessing the historic liability of richer countries for climate-related "loss and damage," and for potential legal accountability.
3. Challenges in Attribution: Climate models struggle to accurately capture rainfall, especially extreme events, and are more reliable for temperature-related events at regional, not local, scales.
4. Recent Example: A report by World Weather Attribution (WWA) indicated that climate change made heatwaves across Asia 45 times more likely, using comparisons between current conditions and a counterfactual world without climate change.
5. Complexity of Extreme Events: Attribution of extreme events like heatwaves must consider natural and human factors and is easier at larger scales than at local scales.
6. Implications for Policy and Action: Reliable attribution could influence decisions on relocation, adaptation, and mitigation strategies, and must be integrated with governments' climate actions to address vulnerabilities and exposures effectively.

### [Amazon fires off to record start in 2024-The Hindu Science](#)

Environment

#### **Easy Explanation**

Brazil's Amazon rainforest has seen its largest fires on record in the first four months of 2024, with over 12,000 square kilometers burned. These fires, driven by a severe drought linked to the El Niño phenomenon and global warming, are largely human-ignited for agricultural purposes. The environmental workers' union Ascema attributed the fires in part to a 24% reduction in the firefighting budget for Brazil's environmental agency, Ibama. Despite President Luiz Inácio Lula da Silva's efforts to position Brazil as a leader in climate policy, budget constraints and ongoing negotiations for better pay and working conditions for Ibama agents have hindered firefighting efforts. The federal government has deployed significant resources, including 405 million reais from the Amazon fund and about 380 firefighters to the most affected areas. However, the scale of the fires in the first four months is unprecedented but still less than what typically occurs during the peak dry season from August to November. Experts stress the need for robust prevention measures, such as public awareness campaigns, strategic firebreaks, and prescribed burns, all of which require stable employment conditions for environmental workers.

#### **Key Takeaways**

1. Record Amazon Fires: The Amazon rainforest experienced the largest fires on record in the first four months of 2024, with more than 12,000 square kilometers burned.
2. Contributing Factors: A record drought driven by the El Niño climate phenomenon and global warming contributed to the dry conditions fueling the fires.
3. Human Ignition: Fires in the Amazon are generally ignited by people, often for agricultural land clearing.
4. Budget Cuts: The environmental workers' union Ascema partially blamed the fires on a 24% budget cut to Brazil's environmental agency Ibama for firefighting.
5. Government Response: President Lula's administration allocated 405 million reais from the Amazon fund for state-level firefighting and deployed about 380 firefighters to the hardest-hit state of Roraima.
6. Need for Prevention: Experts emphasize the importance of prevention efforts, such as raising awareness, creating firebreaks, and conducting prescribed burns, which depend on employing adequately supported environmental workers.

### [A 'No-Limit' bromance that is not just a bilateral matter-The Hindu editorial](#)

International relations

#### **Easy Explanation**



| Clear your doubts now.



The recent Beijing Summit between Russian President Vladimir Putin and Chinese President Xi Jinping underscores the deepening ties between Russia and China. Their "no-limit" partnership, solidified amidst growing friction with the West, is marked by increased trade and energy cooperation, with Russia heavily reliant on China for economic support amid Western sanctions. The joint statement from the summit criticized U.S. policies and highlighted their strategic alignment against Western containment efforts.

This summit reflects a significant phase in Russia-China relations, evolving from historical territorial and ideological shifts to current strategic convergence. The partnership, while mutually beneficial, poses challenges for India, which must navigate its defense dependence on Russia amid ongoing border tensions with China. Additionally, the summit's implications suggest a potential new Cold War dynamic, with China aiming to establish an alternative global order through initiatives like BRICS, the Shanghai Cooperation Organisation, and the Belt and Road Initiative.

For India, the summit presents both challenges and opportunities. India's strategic autonomy and growing global influence necessitate a judicious approach to leverage its strengths while maintaining clear long-term national goals. In the evolving geopolitical landscape, India must adopt a nimble strategy to secure its interests and enhance its profile in the global order.

### **Key Takeaways**

1. **Significant Summit:** The recent Beijing Summit between Russian President Vladimir Putin and Chinese President Xi Jinping is notable for its impact on global geopolitics, marking the 75th anniversary of their diplomatic relations.
2. **Phases of Relations:** Russia-China relations have evolved through various phases, from territorial expansion and ideological brotherhood to geopolitical competition and current strategic alignment against the West.
3. **Strengthened Ties:** Their relationship, declared as having "No Limits," has deepened due to mutual opposition to Western policies, with significant increases in trade and energy cooperation.
4. **Geopolitical Implications:** The joint statement from the summit criticized U.S. policies and emphasized a unified stance against Western containment strategies, signaling a potential new Cold War dynamic.
5. **Economic Dependencies:** Russia's dependence on China for market access and critical supplies has increased, while China maintains substantial trade with the U.S., highlighting complex economic interdependencies.
6. **Impact on India:** India faces challenges and opportunities from the strengthened Russia-China alliance, requiring careful assessment of its defense reliance on Russia and strategic positioning in the evolving global order.

**24th May 2024**

### **[Johansson, OpenAI, and the question of personality rights-Indian Express Explained](#)**

Science and technology

#### **Easy Explanation**

Scarlett Johansson has raised concerns over OpenAI's latest AI model, GPT-4o, accusing it of using a voice that closely resembles hers without permission. Johansson had previously denied OpenAI's request to license her voice, and she is not alone in these concerns; other individuals and organizations have also accused OpenAI of using their copyrighted works without consent. This situation brings to light the broader issue of personality and publicity rights, which involve the unauthorized use of a person's name, voice, likeness, or other identifying characteristics for commercial gain. The concept of personality rights is still evolving in legal systems around the world, including India, where notable cases involving celebrities like Rajinikanth, Anil Kapoor, and Jackie Shroff have been brought to court to protect their identity from unauthorized commercial use.

#### **Key Takeaways:**

1. **Scarlett Johansson's Allegation:**



| Clear your doubts now.



- Johansson accused OpenAI of using a voice in GPT-4o that sounds eerily similar to hers, despite her declining a licensing request.
  - OpenAI paused the availability of the voice feature named 'Sky' and apologized for the miscommunication.
2. Broader Context of AI and Copyright:
    - Other entities, including The New York Times and prominent authors, have sued OpenAI for copyright infringement, claiming unauthorized use of their works.
    - Hollywood actors have raised concerns about AI using their likeness without consent or compensation.
  3. Personality Rights in India:
    - Indian celebrities like Rajinikanth, Anil Kapoor, and Jackie Shroff have sought court protection for their personality rights.
    - Personality rights involve the protection of a person's name, voice, image, and other unique attributes from unauthorized commercial use.
    - Notable Indian court cases have ruled in favor of protecting these rights, citing the need to prevent unauthorized commercial exploitation and brand dilution.
  4. Legal Framework and Cases:
    - Indian law does not explicitly define personality rights, often addressing them under privacy and property rights.
    - Legal concepts like 'passing off' and 'deception' are used to determine if protection is warranted.
    - Courts have granted injunctions to prevent unauthorized use of celebrities' identities through technological tools like AI and face morphing.

### Integrated theatre commands-Indian Express Explained

Internal security

#### Easy Explanation

India's defence reform aims to integrate the Army, Navy, and Air Force into joint operational theatre commands to improve efficiency during conflicts or wars. Initiated in 2019 with the creation of the Chief of Defence Staff (CDS) and the Department of Military Affairs (DMA), the reform focuses on creating adversary-based theatres with defined military goals. The proposed structure includes a western theatre command facing Pakistan, a northern theatre command facing China, and a maritime theatre command for the Indian Ocean Region, with headquarters planned in Jaipur, Lucknow, and possibly Coimbatore.

The reform process has involved multiple drafts and ongoing discussions, with final government approval still pending. Integration efforts include establishing common defence stations and joint logistics nodes. The rationalization of existing commands will see some Army, Navy, and Air Force headquarters transformed into theatre command headquarters. Leadership will involve theatre commanders of the rank of General or equivalent reporting to a National Defence Committee, likely headed by the Defence Minister, with additional roles for a Vice CDS and Deputy CDS. India's theatre commands will be uniquely tailored to its security needs, drawing on but not directly copying international models from countries like the United States, China, and France.

#### Key Takeaways:

1. Objective of Defence Reform:
  - The reform aims to integrate the Indian Army, Navy, and Air Force for joint operations in specific adversary-based theatres.
  - The goal is to enhance operational efficiency and coordination during limited conflicts or wars.
2. Initiation and Progress:
  - The process began in 2019 with the establishment of the CDS and DMA.



| Clear your doubts now.





- Multiple drafts have been prepared, and the government is yet to give final approval.
3. Structure of Theatre Commands:
    - Proposed theatre commands include a western theatre command facing Pakistan, a northern theatre command facing China, and a maritime theatre command for the Indian Ocean Region.
    - Headquarters for these commands are planned in Jaipur, Lucknow, and possibly Coimbatore.
  4. Integration Efforts:
    - Steps are being taken to integrate logistics and operations at lower levels.
    - Plans include creating common defence stations and joint logistics nodes.
  5. Rationalization of Commands:
    - The Army and IAF each have seven commands, while the Navy has three, along with two existing tri-service commands.
    - Post-integration, some existing command headquarters will transform into theatre command headquarters.
  6. Leadership and Command Structure:
    - Theatre commands will be led by commanders of the rank of General or equivalent.
    - Theatre commanders will report to a National Defence Committee, likely headed by the Defence Minister.
    - Plans include appointing a Vice CDS for strategic planning and a Deputy CDS for operations and intelligence.
  7. International Context:
    - Major militaries like those of the United States, China, and France have theatre command setups.
    - India's theatre commands will be tailored to its unique security needs, not directly modeled after any other country's system.

### [BRAIN-EATING AMOEBIA-Indian Express Explained](#)

Science

#### **Easy Explanation**

*Naegleria fowleri*, known as the brain-eating amoeba, caused the death of a five-year-old girl in Kozhikode, Kerala. This amoeba, typically found in warm freshwater bodies such as lakes and rivers, can lead to primary amoebic meningoencephalitis (PAM), a severe and often fatal brain infection. Infection occurs when contaminated water is inhaled through the nose, allowing the amoeba to enter the brain via the olfactory nerve and destroy brain tissue. Early symptoms of PAM include headache, fever, nausea, and vomiting. As the disease progresses, patients may experience stiff neck, confusion, seizures, hallucinations, and eventually coma. The infection is highly fatal, with most patients dying within 1 to 18 days after symptoms begin. The current treatment involves antifungal drugs like amphotericin B and other antimicrobials such as azithromycin, fluconazole, and miltefosine. Despite treatment, the fatality rate remains extremely high at 95-97%.

PAM is very rare, with only 20 documented cases in India, including seven in Kerala. Globally, there have been 381 reported cases since the disease was first discovered in 1966. The rarity of PAM underscores the importance of maintaining caution when swimming in warm freshwater environments.

#### **Key Takeaways:**

1. *Naegleria fowleri* Characteristics:
  - Known as the brain-eating amoeba.
  - Found in warm freshwater bodies like lakes, rivers, and poorly maintained swimming pools.
2. Infection Mechanism:
  - Infection occurs through inhalation of contaminated water via the nose.



| Clear your doubts now.

- The amoeba travels to the brain, causing primary amoebic meningoencephalitis (PAM).
3. Symptoms of PAM:
    - Early symptoms: headache, fever, nausea, vomiting.
    - Advanced symptoms: stiff neck, confusion, seizures, hallucinations, and coma.
    - Most cases result in death within 1 to 18 days after symptoms begin.
  4. Treatment and Prognosis:
    - No definitive cure; treatment includes antifungal drugs like amphotericin B and other antimicrobials.
    - PAM has a high fatality rate of 95-97%, even with treatment.
  5. Prevalence:
    - Extremely rare disease.
    - Only 381 cases documented globally since 1966.
    - 20 cases in India, with seven reported in Kerala.
  6. Preventive Measures:
    - Exercise caution when swimming in warm freshwater environments to reduce the risk of infection.

### Why Stone Age could well be called 'WoodAge' : Evidence From Study-Indian Express Explained

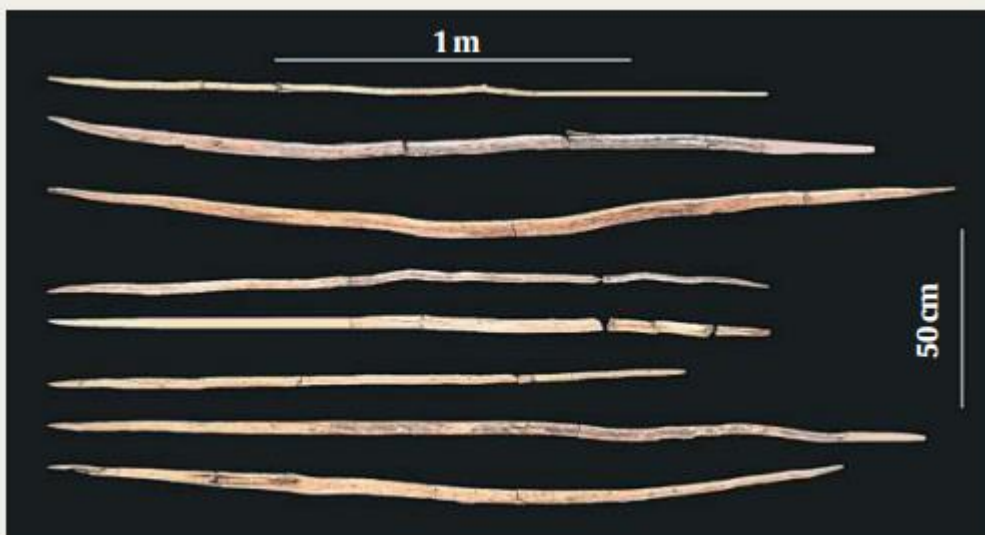
#### History

#### Easy Explanation

A study of prehistoric wooden artifacts from Schöningen, Germany, has revealed that these were not just simple tools but exhibited a high degree of technological sophistication, indicating advanced wood-working techniques such as splitting, scraping, and abrasion. Dated to approximately 400,000 years ago, these tools predate modern Homo sapiens and showcase a variety of woodcraft skills. The preservation of these artifacts in peatland, which prevented organic decay, provides rare insights into the technological capabilities of pre-modern hominids. This challenges the traditional Stone Age narrative, suggesting a revision to include what could be termed a "Wood Age," given the apparent prevalence and sophistication of wood utilization in early human history.

#### Key Takeaways:

1. Technological Complexity: The wooden artifacts from Schöningen demonstrate advanced woodworking skills, challenging the primitive image of early humans.
2. Preservation and Discovery: The unique preservation conditions in Schöningen's peatland allowed for the exceptional survival of wooden tools, offering a glimpse into rarely seen aspects of prehistoric life.
3. Implications for Human Prehistory: The findings suggest that wood played a significant role in early



The famous Schöningen spears were excavated in the 1990s. *PNAS study*



| Clear your doubts now.



human technology, comparable to stone. This could lead to a reevaluation of early human material culture and capabilities.

4. **Reevaluation of Early Human Behavior:** The discovery supports the idea that pre-modern hominids engaged in systematic hunting with foresight and planning, using technology thought to be exclusive to modern humans.
5. **Potential Revision of Historical Periodization:** The evidence challenges the traditional Stone Age classification, proposing that early human history might also be viewed as a Wood Age due to the extensive use of wood in daily and survival activities.

### Model code and context-Indian Express Editorial

Polity

#### **Easy Explanation**

"Satyameva Jayate," India's national motto, epitomizes the nation's dedication to truth in governance, symbolizing democratic ideals. However, the philosophical intricacies of truth, as pondered by Francis Bacon, pose challenges in its application. The Model Code of Conduct (MCC), instituted to ensure fair elections, faces criticism for its susceptibility to exploitation and political rhetoric, questioning its effectiveness in preventing undue voter influence. The MCC's language nuances and legal interpretations create loopholes, diluting its ability to curb appeals based on divisive factors like caste or religion, thus challenging its integrity.

Referencing the Mahabharata, Yudhisthira's moral quandary serves as a timeless allegory, underscoring the importance of ethical conduct in politics. While elections are essential for democracy, safeguarding moral principles among leaders and citizens is crucial to prevent enduring societal harm. The MCC's implementation demands introspection and refinement to align with democratic values, emphasizing transparency, accountability, and the pursuit of truth.

Upholding these principles ensures that electoral processes remain pillars of democratic governance, fostering trust and integrity in the nation's political landscape.

