

### Contents

GS 1 HISTORY 4
Lansdowne to be renamed Jaswantgarh: Who was Lord Lansdowne and Rifleman Jaswant Singh?4
What is Bastille Day, whose celebrations PM Modi will attend in France?4
Qila Rai Pithora: Scattered ruins narrate the tale of Delhi's first city5
GS 1 ART AND CULTURE 6
Ethnicity, religion, a shared history: ties that bind the Zo peoples of Manipur & Mizoram6
At G20 meet, a Guinness effort to shine light on Karnataka's Lambani craft6
Grand Cross of the Legion of Honour: France's highest decoration, mark of its greatest honour, for PM Modi7
In the works, world's largest museum with India's story of 5,000 yrs
GS 1 GEOGRAPHY9
Anthropocene epoch9
Focus on flooding and groundwater, Govt plans to revive stepwells, borewells
Why Europe's heat waves have got names from Greek mythology11
GS 2 POLITY
Why transgender persons cannot be placed under the OBC category13
Criminalisation of politics: Why ADR has approached the ECI seeking action against political parties14
Standing up for National Anthem: What the Supreme Court has ruled15
Concern over minors booked under POCSO: Law panel not for lowering consent age
Challenge to Centre's 2019 Jammu & Kashmir decisions17
ED chief SK Mishra's tenure extensions invalid19
New guidelines for designation of senior advocates in the SC20
Rule 176 vs Rule 267: What Govt agrees to, what Opp demands22
Adjournment Motion, Rule 267: Ways to seek urgent discussion in Parliament23
What is a Zero FIR24

Bill to bring various names of 12 tribal groups in ST list gets RS clearance25
Why no-trust vote matters25
GS 2 INTERNATIONAL RELATIONS27
PM Modi criticizes Pak and China for Terrorism during SCO virtual summit
Move over SCO and BRICS — swing states are set to take precedence
India signs MoU with Tanzania to set up IIT Madras global campus
Why India-France ties are strong, what's the significance of PM Modi's visit
Three pillars as basis, India and France draw road ahead
Macron gifts Proust novels, replica of Charlemagne chessmen
Kurtha-Bijalpura section of rail line linking India, Nepal begins operation
BIMSTEC grouping
Ports to UPI to green energy, India and Sri Lanka deepen economic ties
OPEC and OPEC+35
What is a stapled visa, and why does China issue these to Indians from Arunachal and J&K?
GS 2 GOVERNANCE
Centre amends rules, can act against IAS, IPS, IFoS pensioners on its own38
Govt cuts farm airtime: Kisan Ki Baat, Kisanvani 3 days a week
On Mann Ki Baat, PM Modi announces 'Meri Mati Mera Desh' campaign to honour martyrs
GS 3 ECONOMY 40
Centre identifies 30 critical minerals40
Reforming Multilateral Development Banks, advocating for the Global South43
What the Indian economy needs to compete with China45
Annoying pop-ups you can't get rid of: Why Govt is going after 'dark patterns'46
What is GIFT NIFTY48

Data Protection Bill approved by Cabinet: Content, concerns
Credit card usage: Why RBI wants banks to let customers choose among Visa, Mastercard, other card networks
What is Instagram's new Threads app52
Don't need PhD to teach in a college: A look at UGC's changed rule to hire entry-level professors53
Why TRAI wants to regulate WhatsApp, similar services54
Balance of Payment55
Internationalisation of rupee: Why and what are the benefits?57
GST Council: 28% tax on online gaming, casinos and horse-racing
India explores building liquefaction units in Iraq to convert flared gas into LNG59
Govt brings in Goods and Services Tax Network under PMLA ambit59
Uniform 28% tax on online gaming: What the GST Council's decision says, its implications60
India, UAE sign pacts on use of local currencies in cross-border transactions, IIT campus in Abu Dhabi
Age of consent for data protection: How the definition of a child has changed over the years63
Amid doubts, Govt sets up panel to review conduct of surveys64
The stress signals: Views on Employment65
Why one in seven Indians continues to be bracketed as 'multidimensionally poor'
India explores developing strategic gas stockpile as hedge against volatility68
Uniform Civil Code: Why it can impact Hindu Undivided Family's tax benefits68
Govt 'prohibts' export of non-basmati white rice with immediate effect69
Tomato prices are sky-high and yet the inflation rate of its prices is negative. Why?70
NCERT all set to produce textbooks in 22 Indian languages71
The dramatic transformation of India's oil trade with Russia71
India mulls green power trade with SE Asia73
A roadmap to eliminate poverty in India74

Ethanol+petrol: How to blend more and blend better 75
Wi-fi hotspot pouches: Internet from a sachet 77
With high GST on online games, death by taxes 78
Safety limits to flying79
SEBI chief says instant settlement of trades in the works: What does it mean, and how will investors benefit?81
3rd largest economy in 3rd Modi term? Anatomy of India's growth81
Why SEBI is reviewing delisting norms, and may choose the 'fixed price' method
Cinematograph (Amendment) Bill, 2023 passed in Rajya Sabha83
From less than 1% to over 75%, how inverter ACs are catalysing the energy-efficiency revolution
GS 3 ENVIRONMENT85
Deep sea mining85
Earth records hottest day ever on July 4
The problem with battery electric vehicles
Radio collars are killing the cheetahs in Kuno90
In Baltic Sea, citizen divers restore seagrass to fight climate change
Notify Mhadei sanctuary as tiger reserve within 3 months: HC to Goa91
India has 3682 tigers, home to 75 per cent of global numbers: Tiger census data
Bill to amend Forest (Conservation) Act clears Lok Sabha: objections, concerns around it
GS 3 SCIENCE AND TECHNOLOGY95
Groundwater extraction shifted the Earth's axis 95
What is aspartame, the additive in your diet cola, which the WHO may declare as 'possibly carcinogenic'?96
Euclid took off to explore 'Dark universe'
Scientists detect the universe's 'noisy' gravitational wave background: What it means
Eradicating sickle cell disease, securing the future of India's tribal communities
Ferocious black holes reveal 'time dilation' in early universe
National Research Foundation approved State of science: Where India lags101

CMV and ToMV: The two 'mosaic' viruses that hit tomato crop in Maharashtra and Karnataka103
Kerala boy dies due to brain-eating amoeba: What's it all about and how can it infect you?105
Chandrayaan-3 mission: Why ISRO wants to explore the Moon's south pole106
The two moon missions, compared107
Artificial sweetener: WHO panel says no need to cut daily intake109
UNAIDS report: AIDS and inequality111
Breakthroughs in Alzheimer's research112
International Moon Day 2023: Celebrating the 54th anniversary of Apollo 11 landing112
World Fragile X Day shines light on intellectual disability112
Geneva HIV patient cured? Can stem cell transplant help?112
ISRO successfully places seven Singaporean satellites into intended orbit113
46,000-year-old worms brought back to life from Siberian permafrost114
GS 3 DEFENCE 114
L&T signs pact with Spain firm Navantia to build Navy submarines114
What is the Rafale Marine jet, which India is going to buy from France?115
New Scorpene class submarines for the Navy115
India, France to jointly develop engines for combat aircraft, indigenous multirole helicopter
GS 3 DISASTER MANAGEMENT 118
The lesson from a monsoon-battered North India: Time to be prepared118

Myanmar border, and why it has complicated the volatile situation in Manipur119
INTERNATIONAL AFFAIRS 121
Israel unleashes fiercest aerial attack on West Bank in nearly two decades121
Excavators explore 3,000-yr-old sealed corridor of Peru temple
China, Russia to start joint air and sea drill in Sea of Japan121
Forest Fires in Spain121
Attack on Crimea bridge122
What is the Black Sea grain deal, which Russia has pulled out of122
Tourists flee wildfire on Greek island Rhodes, flights cancelled
Japan says it can make clean coal, but technology faces many hurdles
Israel passes contentious law to curb judiciary powers
Niger army extends support for coup to avoid bloodbath124
Indian crew member killed, 20 injured as cargo ship catches fire
Third typhoon in 3 weeks flagged as Khanun forms
GS 4 ETHICS 125
On Manipur video, where Women's Commission went wrong125
Previous Years Questions (PYQs) discussed 
Practice Questions 127

The 'free movement regime' along the India-

### **GS 1 HISTORY**

#### Lansdowne to be renamed Jaswantgarh: Who was Lord Lansdowne and Rifleman Jaswant Singh?

#Lansdowne #Jasw #IndiaChinaWar1962 #IndiaAfterIndependence #History

#Jaswantgarh

The Lansdowne Cantonment Board has decided to rename the quaint hill station 280 km from Delhi in Uttarakhand as Jaswantgarh after

Rifleman Jaswant Singh Rawat, Maha Vir Chakra,

one of the heroes of the 1962 war with China.

#### Who was Lord Lansdowne?

Henry Charles Keith Petty-Firzmaurice, the fifth Marquess of Lansdowne, was a British politician who served as **Viceroy of India from 1888 to 1894**. At the time of the Anglo-Manipur War of 1891, Manipuri heroes Bir Tikendrajit and General Thangal were hanged in public, and many others were sent to kala pani.

Official records of the Lansdowne Cantonment Board show that in 1886, on the recommendation of Field Marshal Sir F S Roberts, the Commander-in-Chief of the British army in India, it was decided to raise a **separate Regiment of the Garhwalis**.

The Cantonment and Regimental Centre for the training of recruits of the Garhwal Rifles was located in a forest area popularly known as Kalundanda, at an elevation of 6,000 feet above sea level. The new site was approved by Brig Gen J I Murray, GOC, Rohilkhand, and the First Battalion of the Garhwal Rifles, under Lt Col E P Mainwaring, moved into **Kalundanda on November 4, 1887.** 

On September 21, 1890, Kalundanda was renamed as Lansdowne after the Viceroy.

#### And who was Rifleman Jaswant Singh?

Rifleman Jaswant Singh Rawat was awarded the second highest gallantry award, Maha Vir Chakra, for his role in the **Battle of Nuranang** against the Chinese Peoples' Liberation Army (PLA) in the North-East Frontier Agency (now Arunachal Pradesh) on November 17, 1962.

Jaswant Singh was serving in the 4th Battalion of the Garhwal Rifles. As per official records, his battalion had beaten back two Chinese charges on their position.

Jaswant was awarded the Maha Vir Chakra posthumously while his battalion received the Battle Honour Nuranang. Today, the post at which Jaswant Singh fought is named Jaswantgarh. A memorial to his bravery has been erected at the spot.

-----N-----E-----X-----T------

# What is Bastille Day, whose celebrations PM Modi will attend in France?

#BastilleDay #FranceNationalDay #FrenchRevolution #WorldHistory #History #GS1

The **national day of France** is celebrated on July 14, also known as **Bastille Day** or **Fête nationale française**, and is marked by a long military parade, along with dancing and other merriment.

While **July 14** is more popularly associated with the storming of the Bastille in 1789, it is also the **anniversary of Fête de la Fédération**, an event held in 1790 to celebrate the unity of the French people. Also, while Bastille Day is often seen as the symbol of the end of monarchy, kings and queens continued in France till long after that.

#### What led to Bastille Day?

Bastille Day can be said to have set in motion the decade-long **French Revolution**, which fundamentally altered French political and social life and influenced the foundational ideas of democracy across the world, popularising slogans such as **"Liberté, Egalité, Fraternité" (Liberty, Equality, Fraternity).** This was the day on which ordinary people stormed Bastille, a 14th century fortress-prison in Paris that was used to incarcerate political prisoners.

#### India and Bastille Day

Before PM Modi, **Prime Minister Manmohan Singh had attended Bastille Day celebrations in 2009**. According to a French government website, "In 2009, Indian soldiers were invited to take part in the ceremonies and the military parade was opened by a contingent of 400 members of the Indian Army, Navy and Air Force." PM Manmohan Singh and French President Nicolas Sarkozy watched this parade.

------N-----E-----X-----T------

#### Qila Rai Pithora: Scattered ruins narrate the tale of Delhi's first city

#QilaRaiPithora#Anangpal2#TomarDynasty#LalKot#ChauhanDynasty#PrithviRajChauhan#MahmudGhaznavi#DelhiSultanate#MedievalHistory#GS1

The fort was recently brought to the limelight after Lieutenant Governor V K Saxena visited the site and expressed his disappointment at its decrepit state. During his visit, the L-G instructed the Delhi Development Authority and Archaeological Survey of India (ASI) to collaborate and begin cleaning and restoration operations immediately.

While the origins of the fort remain contested, it is widely believed it was first built by the Tomar dynasty surrounding the iron pillar after it was brought from Udayagiri (presentday Madhya Pradesh) by Anangpal II around 1050 CE. However, there seems to be no consensus on this either. While some say the pillar was moved by Anangpal, others argue that it was already in Delhi by the time the ruler came to power.

According to historian Rana Safvi, the Tomar dynasty decided to place its headquarters at the Aravalli Hills for its strategic and military advantages.

**Initially named Lal Kot (Red Fort)** — not to be confused with the Mughal-era Red Fort situated 23 km away on the banks of the Yamuna — the fort would serve as the first of the eight cities to come up in Delhi in centuries to come. According to Safvi, **it is probable that the fort was constructed to avoid constant raids and attacks that Mahmud of Ghazni had unleashed on Kannauj**. There, nestled in the rocky caverns of the Aravalli hills, the Tomars would rule for a century and construct dams and tanks. One can still see the remains of one in Surajkund in present-day Faridabad.

Later, the **Tomars would be overthrown by the Chahamanas and Lal Kot would be renamed Qila Rai Pithora, after Prithviraj Chauhan.** 

However, according to Cynthia Talbot's **The Last Hindu Emperor: Prithviraj Chauhan and the Indian Past**, while the ruins of the fort do place it in the pre-Sultanate period, no records exist of the Chahamana king either ruling over Delhi or even visiting it. Nevertheless, the **ASI plaque at the fort claims that the fort was captured by Chahamana prince Vigraharaja IV and then reinforced with ramparts by Prithviraja III.** 

The Chahamanas were ultimately defeated by Qutbu'd-Din Aibak in 1192 CE. According to Safvi, the victorious Ghurid army entered Qila Pithora through the Ranjit Gate and the fort thus became the capital of the Sultanate.

The most notable addition to the fort was perhaps made by Aibak in the form of Qutub Minar to mark his victory over Chauhan. The fort then witnessed several dynasties come and go — the Khaljis, the Tughlaqs, the Sayyids and the Lodhis, to name a few.

According to Safvi, **the later Delhi Sultans shifted their base closer to the Yamuna for defence purposes**. By the time Firoz Shah Tughlaq established the Firoz Shah Kotla on the banks of the Yamuna to aid the city's growing demand for drinking water, Qila Rai Pithora was abandoned along with Siri, Tughlaqabad and Jahanpanah forts.

-----B-----N-----D------

### **GS 1 ART AND CULTURE**

Ethnicity, religion, a shared history: ties that bind the Zo peoples of Manipur & Mizoram #ZoTribe #HistoryOfZoTribe #TribesInIndia

#ArtandCulture #GS1

Manipur's **Kuki-Zomi peoples** — who live primarily in the districts of Churachandpur, Pherzawl, and Kangpokpi, with scattered populations in Chandel and Tengnoupal — come under the larger umbrella of the Zo ethnic tribes, one of the largest of which are the Lushei of Mizoram.

#### The Chin homeland

The Chin Hills, or Indo-Chin hill ranges, is a thickly forested region with an elevation of 2,100-3,000 metres in northwestern Myanmar. The Hills are home to a large number of tribes that come under the Zo umbrella.

The Zo peoples include all tribes of the Chin-Kuki-Mizo ethnic group spread across Myanmar, India, and Bangladesh, along with many sub-tribes and clans such as the Chin, Kuki, Mizo, Lushei, Zomi, Paitei, Hmar, Ralte, Pawi, Lai, Mara, Gangte, Thadou, etc.

The tribes are believed to have migrated from China through Tibet to settle in Myanmar, and speak a group of Tibeto-Burman languages.

Constant feuds among the tribal clans and their kings (chieftains) drove many of the clans westward to modern-day Mizoram and parts of Manipur in the 17th century. They settled in new villages, but even so, remained socially and emotionally enmeshed with the Chin tribes of Myanmar.

-----N-----E-----X-----T------

#### At G20 meet, a Guinness effort to shine light on Karnataka's Lambani craft

#LambaniCraft #SandurLambaniEmbroidery #GITag #UNESCOWorldHeritageSite #ArtandCulture #GS1 As part of the third G20 culture working group (CWG) meeting in **Hampi**, a Guinness world record was created on Monday evening for the **'largest display of Lambani items'**.

Over 450 women artisans and cultural practitioners from Lambani — a nomadic community inhabiting Karnataka — came together to create embroidered patches with **GI-tagged Sandur Lambani embroidery**, creating 1,755 patchwork pieces.

The Lambani embroidery is an intricate form of textile embellishment characterised by colourful threads, mirror-work and stitch patterns practised in several villages of Karnataka such as Sandur, Keri Tanda, Mariyammanahalli, Kadirampur, Sitaram Tanda, Bijapur and Kamalapur.

The Lambani craft tradition involves stitching together small pieces of discarded fabric to create a beautiful fabric. The sustainable practice of patch-work is seen in many textile traditions of India and around the world. The embroidery traditions of the Lambanis are shared in terms of technique and aesthetics with textile traditions across Eastern Europe, West, and Central Asia.

After the first two meetings of the CWG in Khajuraho and Bhubaneswar, the third meeting is being held at Hampi from July 9 to 12.

As many as 50 delegates are attending the third CWG meeting, including those from member countries, guest nations and multilateral organisations.

The delegates are being taken on an excursion to heritage sites such as the Vijaya Vittala Temple, the Royal Enclosure and the Yeduru Basavanna complex of the Hampi group of monuments, a UNESCO world heritage site.

-----N-----E-----X-----T------

## CHECK OUT OUR HISTORY COURSES & PDF NOTES



FULL COURSE

PDF NOTES



FULL COURSE

**PDF NOTES** 

### **GS 1 GEOGRAPHY**

#### Anthropocene epoch

#AnthropoceneEpoch #Eon #Era #Period #Epoch #GeologicTimeScale #Geography #GS1

In a major development that could change the Earth's official geological timeline, geologists have said sediments at **Crawford Lake in Canada's Ontario** have provided evidence of the beginning of the Anthropocene epoch — a proposed geological epoch that began when human activity started to have a significant impact on the Earth.

Members of the Anthropocene Working Group (AWG), which has been working since 2009 to make the Anthropocene part of the planet's time scale, the 35 geologists have estimated that the new epoch started sometime between 1950 and 1954.

#### What is the Anthropocene epoch?

The Anthropocene epoch as a **term was first coined by Nobel Prize-winning chemist Paul Crutzen and biology professor Eugene**  **Stoermer in 2000** to denote the present geological time interval, in which the Earth's ecosystem has gone through radical changes due to human impact, especially since the onset of the Industrial Revolution.

There are numerous phenomena associated with this epoch, such as **global warming**, **sealevel rise**, **ocean acidification**, **mass-scale soil erosion**, the advent of deadly heat waves, **deterioration of the biosphere and other detrimental changes in the environment**.

# How is the Earth's geological time divided?

The planet's geological time scale is divided into five broad categories: eons, eras, periods, epochs and ages. While eon is the broadest category of geological time, age is the smallest category. Each of these categories is further divided into sub-categories. For instance, Earth's history is characterised by four eons, including Hadeon (oldest), Archean, Proterozoic, and Phanerozoic (youngest).



As of now, at least officially, we're in the Phanerozoic eon, Cenozoic era, Quaternary period, Holocene epoch and the Meghalayan age.

#### -----N-----E-----X-----T------

# Focus on flooding and groundwater, Govt plans to revive stepwells, borewells

#GroundwaterRecharge #Geography #GS1 #ShallowAquifers #StepwellsRevival #BorewellsRevival #AMRUT2.0

IN A unique pilot project under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0, 10 cities across the country are getting ready to revive defunct borewells, neglected heritage stepwells and other shallow aquifers in a pilot project to recharge the groundwater as well as mitigate flooding.

According to officials of the **Union Ministry of Housing and Urban Affairs**, which runs AMRUT 2.0, the pilot is expected to be on the ground by the end of this year or early 2024. The cities — Jaipur, Gwalior, Dhanbad, Kolkata, Rajkot, Thane, Pune, Hyderabad, Bengaluru and Chennai — were selected due to their historical dependence on shallow aquifer systems and the local urban bodies' interest in implementing the project, a ministry source said.

While Indian cities depend on surface water supply, like rivers, **about 40 per cent of the supply comes from groundwater**, the level of which is fast depleting and needs to be recharged.