#### **Key Takeaways**

1. **National Motto and Democracy:** "Satyameva Jayate" symbolizes India's commitment to truth and democracy, highlighting the importance of honesty and integrity in governance.
2. **Complexity of Truth:** Philosophical debates and human behavior reveal the intricate nature of truth, challenging simplistic interpretations and solutions.
3. **Model Code of Conduct (MCC):** Established to ensure fair elections, the MCC aims to curb undue influence on voters. However, its effectiveness is questioned due to political sparring and legal loopholes.
4. **Challenges in Enforcement:** Ambiguities in the MCC's wording pose challenges in enforcing regulations against appeals based on caste, religion, or language, undermining its intended purpose.
5. **Lessons from Mythology:** The Mahabharata offers a cautionary tale about the consequences of half-truths and moral compromises, emphasizing the importance of ethical conduct in politics.
6. **Preserving Moral Integrity:** While elections are essential for democracy, maintaining moral integrity among leaders and citizens is crucial to prevent long-term damage beyond the electoral process.

### Rising debt strains household savings-The Hindu Text and Context

Economy

#### **Easy Explanation**

In 2022-23, India witnessed a significant decline in the household net financial savings to GDP ratio, primarily due to an increased borrowing to GDP ratio. This shift is not merely a reconfiguration of savings patterns but highlights a structural shift in the macroeconomy, particularly exacerbated in the post-COVID era. The core issue stems from the debt-income ratio surging due to higher borrowing and greater interest payment burdens, amid nominal income



| Clear your doubts now.

growth lagging behind lending rates, a phenomenon termed "Fisher dynamics." This scenario differs starkly from earlier periods where household income growth typically outstripped lending rates.

The economic discourse now faces the challenge of addressing these structural shifts through macroeconomic policies. The focus needs to extend beyond traditional targets like inflation and government debt to encompass measures that bolster household income growth. This approach is crucial to alleviate the mounting financial stress on households and stabilize the broader economy. The policy adjustments are vital not only to curb the growing disparity between income growth and interest rates but also to prevent potential long-term downturns in household financial health and overall economic stability.

#### **Key Takeaways:**

1. **Increased Borrowing and Debt Burdens:** Households have faced rising debt-income ratios due to higher borrowing and increased interest payments, particularly noticeable in the post-COVID period.
2. **Structural Shifts in the Economy:** The nominal income growth rate has consistently been lower than the lending rates, a reversal from earlier periods, indicating a significant structural change in the economy.
3. **Impact on Household Savings:** The net financial savings to GDP ratio has declined notably due to these factors, not compensated by an increase in physical savings.
4. **Macroeconomic Policy Implications:** There is a crucial need for macroeconomic policies that support household income growth to alleviate financial stress and ensure economic stability.
5. **Historical Comparison and Future Outlook:** Unlike the pre-global financial crisis period when household income generally outpaced lending rates, current dynamics pose unique challenges that require targeted policy interventions to prevent long-term economic repercussions.

### **The 'chilling cover-up' of the U.K.'s contaminated blood scandal-The Hindu science**

Science

#### **Easy Explanation**

The Infected Blood Inquiry in the U.K., led by Sir Brian Langstaff, has unveiled a harrowing scandal within the National Health Service (NHS), marking it as one of the worst treatment disasters in its history. Spanning from the 1970s to the 1990s, over 30,000 people were infected with HIV, Hepatitis B, and Hepatitis C through contaminated blood products imported from the U.S. This resulted from systemic failings and a lack of regard for patient safety by doctors, government bodies, and blood services.

The inquiry exposed that these infections were not accidental but the result of preventable errors, cost-cutting measures, and bureaucratic indifference. Despite early warnings about the risks associated with these blood products, necessary actions like adequate screening and safer treatment alternatives were delayed. The government's defensive stance and prolonged refusal to hold a public inquiry exacerbated the impact, leading to thousands of deaths. Recommendations from the inquiry include immediate compensation for victims, public memorials, and significant reforms to ensure patient safety is prioritized to prevent such tragedies in the future. The report stresses the importance of integrating the patient voice into healthcare decisions and learning from past mistakes to improve future medical practices.

#### **Key Takeaways:**

1. **Scope of Disaster:** Over 30,000 people infected with severe blood-borne diseases over two decades, with a significant number of these infections leading to death.
2. **Causative Factors:** Use of contaminated blood products from high-risk donors in the U.S., despite early warnings from the World Health Organization and emerging evidence of risks associated with these products.
3. **Government and Institutional Failures:** Persistent governmental and institutional defensiveness and a failure to prioritize patient safety over economic considerations led to a prolonged use of unsafe blood products.
4. **Lack of Immediate Action:** Delays in implementing screening for viruses and in transitioning to safer treatment methods for haemophilia and other conditions necessitating blood products.





5. Cultural Issues: A culture of suppressing critical information and overriding patient autonomy contributed to the scandal, with instances like the experimentation on children at Treloar's College highlighting the ethical breaches involved.
6. Inquiry's Outcomes: Recommendations for immediate compensation, public memorials, and systemic changes in medical practices to ensure such a disaster never recurs.

The Infected Blood Inquiry has prompted a reevaluation of medical ethics, regulatory oversight, and the importance of listening to and prioritizing patient voices in the U.K.'s healthcare system

### [Should doctors be kept out of the Consumer Protection Act?-The Hindu Editorial](#)

Governance

#### Easy Explanation

The debate on whether doctors should be excluded from the Consumer Protection Act (CPA) arises from the Supreme Court's reconsideration of a 1995 ruling which subjected medical professionals to the act's provisions. Advocates argue that medical services, inherently complex and unpredictable, should not be equated with typical consumer transactions. Critics of the exclusion worry about the loss of a crucial avenue for patient redress. Rajeshwari Sekar supports revising the definition of 'service' under the CPA to exclude doctors, highlighting the specialized nature of medical care and the potential misuse of the CPA that leads to defensive medicine, which escalates healthcare costs. Conversely, Saroja Sundaram defends the inclusion of medical services under the CPA, emphasizing its role in providing accessible redress for patients wronged by medical malpractice, a recourse not sufficiently covered by medical councils or traditional legal systems.

#### Key Takeaways:

1. Complexity of Medical Services: Medical procedures involve high stakes and unpredictable outcomes, complicating their categorization as standard consumer services.
2. Misuse of the CPA: Some patients may exploit the CPA to avoid paying fees or to seek damages unjustly, placing undue pressure on healthcare providers.
3. Need for Specialized Oversight: The potential for an independent authority specifically for medical disputes is suggested, akin to ombudsmen in other sectors, which could provide expert oversight and faster resolution.
4. Protection for Patients: The CPA provides a necessary mechanism for patients to seek redress and ensures accountability in healthcare, compensating for gaps in medical council actions and the general legal framework.
5. Balance of Interests: Ensuring that both medical professionals are protected from frivolous lawsuits and patients from genuine malpractice is a pivotal concern in the ongoing debate over the scope of the CPA in healthcare.

## 25th May 2024

### [Religion as sole factor: Why Calcutta HC quashed OBC quota for Muslims-Indian Express Explained](#)

Polity

#### Easy Explanation

The Calcutta High Court struck down orders from the West Bengal government that granted OBC status to 77 communities, predominantly Muslims, citing that religion was the sole criterion for this classification. This decision was grounded in the constitutional prohibition against granting reservations based solely on religion, as established by the Supreme Court in the Indra Sawhney case. The judgment occurred in the midst of an election campaign where the BJP accused the opposition of reallocating reservations from Hindus to Muslims. The orders were initially issued by the Left Front government in 2010 and expanded by the Trinamool Congress in 2012, with challenges arguing they were based



| Clear your doubts now.



on unscientific data and politically motivated. The court also invalidated parts of the 2012 Act allowing the state to sub-classify OBCs without consulting the Backward Classes Commission, emphasizing the need for a fair and impartial classification process.

### **Key Takeaways**

1. **Religion as Sole Criterion:** The Calcutta High Court quashed the West Bengal government's orders granting OBC status to 77 communities, 75 of which were Muslim, on the grounds that religion was the sole basis for these reservations.
2. **Constitutional Violation:** The court ruled that the reservation based purely on religion is prohibited by the Constitution and previous Supreme Court judgments, notably the Indra Sawhney case (Mandal judgment).
3. **Election Context:** The decision comes amidst an election campaign where reservation for Muslims is a contentious issue, with the BJP accusing the opposition of unfairly reallocating reservations from Hindus to Muslims.
4. **Previous Government Orders:** The reservations were initially granted by the Left Front government in 2010 and expanded by the Trinamool Congress in 2012. The classifications were challenged in court for lacking scientific data and being politically motivated.
5. **Rapid Implementation:** The court noted that the Commission's recommendations were made swiftly following a public announcement by the then Chief Minister, suggesting a political motive.
6. **Sub-classification of OBCs:** The court also struck down provisions of West Bengal's 2012 Act that allowed the government to sub-classify OBCs into "more backward" and "backward" categories and to amend the OBC list without consulting the Commission.

### **What are AI agents and How are they different from LLMS-Indian Express Explained**

Science and technology

#### **Easy Explanation**

AI agents, such as OpenAI's GPT-4o and Google's Project Astra, represent a significant leap from conventional voice assistants like Alexa and Siri, introducing multimodal interactive capabilities. These agents engage in real-time interactions using text, voice, and visual inputs, enabling more natural and immersive communication. Unlike large language models that generate text-based responses, AI agents process diverse inputs, understand context, and perform autonomous tasks. Their versatility allows them to be applied in various fields, from customer service and education to healthcare and robotics.

The shift from chatbots to AI agents highlights advancements in AI technology, emphasizing the need for responsible deployment. Privacy, security, and bias are critical challenges, necessitating appropriate regulatory frameworks. Despite these concerns, AI agents promise to enhance human-AI interaction, making them valuable tools across multiple domains.

#### **Key Takeaways**

1. **Definition and Capabilities:** AI agents like GPT-4o and Project Astra are advanced AI systems capable of engaging in real-time, multimodal interactions with humans through text, voice, and visual inputs, making them more versatile and responsive than conventional voice assistants.
2. **Technological Advancement:** The launch of GPT-4o and Project Astra marks a transition from traditional chatbots to interactive AI agents, signifying a new phase in AI development.
3. **Environment Interaction:** These AI agents perceive their environment via sensors, process the information using algorithms or AI models, and take actions, enabling more natural and immersive interactions.
4. **Comparison with LLMs:** Unlike large language models (LLMs) that generate human-like text, AI agents can understand context, learn from interactions, and perform tasks autonomously, including coding and data analysis.



5. **Versatility:** AI agents are adaptable to new situations, making them suitable for various applications, including gaming, robotics, virtual assistants, and autonomous vehicles.
6. **Potential Uses:** AI agents can serve as intelligent assistants in customer service, education, healthcare, and more. They can offer personalized recommendations, schedule appointments, provide real-time analysis, and monitor patients.
7. **Risks and Challenges:** Key concerns include privacy and security due to access to personal and environmental data, potential biases from training data, and the need for regulations and governance frameworks to ensure responsible deployment.

### [What Jobs data show-Indian Express Explained](#)

#### Economy

##### **Easy Explanation**

A pre-poll survey by CSDS-Lokniti reveals that unemployment and price rise are the primary concerns for voters in the 2024 elections, with 29% and 23% respectively highlighting these issues. Data from the Centre for Monitoring Indian Economy (CMIE) underscores that joblessness has significantly impacted all communities in India over the past eight years. The Labour Force Participation Rate (LFPR) has dropped by 5.8%, and the Employment Rate (ER) has declined by 5.6 percentage points from 2016-17 to 2023-24. Hindus, who constitute the majority, experienced the most substantial decline in employment, with the ER for OBCs and SCs plummeting by 6.36 percentage points. Despite the falling LFPR, the unemployment rate (UER) increased from 7.42% to 8.03% during the same period, indicating fewer people are seeking jobs. Muslims had the highest UER in 2016-17 and continue to have a high UER of 8% in 2023-24. The data also highlights that while upper-caste Hindus had the lowest employment rate in 2016-17, they remain the lowest in 2023-24. This widespread decline in employment rates across all communities, especially among OBCs and SCs, underscores the pressing need for effective policy interventions to address joblessness and economic challenges in India.

##### **Key Takeaways**

1. **Unemployment as a Major Issue:** According to a pre-poll survey by CSDS-Lokniti, unemployment is the most crucial issue for voters in the 2024 elections, with 29% citing it as their primary concern. The second major issue is price rise, mentioned by 23% of the respondents.
2. **Widespread Joblessness:** Data from the Centre for Monitoring Indian Economy (CMIE) highlights that joblessness has impacted all communities in India, with the employment rate (ER) for Hindus, particularly OBCs and SCs, falling sharply by 6.36 percentage points between 2016-17 and 2023-24.
3. **Decline in Labour Force Participation Rate (LFPR):** India's overall LFPR has decreased by 5.8% over the past eight years, with the largest contributors to this decline being Hindus. The LFPR among Hindus fell from 46.6% in 2016-17 to 40.53% in 2023-24. Muslims continue to have the lowest LFPR.
4. **Unemployment Rate (UER) Trends:** Despite the falling LFPR, the unemployment rate in India increased from 7.42% in 2016-17 to 8.03% in 2023-24. The UER for Hindus followed a similar trend, rising from 7.28% to 8.07% during the same period. Muslims had the highest UER in 2016-17 and continue to have a high UER of 8% in 2023-24.
5. **Employment Rate (ER) Decline:** The ER, which is a critical metric in assessing employment health, has dropped significantly. India's overall ER fell by 5.6 percentage points from 42.8% in 2016-17 to 37.2% in 2023-24. Hindus experienced the most substantial decline in ER, falling almost 6 percentage points to 37.26% in 2023-24.
6. **Impact on Different Castes:** Within the Hindu community, OBCs and SCs, which make up the majority of the working-age population, saw the most significant decline in employment rates. The ER for these groups fell by 6.36 percentage points from 2016-17 to 2023-24. Upper-caste Hindus had the lowest ER in 2016-17 and continue to have the lowest in 2023-24, albeit at a further reduced level.





## [Why Norway, Ireland, and Spain have decided to recognise Palestine as a state-Indian Express Explained](#)

International Relations

### **Easy Explanation**

Norway, Ireland, and Spain have decided to recognize Palestine as a state, marking a significant shift in Western European countries' stance. Recognition of statehood provides legitimacy and the capacity to engage in international relations. Currently, Palestine is a "Permanent Observer State" at the UN, participating in proceedings without voting rights. Despite attempts for full UN membership, vetoes, particularly from the United States, have blocked Palestine's efforts. Recognition of Palestine supports the right to self-determination and is a step towards the two-state solution proposed by the 1947 UN Partition Plan. This move by Norway, Ireland, and Spain could pave the way for further international recognition, emphasizing the need for peace and coexistence between Israel and Palestine.

### **Key Takeaways**

1. **Recognition of Palestine:** Norway, Ireland, and Spain have announced their decision to recognize Palestine as a state, marking the first time Western European countries have made such a commitment. This move supports Palestine's aspiration to be seen as a legitimate political entity.
2. **Importance of Statehood:** Recognition as a state provides a region with legitimacy and the capacity to engage in international relations. The Montevideo Convention outlines four criteria for statehood: a permanent population, defined territory, government, and the capacity to enter into relations with other states.
3. **Current Status of Palestine:** Palestine is currently a "Permanent Observer State" at the United Nations, allowing participation in proceedings without voting rights. Despite attempts to gain full membership, Palestine has been blocked by vetoes, notably from the United States.
4. **International Recognition:** Before the recent announcements, 143 of the UN's 193 members recognized Palestine. This recognition is crucial for the Palestinian people's right to self-determination.
5. **Historical Context:** The 1947 UN Partition Plan proposed separate Jewish and Arab states, but was rejected by Palestinian leaders, leading to the Arab-Israeli war. Israel was subsequently recognized by the UN, while Palestine's statehood has been a contentious issue.
6. **Significance of the Move:** Recognition by Norway, Ireland, and Spain signifies a shift in Western support for Israel and could lead to further international recognition of Palestine. This move is seen as a step towards the two-state solution, emphasizing the need for peace and coexistence.

## [Power play in the sea-Indian Express Editorial](#)

International relations

### **Easy Explanation**

Amidst China's recent military exercises around Taiwan, the intention to project power and potentially annex key areas is evident. These exercises, involving various branches of the Chinese military, aim to intimidate Taiwan's pro-independence leadership following the election of President Lai Ching Te. While such drills are not new, the current geopolitical context raises concerns. President Xi Jinping's ambition for "re-unification" with Taiwan, coupled with a willingness to consider the use of force, adds to regional tensions. Additionally, China's assertive actions in the South China Sea and the Indo-Pacific signal a broader strategy of territorial expansion and influence. This prompts caution among regional stakeholders and underscores the importance of monitoring developments closely. As China seeks to consolidate its power and assert dominance, countries with interests in the region must remain vigilant to safeguard stability and prevent further escalation of tensions.

### **Key takeaways**

1. **China's Military Exercises:** Recent military drills around Taiwan by China demonstrate its intent to project power and potentially annex key areas.



| Clear your doubts now.