#### The United Nations World Water Development Report 2022 said India was the "largest groundwater user globally".

Ranging from **3 metres to 5 metres in depth**, the shallow aquifers can be recharged relatively quicker, and by using less energy, compared to the deeper ones, he said. Once recharged, the water can be used by the local communities. Informal settlements tend to rely on shallow aquifers for water supply.

Sensors would be installed at these locations to measure the level of groundwater before and

after the interventions. Each city would be given **Rs 20 lakh** for the project, and five locations each have been selected.

The city-specific projects include the revival of the Mohammadwadi stepwell and stabilisation of the Dhayari Pond's banks in Pune; restoration of Bengaluru's heritage well at Avalahalli; restoration of the open well at Janak Tal and stepwell at Senapati Hanuman Mandir in Gwalior; repair of a stepwell at Jhut Ki Bawari and construction of a pipeline in Jaipur. New rainwater harvesting systems and recharge pits are also a part of the proposed interventions by cities.

#### -----N-----E-----X-----T------

#### Why Europe's heat waves have got names from Greek mythology

#Cerberus #Charon #GreekMythology #Anticyclones #EuropeHeatWaves #Climatology #Geograpaphy #GS1

As Europe continues to boil due to the arrival of two consecutive heat storms in the region within two weeks, the weather phenomena are acquiring names of Greek mythology figures.

While the first heat wave that hit the continent on July 10 was dubbed **'Cerberus'**, the latest one has been named **'Charon'**.

#### Who were Cerberus and Charon?

Let's first focus on Cerberus, a fearsome and tireless three-headed watchdog. A child of two monsters, Typhon (a deadly serpentine giant) and Echidna (a half-woman, half-snake), the dog was the foremost hound of hell and guardian of the underworld, according to Stephen Fry's book, 'Mythos: The Greek Myths Retold'.

Cerberus along with his sister Hydra, a gigantic water-snake-like monster, was picked by Hades, the god of the dead, to guard the entrances to hell.

Charon, the ferryman who delivered souls into the underworld, was the child of Erebus and Nyx — both were the creations of Chaos. Erebus, the son, was darkness and Nyx, the daughter, was night.

## Why have the heat waves been named after them?

The name Cerberus for the heat wave that struck Europe earlier in July became popular after an **Italian weather website, iLMeteo**, specifically chose the name for an anticyclone in the region.

Anticyclones are essentially high-pressure regions, which usually cause a heat wave or drought.

Meanwhile, **Charon** is the name of the latest anticyclone, which **came to southern Europe from north Africa**.

# Is this the first time heat waves have been named?

No. iLMeteo, which called the July 10 anticyclone Cerberus, is well-known to name anticyclones after mythological figures. For instance, the website named the 2017 heat wave that hit Europe Lucifer — a name for the planet Venus in Roman mythology that was also used to refer to the devil in the Christian tradition.

-----D-----

### **GS 2 POLITY**

#### Why transgender persons cannot be placed under the OBC category

**#TransaenderReservation #VerticalReservation** #HorizontalReservation **#Reservation** #SocialIssue #Society #GS1 #Polity #GS2

As Pride Month comes to a close, on June 27, transgender persons staged a protest in Mumbai in response to the Maharashtra government's stand in the Bombay High Court. It said that it would be difficult to grant transgender persons horizontal and/or vertical reservations because it would breach the 50 per cent ceiling. Transgender persons in Tamil Nadu are also fighting for horizontal reservation in public job recruitment exams conducted by Tamil Nadu Uniformed Services Recruitment Board (TNUSRB), Teacher Eligibility Test (TET), etc. Why is this important? I hope to answer this by borrowing from the arguments made by Grace Banu, Disha Pinky Shaikh and other Dalit, Adivasi and indigenous queer, trans and intersex leaders and persons who have been fighting for reservation for transgender persons for over 15 years.

Reservation is a tool to ensure the representation of underrepresented and structurally oppressed communities and the redistribution of public goods and resources.

The Supreme Court in its judgment in NALSA v Union of India (2014) stated that, "We direct the Centre and the State Governments to take steps to treat them as socially and educationally backward classes of citizens and extend all kinds of reservation in cases of admission in educational institutions and for public appointments". However, after nine years, the Union government and many state governments have not taken any step in this direction.

Rajya Sabha MP Tiruchi Siva's Private Member Bill in 2015 (Rights of Transgender Persons Bill) had progressive provisions for reservation, but it was not passed in the Lok Sabha. However, the Transgender Persons (Protection of Rights) Act, 2019, as well as the 2020 Rules notified by the

Union government, do not have any such provisions.

Education and jobs continue to remain inaccessible to most of us in the absence of mark concessions, age and physical requirement relaxations, scholarships and reservation. How is it equal opportunity when there is no recognition of the fact that our starting points are very different? We need substantive equality, not just formal equality. Due to the efforts of B R Ambedkar and other founding fathers, the former is guaranteed as a fundamental right in our Constitution.

For example, the Common Law Aptitude Test (CLAT) is an examination for admission to National Law Universities. The fee for a single attempt is between Rs 3,500 to Rs 4,000. How are transgender persons, often living hand to mouth due to the social stigma around them (owing to being disowned, denied employment, having to elope, etc.) expected to get this money? How are we expected to meet high cutoffs in most examinations (including NEET, the recent CUET, etc.) which don't take into account that many among us don't have resources and support in the first place? Cut-offs in entrance examinations are at best an arbitrary filter, they do not reflect the merit or potential of a student.

In 2018, I secured admission to an LL.B. course at the University of Delhi. Out of the 2,400 students who were admitted alongside me, I was the only openly trans person and law student in all three centres combined. I could get admission because of my caste-class privilege as a Brahmin/dominant caste person, access to resources and the fact that I had financial support from my family. How many trans persons have that? Even now, in 2023, DU does not have an equal opportunity policy and/or reservation policy for trans and intersex persons. In response to a question in Parliament, the Union government had submitted that there are "no transgender persons" as teaching and non-teaching staff in central universities.

However, a few state governments have taken steps to introduce vertical reservation for 13 **transgender persons**. For example, in Tamil Nadu, we have been placed under the Most Backward Classes (MBC) list (2015). There is also a proposal to place us under the Other Backward Classes (OBC) list in Madhya Pradesh. This move is arbitrary and in violation of previous Supreme Court judgments. It also doesn't make any sense.

First, this would mean that all transgender persons are being placed under a vertical category as a single class. How are we a single class when we are not homogenous in terms of the barriers we face? Transgender persons do not have a singular identity. There are variances based on caste, religion, ability, etc. Second, SC or ST trans and intersex persons would then be considered under the OBC list, which is contrary to the reservation scheme under the Constitution. Third, this would also mean that SC and ST trans and intersex persons would be forced to choose between reservation based on their caste or their tribal identity and reservation based on their gender identity.

Fourth, the whole point of reservation is to ensure representation and a share in state resources. What would be achieved, if all trans persons are clubbed together in one OBC or MBC list, denying the fact that SC and ST trans persons face further discrimination and structural barriers based on their caste or tribal identity?

By merely placing us under the OBC list, the state is forcing us to compete with each other and other cis-gendered persons in the category from various communities. This makes it almost impossible for us to get a fair shot or access to a job or a seat at a public institution, let alone equal opportunities. This would defeat the whole purpose of the reservation policy in the first place.

Horizontal reservation has been extended to persons with disabilities under the Right of Persons with Disabilities Act, 2016 and for women by certain state governments. So, this is not an unprecedented or unreasonable demand by any measure. The Supreme Court of India in the **Saurav Yadav v State of Uttar Pradesh**  judgment (2020) as well as in Indra Sawhney v Union of India (1992) has talked about horizontal and vertical reservations.

Without such policies, every one of us who gets a job or a seat in an institution has had to do so through individual struggles and negotiations.

------N-----E-----X-----T------

Criminalisation of politics: Why ADR has approached the ECI seeking action against political parties

#### #CriminilizationofPolitics #ElectionCommission #Polity #GS2

The Association for Democratic Reforms (ADR), an electoral watchdog **established in 1999** by a group of professors from the Indian Institute of Management (IIM) Ahmedabad, on June 19 wrote to the Election Commission seeking action against parties that fail to publish details of criminal antecedents of candidates as per orders of the Supreme Court and the poll panel.

"ADR is seeking strict action to be initiated against the defaulting political parties, which had contested 2023 Assembly elections held in Tripura, Meghalaya, Nagaland and Karnataka, 2022 Assembly elections held in Gujarat, Himachal Pradesh, Uttar Pradesh, Uttarakhand, Goa, Manipur and Punjab and 2021 Assembly elections held in West Bengal, Tamil Nadu, Kerala, Assam and UT of Puducherry," the letter said.

For years, activists and independent electoral watchdogs like ADR have been raising concerns over political parties fielding candidates with criminal antecedents. After the 2019 Lok Sabha elections, according to ADR, 43% of the newly-elected MPs had pending criminal cases against them.

#### What has the Supreme Court said?

Hearing a petition filed by Public Interest Foundation, the Supreme Court on September 25, 2018, made it mandatory for political parties to publish the details of criminal cases pending against their candidates, including on their websites, in a format **prescribed by the Election Commission of India**. While candidates did declare the cases pending against them in their election affidavits to the ECI before the ruling, the Supreme Court order made it mandatory for the information to be widely publicised.

It directed parties to publish the details of criminal cases pending against a candidate in **bold letters** and told the candidate with pending cases to inform the party about these cases. The court also ordered that the candidate and the party have to publish the information at least thrice after filing the nomination.

Subsequently, in February 2020, while hearing a contempt petition regarding its 2018 order not being implemented, the apex court reiterated that the **parties would have to publish the details of candidates with pending criminal cases. It also added that they would have to include the reasons for selecting such a candidate.** 

"The reasons as to selection shall be with reference to the qualifications, achievements and merit of the candidate concerned, and not mere 'winnability' at the polls," the court said. It said the information would have to be published in one local vernacular newspaper, one national newspaper and on the official social media platforms of the political party within 48 hours of the selection or not less than two weeks before the first date of nominations, whichever is earlier. The parties would then have to submit a compliance report with the ECI within 72 hours.

# How are political parties flouting the Supreme Court's orders?

According to ADR, political parties are flouting the Supreme Court's orders and the ECI's subsequent directions. Writing to the ECI on June 19, ADR said there was "wilful disobedience" by parties. It said it had analysed the forms C2 and C7, which are the ECI's prescribed formats for submitting the information and found many shortcomings.