2. **Intimidation Tactics:** These exercises, involving various branches of China's military, are seen as attempts to intimidate Taiwan's pro-independence leadership, especially following the election of President Lai Ching Te.
3. **Geopolitical Concerns:** President Xi Jinping's rhetoric about "re-unification" with Taiwan, coupled with a willingness to consider the use of force, raises concerns about regional stability and potential military escalation.
4. **Expansionist Agenda:** China's assertive actions in the South China Sea and the Indo-Pacific signal a broader strategy aimed at territorial expansion and influence.
5. **Regional Tensions:** These exercises contribute to regional tensions and prompt caution among neighboring countries and other stakeholders.
6. **Vigilance Required:** Countries with interests in the region must remain vigilant to safeguard stability and prevent further escalation of tensions amidst China's efforts to consolidate power and assert dominance.

### After the blaze-Indian Express editorial

Governance

#### Easy Explanation

The recent explosion at a chemical factory in Thane, Maharashtra, resulting in fatalities and injuries, underscores the urgent need for enhanced industrial safety measures and regulatory oversight. Despite previous incidents in the area, safety concerns persist due to lax enforcement of regulations and insufficient monitoring. The Maharashtra government has promised strict action and considerations of closure or relocation for hazardous units, but such reactive responses may not address the root causes. India's chemical industry faces regulatory fragmentation, weak enforcement, and corruption, leading to gaps in oversight and accountability. Comprehensive reforms are necessary to address these challenges and improve worker safety. Past industrial disasters, including the Bhopal Gas Tragedy, highlight the consequences of neglecting safety protocols. Lack of data on chemical usage and associated risks further underscores the need for a robust database to inform regulatory decisions and prevent future accidents. The Thane explosion serves as a stark reminder of the ongoing challenges in ensuring industrial safety and the imperative for proactive measures to prevent future tragedies.

The recent explosion at a chemical factory in Thane, Maharashtra, resulting in casualties and injuries, underscores the urgent need for enhanced industrial safety measures and regulatory oversight. Despite previous incidents in the area, safety concerns persist due to lax enforcement of regulations and insufficient monitoring.

#### Key Takeaways

1. **Safety Lapses:** The factory lacked proper registration and safety measures, highlighting systemic failures in ensuring compliance with industrial standards.
2. **Repeated Incidents:** Previous accidents in the Thane industrial complex point to a pattern of disregard for safety protocols and regulatory deficiencies.
3. **Government Response:** While the government has promised strict action and considerations of closure or relocation of hazardous units, such knee-jerk reactions may not address the root causes.
4. **Regulatory Challenges:** India's chemical industry faces regulatory fragmentation, weak enforcement, and corruption, leading to gaps in oversight and accountability.
5. **Need for Reform:** Comprehensive reforms are necessary to address regulatory deficits, improve monitoring, and enhance worker safety.
6. **Historical Context:** Past industrial disasters, including the Bhopal Gas Tragedy, highlight the consequences of neglecting safety protocols and the importance of learning from such tragedies.
7. **Knowledge Gap:** Lack of data on chemical usage and associated risks underscores the need for a robust database to inform regulatory decisions and prevent future accidents.

Overall, the Thane explosion serves as a stark reminder of the ongoing challenges in ensuring industrial safety and the imperative for proactive measures to prevent future tragedies.



| Clear your doubts now.

### [Southern sojourn-The Hindu editorial](#)

International relations

#### **Easy Explanation**

At the 46th Antarctic Treaty Consultative Meeting in Kochi, Kerala, delegates from over 60 countries, including India, convened to discuss governance issues related to Antarctica. A primary focus of this meeting was the increasing concern over unregulated tourism on the continent. The rise in tourist numbers, from 8,000 in 1993 to 105,000 in 2022, now surpassing the number of scientists, highlights the urgent need for a regulatory framework to manage tourism effectively. The pristine and isolated nature of Antarctica makes it vulnerable to environmental impacts and safety risks associated with increased human activity. Concerns were expressed about the potential for pollution, accidents, and disruption to the unique biodiversity of the region. Politically, there is anxiety that increased human presence might influence future territorial claims, despite existing treaties that prohibit such claims. India, while a proponent of regulated tourism, remains cautious about any agreements that could limit future tourism opportunities. The discussions reflect a global recognition of the need to balance the exploration and preservation of one of Earth's last untouched frontiers. This meeting underscores the complexity of managing Antarctica's unique environment in the face of growing tourist interest.

#### **Key Takeaways**

1. Antarctic Treaty Consultative Meeting in Kochi: Delegates from over 60 countries have gathered in Kochi, Kerala for the 46th Antarctic Treaty Consultative Meeting (ATCM), focusing on the governance of Antarctica. India is among the 29 countries with voting rights in this meeting.
2. Tourism Regulation Proposal: A central agenda item is the regulation of tourism in Antarctica. A group of like-minded countries, including India, is pushing for a regulatory framework to manage tourism on the continent effectively.
3. Unique Nature of Antarctica: Antarctica's geographical isolation and pristine environment make it particularly vulnerable to the impacts of tourism. The continent is described as the last "wild" area on Earth, devoid of indigenous populations and largely untouched by human activity.
4. Surge in Tourism: Tourism in Antarctica has increased significantly, from 8,000 visitors in 1993 to 105,000 in 2022. This rise in tourism, which now reportedly exceeds the number of scientists, poses significant environmental and safety risks.
5. Environmental and Political Concerns: There are concerns about pollution, accidents, and the potential disruption of Antarctica's unique biodiversity. Politically, there are worries that increased human presence could influence future territorial claims, despite treaty provisions prohibiting such claims.
6. India's Stance and Challenges: Although currently minimal, the number of Indian tourists visiting Antarctica could increase. India supports the proposal for regulated tourism but remains cautious about any agreements that might limit future opportunities in Antarctic tourism.

### [The missing links in IMEC, as shown by the Gaza war-The hindu Editorial](#)

International relations

#### **Easy Explanation**

The India-Middle East-Europe Corridor (IMEC), designed to enhance connectivity between Asia and Europe, confronts significant challenges from regional conflicts, particularly highlighted by disruptions during the recent Gaza war. The corridor's reliance on key ports in conflict-prone areas like Israel and the Persian Gulf exposes it to geopolitical risks. The Gaza war exemplified these vulnerabilities, with key ports like Haifa facing operational disruptions and threats to the Strait of Hormuz impacting shipping routes. To mitigate these risks, integrating alternative routes through Oman



| Clear your doubts now.





and Egypt is proposed. Oman offers safer connections to India, bypassing the volatile Strait of Hormuz, while Egypt provides a direct and secure pathway to European ports, avoiding the conflict zones of the Middle East. This strategic adaptation not only aims to secure the corridor against potential future disruptions but also capitalizes on the historic trade relations and favorable political ties of Oman and Egypt. Enhancing the IMEC with these alternative routes could stabilize regional trade dynamics, improve economic reliability, and position the corridor as a viable counter to China's Belt and Road Initiative, ensuring its long-term success and relevance in global trade.

### **Key Takeaways**

1. **Vulnerability of IMEC:** The IMEC is vulnerable due to its reliance on regions prone to conflict, like the Persian Gulf and Israel, highlighted by disruptions during the Gaza war.
2. **Strategic Importance of Oman and Egypt:** Incorporating Oman and Egypt into the IMEC can mitigate risks, offering safer connections to India and direct routes to Europe, away from conflict zones.
3. **Impact of Regional Conflicts:** Recent conflicts, such as the Gaza war and tensions in the Persian Gulf, have disrupted shipping routes and increased costs, emphasizing the need for alternative pathways in the IMEC plan.
4. **Political Dynamics and Economic Implications:** Adding Oman and Egypt to the IMEC could stabilize regional dynamics and enhance economic reliability, leveraging their favorable global relations and historic trade ties.
5. **Future Resilience and Opportunities:** By addressing vulnerabilities exposed by conflicts and incorporating alternative routes, IMEC can enhance its resilience and position itself as a viable alternative to China's BRI.

26th May 2024

[Warming climate intensifies flash droughts worldwide- The Hindu Science](#)

### **Explained in Easy Language**

The research examines the phenomenon of "flash droughts," which are sudden and severe dry spells that have been increasing around the globe due to climate change. These droughts come on quickly, often without much warning, making them particularly dangerous and difficult to manage. The study uses data from the past four decades to analyze these droughts in detail, aiming to improve how we predict and prepare for them.

Interestingly, while most parts of the world are seeing an increase in the intensity and frequency of these flash droughts, Central Asia—particularly its mountainous regions—is experiencing a decrease. This area, known for its high mountain ranges like the Himalayas and the Tianshan, is witnessing a shift from snow to rain and changes in snowpack melting patterns, which help keep the soil moist and reduce the occurrence of these droughts. However, this moisture does bring its own set of challenges, such as increased flash flooding.

The study highlights specific regions like South America and parts of Africa where flash droughts are becoming more common and severe, linking these trends to factors like high temperatures, deforestation, and changes in rainfall. It also points out that certain landscapes, such as savannas and grasslands, are more vulnerable to these quick-onset droughts.

### **Key Takeaways**

- **Increasing Flash Droughts Globally:** The study confirms that sudden and severe dry spells, known as flash droughts, are becoming more frequent and intense worldwide due to climate change, particularly due to rising temperatures and altered precipitation patterns.



| Clear your doubts now.



- Exception in Central Asia: Contrary to the global trend, the mountainous regions of Central Asia are seeing a decrease in the extent of flash droughts. Changes in climate patterns, like more rainfall and less snow, help maintain soil moisture, reducing drought occurrence.
- Impact on Disaster Preparedness: This research is crucial for improving how we predict and respond to these quick-forming droughts, aiming to enhance global disaster preparedness.
- Regional Hotspots: Specific areas, especially in South America and Africa, are identified as hotspots where flash droughts are intensifying, influenced by factors such as deforestation, temperature increases, and decreased rainfall.
- Vulnerability of Certain Landscapes: The study finds that savannas and grasslands are particularly susceptible to flash droughts, especially in regions with humid and semi-humid climates.

This research provides valuable insights into how flash droughts are evolving under climate change and highlights the need for targeted strategies to mitigate their impacts, especially in the most vulnerable regions.

### [BHU's Covaxin safety study riddled with major limitations- The Hindu Science](#)

#### Explained in Easy Language

A study conducted by researchers at Banaras Hindu University assessed the safety of the Covaxin vaccine, specifically looking at its long-term adverse effects on adolescents and adults. However, this study faced criticism from the Indian Council of Medical Research (ICMR) due to its poor design. Critics pointed out several significant flaws in how the study was conducted, which they believe undermines the validity of its findings.

One major issue with the study is that it didn't include a control group, which is typically used in research to compare and determine if the vaccine directly causes any adverse effects. Without this comparison, it's challenging to link any health issues directly to the vaccine. Additionally, the study didn't account for other possible explanations for the adverse events observed, such as previous infections or other health conditions that the participants might have had. Despite these criticisms, the researchers defended their methodology, arguing that in their type of study, comparing changes over time within the same group might be sufficient. However, experts disagree, emphasizing that understanding whether the vaccine caused the adverse effects definitively requires a more robust experimental design, including a control group.

#### Key Takeaways

- Study on Covaxin's Safety: Researchers from Banaras Hindu University conducted a study to investigate long-term adverse effects of Covaxin but faced criticism for poor design.
- Criticism from ICMR: The Indian Council of Medical Research criticized the study for not having a control group and other design issues that make it difficult to draw reliable conclusions.
- Methodological Concerns: Key issues include the absence of a control group to compare the vaccinated versus non-vaccinated individuals, and the lack of data on prior health conditions or infections that could explain the adverse events observed.
- Defending the Study: The lead researcher argued that their study design was suitable for the type of research they were conducting, though this stance is contested by other experts.
- Importance of Control Groups: Experts stress that without a control group, it's challenging to attribute adverse events directly to the vaccine, as other factors could also be responsible.
- Previous Research Comparisons: The same research group had previously studied another vaccine, Covishield, using similar methods. They reported different rates of adverse events for Covishield compared to Covaxin, which some experts find illogical given that inactivated vaccines (like Covaxin) are generally considered safer.

This controversy highlights the complexities and challenges of vaccine safety research and the importance of rigorous study design to ensure that conclusions about safety and efficacy are well-supported by data.



## [How will Iran President's death impact the region?- The Hindu FAQ](#)

### **Explained in Easy Language**

The sudden death of Iran's President, Ebrahim Raisi, in a helicopter crash, along with eight others including the Foreign Minister, has created a significant impact in a region already filled with tension. Raisi's death comes at a critical time when Iran is involved in various regional conflicts and internal challenges. This event raises questions about who will lead Iran next and how the country will navigate its complex political landscape moving forward.

#### **Key Takeaways**

- **Sudden Leadership Vacuum:** The unexpected death of President Raisi and other key officials in a helicopter crash has left Iran with immediate leadership challenges, both in governing the country and in managing its foreign affairs.
- **Iran's Political Structure:** In Iran, the President's role, though significant in daily governance, is overshadowed by the Supreme Leader, who holds the ultimate power. Raisi was closely aligned with the Supreme Leader's policies, focusing on strengthening ties with countries like Russia and China and supporting groups opposed to Israel.
- **Impact on Foreign Policy:** Raisi's death is unlikely to lead to major changes in Iran's foreign policy in the short term. The country's fundamental strategies and alliances, particularly its support for groups like Hamas and its stance against Israel, are expected to continue under the guidance of the Supreme Leader.
- **Succession Challenges:** The process to elect a new President will begin soon, which is crucial not just for domestic governance but also for maintaining Iran's political stability. Additionally, Raisi was seen as a potential successor to the Supreme Leader, so his death also complicates the future leadership of the country.
- **Implications for India:** India has maintained a strategic partnership with Iran, including significant investments in projects like the Chabahar port. The continuation of these projects and the broader relationship may hinge on how smoothly Iran manages this transition and who emerges as the new leaders.

Raisi's death marks a critical juncture for Iran, as the country faces the dual challenge of managing its internal affairs and its complex relations in a volatile region. For countries like India, which have significant strategic interests in Iran, the developments will be closely watched.

## [Why COVID vaccine safety needs scrutiny- The Hindu FAQ](#)

### **Explained in Easy Language**

A recent study by researchers from Banaras Hindu University (BHU) about the side effects of India's Covaxin vaccine has sparked significant controversy. The Indian Council for Medical Research (ICMR), which helped develop Covaxin, criticized the study for its design flaws and inaccuracies. Specifically, ICMR was unhappy about being incorrectly acknowledged in the study, which they claim had not involved them in any financial or technical capacity.

The BHU study reported that some adolescents and adults experienced adverse effects after receiving the Covaxin vaccine, with a few experiencing serious health issues. However, ICMR pointed out that the study lacked a control group (a standard baseline group used for comparison), did not account for the background health issues of the participants, and relied on phone interviews without clinical confirmation, which could lead to biased or inaccurate results.

Following this, there was a strong response from the academic community, accusing ICMR of trying to suppress the study's findings, which they deemed an act of academic censorship. Critics argue that ICMR should have used the study as a basis for further research to improve vaccine safety standards rather than seeking to retract it.

#### **Key Takeaways**

- **Study on Covaxin's Side Effects:** Researchers from BHU conducted a study to explore the long-term safety of Covaxin, noting some adverse effects among vaccinated individuals.





- **ICMR's Criticism:** ICMR criticized the study for methodological flaws, such as the absence of a control group and reliance on telephonic interviews. They also refuted any involvement in the study, despite being mentioned in the acknowledgments.
- **Debate Over Academic Freedom:** The academic community reacted strongly to ICMR's demand to retract the paper, viewing it as an attempt to censor academic research. This response highlights concerns about transparency and openness in scientific research, especially when it involves public health.
- **Call for Better Research Practices:** There is a broader call from the public health community for ICMR and other institutions to engage more constructively in research efforts and to use initial findings to enhance further studies, especially regarding vaccine safety.

The fallout from this situation underscores the tension between maintaining rigorous scientific standards and ensuring open, transparent discourse in public health research. It also reflects the challenges in managing public perception and scientific integrity when national pride and public health are at stake.

## 27th May 2024

### [Adani Ports to enter Sensex: how India's major stock indices work-Indian Express Explained](#)

Economy

#### Easy Explanation

Adani Ports and Special Economic Zone Ltd (APSEZ) will be the first Adani Group company to join the Sensex at the Bombay Stock Exchange (BSE), replacing Wipro on June 24. This inclusion occurs after a challenging period for the Adani Group, which faced accusations of stock manipulation and accounting fraud from Hindenburg Research in January 2023. These allegations led to a significant drop in the share prices of Adani companies, with losses ranging from 30-80%. However, APSEZ and Adani Enterprises, another key company in the group, have since recovered and are trading at levels higher than before the Hindenburg report.

The Sensex, launched in 1986, is a benchmark index that tracks 30 of the largest, most liquid, and financially robust companies listed on the BSE. It is a crucial tool for gauging the performance of the Indian stock market. In contrast, the Nifty 50, started in 1995, includes 50 significant companies traded on the National Stock Exchange (NSE), including Adani Enterprises. The inclusion of APSEZ in the Sensex highlights the resilience and recovery of the Adani Group amidst previous market turmoil.