ADR also mentioned that **many political parties did not have functional websites to publish the information, and those that did, had not maintained the information and/or had inaccessible website links.** While the Supreme Court had said that a party cannot use "winnability" as a reason for selecting a candidate with criminal antecedents, the ADR letter point out that parties were citing "chances of winning, the popularity of the person" as among the reasons. The parties were also "copypasting" the similar justifications for multiple candidates.

#### What is happening now?

ADR brought the situation to the apex court's notice and was directed, on March 17, to "pursue its remedies before the Election Commission of India". This led the election watchdog to write the letter to ECI on June 19. In its letter, ADR has asked the EC to take strict action against parties that are violating the orders, including deregistering them. ADR has also asked the ECI to publish a list of defaulting parties and impose fines on them.

-----N-----E-----X-----T------

#### Standing up for National Anthem: What the Supreme Court has ruled

#### #NationalAnthem #Polity #GS2

#FundamentalRights

An executive magistrate in Srinagar has sent 11 men to jail after they were detained for allegedly not rising for the National Anthem at an event on June 25 where J&K Lt Governor Manoj Sinha was present.

The men were produced before the Executive Magistrate on July 3, who directed the SHO of police station Nishat Srinagar "to detain the...accused in Central Jail Srinagar for 7 days from today and conduct the proceedings of the case under law".

The order noted that "there is every likelihood that they may commit breach of peace and disturb public tranquillity if released."

#### Sections of the law

Section 107 of the Code of Criminal Procedure, 1973 allows an Executive Magistrate to ask any person who is "likely to commit a breach of the peace or disturb the public tranquillity or to do any wrongful act that may probably occasion a breach of the peace or disturb the public tranquillity...to show cause why he should not be ordered to execute a bond...for keeping the peace" for up to a year.

**Section 151** CrPC allows a police officer who knows of a design to commit a cognizable offence to "arrest, without orders from a Magistrate and without a warrant, the person so designing".

In legal terms, to be "bound down" means to be required to appear before the investigating officer or the court on a given date. The expression is usually used in court orders to indicate that an accused is "bound" by surety or personal guarantee to appear before authorities.

#### **Bijoe Emmanuel case**

The law around alleged disrespect to the National Anthem was laid down by the **Supreme Court in its 1986 judgment in Bijoe Emmanuel & Ors vs State Of Kerala & Ors.** 

The court granted protection to three children belonging to the millenarian Christian sect Jehovah's Witnesses, who did not join in the singing of the National Anthem at their school. The court held that forcing them to sing the Anthem violated their fundamental right to religion under Article 25 of the Constitution.

The children, siblings named Bijoe Emmanuel, Binu, and Bindu, who were students of Classes 10, 9, and 5 respectively, were expelled from NSS High School, run by the Hindu organisation Nair Service Society, on July 26, 1985.

Their parents pleaded unsuccessfully before the Kerala High Court that Jehovah's Witnesses permitted worship of only Jehovah (a form of the Hebrew name for God), and since the Anthem was a prayer, the children could stand up in respect, but could not sing.

In its August 11, 1986 judgment, the **Supreme Court said that "Article 25 ("Freedom of conscience and free profession, practice and propagation of religion")...[was] incorporated in recognition of the principle that the real test of a true democracy is the ability of even an insignificant minority to** 

# find its identity under the country's Constitution."

Standing up respectfully when the National Anthem is sung — as the children had done but not singing oneself "does not either prevent the singing of the National Anthem or cause disturbance to an assembly engaged in such singing so as to constitute the offence...[under] the **Prevention of Insults to National Honour Act, [1971]**," the court said.

Section 3 of the Act prescribes **jail up to three years and/ or a fine** for "intentionally prevent[ing] the singing of the National Anthem or caus[ing] disturbance to any assembly engaged in such singing".

The court held that the children's expulsion as a result of their "conscientiously held religious faith...was a violation of their Fundamental Right to freedom of conscience" and to freely profess, practise and propagate their religion.

#### The debate revisited

The Supreme Court revisited the matter in Shyam Narayan Chouksey vs Union of India (2018). While hearing the case, the court had, on November 30, 2016, passed an interim order that "All the cinema halls in India shall play the National Anthem before the feature film starts and all present in the hall are obliged to stand up to show respect to the National Anthem."

The court had also ordered that "entry and exit doors shall remain closed" when the Anthem is played, and that "**when the National Anthem shall be played...it shall be with the National Flag on the screen**".

However, in its final judgment in the case passed on January 9, 2018, the court modified its 2016 interim order.

"The order passed on 30th November, 2016, is modified to the extent that **playing of the National Anthem prior to the screening of feature films in cinema halls is not mandatory, but optional or directory,"** the court said.

The court's decision to modify the 2016 order came after it was informed by the Centre that a

The rules of procedure of Lok Sabha specify that after the no-confidence motion is admitted, the Speaker shall specify the date on which the debate will begin. This date should be within 10 days from the date the motion was accepted in the House.

Since 1987, there have been six noconfidence motions. On four occasions, the debate started on the same date as the motion was admitted. The longest it has taken to hold the debate has been six days — in 1992, when the government of Prime Minister P V Narasimha Rao faced its first no-confidence motion. The 2018 no-confidence motion was admitted on July 18, and the discussion began on July 20.

The debate can go on for many hours, over multiple days. The 2018 debate was almost 12 hours; the one in 2003, on a motion by Sonia Gandhi against Prime Minister Atal Bihari Vajpayee, took 21 hours over two days.

-----B-----N-----D------

### **CHECK OUT OUR INDIAN POLITY COURSE & PDF NOTES**



### **GS 2 INTERNATIONAL RELATIONS**

#### PM Modi criticizes Pak and China for Terrorism during SCO virtual summit

#SCOsummit #SCO #IssuesofSCOmembers #InternationalOrganisation #RegionalGrouping #InternationalRelations #GS2

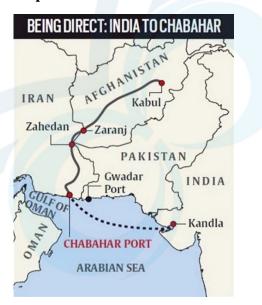
In remarks targeting China and Pakistan while President Xi Jinping and Prime Minister Shehbaz Sharif were listening, Prime Minister Narendra Modi said Tuesday that **some countries "use cross-border terrorism as an instrument" of their policies** and the Shanghai Cooperation Organisation (SCO) should not hesitate to criticise such nations because there can be "no place for double standards on such serious matters". Delhi has been repeatedly pointing out that Islamabad uses terrorist groups as instruments of "state policy", while Beijing has been blocking the listing of Pakistan-based terrorists at the UN Security Council (UNSC).

"We need to enhance mutual cooperation in dealing with terror financing as well. The **RATS** (regional anti-terrorist structure) mechanism of SCO has played a significant role in this regard. We should also take proactive steps to prevent the spread of radicalisation among our youth," he said.

The Prime Minister also referred to the Russia-Ukraine war, without mentioning it explicitly, and its impact on the world. "The present times mark a crucial phase in global affairs. In a world surrounded by conflicts, tensions and pandemics, food, fuel, and fertiliser crises are a significant challenge for all nations." Modi also raised the situation in Afghanistan. "The situation in Afghanistan has directly impacted the security of all of us. India's concerns and expectations regarding Afghanistan are similar to those of most SCO countries. We must come together to strive for the well-being of the people of Afghanistan. Humanitarian assistance to Afghan citizens, the formation of an inclusive government, the fight against terrorism and drug trafficking, and ensuring the rights of women, children and minorities are our shared priorities."

"Between the people of India and Afghanistan, there have been centuries-old friendly relations. In the past two decades, we have contributed to the economic and social development of Afghanistan. Even after the events of 2021, we continued to provide humanitarian assistance. It is important that Afghanistan's territory is not used to spread instability in neighbouring countries or to encourage extremist ideologies," he said.

During the SCO summit, **Iran was inducted as a new member** and President Ebrahim Raisi attended the virtual summit. Modi said they can work towards maximising the utilisation of the **Chabahar port.** 



"The International North-South Transport Corridor can serve as a secure and efficient route for landlocked countries in Central Asia to access the Indian Ocean. We should strive to realise its full potential," he said.



The theme of India's SCO presidency, SECURE, was derived from the acronym given by Modi at the 2018 SCO summit in Qingdao.

As chairperson of the SCO, he said India has made continuous efforts to take multidimensional cooperation to new heights. "We all these efforts on have based two fundamental principles. Firstly, 'Vasudhaiva Kutumbakam', which means the whole world is one family. This principle has been an integral part of our social behaviour since ancient times. It continues to serve as a source of inspiration and energy for us in modern times. The second principle is SECURE... which stands for S: Security, E: Economic development, C: Connectivity, U: Unity, R: Respect for sovereignty and territorial integrity and E: **Environmental protection.**"

During its presidency, he said India has created five new pillars and focus areas of cooperation in SCO – startups and innovation, traditional medicine, digital inclusion, youth empowerment and shared Buddhist heritage.

-----N-----E-----X-----T------

Move over SCO and BRICS swing states are set to take precedence

#### #SCO #BRICS #SwingStates #Geopolitics #Geoeconomics #InternationalOrganisations #InternationalRelations #GS2

Goldman Sachs, the global investment bank that talked of "dreaming with the BRICs" two decades ago, has a new idea now — "swing states" that will shape the global balance of power. Unlike BRICS and SCO, whose salience can only dim in the Indian strategic calculus,

#### What is a stapled visa, and why does China issue these to Indians from Arunachal and J&K?

#StapledVisa #ChineseVisa #IndiaChinaBorderDispute #IndiaChinaRelations #Indiaanditsneighbours #BilateralRelations #InternationalRelations #GS2

India withdrew its eight-athlete wushu contingent from the Summer World University Games beginning in Chengdu on Friday (July 28) after China issued stapled visas to three athletes from the team who belong to Arunachal Pradesh.

Wushu is the Chinese term for martial arts.

#### What is a stapled visa?

A stapled visa is simply an unstamped piece of paper that is attached by a pin or staples to a page of the passport and can be torn off or detached at will. This is different from a regular visa that is affixed to the passport by the issuing authority and stamped.

China has made it a practice to issue stapled visas to Indian nationals from Arunachal Pradesh and Jammu and Kashmir. It says the visas are valid documents, but the Government of India has consistently refused to accept this position.