#### Key Takeaways:

1. **Sensex and Nifty Overview:**
  - Sensex tracks 30 stocks at BSE, launched in 1986, focusing on the largest, most liquid, and financially sound companies in India.
  - Nifty 50 tracks 50 blue-chip large and liquid stocks at NSE, started in November 1995.
2. **Recent Development:**
  - APSEZ will replace Wipro in the Sensex, becoming the first Adani Group company in this index.
  - Both APSEZ and Adani Enterprises are already part of the Nifty 50.
3. **Hindenburg Report Impact:**
  - Hindenburg Research accused Adani Group of stock manipulation and accounting fraud on January 24, 2023.
  - The accusations led to a 30-80% drop in the share prices of Adani companies.
  - Despite the initial impact, APSEZ and Adani Enterprises stocks have now recovered to higher than pre-Hindenburg levels.
4. **Sensex Selection Criteria:**



| Clear your doubts now.



- Stocks must have at least six months of listing history and daily trading during this period.
- Eligible stocks must have a derivative contract and be among the top 75 companies based on market cap.
- Minimum free-float market cap of 0.50% and specific liquidity criteria must be met.
- The Sensex is reconstituted biannually in June and December.

#### 5. Market Capitalisation:

- As of May 24, BSE-listed firms had a total market capitalisation of Rs 419.99 lakh crore.
- NSE firms had a market capitalisation of Rs 416.04 lakh crore as of the same date.

## [WATERMELON AT CANNES:HOW THE FRUIT BECAME A PALESTINIAN SYMBOL-Indian Express](#) [Explained](#)

International relations

### Easy Explanation

At the 2024 Cannes Film Festival, Indian actor Kanika Kusruti sparked attention when she posed with a watermelon clutch during the screening of her movie "All We Imagine As Light," directed by Payal Kapadia, which later won the Grand Prix. The choice of accessory was interpreted as a gesture of solidarity with Palestinians amidst Israel's ongoing assault on Gaza, as watermelons have become a symbol of Palestinian struggle due to their resemblance to the colors of the Palestinian flag. While displaying the Palestinian flag is often restricted by Israeli authorities, the watermelon has emerged as a potent symbol of protest, especially on social media where overt Palestinian symbols face censorship. Although the origins of using watermelons as a symbol of resistance are contested, they have become deeply associated with the Palestinian cause, with historical references dating back to the First Intifada. Despite Israeli authorities denying claims of arresting individuals for carrying sliced watermelons displaying Palestinian colors, the watermelon's significance as a symbol of solidarity and protest remains potent and continues to draw attention on global platforms like the Cannes Film Festival.

### Key takeaways

1. **Symbol of Solidarity:** Actor Kanika Kusruti's choice of a watermelon clutch at the 2024 Cannes Film Festival, amidst Israel's assault on Gaza, was interpreted as a gesture of solidarity with Palestinians.
2. **Watermelon as a Symbol:** Watermelons have become a symbol of Palestinian struggle due to their resemblance to the colors of the Palestinian flag, making them a potent symbol of identity and resistance.
3. **Social Media Censorship:** The use of watermelon imagery, as opposed to more overt Palestinian symbols like flags, has gained traction on social media platforms where posts with explicit Palestinian symbols face censorship.
4. **Contested Origins:** The origins of using watermelons as a symbol of resistance are debated, with some tracing it back to the First Intifada (1987-1993), while others suggest a later emergence.
5. **Association with Palestinian Cause:** Despite contested origins, watermelons have become deeply associated with the Palestinian cause, with historical references and contemporary use reinforcing their significance as symbols of protest and solidarity.

## [Overlapping Territorial Claims,ColdWar:what led to the Antarctic Treaty-Indian Express](#) [Explained](#)

International relations

### Easy Explanation

The 46th Antarctic Treaty Consultative Meeting, inaugurated by Minister of Earth Sciences Kiren Rijiju, commenced in Kochi, Kerala, with all 56 member states participating. This treaty, integral for peaceful coexistence and scientific collaboration in Antarctica, addresses historical territorial disputes and overlapping claims. While early exploration efforts by nations like the UK, US, and USSR led to territorial claims, the treaty emerged during the International



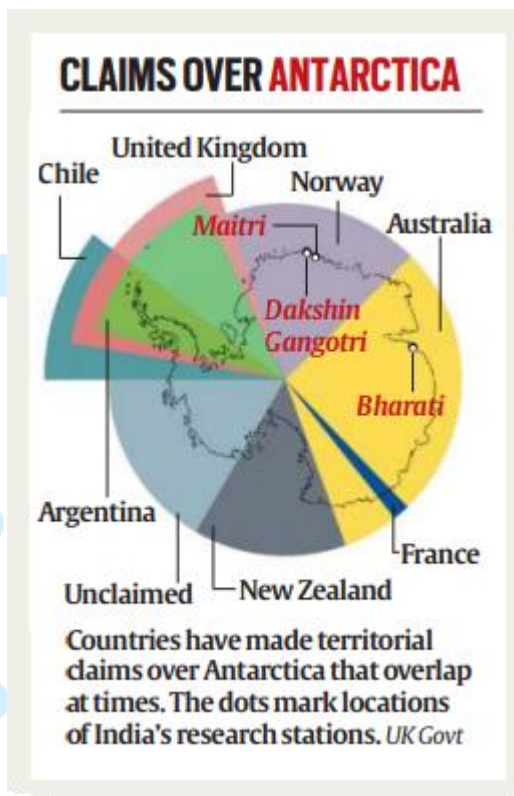
| Clear your doubts now.





Geophysical Year (IGY) in 1957-1958, aiming to preserve Antarctica for scientific research and peaceful purposes. Signed by 12 nations in 1959, the treaty prohibits new territorial claims, militarization, and nuclear testing while promoting scientific research.

The treaty's success lies in its ability to balance specificity and vagueness, fostering compromise and inclusivity. Over the years, it has adapted to address new challenges, including marine conservation and environmental protection. However, climate change poses a significant threat to Antarctica's environment, compounded by increasing tourism activities. India, a Consultative Party since 1983, actively participates in the treaty, contributing to scientific research and environmental conservation efforts in Antarctica.



### Key Takeaways:

1. **Territorial Claims and Conflicts:** Various nations, including Argentina, Australia, Chile, France, New Zealand, and Norway, have made formal territorial claims over Antarctica, leading to conflicts and overlapping claims. However, some countries, like the US and USSR, explored the continent without making territorial claims.
2. **Formation of the Antarctic Treaty:** The Antarctic Treaty emerged during the International Geophysical Year (IGY) in 1957-1958, aiming to preserve Antarctica as an international scientific research area and promote peaceful purposes. It was signed by 12 nations in 1959 and came into force in 1961, with provisions to freeze territorial disputes, ban militarization and nuclear testing, and promote scientific research.
3. **Success and Evolution:** The Antarctic Treaty has been successful due to its ability to strike a balance between specificity and vagueness, promoting compromise over conflict. It has also evolved to address new challenges, including marine conservation, mining prohibition, and environmental protection.
4. **Challenges Ahead:** Despite its success, the Antarctic Treaty faces challenges such as climate change, which is affecting Antarctica's temperatures and ice coverage. Additionally, the rise in tourism-related activities in the region raises concerns about environmental conservation and sustainability.
5. **Indian Participation:** India, a Consultative Party since 1983, plays an active role in the Antarctic Treaty, contributing to scientific research and environmental conservation efforts in Antarctica.

### [An overview of Europe's AI convention-The Hindu Text and Context](#)

International relations

#### Easy Explanation

The Framework Convention on Artificial Intelligence and Human Rights, Democracy, and the Rule of Law, adopted by the Council of Europe on May 17, establishes a legal framework for managing the ethical and societal impacts of AI technologies. This convention is designed to ensure that AI systems throughout their lifecycle are consistent with human rights, democratic values, and the rule of law. It encompasses activities conducted by both public authorities and private entities, focusing on safeguarding fundamental rights amidst the development and deployment of AI. The convention is characterized as a framework convention, which is a legally binding treaty that sets out broad objectives and commitments, leaving specific details to be filled in by subsequent protocols. This structure allows for flexibility in addressing complex and evolving issues related to AI technology.



| Clear your doubts now.

While the convention aims to align AI activities with core democratic principles, it also acknowledges national security concerns by allowing certain exemptions for military applications and national defense. However, these exemptions do not entirely preclude the convention's application to activities that may impact national security.

This convention represents a significant step by the Council of Europe to integrate AI governance with human rights protections, serving as a model that could potentially influence global standards and practices in AI regulation.

### **Key takeaways**

1. **Establishment of Legal Framework:** The Framework Convention on Artificial Intelligence and Human Rights, Democracy, and the Rule of Law provides a comprehensive legal framework to ensure AI technologies are developed and used in alignment with human rights, democratic values, and the rule of law.
2. **Scope of the Convention:** The convention applies to AI systems' activities conducted by both public authorities and private actors, aiming to address risks and impacts associated with AI on human rights and democratic processes.
3. **Nature of the Convention:** Defined as a framework convention, it sets broad objectives and commitments, allowing for the development of specific protocols to detail and achieve these targets, providing flexibility as AI technologies evolve.
4. **National Security Exemptions:** While focused on protecting fundamental rights, the convention includes exemptions for national security, research, and defense, acknowledging the complexity of completely regulating AI in these areas.
5. **Global and Regional Impact:** The convention sets a precedent for AI governance that could influence both regional and global AI policies, particularly as it involves a major intergovernmental organization like the Council of Europe.
6. **Future Protocols and Implementation:** The convention lays the groundwork for future protocols that will specify more detailed regulations and guidelines for AI, indicating an ongoing process of adaptation and refinement in AI governance.

### **What is the current status with respect to spice exports?-The hindu Text and Context**

Economy

#### **Easy Explanation**

Last month, certain spice mix products from India's MDH and Everest Group were recalled by Hong Kong and Singapore due to higher than prescribed levels of the sterilizing agent Ethylene Oxide (ETO). This incident has spotlighted the use of ETO, typically employed in India to sterilize spices by reducing microbial load. While ETO is not used as a pesticide, its application as a sterilizing agent is due to contamination from various sources during the pre-processing stages at local mandies (markets). In response, the Indian Spices Board has implemented stringent measures to ensure compliance with international food safety standards, including the issuance of a detailed protocol to manufacturing exporters to prevent ETO contamination and starting mandatory testing of spice consignments to the affected regions.

#### **Key Takeaways:**

1. **Ethylene Oxide Use and Controversy:** Ethylene Oxide is used in India primarily as a sterilizing agent to manage microbial contamination in spices, leading to recalls in Hong Kong and Singapore when levels exceeded local safety standards.
2. **Impact of Recalls on Indian Spice Exports:** Despite initial recalls, the impact on India's significant global spice market share is minimal, with exports resuming quickly. India exported \$4.4 billion worth of spices in 2023-2024, marking a 12.3% increase from the previous year.
3. **International Standards and Challenges:** Different countries have varying standards for ETO and pesticide residues. The EU, which maintains stringent norms, prefers steaming for sterilization over ETO due to health concerns, despite the higher cost.





4. **Local Impact and Industry Response:** Local farmers and exporters are adapting to meet strict international residue levels, especially when spices are intercropped with main crops already complying with stringent norms.
5. **Government and Spices Board Initiatives:** Following the recalls, the Spices Board of India implemented strict protocols for ETO usage and started mandatory testing for exports to affected regions. Discussions are ongoing with international bodies to harmonize ETO usage limits.

These steps help maintain India's robust position in the global spice market while ensuring the safety and quality of its exports.

### [This century, heatwaves are moving slower and lasting longer-The hindu Science](#)

Science

#### Easy Explanation

A recent study published in "Science Advances" explores the dynamics of heatwaves, which have become slower and longer-lasting globally. Researchers, led by Dr. Wei Zhang from Utah State University, analyzed temperature data from 1979 to 2020 and discovered that heatwaves are moving approximately 8 km/day slower every decade and extending four days longer on average. The study highlights a weakening in the jet stream, a high-altitude air current, which is significantly influencing these changes. This weakening disrupts atmospheric waves and leads to more persistent, slow-moving heat events. The study also explores the contribution of human-induced greenhouse gas emissions to these changes, finding them to be a major factor.

#### Key Takeaways:

1. **Increased Frequency and Duration:** Heatwaves are occurring more frequently and lasting longer, with significant impacts on human health, agriculture, and natural systems. The data shows an increase from about 75 heatwave events annually during 1979-1983 to about 98 events during 2016-2020.
2. **Role of the Jet Stream:** The jet stream's weakening is crucial to understanding the slower movement and increased duration of heatwaves. As it weakens, the atmospheric waves it guides also move more slowly, resulting in prolonged periods of high temperatures.
3. **Human Impact:** Human activities, particularly greenhouse gas emissions, have played a significant role in altering the behavior of heatwaves, contributing to their increased severity and duration.
4. **Need for Adaptation:** Given the profound impacts of heatwaves, there is a growing need for effective climate adaptation strategies. These include enhancing green infrastructure in urban areas, like planting more trees, and exploring alternative agricultural practices to better cope with changing climate conditions.
5. **Further Research:** The study paves the way for further research into regional differences in heatwave dynamics and the development of more targeted climate adaptation strategies. This ongoing research is crucial for better understanding and mitigating the adverse effects of heatwaves.

### [The spectre of nuclear conflict, once again-The Hindu Editorial](#)

International relations

#### Easy Explanation

The spectre of nuclear conflict is becoming increasingly prominent as tensions escalate globally, particularly with recent developments involving nuclear rhetoric and policy changes. French President Emmanuel Macron's warnings about potential nuclear annihilation and Russia's aggressive posture in Ukraine, highlighted by President Vladimir Putin's remarks about nuclear readiness, underscore the rising fears of nuclear warfare. This situation is exacerbated by the revocation of the Comprehensive Test Ban Treaty (CTBT) by Russia, signaling a departure from earlier commitments to nuclear arms control. Concurrently, discussions at the Hoover Institution emphasize the strategic





significance of nuclear diplomacy, as evidenced by the U.S.-India civil nuclear deal, which fundamentally transformed bilateral relations and showcased the potential of nuclear agreements to bridge divides between nations.

### **Key Takeaways:**

1. **Global Nuclear Anxiety:** Macron's apocalyptic vision and Putin's assertive statements about Russia's nuclear capabilities reflect growing global anxiety about the use of nuclear weapons and the potential for nuclear conflict.
2. **Deterioration of Nuclear Norms:** Russia's withdrawal from the CTBT is a significant setback for nuclear disarmament efforts, heightening concerns about an arms race and the erosion of the international nuclear arms control regime.
3. **Impact of Leadership and Diplomacy:** The absence of influential global leaders and regular diplomatic exchanges among nuclear powers is worsening the situation, leading to heightened fears of nuclear escalation.
4. **Significance of Nuclear Diplomacy:** The U.S.-India nuclear deal exemplifies how nuclear diplomacy can effectively address international disputes and foster stronger bilateral relationships, highlighting the importance of strategic partnerships and dialogue in nuclear governance.
5. **Urgency for Strategic Dialogues:** The current global landscape underscores the need for renewed strategic dialogues and cooperation to prevent nuclear proliferation and ensure global security in the face of increasing nuclear threats.

## 28th May 2024

### **[How tiny satellites will track heat loss from Earth's poles-Indian Express Explained](#)**

Science and technology

#### **Easy Explanation**

NASA launched the PREFIRE mission to study heat emissions from Earth's poles using tiny CubeSats. Developed in collaboration with the University of Wisconsin-Madison, PREFIRE aims to measure far-infrared radiation from the Arctic and Antarctica, addressing a gap in our understanding of Earth's energy budget. The first of two CubeSats was launched on May 25 by Rocket Lab's Electron rocket from New Zealand. These miniature satellites, each a 6U CubeSat about 90 cm in height and 120 cm in width with deployed solar panels, will orbit near the poles at an altitude of about 525 km.

Equipped with Thermal Infrared Spectrometers, the PREFIRE CubeSats will measure far-infrared radiation, crucial for understanding how much heat the poles radiate into space. This data will help scientists predict changes in ice, seas, and weather due to global warming by providing better insights into Earth's heat balance. The mission will also study how atmospheric water vapor and clouds at the poles influence the greenhouse effect. Overall, PREFIRE will enhance our ability to predict and understand climate changes by filling a significant knowledge gap regarding Earth's far-infrared emissions.

#### **Key Takeaways**

1. **PREFIRE Mission:** Launched by NASA and developed with the University of Wisconsin-Madison, PREFIRE aims to study heat emissions from Earth's poles using CubeSats.
2. **Launch Details:** The first satellite was launched on May 25 by Rocket Lab's Electron rocket from New Zealand.
3. **CubeSats:** These are miniature satellites, each PREFIRE CubeSat being a 6U, approximately 90 cm in height and 120 cm in width with deployed solar panels.
4. **Orbital Path:** The CubeSats will be placed in a near-polar orbit at an altitude of about 525 km.
5. **Objective:** To measure far-infrared radiation from the poles, filling a current gap in understanding Earth's energy budget.



| Clear your doubts now.



6. Importance: Data collected will help predict changes in ice, seas, and weather due to global warming by improving knowledge of Earth's heat balance.
7. Equipment: Each CubeSat is equipped with a Thermal Infrared Spectrometer to measure infrared and far-infrared radiation.
8. Climate Impact: The mission will also measure how atmospheric water vapor and clouds at the poles affect the greenhouse effect.

### [NEW FINDING MAY IMPROVE ABILITY TO FORECAST SOLAR STORMS-Indian Express Explained](#)

Science

#### **Easy Explanation**

New research reveals that the Sun's magnetic field, which triggers solar storms and auroras, may originate much closer to the solar surface than previously believed. Traditionally thought to form near the bottom of the Sun's outer "ocean" of churning gases, this magnetic field is now suggested to be generated within the top 5% of this layer, approximately 32,000 km below the surface. This conclusion comes from comparing the latest theoretical models with observations made by the Sun-observing SOHO spacecraft.

The Sun's outer 30% consists of a turbulent layer of gases extending more than 210,000 km deep. Understanding that the magnetic field is generated closer to the surface provides new insights into the Sun's dynamic processes. The Sun's ever-changing magnetic field drives the formation of sunspots and triggers solar flares, which can release hot charged particles into space. These findings have significant implications for forecasting solar storms, which can disrupt electricity grids, radio communications, and satellites. By improving our understanding of the Sun's magnetic field generation, scientists hope to enhance the ability to predict and mitigate the impacts of solar storms, offering better protection for technological systems on Earth.

#### **Key Takeaways**

1. New Finding: The Sun's magnetic field likely originates within the top 5% of its outer layer, about 32,000 km below the surface, rather than near the bottom as previously believed.
2. Research Basis: The conclusion is drawn from comparing the latest theoretical models with observations from the SOHO spacecraft.
3. Sun's Structure: The Sun's outer 30% is an "ocean" of churning gases extending over 210,000 km deep.
4. Magnetic Field Generation: The movement of super-hot gases generates the Sun's magnetic field, which drives sunspots and solar flares.
5. Implications: Improved understanding of magnetic field generation could enhance solar storm forecasting, protecting electricity grids, radio communications, and satellites from potential damage.
6. Dynamic Processes: This discovery provides deeper insight into the dynamic processes of the Sun and contributes to solving a long-standing problem in theoretical physics regarding the Sun's magnetic field generation.

### [AI in legal cases: what the courts have said-Indian Express Explained](#)

Polity

#### **Easy Explanation**

The Manipur High Court recently used AI, specifically ChatGPT, for research in a judicial case, marking one of the few instances of such technology being employed in Indian courts. The case involved a Village Defence Force (VDF) member who challenged his dismissal. The court utilized ChatGPT to understand the VDF's role, ultimately ruling in favor of the petitioner. Other Indian courts have shown varying degrees of acceptance towards AI. For example, the Punjab & Haryana High Court used ChatGPT to supplement a bail denial, while the Delhi High Court rejected its use in a trademark case, citing risks of incorrect information. Internationally, the use of AI in legal settings has also been



| Clear your doubts now.





contentious, with instances of AI-generated fictitious legal research leading to penalties for lawyers. The UK judiciary has issued guidelines on AI use, allowing it for basic tasks but cautioning against its use for legal research, a precaution not yet adopted in India.

### **Key Takeaways**

Manipur High Court's Use of AI:

- The Manipur High Court used ChatGPT to research the role of the Village Defence Force (VDF) in a dismissal case.
- The court ruled in favor of the petitioner, setting aside his dismissal based on procedural grounds.

Varied Acceptance in Indian Courts:

- Punjab & Haryana High Court used ChatGPT to support a decision to deny bail, referencing its response in the order.
- Delhi High Court opposed AI use in a trademark case, highlighting the risk of inaccuracies and fictional data from AI.

International Cases and Guidelines:

- A Manhattan federal judge fined a lawyer for submitting fictitious legal research generated by ChatGPT.
- The UK judiciary allows AI for basic tasks but cautions against its use for legal research or analysis.
- India currently lacks official guidelines on AI use in the judicial system.

### **Why dal imports have surged-Indian Express Explained**

Economy

#### **Easy Explanation**

Dal imports in India have surged to a seven-year high due to a decrease in domestic production influenced by El Niño-related erratic weather. This reduction has resulted in increased retail inflation for pulses, impacting all economic classes due to the necessity of purchasing pulses from the open market. The decline in domestic production includes significant drops in the production of chana and arhar/tur, staples in Indian diets. In response to rising food inflation pressures, particularly during an election year, the government has phased out tariffs and quantitative restrictions on most pulses to stabilize prices. This measure has resulted in record imports of various pulses like masoor and matar from countries such as Australia, Canada, and Russia.

#### **Key Takeaways**

1. **Decreased Domestic Production:** India's production of key pulses like chana and arhar/tur has significantly decreased due to erratic monsoon and winter rains attributed to El Niño, moving from self-sufficiency to increased dependence on imports.
2. **Impact on Prices:** The decline in domestic production has led to a sharp increase in the prices of pulses, with annual inflation for pulses at 16.84% as of April 2024.
3. **Government Response:** In reaction to high inflation and to ensure availability, the Indian government has removed import duties and restrictions on pulses. This has led to a significant increase in imports, reaching levels close to those last seen in 2016-17.
4. **Import Surge:** There has been a notable increase in imports of pulses such as masoor and matar, largely sourced from Australia, Canada, and Russia, to mitigate the impact of reduced domestic supply and high prices.
5. **Future Projections:** The future of dal prices in India will heavily depend on the upcoming monsoon season's performance, with potential transitions from El Niño to a neutral or La Niña phase, which could bring beneficial rainfall and influence pulse production and prices.

### **Letting in light & air-Indian Express Editorial**

Sociology

#### **Easy Explanation**



| Clear your doubts now.

Recent urban disasters across India, such as fires in Rajkot and Delhi, have raised serious concerns about urban safety and planning failures. These incidents underscore the complexities of urban development in the face of rapid urbanization and highlight the need for a comprehensive approach to urban safety. Urban development is regulated through national building codes and by-laws aimed at ensuring safety, livability, and sustainability. However, the enforcement of these regulations often falls short, leading to catastrophic outcomes. For instance, the mismanagement of space, like the removal of balconies and terraces in urban constructions for economic benefits, compromises residents' access to natural light and air. Additionally, the privatization of public spaces restricts community interaction and diminishes the quality of urban life.

### **Key Takeaways**

1. **Regulatory Oversight:** The effectiveness of urban planning and development is often hindered by inadequate enforcement of building codes and safety regulations.
2. **Economic Pressures:** Economic considerations frequently override environmental and social necessities in urban development, leading to compromised building practices.
3. **Public Space Management:** The commercialization and privatization of public spaces reduce accessibility for ordinary citizens, altering the social fabric of communities.
4. **Safety Risks:** Recent urban disasters highlight the urgent need for improved safety measures in city planning and infrastructure development.
5. **Sustainable Practices:** There is a critical need for sustainable urban planning that prioritizes long-term environmental and social gains over short-term economic benefits.
6. **Collective Responsibility:** Creating safe urban environments requires the collective effort of all stakeholders, including government authorities, urban planners, and residents, to adhere to and advocate for higher standards in urban development.

## **Menstrual hygiene in Indian prisons-The HinduText and Context**

Sociology

### **Easy Explanation**

Menstrual hygiene management in Indian prisons remains a significant challenge, as highlighted by recent studies and observations. A substantial proportion of women inmates fall within the reproductive age group, facing difficulties in accessing basic menstrual hygiene products and facilities. Despite the introduction of the Menstrual Hygiene Scheme, which aims to distribute free or subsidized sanitary products, implementation varies widely, and many facilities fall short, particularly in prisons. A study in a Maharashtra prison revealed severe deficiencies in water, sanitation, and hygiene facilities, with women having to share limited resources, leading to health issues like urinary infections. The recent formulation of the National Menstrual Hygiene Policy marks progress by recognizing prisoners as a key group needing better access to menstrual hygiene. However, it lacks a detailed action plan and fails to involve crucial stakeholders like the Ministry of Home Affairs in its strategy for prisons.

### **Key Takeaways**

1. **Menstrual Hygiene Challenges:** Women in Indian prisons face critical challenges in accessing sanitary products and adequate hygiene facilities, exacerbated by systemic neglect and overcrowding.
2. **Policy Efforts:** India has been proactive in improving menstrual hygiene among young women through the Menstrual Hygiene Scheme and has developed a National Menstrual Hygiene Policy aimed at ensuring equitable access to menstrual hygiene products.
3. **Study Findings:** Research in a Maharashtra prison highlighted the severe lack of water and sanitation facilities, affecting the ability of female inmates to manage menstruation safely and hygienically.
4. **Policy Shortcomings:** While the National Menstrual Hygiene Policy includes prisoners, it lacks a concrete action plan and fails to integrate key stakeholders, which is crucial for its success in prison settings.





5. Call for Action: There is a need for uniform implementation of existing guidelines, like those in the Model Prison Manual 2016, and for more research to better understand and address the specific menstrual hygiene needs of women in prisons.

### [The controversy over eucalyptus planting in Kerala-The Hindu Text and Context](#)

Environment

#### Easy Explanation

The Kerala government's decision to allow the Kerala Forest Development Corporation (KFDC) to plant eucalyptus trees in 2024-2025 was met with significant opposition from environmentalists and social activists. This controversy stems from the conflict between the government's financial objectives and its earlier commitment to environmental sustainability, specifically outlined in its 2021 eco-restoration policy. Eucalyptus, an invasive species known for its high water consumption and potential to displace native flora, is at the center of this dispute. Critics argue that the introduction of eucalyptus could exacerbate human-animal conflicts and further deplete natural forests, contrary to the state's eco-restoration goals which aim to phase out such invasive species and restore natural habitats. The policy particularly aims to mitigate human-wildlife conflicts by maintaining natural food sources for wildlife, such as elephants, which are being threatened by the spread of non-indigenous plant species. The decision to plant eucalyptus not only contradicts Kerala's eco-restoration policy but also risks the state's biodiversity and the ecological balance within its forested areas.

#### Key takeaways

1. Government Approval: The Kerala government permitted the Kerala Forest Development Corporation (KFDC) to plant eucalyptus trees in 2024-2025 for financial reasons.
2. Environmental Opposition: Environmentalists and social activists protested the decision, citing concerns that eucalyptus planting would worsen forest health and increase human-animal conflicts.
3. Invasive Species Concerns: Eucalyptus is considered an invasive species in Kerala, known for its high water consumption and potential to displace native flora.
4. Eco-Restoration Policy: In 2021, Kerala introduced an eco-restoration policy aimed at eliminating invasive species and restoring natural forests to reduce the depletion of habitats and mitigate human-animal conflicts.
5. Impact on Wildlife: The proliferation of eucalyptus could lead to a shortage of natural food sources for wildlife, particularly elephants, increasing their encroachment into human areas.
6. Public and Expert Backlash: The decision faced significant backlash from the public and experts, who argued it was contradictory to the state's eco-restoration goals.
7. Reconsideration of the Decision: Following criticism, there were calls for the government to reconsider its decision to ensure alignment with environmental conservation and sustainable forest management practices.

### [At extremely high strain rate, copper surprises with the strength of steel-The Hindu Science](#)

Science

#### Easy Explanation

Researchers at MIT and Northwestern University have uncovered that copper can exhibit the strength of steel when subjected to ultra-high strain rates and elevated temperatures. Published in the journal "Nature," the study reveals that copper defies the usual rule that metals soften when heated if the strain rate is extremely high. This discovery was made using a sophisticated setup where aluminum oxide microparticles were accelerated via lasers to impact a copper substrate at around 860 km/hr. The experiments conducted at temperatures of 20, 100, and 177 degrees Celsius showed that the impact craters became shallower with increasing temperature, indicating the copper was behaving like a harder material.



| Clear your doubts now.



The increase in copper's hardness under these conditions is attributed to drag-strengthening mechanisms activated by the high strain rates, despite decreases in thermal and athermal strength. This finding challenges conventional metallurgical understanding and suggests new potential for using copper in applications requiring high strength and tolerance to extreme conditions, such as aerospace and high-speed manufacturing. The research not only provides insights into copper's behavior under rare conditions but also suggests similar properties could be expected from other metals like titanium and gold under equivalent circumstances.

### **Key Takeaways**

1. **Unusual Metal Behavior:** At ultra-high strain rates, copper demonstrates strength characteristics similar to steel, defying the usual rule that metals soften at higher temperatures.
2. **Experimental Methodology:** The study involved firing aluminum oxide microparticles at a copper substrate, creating conditions of extreme strain and observing the material's response.
3. **Temperature and Strain Impact:** The research revealed that as temperature increased, the impact crater depth and width on the copper decreased, indicating increased hardness.
4. **Mechanisms of Strength:** The copper's unexpected strength was attributed to drag-strengthening, and the changing contributions of thermal and athermal strength at high strain rates.
5. **Implications for Material Science:** This discovery could lead to new strategies for designing materials and devices for use in environments with extreme conditions, such as aerospace and high-speed manufacturing.
6. **Comparison with Conventional Materials:** At a strain rate of 10 million/s and a temperature of 177 degrees C, the strength of copper was found to be comparable to that of 304 stainless steel, a commonly used industrial metal.
7. **Broader Material Effects:** The study also reported similar effects when testing with pure titanium and gold, suggesting that this phenomenon might be applicable to other metals under similar conditions.

**29th May 2024**

### **[Why an accused in jail can contest, but cannot vote in an election-Indian Express Explained](#)**

Polity

#### **Easy Explanation**

In India, the ability to contest elections while incarcerated arises from the statutory nature of electoral rights, as defined by the Representation of the People Act, 1951 (RPA). These rights are not constitutional but are subject to parliamentary legislation. According to the RPA, individuals can be disqualified from contesting elections only upon conviction for specified offenses and this disqualification extends for six years after the completion of their sentence. Therefore, an individual like Amritpal Singh, who is jailed but not convicted, is eligible to run for Parliament. Conversely, the RPA restricts the voting rights of those imprisoned or under police custody, with the exception of those in preventive detention. This measure aims to maintain the integrity of the electoral process by preventing criminal influence. Challenges to these legal provisions have consistently upheld the distinction between the rights to vote and contest. The Supreme Court and various High Courts have reaffirmed that incarcerated individuals do not have the right to vote, while specific exceptions and powers allow for judicial and administrative discretion in modifying disqualification periods, thereby balancing legal rigidity with rights protection.

#### **Key Takeaways**

Here are the key takeaways regarding the legal framework governing the rights to contest elections and vote while incarcerated in India:

1. **Statutory Rights:** Both the right to vote and the right to contest elections are statutory rights in India, meaning they can be regulated by laws passed by Parliament, rather than being fundamental constitutional rights.



| Clear your doubts now.



2. **Disqualification from Contesting:** The disqualification from contesting elections applies only upon conviction for certain specified offenses under Section 8 of the Representation of the People Act, 1951 (RPA). This disqualification lasts for six years after serving the sentence.
3. **Voting Restrictions for the Incarcerated:** According to Section 62(5) of the RPA, incarcerated individuals or those in lawful police custody cannot vote, except if they are under preventive detention. This is intended to prevent individuals with potential criminal influences from participating in the electoral process.
4. **Exceptions and Legal Challenges:** The Election Commission has the authority to reduce or remove disqualification periods, and higher courts can stay convictions on appeal, which would temporarily suspend disqualification from contesting elections. These provisions allow some flexibility in the application of disqualifications.
5. **Judicial Endorsement:** Challenges to these provisions have largely been unsuccessful, with the judiciary upholding the distinction and the restrictions imposed by the RPA, emphasizing the importance of maintaining the purity and integrity of elections.

### [Danger from landslides-Indian express Explained](#)

Disaster Management

#### **Easy Explanation**

The recent cyclone-triggered landslides in northeastern India have underscored the urgent need for improved disaster resilience in regions prone to such multi-hazard events. Approximately 13% of India's territory, across 15 states and four Union Territories, is vulnerable to landslides, particularly in the hilly northeastern region which experiences frequent heavy rains. These incidents highlight the critical role of early warning systems, which, though still under development and deployed only on a trial basis, are crucial for predicting and mitigating landslide risks.

The National Disaster Management Authority (NDMA) has initiated efforts towards a comprehensive landslide risk management strategy. This includes vulnerability mapping and the creation of regulations specifically designed for mountain zones. However, much of this work remains in progress, and the effectiveness of these initiatives is yet to be fully realized.

This situation points to the need for an integrated approach to disaster management that not only focuses on immediate responses but also on building long-term resilience. Such measures are essential to ensure the safety and security of vulnerable populations in landslide-prone areas, highlighting the importance of expanding early warning systems and enforcing stringent land-use regulations to mitigate the impacts of future disasters.