#### Why does China do this?

Passports, visas, and other kinds of immigration controls reiterate the idea of a nation-state and its sovereignty which is inalienable and inviolable. A passport is the certificate of its holder's identity and citizenship. Since nationstates reserve the right to control and regulate who enters or leaves their borders, a passport and visa entitle their holders to travel freely and under legal protection across international borders.

China disputes India's unequivocal and internationally accepted sovereignty over Arunachal Pradesh. It challenges the legal status of the McMahon Line, the boundary between Tibet and British India that was agreed at the Convention Between Great Britain, China, and Tibet at the Simla **Convention of 1914**. It is this disagreement that lies at the heart of Chinese claims over the position of the Line of Actual Control (LAC), and its repeated transgressions into Indian territory.

China claims some 90,000 sq km of Arunachal Pradesh as its territory. It calls the area "Zangnan" in the Chinese language and makes repeated references to "South Tibet". Chinese maps show Arunachal Pradesh as part of China, and sometimes parenthetically refer to it as "so-called Arunachal Pradesh".

China makes periodic efforts to underline this unilateral claim to Indian territory, and to undermine the sovereignty of India over parts of Indian territory. As part of these efforts, it issues lists of Chinese names for places in Arunachal Pradesh — it has issued three such lists in 2017, 2021, and in April this year — and takes steps such as issuing stapled visas.

#### Since when has this practice gone on?

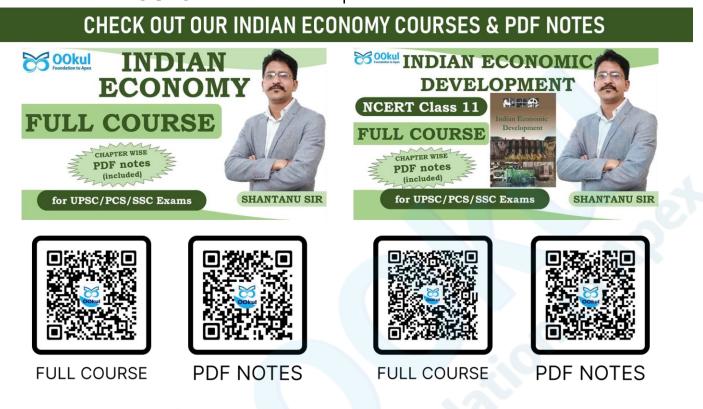
The Chinese signalled their intention by refusing to give a visa to an Indian government official who was serving in **Arunachal Pradesh** in late 2006.

The stapled visas for Jammu and Kashmir residents appear to have started around 2008-09.

-----B-----N-----D------

In 2015, the bureau launched a voluntary labelling programme for inverter RACs and made the programme mandatory in January 2018. The labelling programme for RACs now covers fixed and inverter units under the same labelling scheme.

-----B-----N-----D------



### **GS 3 ENVIRONMENT**

#### **Deep sea mining**

#DeepSeaMining #InternationalSeaBedAuthority #UNCLOS #InternationalLaws #Mining#Economy #Environment #GS3

The **International Seabed Authority** — the **United Nations body** that regulates the world's ocean floor — is preparing to resume negotiations that could open the international seabed for mining, including for materials critical for the green energy transition.

#### What is deep sea mining?

Deep sea mining involves removing mineral deposits and metals from the ocean's seabed. There are three types of such mining: taking deposit-rich polymetallic nodules off the ocean floor, mining massive seafloor sulphide deposits and stripping cobalt crusts from rock.

These nodules, deposits and crusts contain materials, such as nickel, rare earths, cobalt and

more, that are needed for batteries and other materials used in tapping renewable energy and also for everyday technology like cellphones and computers.

Engineering and technology used for deep sea mining are still evolving.

# How is deep sea mining regulated now?

Countries manage their own maritime territory and exclusive economic zones, while the high seas and the international ocean floor are governed by the **United Nations Convention on the Law of the Seas**. It is considered to apply to states regardless of whether or not they have signed or ratified it.

Under the treaty, the seabed and its mineral resources are considered the "common heritage of mankind" that must be managed in a way that protects the interests of humanity through the sharing of economic benefits, support for marine scientific research, and protecting marine environments.

Mining companies interested in deep sea exploitation are partnering with countries to help them get exploration licenses. More than 30 exploration licenses have been issued so far, with activity mostly focused in an area called the **Clarion-Clipperton Fracture Zone, which spans 1.7 million square miles (4.5 million square kilometers) between Hawaii and Mexico.** 

# What are the environmental concerns?

Only a small part of the deep seabed has been explored and conservationists worry that ecosystems will be damaged by mining, especially without any environmental protocols. Damage from mining can include **noise**, **vibration and light pollution, as well as possible leaks and spills of fuels and other chemicals** used in the mining process.

**Sediment plumes** from some mining processes are a major concern. Once valuable materials are taken extracted, slurry sediment plumes are sometimes pumped back into the sea. That can harm filter feeding species like corals and sponges, and could smother or otherwise interfere with some creatures.

The full extent of implications for deep sea ecosystems is unclear, but scientists have warned that biodiversity loss is inevitable and potentially irreversible.

#### What's next?

The ISA's Legal and Technical Commission, which oversees the development of deep sea mining regulations, will meet in early July to discuss the yet-to-be mining code draft. **The earliest that mining under ISA regulations could begin is 2026.** Applications for mining must be considered and environmental impact assessments need to be carried out.

In the meantime, some companies — such as Google, Samsung, BMW and others — have backed the World Wildlife Fund's call to pledge to avoid using minerals that have been mined from the planet's oceans. More than a dozen countries—including France, Germany and several Pacific Island nations— have officially called for a ban, pause or moratorium on deep sea mining at least until environmental safeguards are in place, although it's unclear how many other countries support such mining. Other countries, such as Norway, are proposing opening their waters to mining.

-----N-----E-----X-----T------

#### Earth records hottest day ever on July 4 #HottestDays #GlobalWarming #ClimateChange #Environment #GS3

Continuing an astonishing series of recordbreaking warming events this year, the past Monday and Tuesday, July 3 and July 4, have been measured to be the hottest two days for the earth ever. July 3 was the first time that the global average daily temperature crossed the 17 degree Celsius mark. That record was broken within a day, with July 4 turning out to be even hotter.

The average temperature on July 3 was measured to be 17.01 degree Celsius. The next day recorded 17.18 degree Celsius.

#### But 17 degree Celsius is not hot

A 17 degree Celsius temperature may not appear to be particularly warm. But this temperature was not over any one place or region. Instead, this is a measure of the global average temperature for the day, the average over both land and ocean, including the ice sheets in the polar region and the snow of the high mountains where surface temperatures are well below zero degree Celsius.

Average temperatures over oceans are around 21 degree Celsius, and oceans occupy nearly 70 per cent of the earth's surface. The Antarctic Ice Sheet, where temperatures can easily drop to -50 degree Celsius, covers about 8.3 per cent of earth's surface while the Greenland Ice Sheet, which includes the Arctic region and north pole, constitutes about 1.2 per cent. The glaciers and ice caps in the mountain are estimated to account for about another 0.5 per cent of the surface. So, while there are places that routinely experience temperatures in the high 40-plus degree Celsius range, the global average is relatively cool.

Before the 17 degree Celsius mark was breached on June 3, the hottest daily temperature happened to be 16.92 degree Celsius, recorded in August 2016, amid one of the strongest El Nino events.

-----N-----E-----X-----T------

# The problem with battery electric vehicles

#BatteryElectricVehicles #ElectricVehicles #HybridElectricVehicles #FuelCellElectricVehicles #FlexibleFuel #SyntheticFuel #Transport #Economy #NetZeroEmission #Environment #GS3

Currently, the Centre offers clear tax incentives for primarily one category of cars, with practically all other vehicular technological platforms clubbed together towards the upper end of the tax bracket. India's electric mobility plan is largely focussed on battery electric vehicles (BEVs) replacing internal combustion engine (ICE) vehicles, with Li-ion seen as the most viable battery option for now.

#### **Issues in BEV push**

**UPFRONT SUBSIDY:** The BEV experience across markets from Norway to the US and China shows the electric push works only if it is backed by state subsidies. An elaborate system of incentives is central to Norway's EV policy, which has fostered the world's most advanced EV market. The government waives the high taxes it imposes on sales of non-electrics, it lets electric cars run in bus lanes, toll roads are free for them, and parking lots offer a free charge.

The problem with this overt subsidisation of EVs, especially in the context of developing nations like India, is that **much of the subsidy**, **especially the one offered as tax breaks for cars, ends up in the hands of the middle or upper middle classes**, who are typically the buyers of battery electric four-wheelers.

CHARGING NETWORK: A World Bank analysis found that investing in charging infrastructure is 4-7 times more effective in EV adoption than providing upfront purchase subsidies. Norway and China have seen faster EV adoption through sustained efforts at expanding the public charging infrastructure, while also offering purchase subsidies. China, the leader in the number of publicly available chargers, accounts for 85% of global fast chargers and 55% slow chargers.

In India, the number of EVs had crossed 1 million by mid-2022, and will likely grow to 45-50 million by 2030. But only about 2,000 public charging stations are currently operational across the country.

Also, India's charging infrastructure demands are unique, because the vehicle mix is dominated by two- and threewheelers. The charging network strategy has to be tweaked, given that the power requirement varies — 2Ws and 3Ws have small, low voltage batteries for which normal AC power charging is adequate, while 4Ws have varied battery sizes and use different charging standards.

Single-phase AC chargers are suitable for cars with single-phase onboard chargers, while three-phase AC chargers are required for cars with larger onboard chargers. Buses, on the other hand, have large batteries and high-power requirements, which makes DC fast charging the most suitable.

Most e-2W and 3W models in India are suited to slow charging, and battery-swapping is emerging as an alternative for cases where fast charging is required.

**ELECTRICITY SOURCE:** In several countries that have pushed EVs, much of the electricity is generated from renewables — Norway has 99% hydroelectric power. **In India, the grid is still fed largely by coal-fired thermal plants.** 

Unless the generation mix changes significantly, India would be using fossil fuel generation to power EVs. Theoretically at least, this would mean reduced tailpipe emissions in the cities, but continuing pollution from the running of the thermal plant. There is the advantage of substitution of oil imports, though.