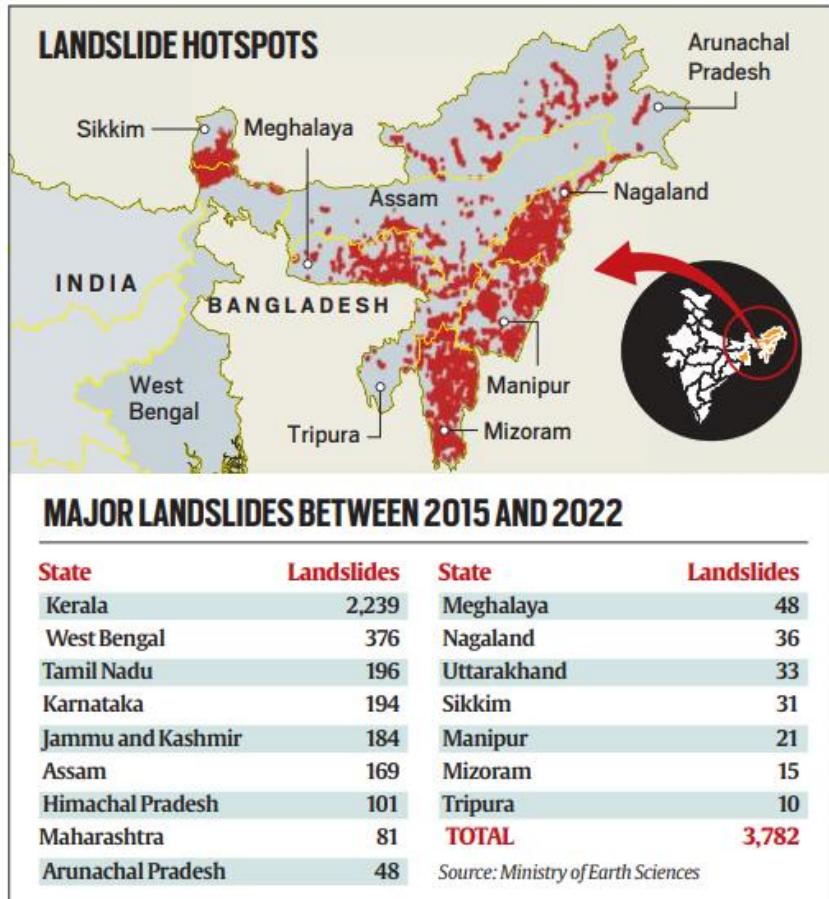




### Key takeaways

Here are the key takeaways from the recent cyclone-triggered landslides in northeastern India:

1. **Widespread Vulnerability:** About 13% of India's geographical area is prone to landslides, with significant risk concentrated in the hilly northeastern regions. This vulnerability is exacerbated by heavy rainfall and cyclonic conditions.
2. **Critical Role of Early Warning Systems:** The effectiveness of early warning systems in predicting landslides has been demonstrated, though their deployment is limited and primarily in trial phases. Expanding these systems is crucial for timely alerts and minimizing disaster impacts.
3. **Ongoing Development of Risk Management Strategies:** Efforts by the National Disaster Management Authority (NDMA) to formulate a comprehensive landslide risk management strategy are in progress. This strategy includes crucial



elements like vulnerability mapping and tailored regulations for mountain zones.

4. **Need for Integrated Disaster Management:** The events highlight the necessity for an integrated approach to disaster management that combines immediate response capabilities with long-term resilience planning. This approach should address multiple hazards simultaneously to effectively protect lives and property.
5. **Enforcement and Regulation:** There is a pressing need for strict enforcement of land-use regulations and development of infrastructure in a manner that considers the environmental and geological realities of vulnerable regions to prevent exacerbating the risk of landslides.

### [How criminals based in southeast Asia are trapping Indians online-Indian Express Explained](#)

Internal Security

#### Easy Explanation

The Indian Cybercrime Coordination Centre (I4C) has identified a significant trend of financial frauds targeting Indians, with a considerable proportion emanating from Myanmar, Laos, and Cambodia. From January to April, these three countries were the origin of 46% of the reported cyber frauds, causing an estimated loss of Rs 1,776 crore. The I4C classifies these frauds into four main types:

1. **Trading Scam:** Victims are lured through social media ads into using unregulated trading apps, resulting in substantial financial losses.
2. **Digital Arrest Scam:** Scammers impersonate law enforcement, falsely accusing victims of crimes and demanding money for case "closure."
3. **Investment Scam (Task-Based):** Individuals are deceived into completing online tasks for money, with scams escalating into larger financial commitments with no returns.



| Clear your doubts now.

4. Romance/Dating Scam: Fraudsters create fake romantic personas to trick victims into sending money for emergencies.

These scams highlight the sophisticated and diverse methods used by cybercriminals based in these Southeast Asian countries. The I4C's analysis suggests potential Chinese involvement, indicated by the use of Mandarin in the applications associated with these scams. This situation highlights the ongoing challenges in combating international cybercrime and the need for increased vigilance and international cooperation.

### **Key takeaways**

Here are the key takeaways from the recent analysis of cybercrimes affecting Indians, as conducted by the Indian Cybercrime Coordination Centre (I4C):

1. Significant Source Regions: A substantial 46% of cyber frauds reported early in the year originated from Myanmar, Laos, and Cambodia, underlining these regions as major hubs for cybercrime activities targeting Indians.
2. Diverse Fraud Types: The primary scams identified include trading scams involving unregulated apps, digital arrest scams with impersonation of law enforcement, task-based investment scams, and romance/dating scams, each exploiting different vulnerabilities.
3. High Financial Losses: Victims lost considerable amounts to these scams, totaling an estimated Rs 1,776 crore in just four months, highlighting the severe impact of these crimes.
4. Sophisticated Criminal Tactics: The operations utilize advanced deceptive strategies, leveraging social media for recruitment and fake offers, showing a high level of organization and targeting.
5. Potential International Links: The presence of Mandarin characters in the web applications used by the criminals suggests possible links to Chinese operations, pointing to the international nature of these cybercrime networks.
6. Need for Enhanced Awareness and Prevention: The findings emphasize the importance of increased cyber vigilance, public awareness campaigns, and stronger cybersecurity measures to protect individuals from such sophisticated frauds.

### **THE HEAT STRESS-Indian Express Editorial**

Sociology

### **Easy explanation**

India is experiencing severe heat waves for the third consecutive year, exacerbated by factors beyond rising temperatures. The Centre for Science and Environment (CSE) report highlights that urban heat stress in cities like Chennai, Mumbai, Delhi, Bengaluru, Kolkata, and Hyderabad is a result of a combination of air temperature, land surface temperature, relative humidity, and the rapid increase in built-up areas and concretisation. This "urban heat island effect" results in city centers being significantly hotter than surrounding areas, with nights providing little relief. Vulnerable populations, including the elderly, babies, pregnant women, and those living in slums or working outdoors, are particularly at risk.

Although over 20 states have developed Heat Action Plans (HAPs) in collaboration with the National Disaster Management Authority (NDMA), most remain ineffective due to a lack of funding, detailed planning, and sustainable vision. Experts suggest that city-specific management plans focusing on local factors, such as increasing green spaces and water bodies, and targeting heat generators like vehicles, industries, and concrete surfaces, are more effective. Programs like Ahmedabad's CoolRoofs initiative, which mitigates the urban heat island effect, exemplify practical solutions. Combining emergency measures with long-term urban planning can significantly reduce heat stress and save lives.

### **Key Takeaways:**

1. Complex Causes of Heat Stress: Rising temperatures, urban sprawl, and increased concretisation contribute to severe heat stress in Indian cities.





2. **Urban Heat Island Effect:** Dense urban areas trap heat, leading to higher temperatures in city centers compared to outlying areas, with nights providing little respite.
3. **Vulnerable Populations:** The elderly, babies, pregnant women, slum dwellers, and outdoor workers are at higher risk of heat-related illnesses.
4. **Ineffective Heat Action Plans:** Many state-level Heat Action Plans lack implementation due to insufficient funding and lack of detailed, sustainable strategies.
5. **Need for Localized Solutions:** City-specific management plans that prioritize green spaces, water bodies, and target heat generators are crucial for effective heat stress mitigation.
6. **Examples of Effective Initiatives:** Programs like Ahmedabad's CoolRoofs offer affordable solutions to mitigate urban heat effects and demonstrate the potential of practical, localized interventions.
7. **Importance of Long-Term Planning:** Integrating emergency responses with long-term urban planning is essential to prevent excessive city heating and protect public health.

### [An outdated nuclear debate-Indian Express Editorial](#)

International relations

#### Easy Explanation

The global and regional nuclear scenarios are shifting dramatically, prompting a necessary reevaluation of India's nuclear policies. With major powers revisiting their nuclear strategies amid rising geopolitical tensions and the increasing role of nuclear energy in addressing climate change, India faces new challenges. The resurgence of nuclear energy interests, particularly among tech companies for powering data centers, alongside escalating military tensions involving nuclear capabilities in regions like Europe, the Middle East, and Asia, highlights the evolving landscape. Additionally, the potential for renewed nuclear proliferation, as seen with concerns over North Korea and Iran, further complicates the global security environment. Technological advancements, including the integration of AI in nuclear command structures, pose fresh strategic stability questions. Given these dynamics, India's traditional focus on Pakistan's nuclear capabilities seems outdated. Instead, there's a pressing need for a comprehensive strategy that addresses the broader challenges posed by China's expanding arsenal and the technological shifts in warfare. This requires a redefined nuclear doctrine that enhances India's deterrence capabilities, aligns with modern technological advancements, and strengthens its civil nuclear energy framework to secure energy needs and strategic interests.

#### Key takeaways

Here are the key takeaways from the evolving global nuclear scenario and its implications for India:

1. **Changing Global Dynamics:** The global nuclear landscape is undergoing significant changes with major powers reevaluating their nuclear strategies amid escalating geopolitical tensions.
2. **Resurgence of Nuclear Energy:** Nuclear energy is gaining renewed interest as a means to tackle climate change, with tech companies increasingly considering it for powering large data centers.
3. **Regional Nuclear Tensions:** Areas such as Europe, the Middle East, and Asia are witnessing a shift in nuclear dynamics, with countries rethinking their nuclear strategies due to threats and regional insecurities.
4. **Technological Advancements:** The integration of advanced technologies like AI in nuclear weapons systems is raising new strategic stability concerns, necessitating clear policies on the control and use of such technologies.
5. **India's Outdated Focus:** India's current nuclear policy, heavily focused on Pakistan, needs broadening to adequately address the more complex challenges posed by China's nuclear expansion and global technological changes.
6. **Need for Comprehensive Review:** India must conduct a comprehensive review of its nuclear doctrine and capabilities to ensure they are aligned with the current global and regional realities, enhancing both its deterrence and civil nuclear capabilities.





## Is RBI dependent on food or Fed?-Indian Express Editorial

Economy

### Easy Explanation

In recent years, the Reserve Bank of India (RBI) has faced crucial decisions regarding its monetary policy, influenced by both domestic economic conditions and international monetary trends. In May 2022, the RBI's Monetary Policy Committee (MPC) held an unscheduled meeting to raise interest rates by 40 basis points, initiating a rate hike cycle. This decision came amid rising inflation pressures, primarily driven by food prices and external factors such as the Russia-Ukraine conflict impacting global commodity prices.

The timing of the RBI's decision coincided closely with the U.S. Federal Reserve's significant interest rate hike, sparking debates about whether the RBI's actions were influenced more by attempts to manage inflation or stabilize the rupee against potential depreciation. Fast forward to the present, with India's inflation, particularly core inflation, at multi-year lows, there's speculation about whether the RBI might cut rates if monsoon forecasts prove favorable and food inflation eases.

Internationally, while the U.S. Federal Reserve has indicated a slower pace for rate cuts, European central banks are signaling potential rate reductions. This divergence highlights the varying approaches to monetary policy based on regional economic conditions. The scenario raises questions about the extent to which the RBI's future decisions will be influenced by domestic growth and inflation dynamics versus global monetary policy shifts.

### Key Takeaways:

1. **Inflation Concerns:** The RBI has been responsive to inflation trends, particularly food inflation, which has a significant impact on overall economic stability in India.
2. **Global Influence:** Decisions by major central banks, especially the U.S. Federal Reserve, have historically influenced the RBI's monetary policy, particularly regarding interest rates and managing currency stability.
3. **Domestic vs. International Policy:** There is an ongoing debate about the extent to which the RBI should allow global economic policies to influence its own monetary strategy, highlighting the challenge of balancing domestic economic needs with global economic pressures.
4. **Future Outlook:** The RBI's future policy decisions may hinge on the progression of domestic factors, such as the monsoon's impact on food prices, and the broader global economic climate, particularly the actions of central banks in the U.S. and Europe.

The evolving scenario underscores the need for the RBI to navigate complex domestic and international economic landscapes, making strategic decisions that align with India's long-term economic goals while considering global economic trends.

## On Fire safety regulations in India-The hindu Text and Context

Governance

### Easy explanation

Two recent tragedies, the deadly fire at a gaming center in Rajkot, Gujarat, and the fire at a newborn baby care hospital in New Delhi, have underscored the pressing concerns regarding fire safety regulations in public buildings across India. The Rajkot incident claimed the lives of at least 32 people, prompting investigations and critical observations from the Gujarat High Court regarding the state administration's functioning. Similarly, the New Delhi hospital fire resulted in arrests and highlighted issues related to fire certification and compliance with safety protocols. The Union of India relies on the Model Building Bye-Laws, 2016, and Chapter 11 on "Fire Protection and Fire Safety Requirements" to provide a regulatory framework for state governments. However, enforcement challenges persist, as evidenced by the lack of valid fire NOCs in numerous establishments. The tragedies call for stricter enforcement, accountability, and proactive measures to prevent future incidents. With a significant number of fire-related fatalities in recent years, tightening the implementation of building codes and bye-laws is imperative to safeguard public lives and property.



| Clear your doubts now.





Comprehensive efforts are needed to enhance fire safety awareness and ensure full compliance with regulations across all public buildings in India.

### **Key takeaways**

1. Recent tragedies in Rajkot and New Delhi highlight serious concerns regarding fire safety in public buildings across India.
2. The Rajkot gaming center fire, which claimed 32 lives, led to investigations and critical observations from the Gujarat High Court.
3. Similarly, a fire at a newborn baby care hospital in New Delhi resulted in arrests and raised questions about fire certification and compliance.
4. The Union of India relies on the Model Building Bye-Laws, 2016, to provide a regulatory framework for state governments regarding fire safety.
5. Enforcement challenges persist, with many establishments lacking valid fire NOCs, indicating the need for stricter compliance measures.
6. The tragedies underscore the importance of proactive measures to prevent future incidents and enhance fire safety awareness.
7. With a significant number of fire-related fatalities in recent years, there is a pressing need to tighten the implementation of building codes and bye-laws.
8. Comprehensive efforts are required to ensure full compliance with fire safety regulations across all public buildings in India.

### **An altered protein and fussy neurons conspire to cause microcephaly-The Hindu science**

Science

#### **Easy Explanation**

Recent research has highlighted the critical role of the SASS6 gene in the development of microcephaly, a neurological condition where individuals have significantly smaller heads and brains than normal, often leading to developmental delays and intellectual disabilities. The SASS6 gene is essential for proper centriole formation during cell division, which is crucial during brain development. Studies have shown that mutations in this gene disrupt the normal process of neuron formation, leading to the symptoms associated with microcephaly.

Further insights from genetic studies, particularly involving families with a history of the condition, have identified specific mutations in the SASS6 gene, such as the Ile62Thr mutation, that are directly linked to these developmental anomalies. This mutation impairs the gene's ability to correctly guide the assembly of centrioles, which are pivotal for cell division and the subsequent formation of neurons. Additionally, the research has underscored the impact of consanguinity in the prevalence of these mutations, as closely related parents are more likely to pass on similar genetic defects to their offspring.

The implications of these findings are profound, offering a clearer understanding of the genetic mechanisms underlying microcephaly and pointing towards potential genetic screenings and therapeutic strategies to address this debilitating condition.

#### **Key Takeaways**

Here are the key takeaways from the research on the SASS6 gene and its role in microcephaly:

1. **Critical Role of SASS6:** The SASS6 gene is essential for the proper formation of centrioles, which are critical for cell division, particularly during brain development. Mutations in this gene lead to improper neuron formation and contribute to the onset of microcephaly.
2. **Impact of Mutations:** Specific mutations in the SASS6 gene, such as the Ile62Thr mutation, directly impair the gene's ability to guide centriole assembly. This disruption in cell division is a fundamental cause of microcephaly.







3. **Consanguinity Increases Risk:** Consanguineous relationships significantly heighten the risk of inheriting mutated genes like SASS6. This is because closely related individuals are more likely to carry and pass on similar genetic defects.
4. **Potential for Genetic Screening:** Understanding the specific genetic mutations that contribute to microcephaly can pave the way for genetic screening and early diagnosis, potentially leading to better management and therapeutic strategies for affected individuals.
5. **Importance of Genetic Research:** These findings underscore the importance of genetic research in understanding complex neurological conditions like microcephaly and developing interventions that can significantly improve outcomes for affected individuals.

## 30th May 2024

### [Not just Delhi: temperature records are tumbling across the world-Indian Express Explained](#)

Environment

#### **Easy Explanation**

The article discusses a significant heat event in New Delhi, where temperatures soared to record levels, reflecting a broader global pattern of extreme temperatures in recent years. Examples of similar temperature records include the UK experiencing over 40 degrees Celsius for the first time in 2022, and a record 52 degrees Celsius in a Chinese town. Analysis indicates that nearly 40% of the Earth's surface has hit record daily temperatures between 2013 and 2023. While a recent reading of 52.9 degrees Celsius in Delhi is under scrutiny for its accuracy, it underscores the ongoing severe heatwave affecting northern India and other parts of the world. This trend aligns with predictions of rising global temperatures due to climate change, evidenced by 2024 being one of the warmest years on record.

#### **Key Takeaways:**

1. **Global Trend of Rising Temperatures:** The increase in record-breaking temperatures globally indicates a significant shift in climate patterns. The fact that nearly 40% of the Earth experienced unprecedented temperatures within a decade points to an accelerated warming trend.
2. **Verification and Doubts Over Records:** The recent 52.9°C recorded in Delhi is under scrutiny, as it vastly exceeds readings from nearby stations. This emphasizes the importance of verification in weather records, a practice that ensures the accuracy and reliability of extreme weather data.
3. **Impact of Heatwaves:** Northern India is currently experiencing severe heatwaves, with temperatures significantly above normal. This has major implications for public health and the well-being of the population, highlighting the urgency of addressing climate-related issues.
4. **Broader Climate Impacts:** The global climate is warming at an alarming rate, with the period from May 2023 to April 2024 being the warmest on record. This ongoing trend emphasizes the critical need for global environmental strategies and adaptation measures.
5. **Future Projections:** The consistent rise in temperatures suggests that what are now considered extreme weather conditions could become the new normal. This calls for urgent and comprehensive adaptation strategies to mitigate the adverse effects on ecosystems and human populations.

### [ANCIENT EGYPTIANS MIGHT HAVE TRIED TO TREAT BRAIN CANCER:STUDY-Indian Express Explained](#)

Science

#### **Easy Explanation**

A recent study published in the journal *Frontiers in Medicine* has revealed signs of brain cancer and its possible treatment in a 4,600-year-old Egyptian skull. Using microscopic analysis, researchers discovered cut marks around the



| Clear your doubts now.



skull's edges and lesions linked to metastasized brain cancer. This finding suggests that ancient Egyptians might have attempted to treat cancer, potentially pushing back the timeline of documented cancer treatment efforts by up to a thousand years. Ancient Egyptian medicine was highly advanced, with a detailed understanding of human anatomy and various medical practices. The study provides new insights into the medical practices of ancient Egyptians and highlights their potential early attempts to understand and treat cancer.

#### **Key Takeaways:**

1. **Discovery of Ancient Cancer Treatment:** The study revealed cut marks around lesions on a 4,600-year-old Egyptian skull, indicating possible attempts to treat brain cancer.
2. **Advanced Medical Knowledge:** Ancient Egyptians had a sophisticated understanding of the human body and medical practices, as evidenced by preserved papyri and hieroglyphs.
3. **Historical Significance:** The finding potentially pushes back the documented history of cancer treatment by up to a thousand years.
4. **Perimortem Intervention:** The cut marks suggest some form of perimortem human intervention, possibly surgical exploration or treatment attempts.
5. **Uncertainty of Timing:** Researchers caution that they cannot definitively determine if the cut marks were made before or after death, leaving room for further interpretation.
6. **Insight into Medical Practices:** The discovery underscores the importance of ancient Egyptian medical practices and their early attempts to understand and potentially treat cancer, contributing a significant milestone in the history of medicine.

### **The end of unipolarity-Indian Express Editorial**

International relations

#### **Easy Explanation**

The U.S. handling of conflicts in Ukraine and Gaza reveals significant shifts in global geopolitics, moving towards regionalization and away from the unipolarity that has characterized the post-Cold War world. The U.S. has approached both situations similarly by supporting military actions over negotiations, providing arms, funding, and diplomatic backing to both Ukraine and Israel. Despite these efforts, neither conflict has achieved a decisive victory, indicating a stalemate and suggesting a failure in achieving stated military goals.

This approach has not only exposed cracks in the global order but has also divided international responses, highlighting a trend where global conflicts are increasingly viewed through a regional lens. Many countries, especially from the Global South, have opted for neutrality, reflecting a broader dissatisfaction with following the U.S. lead.

These developments suggest a diminishing influence of the U.S. as a global hegemon, as regional powers like China, Russia, India, and Brazil assert influence within their spheres without extending their reach globally.

The move towards regionalization suggests that future international relations may be governed less by a single global power and more through a balance of regional powers, necessitating a new approach to global diplomacy and conflict resolution.

#### **Key Takeaways:**

1. **Similar U.S. Response to Ukraine and Gaza:** The U.S. has chosen military intervention and support over negotiations in both conflicts, leading to stalemates without achieving decisive victories.
2. **Shift from Unipolarity to Regionalisation:** The decline of U.S. unipolar dominance is marked by the rise of regional powers and a focus on regional rather than global conflicts.
3. **Global Division:** The global response to these conflicts is divided, with many countries, especially in the Global South, not aligning strictly with U.S. positions, indicating a move towards geopolitical neutrality.
4. **Impact of Regional Conflicts:** Regional conflicts are less likely to escalate into global wars but still pose significant challenges to peace and stability, requiring new approaches to international order.





5. Middle Powers' Role: Countries like China, Russia, India, and Brazil are influential within their regions but lack the capacity for global dominance, highlighting the limitations of regional hegemony.
6. Challenges to U.S. Hegemony: The inability of the U.S. to maintain global hegemony through military interventions underscores the need for a new international order based on regional balances of power.

The regionalisation of geopolitics signals a departure from the era of global power struggles, emphasizing the need for a new approach to international relations that considers the distinct dynamics of regional actors and conflicts.

### [An overview of the AMRUT scheme-The hindu Text and Context](#)

Sociology

#### Easy Explanation

The Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme, launched by the NDA-1 government in June 2015, aimed to address key infrastructure challenges in urban areas. Its goals included ensuring every household had access to water taps and sewerage connections, enhancing city greenery and open spaces, and reducing pollution through public transport and non-motorized transport facilities. The scheme's initial phase had a budget of ₹50,000 crore for five years, with a second phase, AMRUT 2.0, launching in October 2021 with an outlay of ₹2,99,000 crore. Despite some progress, such as the installation of millions of tap and sewerage connections, the scheme has faced significant shortcomings, including mechanical design, lack of city participation, and inadequate focus on holistic urban planning.

#### Key Takeaways:

1. Purpose of AMRUT: The mission aimed to provide tap water and sewerage connections to every household, develop green spaces, and reduce pollution through improved public and non-motorized transport.
2. Financial Allocation: The initial phase had a budget of ₹50,000 crore, while AMRUT 2.0 had an outlay of ₹2,99,000 crore, with the central government contributing ₹76,760 crore for five years.
3. Progress and Utilization: By May 2024, ₹83,357 crore had been utilized, resulting in millions of tap and sewerage connections, development of parks, and replacement of LED lights.
4. Infrastructure and Health Issues: Despite some progress, issues such as inadequate water supply, poor sanitation, and worsening air quality persist, with significant health impacts.
5. Design and Implementation Flaws: The scheme was criticized for its project-oriented approach, lack of city participation, and dominance of bureaucrats and private interests, sidelining elected representatives and local governance.
6. Recommendations for Improvement: A more holistic, people-centric approach is needed, incorporating climate and rainfall patterns, and empowering local bodies to ensure sustainable urban development and effective water management.

### [Why does instability and chaos persist in Haiti?-The hindu Text and Context](#)

International relations

#### Easy Explanation

Haiti's main international airport in Port-au-Prince recently reopened after a three-month shutdown, rekindling hopes for the resumption of essential shipments. Despite this, gang violence remains rampant. Following the resignation of Prime Minister Ariel Henry on April 24, a seven-member Council was formed to restore order, set a new Cabinet agenda, form a national security council, and appoint an electoral commission. This Council has backing from Caribbean countries and the U.S. However, internal divisions within the Council and ongoing gang violence continue to pose significant challenges. The deployment of Kenyan special forces to combat instability has raised concerns about potential human rights violations.

#### Key Takeaways:



| Clear your doubts now.



1. **Formation of a New Council:** After Prime Minister Ariel Henry's resignation, a Council of seven members was formed to restore order in Haiti, supported by Caribbean countries and the U.S. Finance Minister Michel Patrick Boisvert became interim Prime Minister, with former Minister Fritz Bélizaire later chosen by the Council.
2. **Persistent Gang Violence:** Despite addressing some gang demands, violence continues, exacerbated by a weak security apparatus and ineffective law enforcement. Over the first three months of 2024, gang violence claimed more than one life per hour.
3. **Challenges Facing Haiti:** The country's health system is near collapse, with supply chains strangled and 1.6 million people facing emergency levels of food insecurity. The upcoming monsoon season threatens to worsen waterborne diseases like cholera.
4. **Internal Council Divide:** The decision-making process within the Council is already showing signs of internal conflict, raising concerns about corruption and the ability to effectively govern and make unified decisions.
5. **UN-Backed Security Mission:** The arrival of Kenyan police forces to combat gang violence is controversial, with fears of potential human rights abuses and escalating tensions.
6. **Future Uncertainties:** Haiti faces three major challenges: internal Council divisions, persistent gang violence, and the potential adverse impact of the UN-backed security mission. These issues highlight the fragility of Haiti's political landscape and the ongoing struggle to achieve stability and security.

### [More volcanism on Venus than was previously known: study-The hindu Science](#)

Geography

#### **Easy Explanation**

Recent analysis of radar images from NASA's Magellan spacecraft indicates that Venus is more volcanically active than previously believed. The study, published in Nature Astronomy, discovered evidence of volcanic eruptions at two new sites: Sif Mons and Niobe Planitia, in the northern hemisphere. At Sif Mons, a lava flow covered approximately 30 sq. km, while Niobe Planitia saw a flow covering 45 sq. km. Both sites feature shield volcanoes with broad, gentle slopes formed by low-viscosity lava flows. Advances in computing have enabled more precise analysis of the Magellan mission data, which mapped 98% of Venus's surface from 1990 to 1992. This research builds on prior findings, including a 2023 study that observed changes in a volcanic vent on Maat Mons, suggesting that Venus's volcanic activity may be comparable to Earth's. The study provides the first direct evidence of lava flows formed during the Magellan mission period. Understanding Venus's volcanic activity offers critical insights into the planet's internal heat, geological processes, thermal evolution, surface renewal, and atmospheric interactions, significantly enhancing our knowledge of its geological dynamics.

#### **Key Takeaways:**

1. **Increased Volcanic Activity:** New analysis of Magellan's radar images indicates more volcanic activity on Venus than previously known, with evidence of eruptions at two new sites: Sif Mons and Niobe Planitia.
2. **Detailed Observations:** At Sif Mons, a lava flow covering about 30 sq. km was observed, while Niobe Planitia saw a flow covering 45 sq. km. These sites feature shield volcanoes, characterized by broad, gentle slopes formed by low-viscosity lava flows.
3. **Technological Advances:** Advances in computing capabilities have made it easier to analyze radar data from the Magellan mission, which mapped 98% of Venus's surface between 1990 and 1992.
4. **Comparative Volcanism:** The study suggests that Venus's volcanic activity is comparable to Earth's, challenging previous understandings of the planet's geological processes.
5. **Previous Findings:** This study builds on a 2023 finding that a volcanic vent on Maat Mons changed shape during the Magellan mission, further indicating ongoing volcanic activity on Venus.
6. **Scientific Implications:** Understanding Venus's volcanic activity provides insights into the planet's internal heat, geological processes, thermal evolution, surface renewal, and atmospheric interactions, offering a fuller picture of its geological history and dynamics.



| Clear your doubts now.



## [New light-based tool could cut cost of spotting viral infections-The hindu Science](#)

Science

### **Easy Explanation**

Researchers from Harvard University and Jiangsu University have developed a new light-based tool to detect viral infections in cells, using principles of high-school physics. Published in Science Advances, the tool involves shining light on cells through a microscope and analyzing the resulting diffraction patterns to identify infected cells. This method captures changes in cell shape and size caused by viral infections, producing distinct light patterns or 'fingerprints' that differentiate between uninfected, infected, and dead cells. The new technique is significantly cheaper, costing about one-tenth of traditional methods, and faster, taking only about two hours compared to the 40 hours required by conventional chemical reagent methods.

The tool's versatility makes it applicable to various viral infections, not limited to specific viruses. It holds particular promise for use in livestock and pets, helping to detect infections early and improve breeding practices. This method could be especially beneficial for low- and middle-income countries, providing a cost-effective way to enhance viral surveillance and containment. By enabling rapid and inexpensive detection of viral infections, this light-based tool aligns with global health goals to quickly identify, report, and respond to animal and human outbreaks, potentially mitigating significant economic and public health impacts.

### **Key Takeaways:**

1. **New Detection Method:** The tool uses light and basic physics to detect viral infections in cells by analyzing changes in cell shape and size through diffraction patterns.
2. **Efficiency and Cost-Effectiveness:** The new method is significantly cheaper, costing about one-tenth of the standard method using chemical reagents, and faster, taking only about two hours compared to the 40 hours required by traditional methods.
3. **Accuracy:** The light-based method can detect viral infections as accurately, or even more accurately, than standard techniques.
4. **Versatility:** The tool can differentiate between uninfected, virus-infected, and dead cells, and is not specific to any particular virus, making it broadly applicable for early detection of various viral infections.
5. **Applications in Livestock:** The method holds promise for use in livestock and pets, helping to identify viral infections early and potentially improving the selection and breeding of healthy animals.
6. **Public Health Impact:** This tool could aid in preventing significant losses from viral outbreaks in animals by enabling rapid and cost-effective detection, aligning with WHO recommendations for controlling animal outbreaks as a first line of defense against the spread of viruses.

## [India, liberalism and its crisis of legitimacy-The Hindu Editorial](#)

Polity

### **Easy explanation**

Since adopting liberalism after the 1991 elections, India now faces significant challenges with this political approach. Originally celebrated as a leading form of government, liberalism is now criticized from both the left and right sides of the political spectrum. The left argues that liberalism favors the rich and increases inequality, while the right believes it weakens community bonds and traditional values, viewing it as unsuitable for Indian culture.

The recent global rise in authoritarian leaders shows that many people are losing faith in liberal democracy. In India, there's a growing preference for stronger, authoritarian leadership over democratic systems. This indicates a need to rethink and modify Indian liberalism to better integrate India's traditional values with the principles of modern democracy.

This reform should include developing economic policies that promote fairness and include strong support for social welfare, strengthening democratic institutions to rebuild public trust, and encouraging liberals to unite and focus on



| Clear your doubts now.





common goals rather than internal disagreements. This updated approach aims to make liberalism more relevant and effective for India today, offering a strong, adaptable governance framework.

### **Key Takeaways:**

1. **Crisis of Legitimacy:** Liberalism in India is experiencing a legitimacy crisis, with significant attacks from both the left and the right. The left views it as an elitist ideology that widens socio-economic disparities, while the right perceives it as a threat to societal values and traditions.
2. **Need for Indian Liberalism Reform:** There is a pressing need to reform and broaden the concept of Indian liberalism to make it more inclusive and representative of India's diverse societal needs. This reformed liberalism should integrate traditional and communal values without compromising on individual freedoms and rights.
3. **Engagement with Tradition and Identity:** Indian liberalism needs to engage more deeply with traditional values and community identities that are integral to the cultural fabric of the nation. This involves recognizing and addressing systemic inequalities that have persisted despite liberal policies.
4. **Economic and Social Justice:** Economic policies under a liberal framework should balance free enterprise with strong social welfare to ensure that economic growth benefits all sections of society, particularly the marginalized.
5. **Revival of Democratic Institutions:** Strengthening democratic institutions and ensuring genuine representation in decision-making processes are crucial for restoring faith in liberal democracy.
6. **Consensus Among Liberals:** Indian liberals must find common ground and focus on collective action rather than internal disagreements to effectively counter the challenges posed by authoritarian and populist forces.

The crisis facing liberalism in India mirrors a global trend where populist and authoritarian regimes are gaining ground. For liberalism to regain its relevance and effectiveness, it must evolve to address the contemporary socio-economic and cultural realities of India.