VALUE CHAIN: As India struggles to make inroads into the global lithium value chain, there is discussion on the need to diversify the country's dependency on Li-ion batteries in the EV mix. The demand for Li-ion batteries from India is projected to grow at a CAGR of more than 30% by volume up to 2030, which translates to more than 50,000 tonnes of lithium requirement for the country to manufacture EV batteries alone.

But more than 90% of the global Li production is concentrated in Chile, Argentina, and Bolivia alongside Australia and China, and other key inputs such as cobalt and nickel are mined in the Congo and Indonesia — India would, therefore, be almost entirely dependent on imports from a small pool of countries to cater to its demand. While other options to Li-ion are being explored, viability remains a key factor.

#### **Picking winners**

There is a larger argument against the government picking winners based on a preferred technology. There is no denying that Li-ion has been a runaway success at the lower end of India's EV segments, with 2Ws and 3Ws seeing a sharp surge. But the same cannot be said of the four-wheeler segment, although there is promise. What needs to be noted is that globally, the EV definition covers, besides BEVs, Hybrid Electric Vehicles, Plug-in Hybrid Electric Vehicles, and Fuel Cell Vehicles.

While there is little debate that electrification is the future, the roadmap remains unclear. Many countries have pushed e-mobility through stringent regulations and lucrative tax incentives; however, monetary incentives alone cannot drive EV penetration, according to McKinsey & Co data. For example, the US state of West Virginia offers the most monetary incentives for EVs but has seen low adoption, while California offers fewer monetary incentives but has the highest penetration, thanks to the government's investment in robust EV infrastructure, parking benefits, and workplace charging facilities.

In India, the two major objectives seem to be to cut emissions and reduce costly fuel imports. Government officials argue that while upfront tax incentives may be limited to BEVs, technologies such as hybrids get incentives under the flagship FAME subsidy scheme. But vehicle manufacturers maintain that a technology-agnostic approach that spells out the emissions objectives that they have to meet, irrespective of technology, might be beneficial.

#### New technologies

**HYBRIDS:** The hybrid technology is seen as a good intermediate step towards achieving the all-electric goal. Hybrids typically have improved fuel efficiency through electrification of the powertrain, but do not require the charging infrastructure base that is an essential for BEVs. Additionally, manufacturers claim that a hybrid vehicle base also spawns the manufacture of the battery ecosystem, which can then be leveraged for a BEV push.

However, hybrids too have the issue of Li-ion batteries being the main source, even though the self-charging mode obviates the need for charging points. There are also questions about hybrids achieving their famed fuel efficiency claims when the air conditioner is active for most of the drive, as is typically the case in many parts of India for much of the year.

**ETHANOL & FLEX FUEL:** A flex fuel, or flexible fuel, vehicle has an internal combustion engine, but unlike a regular petrol or diesel vehicle, it can run on more than one type of fuel, or even a mixture of fuels such as petrol and ethanol. A nationwide pilot that is currently underway aims to replicate the commercial deployment of this technology in other markets such as Brazil, Canada, and the US.

**FCEVs & HYDROGEN ICE:** Hydrogen fuel cell electric vehicles (FCEVs) are practically zero emission, but a major hurdle to their adoption has been the lack of fuelling station infrastructure — even though fuel cell cars refuel in a way that is similar to conventional cars, they cannot use the same station. Safety is also a concern. Hydrogen is pressurised and stored in a cryogenic tank, from there it is fed to a lower-pressure cell and put through an electro-chemical reaction to generate electricity.

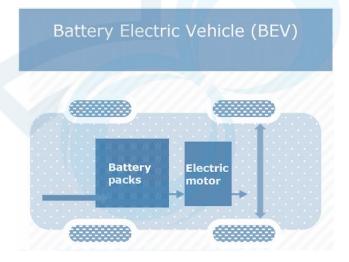
Hydrogen ICE vehicles are similar to conventional internal combustion engine vehicles, with a few tweaks to prep them to run on hydrogen. Certain components of the engine like the fuel delivery system and spark plugs are modified or changed to enable compatibility with hydrogen, instead of petrol or diesel. However, these vehicles are not zero-emission, like the FCEVs.

**SYNTHETIC FUELS:** German manufacturer Porsche is developing a synthetic fuel that it says can make an internal combustion engine as clean as an EV. Porsche's eFuels are made from carbon dioxide and hydrogen, and are produced using renewable energy. The fuel production is being tested in Chile.

The idea is to make this usable in all petrolengine cars, rendering their use virtually CO2neutral, and thereby give ICE cars a fresh lease of life. Incidentally, Formula One will use synthetic fuel from 2026.

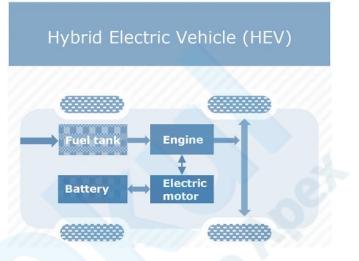
### Four Types of Electric Vehicles (EVs)

#### **Battery Electric Vehicles (BEVs)**



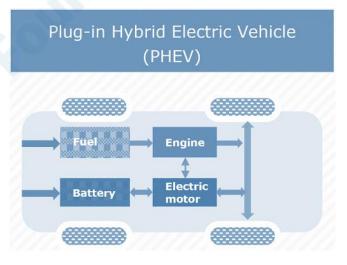
BEVs are also known as All-Electric Vehicles (AEV). Electric Vehicles using BEV technology run entirely on a battery-powered electric drivetrain. The electricity used to drive the vehicle is stored in a large battery pack which can be charged by plugging into the electricity grid. The charged battery pack then provides power to one or more electric motors to run the electric car.

#### Hybrid Electric Vehicle (HEV):



HEVs are also known as series hybrid or parallel hybrid. HEVs have both engine and electric motor. The engine gets energy from fuel, and the motor gets electricity from batteries. The transmission is rotated simultaneously by both engine and electric motor. This then drives the wheels.

#### Plug-in Hybrid Electric Vehicle (PHEV):



The PHEVs are also known as series hybrids. They have both engine and a motor. You can choose among the fuels, conventional fuel (such as petrol) or alternative fuel (such as bio-diesel). It can also be powered by a rechargeable battery pack. The battery can be charged externally.

#### Fuel Cell Electric Vehicle (FCEV):

that the amended Act will apply to revenue forest land, private forest land and other recorded forests.



### **GS 3 SCIENCE AND TECHNOLOGY**

# Groundwater extraction shifted the Earth's axis

#PolarMotion #ShiftingOfEarthAxis #GroundwaterExtraction #ScienceandTechnology #GS3

The excessive extraction of groundwater for drinking and irrigation has shifted the Earth's axis of rotation, according to a new study. Noting that humans pumped out around 2,150 gigatons of groundwater between 1993 and 2010, the study says that the planet's axis has drifted at the rate of 4.36 cm per year towards the east.

Although the shift isn't significant enough to have real-life consequences, the study shows that humans have extracted so much water from the ground that it has impacted the planet's axis and contributed to global sea level rise.

#### Earth's axis keeps shifting

Earth spins around an imaginary axis which passes through the north pole, its centre of mass and the south pole — just like a top spins around its spindle. Scientists for years have known that

the poles and the axis keep shifting naturally as the mass distribution in and on the planet changes. This phenomenon is known as **"polar motion".** 

For instance, rocks slowly circulating inside Earth's mantle causes the planet's mass to shift, leading to a change in the position of the rotational axis.

There are several other reasons responsible for polar motion like **ocean currents** and even **hurricanes**. But this phenomenon is also impacted by human activities. In 2016, a team of researchers demonstrated that climate-driven changes in water mass distribution, led by the **melting of glaciers and ice in Greenland, can cause Earth's axis to drift.** Five years later, another study said climate change was causing the rotational axis to shift more than usual since the 1990s.

#### Findings of the new study

To carry out the study, team of researchers took observational data spanning 17 years and a computer model to find out which factors affected the Earth's rotation of axis the most. Initially, the team wasn't able to match their prediction with the level of shift that scientists have observed in previous years.

Variations of the spin axis using many kinds of data including atmospheric pressure, ocean bottom pressure, artificial reservoirs behind dams, polar ice, mountain glacier, wind, current and finally groundwater were calculated. The estimated spin axis variations didn't agree with the observation when excluding the groundwater effect. After including it, estimation agreed really well with observation.

The study also noted that the groundwater extraction from **North America and northwestern India**, both located at the Earth's midlatitudes, had an outsized impact on the polar motion in comparison to the extraction taking place in poles or equators.

The water sucked out from the ground for irrigation and meeting the world's freshwater demands, eventually, goes into the oceans. Groundwater extraction is one of the major contributors to the global sea level rise. The calculations matched with previous research, which estimated that **groundwater extraction raised global sea levels** by 6.24mm between 1993 and 2010.

-----N-----E-----X-----T------

#### What is aspartame, the additive in your diet cola, which the WHO may declare as 'possibly carcinogenic'?

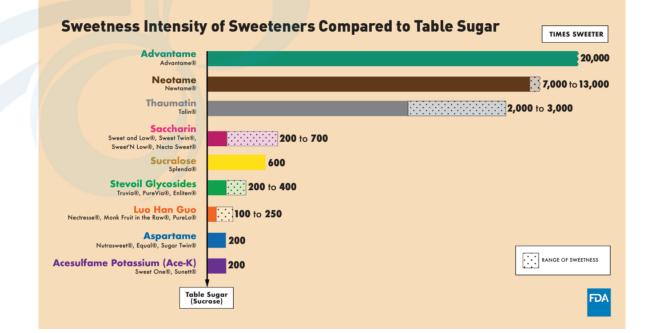
#### #Aspartame #ArtificialSweetener #DietCoke #LowCalorie #ScienceandTechnology #GS3

Aspartame is one of the world's most common **artificial sweeteners** and is used in a wide range of diet soft drinks, sugar-free chewing gum, sugar-free ice cream, sugar-free breakfast cereals, etc.

#### And what exactly is aspartame?

Chemically, aspartame is a **methyl ester of the dipeptide of two natural amino acids, Laspartic acid and L-phenylalanine.** It was discovered by James M Schlatter, a chemist at the American pharmaceutical company G D Searle & Co. (which is now a subsidiary of Pfizer) in 1965, apparently by accident, when, while researching an anti-ulcer drug, he happened to lick his finger and detected a sweet taste.