## 31st May 2024

### **STATUTORY BAIL-Indian Express Explained**

Polity

### **Easy Explanation**

Sharjeel Imam, a JNU scholar, was granted statutory bail by Justices Suresh Kumar Kait and Manoj Jain in a case involving sedition and unlawful activities under the Unlawful Activities Prevention Act (UAPA). However, Imam remains in custody due to his involvement in another case related to the 2020 North East Delhi riots. Although he faces multiple pending cases across at least four states, he is not currently in custody for those and does not need to apply for bail in those cases. The Supreme Court has stayed the operation of the sedition charge under Section 124A of the Indian Penal Code (IPC) while its constitutional validity is determined.

Imam received statutory bail after serving almost four years in prison, which is half of the maximum sentence under UAPA Section 13. Statutory bail, introduced in 2005, aims to address the issue of the rising number of undertrial prisoners by granting bail when an undertrial has served half of the maximum jail term prescribed for the offense. This provision is particularly significant for offenses carrying shorter sentences, providing a legal pathway for release for those awaiting trial for extended periods.

### **Key Takeaways:**

1. **Bail Granted:** Sharjeel Imam was granted statutory bail for charges under the Unlawful Activities Prevention Act (UAPA) after spending almost four years in prison.
2. **Continued Custody:** Imam remains in custody due to another case involving the 2020 North East Delhi riots.



| Clear your doubts now.



3. Pending Cases: Several other cases are pending against Imam in at least four states, but he does not need to apply for bail in these cases as he is not in custody for them.
4. Supreme Court Stay on Sedition: The sedition charge under Section 124A of the Indian Penal Code (IPC) is currently stayed by the Supreme Court.
5. Statutory Bail: Statutory bail is granted when an undertrial prisoner has served half of the maximum jail period prescribed for the offense. Imam qualified for this bail under Section 436A of the Code of Criminal Procedure (CrPC).
6. Maximum Sentences: Charges under Section 13 of the UAPA carry a maximum sentence of seven years, whereas sedition can lead to life imprisonment.
7. Introduction of Statutory Bail: This provision was introduced in 2005 to address the rising number of undertrials in prison.
8. Default Bail: Courts can grant default bail if police fail to complete the investigation within the specified period, applicable to IPC crimes but with relaxed timelines for special legislation like the UAPA.

### Turbulence in the air-Indian Express Explained

Science and technology

#### Easy Explanation

Aircraft turbulence, often caused by strong winds, updrafts, and weather phenomena, can result in severe and sometimes fatal incidents. Recently, a Singapore Airlines flight over Myanmar encountered severe turbulence, resulting in one death and over 70 injuries. A Qatar Airways flight over Turkey also experienced turbulence, injuring twelve. Turbulence types include mechanical, thermal, frontal, and wind shear, with clear air turbulence (CAT) being particularly unpredictable and exacerbated by climate change. Studies show an increase in CAT due to stronger jet streams.

Despite advances in aircraft technology and weather forecasting, unexpected turbulence remains a risk. Passengers should keep seatbelts fastened at all times to prevent injuries. Following the Myanmar incident, Singapore Airlines revised procedures, suspending meal services during turbulence and ensuring crew members remain seated with seatbelts fastened. The FAA highlights the need for improved communication, training, and procedural changes to mitigate turbulence risks.

#### Key Takeaways:

1. Recent Incidents: A Singapore Airlines flight over Myanmar and a Qatar Airways flight over Turkey recently experienced severe turbulence, resulting in injuries and one fatality.
2. Types of Turbulence: Turbulence can be mechanical, thermal, frontal, or caused by wind shear, including clear air turbulence (CAT), which is especially difficult to predict.
3. Causes and Effects: Turbulence is caused by irregular air movements, leading to changes in altitude and attitude. Severe turbulence can momentarily make the aircraft uncontrollable.
4. Impact of Climate Change: Studies indicate that climate change is increasing the frequency and severity of turbulence, particularly CAT, due to strengthening jet streams.
5. Safety Measures: The FAA recommends enhanced communication, training, and procedural changes to mitigate turbulence risks. Passengers should keep seatbelts fastened at all times to prevent injuries.
6. Recent Changes: In response to the Myanmar incident, Singapore Airlines revised its procedures, including suspending meal services during turbulence and ensuring cabin crew remain seated with seatbelts fastened.

### Ascertaining an accused's blood alcohol level-Indian Express Explained

Science

#### Easy Explanation



| Clear your doubts now.



In the aftermath of a fatal crash involving a Pune builder's son, where blood samples were found to be swapped by the forensic team, a prominent forensics expert highlights the criticality of timely and accurate blood alcohol level determination. Ideally, samples should be collected within 10 hours of an incident due to varying alcohol metabolization rates among individuals. Even if alcohol is fully metabolized by sample collection, reconstruction methods using evidence like bar bills and CCTV footage can estimate alcohol consumption and blood alcohol levels. Courts accept such reconstructions, as evidenced by past cases like the 1999 BMW hit-and-run incident in Delhi. To prevent tampering, samples are sealed and handed over to authorities, though transit vulnerabilities persist. To mitigate this, AIIMS employs onsite machines for blood alcohol level calculation, reducing reliance on sample transportation. These insights underscore the importance of meticulous procedures in forensic investigations and the need for enhanced measures to ensure accuracy and integrity in evidence collection and analysis.

#### **Key Takeaways:**

1. **Timely Sample Collection:** Blood samples should ideally be collected within 10 hours of an incident to accurately determine alcohol levels, as alcohol metabolization rates vary among individuals.
2. **Calculation Accuracy:** Even if alcohol is metabolized by the time of sample collection, reconstruction methods using evidence like bar bills and CCTV footage can estimate alcohol consumption and blood alcohol levels.
3. **Legal Validity:** Courts accept reconstructed alcohol levels based on comprehensive evidence, as seen in past cases like the 1999 BMW hit-and-run incident in Delhi.
4. **Preventing Tampering:** Samples are sealed and handed over to authorities to prevent tampering, but transit vulnerabilities still exist. To mitigate this, AIIMS employs onsite machines for blood alcohol level calculation, reducing the need to transport samples for testing.

### **Heat wave & the worker-Indian Express Editorial**

Economy

#### **Easy Explanation**

As Northern India experiences a severe heat wave with temperatures nearing 50 degrees Celsius, the impact on informal workers is particularly harsh. These workers, who make up 80% of urban laborers in India, face significant health risks and economic instability due to extreme heat. The recent death of a laborer has prompted temporary measures such as adjusted work hours and enhanced water distribution, but these are insufficient. Informal workers—ranging from construction laborers to street vendors—suffer due to inadequate social protections, unsafe working conditions, and the lack of comprehensive Heat Action Plans (HAPs). Most existing HAPs focus on rural scenarios and fail to integrate necessary urban planning and climate action strategies that consider the unique challenges faced by these workers. There is a pressing need for policies that treat heat waves as extended disasters, requiring not just immediate emergency responses but also long-term planning that includes the voices of informal workers. Such measures should address the specific vulnerabilities of these workers, offer financial and health protections, and ensure their inclusion in the creation and implementation of urban HAPs. The overall approach must be reformed to better protect informal workers from the growing threats posed by climate change and urban heat islands.

#### **Key Takeaways:**

1. **Vulnerability of Informal Workers:** Informal workers, including domestic workers, construction laborers, and street vendors, face severe health risks and economic instability due to the heat, compounded by inadequate workplace protections and the urban heat island effect.
2. **Inadequate Heat Action Plans:** Most existing HAPs do not adequately address the needs of informal workers, focusing primarily on rural conditions without integrating urban planning and climate action plans.
3. **Policy Measures Needed:** There is an urgent need to reimagine heat waves as prolonged disasters requiring a comprehensive and integrated approach that includes urban planning and climate action. Policies must also consider the gender-specific impacts of heat, as women often bear a heavier burden.





4. Worker Inclusion in Planning: It's crucial to involve worker communities in drafting and executing HAPs, ensuring that their specific needs and experiences are considered.
5. Financial and Health Protections: Workers require systemic protections such as health insurance and compensation for income losses during heat waves, underpinned by climate-resilient social protection systems.
6. Reform in Labor Laws: Reforms are needed to make labor laws and codes more responsive to the realities of informal workers and the impacts of climate change on their working conditions.
7. Reimagining Urban Spaces: Cities need to be reconfigured to support the health and rights of workers, ensuring access to water, shade, and rest areas to mitigate the effects of heat waves and improve worker welfare.

### The tobacco epidemic in India-The hindu Text and Context

Sociology

#### **Easy Explanation**

India is the world's second-largest consumer of tobacco, with nearly 26 crore users as of 2016-2017. Tobacco not only causes a myriad of diseases among users and cultivators but also results in significant environmental and economic damages. It depletes soil nutrients and contributes to deforestation, while the health-related costs attributed to tobacco exceeded ₹1.7 lakh crore in the fiscal year 2017-2018. Despite various control measures under the Cigarettes and Other Tobacco Products Act (COTPA) and the National Tobacco Control Program (NTCP), enforcement remains weak. The tobacco industry also influences regulatory frameworks, undermining public health initiatives. India's participation in the WHO's Framework Convention on Tobacco Control (FCTC) aims to reduce tobacco use, but challenges persist due to inadequate implementation and the influence of the tobacco lobby.

#### **Key Takeaways:**

1. Health and Economic Impact: Tobacco's detrimental effects on health incur substantial economic losses, far exceeding the health budget of India.
2. Regulatory Challenges: Despite having robust laws like COTPA, their enforcement is lax, allowing issues like surrogate advertising and non-compliance with packaging guidelines.
3. Tobacco Affordability: Low tobacco taxes relative to rising incomes have made tobacco products more affordable, countering efforts to reduce tobacco consumption.
4. Influence of the Tobacco Lobby: The tobacco industry's lobbying efforts have successfully kept taxes low and influenced regulations to favor tobacco sales.
5. Opportunities for Improvement: Strengthening the implementation of existing laws, increasing tobacco taxes, and supporting tobacco farmers to switch to alternative crops like jowar could enhance tobacco control efforts.
6. Need for Current Data: Up-to-date data on tobacco consumption trends is crucial for tailoring and enforcing effective tobacco control strategies.

### The rising incidence of paediatric inflammatory bowel disease in India-the hindu Science

Science

#### **Easy Explanation**

Pediatric Inflammatory Bowel Disease (IBD) is on the rise in India, impacting children like Durga, a 10-year-old from Andhra Pradesh, who exhibited symptoms such as recurrent fever, weight loss, and bloody diarrhea. Diagnosed with IBD, her condition reflects the growing recognition of this autoimmune disorder in India, where it was once considered rare. IBD, encompassing Ulcerative Colitis and Crohn's Disease, impairs nutrient absorption, leading to severe health complications. Treatment varies from immunosuppressants to biologics, with dietary management also crucial.



| Clear your doubts now.

The increase in IBD cases among Indian children is attributed to environmental triggers, changes in lifestyle, and possibly genetic factors. The condition is often chronic, necessitating extended treatment periods. The high cost of treatments, particularly biologics, poses significant financial challenges, emphasizing the need for greater awareness and timely diagnosis to avoid misdiagnosis with conditions like tuberculosis. The case of Durga, who has managed to achieve remission, underscores the potential for effective disease management. However, many families struggle with the costs and the complexities of consistent treatment, highlighting the need for improved medical and public understanding of IBD.

### **Key Takeaways:**

1. **Rising Incidence:** IBD is becoming more common among Indian children due to environmental triggers, dietary changes, and possibly genetic predispositions.
2. **Diagnosis and Treatment:** IBD is diagnosed through gastrointestinal examinations and can be managed with a combination of medication and diet. However, the condition is often chronic, requiring prolonged treatment.
3. **Financial Burden:** The high cost of treatments like biologics makes managing IBD challenging for many families.
4. **Awareness and Misdiagnosis:** There is a critical need for increased awareness of IBD in both the general public and among medical professionals to improve timely and accurate diagnoses, often complicated by symptoms that mimic other conditions like tuberculosis.
5. **Genetic and Environmental Factors:** Susceptibility to IBD may be enhanced by genetic factors and a dysregulated immune response to environmental triggers.
6. **Lifestyle Influences:** Westernization of dietary habits significantly impacts gut microbiota, correlating with an increased risk of developing IBD.

The case of Durga and others treated successfully at specialized IBD clinics demonstrates the potential for effective management of the disease, though many patients continue to face significant challenges.

### **Does the Model Code of Conduct need legal teeth?-The Hindu editorial**

Polity

### **Easy Explanation**

The effectiveness of the Election Commission of India (ECI) in enforcing the Model Code of Conduct (MCC) during elections is under scrutiny. T.S. Krishnamurthy and P.D.T. Achary discussed whether the MCC needs legal teeth to ensure better implementation. Krishnamurthy acknowledged that while the ECI has specific powers under Article 324 of the Constitution, these are limited to areas without legislative provisions and must align with constitutional and legal frameworks. He proposed granting the ECI limited powers to impose monetary penalties or temporary disqualifications to enhance enforcement. Conversely, Achary argued against legal enforceability, suggesting that introducing legal provisions could lead to judicial delays that would impede the electoral process. He emphasized the necessity of swift executive actions over legal proceedings to address violations effectively. Both experts agreed on the need for the ECI to use its existing powers more effectively to maintain fair electoral practices. Additionally, they discussed the importance of regulating social media to control misinformation and ensure election integrity. The conversation highlighted a consensus on enhancing ECI's powers moderately while considering the potential for judicial delays that could affect the timely conduct of elections.

### **Key Takeaways**

the key takeaways from the discussion on whether the Model Code of Conduct (MCC) should have legal teeth:

1. **Current Powers of ECI:** The Election Commission of India (ECI) currently operates under powers granted by Article 324 of the Constitution, which are limited to filling legislative gaps and must adhere to constitutional and legal norms.







2. **Proposal for Limited Powers:** T.S. Krishnamurthy proposed that the ECI should have limited powers to impose monetary penalties or temporary disqualifications on candidates who violate the MCC, to strengthen enforcement and ensure compliance.
3. **Concerns Over Legal Enforcement:** P.D.T. Achary argued that making the MCC legally enforceable could lead to judicial delays, which would hinder the swift execution of elections. He stressed the importance of quick executive actions to handle violations effectively.
4. **Efficient Use of Existing Powers:** There is a consensus that the ECI needs to use its existing powers more effectively to ensure that elections are conducted fairly and impartially.
5. **Social Media Regulation:** Both experts highlighted the need for regulation of social media during elections to control misinformation and uphold the integrity of the electoral process.
6. **Potential Judicial Delays:** Introducing legal enforceability to the MCC might lead to prolonged legal battles that could disrupt the electoral timeline, emphasizing the need for a balanced approach to reform.

These takeaways underscore the debate between enhancing the ECI's enforcement capabilities and the potential complications of integrating more stringent legal measures within the electoral framework.

### [India and the 'managed care' promise-The Hindu editorial](#)

Sociology

#### **Easy explanation**

In India, the integration of health insurance and healthcare provision into Managed Care Organizations (MCOs) is emerging as a promising approach to advance Universal Health Coverage (UHC). This model, inspired by similar systems in the U.S. designed to contain costs and focus on preventive care, has been adapted by a prominent healthcare chain in South India. Historically, Indian health insurance has largely centered on indemnity insurance with minimal focus on outpatient services, which comprise a significant portion of healthcare expenditures. The model in the U.S. showed MCOs effectively reducing hospitalization costs, though their impact on overall health outcomes remains debatable.

The current Indian healthcare landscape offers limited incentives for cost control, primarily targeting a narrow, urban affluent demographic. However, initiatives like NITI Aayog's proposal for an outpatient care insurance scheme suggest that managed care could foster substantial savings and enhance care integration. If supported by government incentives and pilot projects under schemes like the Ayushman Bharat Mission, MCOs have the potential to extend their benefits more widely. This approach aligns with efforts to streamline healthcare management, consolidate practices, and promote preventive care, making MCOs a viable component in the complex endeavor towards UHC in India.

#### **Key Takeaways**

key takeaways regarding the potential role of Managed Care Organizations (MCOs) in advancing Universal Health Coverage (UHC) in India:

1. **Adaptation of MCOs:** India is exploring the potential of MCOs, which integrate health insurance and healthcare provision under one roof, inspired by models used in the United States to contain costs and focus on preventive care.
2. **Historical Context:** Traditionally, Indian health insurance has been dominated by indemnity insurance that focuses on hospitalization costs, with little innovation in managing outpatient care that represents a substantial market.
3. **Potential Benefits:** MCOs could potentially reduce healthcare costs in India through better integration of services and a focus on prevention, early management of health issues, and reducing the need for costly hospitalizations.





4. **Government Role:** The Indian government could facilitate the growth of MCOs through incentives and support under existing health schemes like the Ayushman Bharat Mission, which aims to improve access to healthcare services in underserved areas.
5. **Challenges and Incentives:** The success of MCOs in India may face challenges due to the current healthcare structure that lacks widespread clinical protocols and is heavily skewed towards a small, urban, affluent demographic.
6. **NITI Aayog's Endorsement:** The endorsement by NITI Aayog of an outpatient care insurance scheme based on a subscription model highlights the recognition of managed care's potential to generate savings and improve care integration, suggesting a shift towards more sustainable healthcare solutions.