According to the US Food and Drug Administration (FDA), aspartame is about **200 times sweeter than table sugar** — which makes aspartame far less sweet than other artificial sweeteners like advantame and neotame, but even then, **1 gram of aspartame has the sweetness intensity of roughly 2 teaspoons (about 8 g) of sugar.** 



### **GS 3 DISASTER MANAGEMENT**

#### The lesson from a monsoonbattered North India: Time to be prepared

#Floods #FloodMitigation #AdministrativeActions #NaturalHazards #DisasterManagement #GS3

Last weekend, parts of North India witnessed heavy rains that triggered flash floods and left a trail of destruction. Homes were flooded, roads and bridges washed away and communication networks disrupted, isolating communities and hampering rescue efforts. At least 50 deaths were reported. The rains triggered landslides which caused more damage. Himachal Pradesh was the worst affected. Several places in Haryana, Punjab and Himachal Pradesh reported record rainfall between Saturday and Sunday.

#### What caused the downpour?

Three main factors can trigger such heavy rains in the region and the Himalaya. First, an active monsoon with strong winds in the lower air layers, bringing moisture into the region from the Bay of Bengal or the Arabian Sea. Second, a large-scale atmospheric forcing in the form of outflows in the upper layers of the atmosphere moving eastward through mid-latitude troughs. These troughs can also direct the flow of moisture towards the Himalaya. Third, deep convection triggered by orographic uplift combined with the steep terrain of the Himalaya.

Extreme rainfall events like the one last weekend can occur anywhere in India during the monsoon season. **To mitigate floods**, we need a multi-pronged approach that includes both proactive measures and reactive strategies. These include: One, a robust early warning system that alerts people about heavy rains and possible flash floods. This system can include meteorological observations including а Doppler weather radar (DWR) and a highresolution numerical weather prediction model. Advanced methods such as AI/ML could be used to interpret the DWR and model forecast data. Two, continuous monitoring of rainfall patterns, river levels and an advanced flood warning system. Three, flood risk maps that take into account factors such as topography, historical flood data and hydrological modelling to assess vulnerability, identify high-risk zones and target actions. Four, improving and maintaining climate-resilient infrastructure, such as drainage systems and channels to waterlogging. prevent Five. proper implementation of land use planning and zoning regulations. For example, areas prone to flash floods can be designated as nonresidential or restricted areas. Six. the protection and restoration of natural ecosystems, such as forests and wetlands. Vegetation acts as a natural buffer, absorbing rainfall and reducing runoff. Seven, awareness campaigns can influence people to take the right actions during floods, including arranging evacuation, providing first aid and getting information from reliable sources.

By recognising the increasing threat of extreme precipitation and implementing proactive measures, India can improve its resilience to extreme weather events.

-----B-----N------D------

### **GS 3 INTERNAL SECURITY**

#### The 'free movement regime' along the India-Myanmar border, and why it has complicated the volatile situation in Manipur

#FreeMovementRegime #ManipurCrisis #NortheastInsurgency #InternalSecurity #GS3

The illegal migration of tribal Kuki-Chin peoples into India from Myanmar is one of the key issues in the ongoing ethnic conflict between Meiteis and Kukis in Manipur.

While the Meiteis have accused these illegal migrants and the alleged "narco-terror network" along the Indo-Myanmar Border (IMB) of fomenting trouble in the state, the Kukis have blamed the Meiteis and Chief Minister N Biren Singh, a Meitei himself, of using this as a pretext for "ethnic cleansing".

Amid this charged and sensitive debate in the state, questions have been raised on the **Free Movement Regime (FMR)** that facilitates migration across the IMB.

# What is the Free Movement Regime on the IMB?

The border between India and Myanmar runs for 1,643 km in the four states of Mizoram, Manipur, Nagaland, and Arunachal Pradesh. The FMR is a mutually agreed arrangement between the two countries that allows tribes living along the border on either side to travel up to 16 km inside the other country without a visa.

The FMR was implemented in 2018 as part of the Narendra Modi government's Act East policy at a time when diplomatic relations between India and Myanmar were on the upswing. In fact, the FMR was to be put in place in 2017 itself, but was deferred due to the Rohingya refugee crisis that erupted that August.

But why was such a regime conceptualised?

The border between India and Myanmar was demarcated by the British in 1826, without seeking the opinion of the people living in the region. The border effectively divided people of the same ethnicity and culture into two nations without their consent. The current IMB reflects the line the British drew.

People in the region have strong ethnic and familial ties across the border. In Manipur's Moreh region, there are villages where some homes are in Myanmar. In Nagaland's Mon district, the border actually passes through the house of the chief of Longwa village, splitting his home into two.

Apart from facilitating people-to-people contact, the FMR was supposed to provide impetus to local trade and business. The region has a long history of trans-border commerce through customs and border haats. Given the low-income economy, such exchanges are vital for the sustenance of local livelihoods. For border people in Myanmar too, Indian towns are closer for business, education, and healthcare than those in their own country.

# So why is the FMR being discussed critically?

Although beneficial to local people and helpful in improving Indo-Myanmar ties, the FMR has been criticised for unintentionally aiding illegal immigration, drug trafficking, and gun running.

The Indo-Myanmar border runs through forested and undulating terrain, is almost entirely unfenced, and difficult to monitor. In Manipur, less than 6 km of the border is fenced.

Since the military coup in Myanmar on February 1, 2021, the ruling junta has launched a campaign of persecution against the Kuki-Chin peoples. This has pushed large numbers of Myanmarese tribals across the country's western border into India, especially into Manipur and Mizoram, where they have sought shelter. Mizoram, where a large section of the population has close ethnic and cultural ties with people across the border, has set up camps for more than 40,000 refugees, despite protests from the Union Ministry of Home Affairs.

Manipur too has received a chunk of illegal migrants over the past year and a half. A committee set up by the state government to identify such migrants recently put their number at 2,187. Last September, 5,500 illegal immigrants were caught in Moreh, and 4,300 were pushed back, sources said. Biometrics of these individuals have been recorded.

#### Is there a problem of drug trafficking or terrorism related to the FMR?

According to a paper published by Anuradha Oinam of the Centre for Land Warfare Studies (CLAWS), several insurgent groups such as the United National Liberation Front (UNLF), People's Liberation Army (PLA), the United Liberation Front of Assam (ULFA), National Socialist Council of Nagaland (NSCN), and small groups of Kukis and Zomis have built camps in Sagaing Division, Kachin State, and Chin State (in Myanmar).

They took shelter there, obtained arms, trained cadres, and, most importantly, engaged in illegal activities such as smuggling drugs and selling weapons to raise funds. This is possible because of the porous borders and frequent misuse of FMR. Therefore, managing and administering the border areas effectively is pertinent for reducing drug trafficking and illegal cross-border movement on unfenced borders.

Data from the Manipur Chief Minister's Office show that 500 cases were registered and 625 individuals were arrested under the Narcotic Drugs and Psychotropic Substances (NDPS) Act in Manipur in 2022. A large quantity of narcotics, including heroin, opium, brown sugar, crystal meth and ganja, and yaba (methamphetamine and caffeine). and prescription drugs such as the stimulant pseudoephedrine and analgesic spasmoproxyvon, were seized, several thousand acres of poppy were destroyed during the same period. The value of the drugs seized or destroyed is estimated to have been more than Rs 1,227 crore in the international market.

#### So should the FMR be removed?

The regime has been reviewed from time to time, and most experts agree that the **FMR needs better regulation.** As the crisis in Myanmar escalated and the influx of refugees increased, **India suspended the FMR in September 2022.** 

Given the interests of the local population, however, neither the complete removal of the FMR nor full fencing of the border may be desirable. Livelihoods will be impacted, and essential travel for health care and education may be hit.

Sources in the security establishment said it is not easy to plug illegal immigration or drug trafficking across an unfenced border in treacherous terrain. Even with robust patrolling and intelligence, people do sneak through, especially when there is no hostility towards the immigrant on our side. FMR or no FMR, it is not an easy task. And all borders, even the fenced ones, are struggling to deal with drug trafficking.

-----B-----D-----



### **INTERNATIONAL AFFAIRS**

#### Israel unleashes fiercest aerial attack on West Bank in nearly two decades

#### #Israel #WestBank #GazaStrip #Jenin #Palestine #InternationalAffairs

Israel launched the most intense airstrikes on the occupied **West Bank** in nearly decades saying it was trying to root out armed militants in the city of **Jenin** after a year of escalating violence there.

Long a symbol of Palestinian militancy and haven for armed groups opposing Israel, Jenin is a stronghold of the Iran-backed Islamic Jihad group and of Hamas, the militant group that controls the Palestinian enclave of Gaza.



# Excavators explore 3,000-yr-old sealed corridor of Peru temple

#CondorPassageway #ChavinCulture #AndeanCulture #Peru #SouthAmerica #InternationalAffairs

Archaeologists working in Peru have uncovered a 3,000-year-old sealed corridor dubbed **"the condor's passageway"** that likely leads to other chambers inside what was once a massive temple complex pertaining to the ancient **Chavin culture.** 

Located around 306 km Northeast of Lima, the **Chavin de Huantar** archeological site is among

the culture's most important centers, thriving from around **1,500-550 B.C**.

The Chavin are well-known for their advanced art, often featuring depictions of birds and felines.

The condor, one of the largest birds in the world, was associated with power and prosperity in ancient **Andean cultures**.

Chavin de Huantar, declared a UNESCO World Heritage Site in 1985.

------R-----E-----X-----T------

# China, Russia to start joint air and sea drill in Sea of Japan

#Northern/Interaction2023 #ChinaRussiaJointExercise # #InternationalAffairs

#SeaofJapan

A Chinese naval flotilla set off on Sunday to join Russian naval and air forces in the **Sea of Japan** in an exercise aimed at "safeguarding the security of strategic waterways".

Codenamed **"Northern/Interaction-2023"**, the drill marks enhanced military cooperation between China and Russia since Moscow's invasion of Ukraine and is taking place as Beijing continues to rebuff U.S. calls to resume military communication.

#### -----N-----E-----X-----T------

#### Forest Fires in Spain #CanaryIslands #InterntionalAffairs

#LaPalma

A wild forest fire spread over 4500 hectares near Puntagorda on La Palma, one of Spain's canary islands on Sunday.



-----N-----E-----X-----T-----

#### Attack on Crimea bridge

#### #CrimeaBridge #KerchBridge #KerchStrait #CrimeaPeninsula #TamanPeninsula #SeaOfAzov #BlackSea #InternationalAffairs

Two people were killed, a girl was critically injured and traffic came to a standstill for hours after one of the sections of the rail-and-road **Crimea bridge**, which **links Russia to the occupied Crimea peninsula**, was blown up on Monday early morning.

Also known as the **Kerch bridge**, the structure has come under attack amid the Ukrainian counteroffensive, which began weeks ago, against the Russian forces to recapture several lost territories. This is the second time that the bridge — a crucial supply route for Moscow has been targeted. In October 2022, it was temporarily shut down after a massive explosion.



What is the importance of the bridge?

The Crimea bridge is a crucial structure for Russia as it is the only direct link between the transport network of the country and the Crimean peninsula. Inaugurated in 2018, four years after Russia annexed Crimea, it's a part of the route that supplies fuel, food and other products to the region, where the port of Sevastopol is the historic home base of Russia's Black Sea Fleet.

The bridge's significance increased after the Russia-Ukraine war broke out last year in February. Russian convoys, carrying weapons, vehicles and fuel, frequently use the route to reach Ukrainian territories, especially southern **Ukraine's Kherson region** and some of the adjoining **Zaporizhia province**.

-----N-----E-----X-----T------

What is the Black Sea grain deal, which Russia has pulled out of #BlackSeaGrainDeal #RussiaUkraineConflict #InternationalAffairs

Russia has said it is withdrawing from the **Black Sea grain deal**, which assured safe passage to ships carrying grain from Ukraine.

#### What is the Black Sea grain deal?

Ukraine is among the world's biggest exporter of foodgrains, such as wheat and corn, and a major contributor to the UN's food aid programmes. When Russia invaded the country and blockaded its ports, it sent food prices soaring and raised fears of food security in the poorer nations of the world. Pakistan, for instance, saw wheat prices skyrocket to crisis levels.

On July 22, 2022, the **UN and Turkey got Russia to agree to the Black Sea Grain Initiative**, under which cargo ships would be allowed to travel from and to three Ukrainian ports of Odesa, Chornomorsk and Pivdennyi (Yuzhny), after inspection that they weren't carrying arms. The safe passage in the Black Sea was 310 nautical miles long and three nautical miles wide.

The deal had been extended twice.

Why has Russia not agreed to renew it?

Russia claims that the promises made to it under the deal have not been met, and it is still facing trouble exporting its own agricultural products and fertilisers because of the many sanctions the West has slapped on it.

While there is no direct restriction on Russia's agricultural products, the country says barriers on payment platforms, insurance, shipping and other logistics are hampering its exports.

Russia has also said that it had agreed to the grain deal in order to help ensure global food security, but Ukraine has since exported mainly to high-and middle-income countries. The UN says while this is true, poorer countries have been helped by food prices cooling down.

# How are Russia, Ukraine grain exports faring amid the war?

Russia is consolidating its position as the world's top wheat exporter, even as Ukraine's shipments are projected to more than halve from their peak and production plunge to a 11-year-low.

The primary destinations for Russian wheat are the Middle East, North Africa and Central Asia, led by Egypt, Iran and Algeria. While the Black Sea Grain Initiative helped Ukraine export 16.8 million tonnes in 2022-23, about 39% of its wheat actually moved via the land route to Eastern Europe. Ukraine's markets have shifted dramatically from Asia and North Africa before the war to mainly Europe, mostly due to ease of shipment. In fact, glut of Ukrainian grain has led to protests from farmers in some Eastern European countries, who said the price of their produce had crashed.

#### -----N-----E-----X-----T------

#### Tourists flee wildfire on Greek island Rhodes, flights cancelled #Wildfire #RhodesIsland #InternationalAffairs

A wildfire raging on the **Greek island of Rhodes** forced thousands of tourists and island residents to shelter in schools and indoor stadiums after they were evacuated from coastal villages and resorts.

#### Japan says it can make clean coal, but technology faces many hurdles

#### #CleanCoal #Coal #G7 #Ammonia #InternationalAffairs

At a meeting of environment ministers from the group of 7 leaders in Sapporo, Japan was the only nation that refused to commit to bringing its coal usage down to zero by 2030.

The government points to numerous hurdles to building renewable energy sources quickly, including Japan's geographic isolation, mountainous terrain, deep sea waters and annual typhoon season.

The world's advanced economies have committed to phasing out coal over the next seven years. But not Japan, which insisting that it can make coal less damaging to the planet.

Japan says, **it can blend ammonia**, which does not emit carbon dioxide when burned, with coal in its boilers.

-----N-----E-----X-----T------

#### Israel passes contentious law to curb judiciary powers #Israel #InternationalAffairs

# What is the new measure that has been passed?

Under the new law, the Supreme Court cannot overrule the national government using the legal standard of "reasonableness" — a concept that judges previously used to strike down decisions made by lawmakers and ministers.

#### What are the other proposed reforms?

First, the government wants to enable the 120member Parliament, or Knesset, to override any Supreme Court judgement by a simple majority of 61 votes unless those rulings are unanimous.

Second, a law that would give a greater role to lawmakers in the appointment of Supreme Court judges. As of now, a committee comprising professionals, justices and lawmakers elevate Besides too much of paper work and too few field visits, another grave issue is the **political** appointments in the commissions. Since they are nominated by the political party in power, most of the commissions are wary of even minor criticism of the government. And they are sometimes over-enthusiastic in taking up states ruled by the Opposition. Irrespective of the party in power, this has become the culture of the nation. However, commissions and their working can be made purposeful by advertising the posts of chairpersons and members. Individuals who are genuinely interested and capable would then be selected by a committee. Members of the Opposition, judges from the Supreme Court, civil society organisations and the ruling party can form the selection committee. Will political parties be ready for this change in appointments that is in public interest?

A **social audit** of the performance of different commissions by competent external agencies on

a regular basis would give citizens an idea of their actual working. A taxpayer has a right to find out whether the money she is paying is being used properly or half-heartedly or being squandered altogether. My understanding is that commissions are not squandering the money but are not doing justice to their mandate either. They are caught up in loyalty for their "political bosses" and in a rigmarole of files and paper pushing. They are not ignorant of the ground reality but are averse to introspection followed by concrete action, though they do not miss any opportunity to pull up those working in the field.

It is time for members of women's commissions and their colleagues in other commissions to come out of their air-conditioned chambers, dust off their shoes and embark on the rough roads of real India.

-----E-----N------D------

### **Previous Years Questions (PYQs) discussed**

- 125. Which of the following statements is /are correct ?
  - Gravitational Waves were predicted by Albert Einstein in 1916 on the basis of his theory of General Relativity
  - Gravitational waves do also exist in the Newtonian theory of Gravitation
  - Gravitational Waves are to be detected by very sensitive detectors known as Interferometers

Select the correct answer using the code given below :

- (a) 1 only
- (b) 1 and 3 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

- 16. With reference to anti-defection law in India, consider the following statements :
  - The law specifies that a nominated legislator cannot join any political party within six months of being appointed to the House.
  - 2. The law does not provide any time-frame within which the presiding officer has to decide a defection case.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

- **78.** Which of the following would include Foreign Direct Investment in India?
  - Subsidiaries of foreign companies in India
  - Majority foreign equity holding in Indian companies
  - Companies exclusively financed by foreign companies
  - 4. Portfolio investment

Select the correct answer using the codes given below :

- (a) 1, 2, 3 and 4
- (b) 2 and 4 only
- (c) 1 and 3 only
- (d) 1, 2 and 3 only
- **30.** With reference to Balance of Payments, which of the following constitutes/constitute the Current Account?
  - 1. Balance of trade
  - 2. Foreign assets
  - 3. Balance of invisibles
  - 4. Special Drawing Rights

Select the correct answer using the code given below.

- (a) 1 only
- (b) 2 and 3
- (c) 1 and 3
- (d) 1, 2 and 4

- 84. According to India's National Policy on Biofuels, which of the following can be used as raw materials for the production of biofuels?
  - 1. Cassava
  - 2. Damaged wheat grains
  - 3. Groundnut seeds
  - 4. Horse gram
  - 5. Rotten potatoes
  - 6. Sugar beet

Select the correct answer using the code given below :

- (a) 1, 2, 5 and 6 only
- (b) 1, 3, 4 and 6 only
- (c) 2, 3, 4 and 5 only
- (d) 1, 2, 3, 4, 5 and 6
  - **63.** Consider the following statements regarding a No-Confidence Motion in India :
    - 1. There is no mention of a No-Confidence Motion in the Constitution of India.
    - 2. A Motion of No-Confidence can be introduced in the Lok Sabha only.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

\*\*\*\*\*\*

### **Practice Questions**

#### 1. Consider the following elements:

- 1. Rhenium
- 2. Indium

- 3. Ruthenium
- 4. Iridium
- 5. Rhodium

1

How many of the elements given above are included in the Platinum Group Elements of Critical Minerals recently notified by Indian Government?

- A. only two
- B. only three
- C. only four
- D. all five

# 2. Consider the following statements regarding the recently notified critical minerals by GoI:

- 1. Lithium, Potassium and Caesium are the notified critical minerals from the alkali metals group.
- 2. Strontium and Barium are the notified critical minerals from the alkaline-earth metals group.
- 3. Notified critical minerals includes only 15 transition metals.

### How many of the statements given above are correct?

- A. only one
- B. only two
- C. only three
- D. none

#### 3. Consider the following Shanghai Cooperation Organisation (SCO) member countries:

- 1. China
- 2. Kazakhstan
- 3. Tajikistan
- 4. Kyrgyzstan
- 5. Pakistan

How many countries among those given above share boundaries with atleast four other SCO countries?

- A. only two
- B. only three

- C. only four
- D. all five

### 4. How many of the BIMSTEC member countries are landlocked?

- A. Only one
- B. Only two
- C. Only three
- D. Only four

#### 5. Consider the following statements:

- 1. The guidelines for the designation of senior advocates originated in 2017 SC ruling of Indira Jaysingh v. Union of India.
- 2. 2023 guidelines on the same matter prescribes the minimum age for the designation as 40 years.

### Which of the statements given above is/are correct?

- A. 1 only
- B. 2 only
- C. Both 1 and 2
- D. Neither 1 nor 2

#### 6. Consider the following countries:

- 1. Bulgaria
- 2. Armenia
- 3. Romania
- 4. Georgia
- 5. Moldova

### How many of the countries given above shares their borders with Black Sea?

- A. only two
- B. only three
- C. only four
- D. all five

#### 7. Consider the following pairs: