

# DAILY CURRENT AFFAIRS

By



SOURCES



**Date: 22 Nov. 2023**

## **Important News Articles**

1. Tribal activists hail compensation for land regularised under FRA -The Hindu
2. HC says surrogacy using donor gametes can't be prohibited as a condition in consent form -The Hindu
3. SC calls for collaborative efforts to bring children into the adoption pool -The Hindu
4. Ministry asks States to encourage use of SATHEE portal-The Hindu
5. Simultaneous elections will help nation, says Kovind-The Hindu
6. UK approves gene therapy for sickle cell anaemia - Indian Express
7. Israel lists Lashkar-e-Taiba as a terrorist organisation-The Hindu
8. What the OECD report says of climate finance ahead of COP 28 - Indian Express

## **Editorials, Gists and Explainers**

1. Recognising the impact of climate change on health- The Hindu
2. Tantalum, the rare metal found in Sutlej - Indian Express

## **Quick Look**

1. Risk weight
2. Atmospheric Waves Experiment (AWE)
3. Tantalum
4. VAJRA PRAHAR

## Important News Articles

### GS II

## 1. Tribal activists hail compensation for land regularised under FRA -The Hindu

**Relevance:** Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

**News:**

- Tribal rights activists' express satisfaction with the **compensation provided for land** regularized under the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006 (FRA)
  - It is in connection with the **464-km Bharatamala Road project**.

**Prelims Takeaway**

- The Forest Rights Act (FRA), 2006

**Key Points**

**Bharatmala Road Project Details**

- The 464-km expressway **passes through Koraput and Nabarangpur districts in Odisha**.

**Land Acquisition and Compensation:**

- Lands settled in favor of tribals **under the FRA 2006 required for the expressway**.
- State government issued **comprehensive guidelines for compensating FRA-designated land**.
- Compensation for FRA land welcomed, **addressing previous confusion over forestland diversion**.

**FRA Implementation and Rights**

- FRA 2006 stipulates that **individual forest rights can only be inherited**, not transferred by sale.
- Clarity provided by the Odisha government on **compensation for forestland acquisition**.
- Forest right holders **entitled to compensation** in case of forestland acquisition.

**Concerns and Clarifications**

- Basic compensation for FRA land found to **be less than that for private land during acquisition**.

**Regional Comparison**

- **Odisha ranks second in forest land diversion** with 13,304.79 ha, following Madhya Pradesh with the highest diversion of 19,730.36 hectares.

## 2. HC says surrogacy using donor gametes can't be prohibited as a condition in consent form -The Hindu

**Relevance:** Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources

**News:**

- The High Court of Karnataka **permits 12 couples to undergo surrogacy with donor female gametes**
- It **challenged a clause in the consent form** introduced by the Surrogacy (Regulation) Act, 2021 and the Rules.

**Prelims Takeaway**

- Surrogacy (Regulation) Act, 2021

**Contradiction with Surrogacy Regulations**

- The court notes that the clause (1)(d) of Form No-2, amended on March 14, 2023, **disallowing surrogacy through donor gametes** is contrary to the Surrogacy (Regulation) Act and Rules.
- Emphasizes that a **form cannot override the law** and allowing it would be like letting the tail wag the dog.

**Judicial Observation on Amendment**

- Though the court finds the clause in Form No-2 blatantly contrary to the law, **it refrains from declaring the amendment illegal** due to its pending consideration in the apex court.

**Petitions Challenging Amendment**

- **Thirteen couples filed petitions questioning the legality** of the March 14, 2023, amendment to Form-2 and sought permission for surrogacy with donor female gametes.

**Court's Decision and Authorities' Role**

- The court rules that the **authorities cannot insist or direct petitioners against using donor gametes.**
- Urges authorities to process the petitioners' **applications promptly, issuing eligibility certificates if all other conditions are met.**

### 3. SC calls for collaborative efforts to bring children into the adoption pool -The Hindu

**Relevance:** Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

**News:**

- The Supreme Court emphasizes the need to identify and **bring children from child care institutions (CCI) into the adoption pool**, focusing on those with unfit or absent parents.

**Prelims Takeaway**

- Child care institutions (CCI)
- Concerns Raised by Central Adoption Resource Authority (CARA)

**Definition of Unfit Guardian**

- The court **defines an "unfit guardian"** as someone unable or unwilling for parenting,
  - It involved substance abuse, alcohol abuse, child neglect, criminal record, in need of care, mentally unsound, etc.

**Concerns Raised by Central Adoption Resource Authority (CARA)**

- Many children in CCIs **lack a determined legal status.**
- The court addresses **CARA's finding that children have been in CCIs** for over a year without clear legal standing.

**Court's Directives**

- It Orders identification of **children with unfit or absent parents in CCIs district-wise.**
- It calls for collaborative efforts by district functionaries **to bring such children into the adoption pool.**

**Data Compilation and Reporting**

- Court Instructs States and Union Territories **to compile data on potential adoptable children, particularly those in CCIs.**
- It Stresses the importance of registering all **OAS children on the CARINGS portal.**

**Discrepancy Between Available Children and Prospective Adoptive Parents (PAPs)**

- Court highlights a significant mismatch between the **number of children available for adoption and registered PAPs, causing delays.**

**Challenges in Adoption Process**

- Out of 760 districts in the country, only 390 have Specialized Adoption Agencies.
- It discusses the preference of PAPs for children up to the age of two, **contributing to delays in the adoption process.**



#### 4. Ministry asks States to encourage use of SATHEE portal-The Hindu

**Relevance:** Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

**News:**

- officials at the Ministry of Education (MoE) on November 21 said they would write to all States to encourage aspirants **to utilise the newly launched portal for exam preparation** — SATHEE (Self Assessment Test and Help for Entrance Exams).

**Prelims Takeaway**

- SATHEE

**Key Points**

- The online coaching platform **has been launched by the MoE and IIT-Kanpur.**
- SATHEE is an open learning platform **available to students at no cost.**
- SATHEE has launched a 45-day crash course for aspirants** to test their level of preparation.
- The portal uses Artificial Intelligence (AI)** to interact with students, and can be customised to each student's pace of learning.
- The initiative is in line with the National Education Policy**, with the goal to provide inclusive, high quality education even to remote parts of the country,
- Pan India mock tests are held **every weekend**, with the same look and feel adopted by **the National Testing Agency (NTA) for conducting the JEE.**
- Currently, digital learning material is available on the SATHEE portal in **four languages — English, Hindi, Odia, and Telugu.**

#### 5. Simultaneous elections will help nation, says Kovind-The Hindu

**Relevance:** Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

**News:**

- Former President Ram Nath Kovind, who heads the **high level committee** examining the idea of holding simultaneous elections
- the Union government has asserted that **polls being held concurrently at the Union and State level is in national interest**
- Holding simultaneous elections will be **beneficial for the public as the revenue saved** will be used for development work
- Law panel working on** mechanism for simultaneous polls
- The current electoral system of the country holds **separate polls for the Lok Sabha and state Assemblies in a gap of five years**
- As a result, the mammoth task of **conducting elections goes all round the year.**
- One Nation One Election proposes that **simultaneous elections** be held in all states and the Lok Sabha in a gap of five years.
- This will involve the restructuring of the Indian election cycle in a manner **that elections to the states and the center synchronize.**

**Prelims Takeaway**

- One nation one election

**Background**

- Simultaneous elections have **previously been conducted in India in 1952, 1957, 1962 and 1967.**
- Soon after, this **norm was discontinued** following the dissolution of some Legislative Assemblies between 1968 -69.
- Since then, the **Indian Electoral system holds polls** to Centre and states separately.

## 6. UK approves gene therapy for sickle cell anaemia - Indian Express

**Relevance:** Science and Technology- developments and their applications and effects in everyday life.

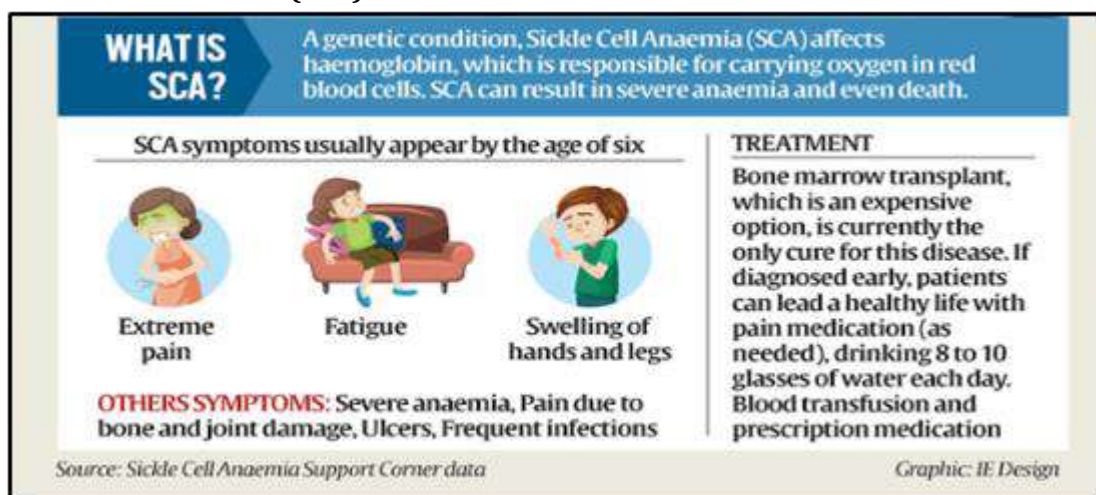
**News:**

- USA's Victoria Gray is the world's first sickle cell anaemia (SCA) patient to recover with the revolutionary gene-editing therapy.
- Gray underwent a clinical trial in 2017 for the drug **Casgevy**, which uses the innovative gene-editing tool CRISPR-Cas9 (Clustered Regularly Interspaced Short Palindromic Repeats and associated protein 9).

### Prelims Takeaway

- SICKLE CELL ANAEMIA
- CRISPR
- CAR-T

**What is Sickle Cell Anaemia (SCA)?**



**WHAT IS SCA?** A genetic condition, Sickle Cell Anaemia (SCA) affects haemoglobin, which is responsible for carrying oxygen in red blood cells. SCA can result in severe anaemia and even death.

SCA symptoms usually appear by the age of six

- Extreme pain
- Fatigue
- Swelling of hands and legs

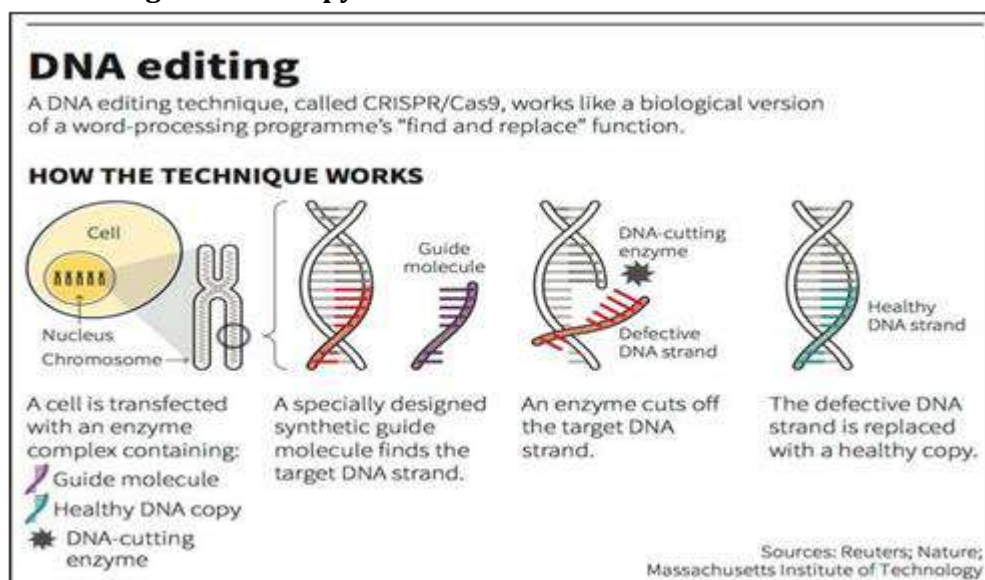
**OTHERS SYMPTOMS:** Severe anaemia, Pain due to bone and joint damage, Ulcers, Frequent infections

**TREATMENT**  
Bone marrow transplant, which is an expensive option, is currently the only cure for this disease. If diagnosed early, patients can lead a healthy life with pain medication (as needed), drinking 8 to 10 glasses of water each day. Blood transfusion and prescription medication

Source: Sickle Cell Anaemia Support Corner data  
Graphic: IE Design

- A **genetic disease**, SCA arises from mutations in haemoglobin-carrying genes, causing red blood cells to assume a **crescent shape**.
- This potentially obstructs blood flow** and leads to severe pain, organ damage, strokes, and other complications.
- Globally, the current remedy for the disease is **limited to bone marrow transplants** (which must come from a closely matched donor and carries a risk of rejection).

**How the Pathbreaking Gene Therapy for SCA Works?**



**DNA editing**  
A DNA editing technique, called CRISPR/Cas9, works like a biological version of a word-processing programme's "find and replace" function.

**HOW THE TECHNIQUE WORKS**

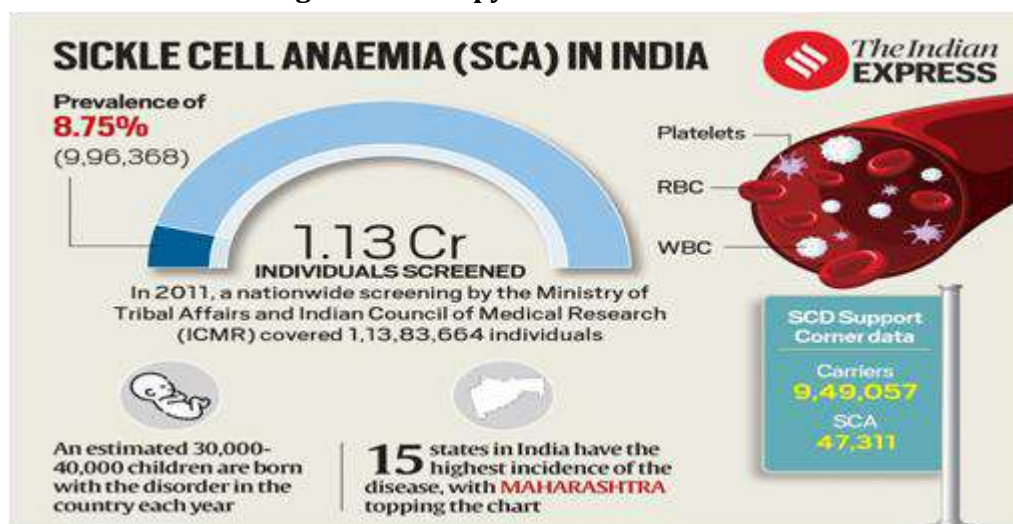
- A cell is transfected with an enzyme complex containing:
  - Guide molecule
  - Healthy DNA copy
  - DNA-cutting enzyme
- A specially designed synthetic guide molecule finds the target DNA strand.
- An enzyme cuts off the target DNA strand.
- The defective DNA strand is replaced with a healthy copy.

Sources: Reuters; Nature; Massachusetts Institute of Technology

- The **CRISPR-Cas9 technique basically involves modifying the patient's DNA**, specifically targeting and replacing the faulty haemoglobin gene with a healthy one.

- To do this, **stem cells are taken out of the bone marrow**, edited in a laboratory and then infused back into the patient.
- **This restores normal haemoglobin function**, offering a potential cure for a lifetime.
- **About 29 patients were administered the treatment** (along with Gray), of whom 28 have no pain and will be followed up for lasting cure.
  - The therapy also works for patients suffering from transfusion-dependent **β-thalassemia**.
- Recently, **the UK approved** (became **first country** to do so) **the therapy** - called **Casgevy**, as it has been the only permanent, innovative and first-of-its-kind gene-editing treatment option.

**Significance of this Pathbreaking Gene Therapy for SCA for India:**



- The breakthrough is of particular significance to India, which has the **second-highest disease burden** of SCA globally after African countries.
- An estimated **30,000-40,000 children in India** are born with the disorder every year.
- In 2019, a nationwide screening by the Ministry of Tribal Affairs and the Indian Council of Medical Research (ICMR) found the disease to be **prevalent in 8.75% of those screened**.
- Latest data shows that **one in 86 births among the Scheduled Tribe (ST) population** is affected by SCA, with higher rates in central, western and southern India.
- In her 2023-24 Budget presentation, the Finance Minister of India had said that the government aimed to **eliminate the disease by 2047**.

**Concerns Regarding the Gene Therapy for SCA and Way Ahead:**

- While Vertex and CRISPR Therapeutics (the manufacturers) have yet to set a price for the gene-editing therapy in the UK, at the moment it is **expected to exceed Rs 1 crore in India**, which could potentially limit access.
- However, **government intervention and subsidies**, along with crowdfunding and philanthropy, can enable access to cure.
- The UK's approval would inspire Indian researchers to **develop their own innovative therapies of CRISPR** like they did with CAR-T for blood cancer, ultimately making the treatment more affordable.

**7. Israel lists Lashkar-e-Taiba as a terrorist organisation-The Hindu**

**Relevance:** Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

**News:**

- **Israel** has listed Lashkar-e-Taiba (LeT) as a terror organisation to symbolise the marking of 15th year of commemoration of the 26/11 Mumbai attacks.



The listing has been done by Israel on its own, without any request from India.

### Rationale behind this step

- **Support to global war on terror**
  - Israel only lists terror organisations:
    - who are actively operating against it from within or around its borders; or,
    - those globally recognised by UNSC or the US State Department.
  - The expedited and extraordinary listing of the Lashkar -e-Taiba organisation highlights the importance of a Unified Global Front in combating terrorism.
  - This step of Israel also vindicated India's stand on global war on terror.
- **Part of Israel's global diplomatic campaign to isolate Hamas**
  - Israel's move comes at a time when it has asked India to proscribe Hamas as a terrorist outfit.
  - Experts view this step as a part of Israel's global diplomatic campaign to isolate Hamas.
  - This is important for Israel as it seeks to rally international support for its campaign in Gaza, which is being judged increasingly harshly for the death and suffering of Palestinian civilians, including a very large number of children.
  - Only a handful of jurisdictions in the world currently designate Hamas as a terrorist organisation.

### Which countries currently designate Hamas as a terrorist organisation?

- Apart from Israel, the following six countries, along with the European Union (EU), consider Hamas a terrorist organisation.
  - **European Union:** The EU first listed Hamas as a terrorist organisation in 2001 as part of its response against terrorism after the attacks of September 11, 2001, in the US.
  - **Australia:** Since 2001, Australia has listed Hamas in its entirety as a terrorist entity for financial sanctions.
  - **Canada:** The Canadian government describes Hamas as a "radical Islamist-nationalist terrorist organization". It was first listed as such in 2002.
  - **United Kingdom:** Initially, the UK government proscribed Hamas's military wing in 2001. But this was extended to all of Hamas in 2021.
  - **Japan:** Following the Hamas attacks of October, 2023, Japan designated Hamas as subject to Japan's asset freezing for terrorists and others, among other measures.
  - **Paraguay:** In 2019, Paraguay became the first South American country to officially recognise Hamas as a terrorist organisation.
  - **United States:** US government designated Hamas and two other Palestinian groups, Palestinian Islamic Jihad (PIJ) and Popular Front for the Liberation of Palestine (PFLP), as Foreign Terrorist Organizations in October 1997.
    - These groups were also listed as Specially Designated Global Terrorists (SDGTs) in October 2001.

### What does designation as a terrorist organisation entail?

- A government designates a terrorist organisation under specific national laws.
  - Eg. - Section 219 of the Immigration and Nationality Act, 1952 in the US (which allows the Secretary of State to designate Foreign Terrorist Organisations (FTOs),
  - **Unlawful Activities (Prevention) Act, 1967 in India**
- Designation is done based on specific criteria and can attract a range of curbs, including the freezing of assets and the takeover of the properties of the designated organisation.

## 8. What the OECD report says of climate finance ahead of COP 28 - Indian Express

**Relevance:** Conservation, environmental pollution and degradation, environmental impact assessment.  
**News**

- The Organisation for Economic Cooperation and Development (OECD) recently published a report titled 'Climate Finance Provided and Mobilised by Developed Countries in 2013-2021'.

### Major Highlights of the Report Published by the OECD:

- **Economically developed countries fell short of their promise**



- The report showed that the economically developed countries fell short of their **promise to jointly mobilise \$100 billion a year**, towards the climate mitigation and adaptation needs of developing countries, in 2021 – one year past the 2020 deadline.
- The report said developed countries mobilised \$89.6 billion in 2021 and that finance for adaptation fell by 14% in 2021 compared to 2020.
- The failure to mobilise adequate climate finance lowers capacity in developing countries to address climate mitigation and adaptation needs.
- It also reduces trust among the world's poorer countries that the developed world is serious about tackling the climate crisis.
- **Climate finance being provided in the form of Loans**
  - The OECD report showed that of the \$73.1 billion mobilised in 2021 by the public sector via bilateral and multilateral channels, \$49.6 billion was provided as loans.
  - It sheds light on the extent to which rich countries rely on loans at commercial rates to fulfil their climate finance obligations.
  - For example, an assessment by a research group of global climate finance flows between 2011 and 2020 found that 61% of climate finance was provided as loans.
- **Issue of 'Additionality'**
  - Another issue in the OECD report pertains to additionality.
  - The UNFCCC states that developed countries "shall provide new and additional financial resources to meet the agreed full costs incurred by developing country Parties in complying with their obligations under the convention".
  - This means **developed countries can't cut overseas development assistance (ODA) in order to finance climate needs**.
  - In the real-world, it could cut off support for healthcare in order to reallocate that money to, say, install solar panels.
  - The "new and additional finance" also means **developed countries can't double-count**.
- **Lack of universal definition of 'Climate Finance'**
  - At present, there is no commonly agreed definition of 'climate finance' because developed countries have endeavored repeatedly to keep it vague.
  - The lack of definitional clarity has reportedly led to strange situations like funding for chocolate and gelato stores in Asia and a coastal hotel expansion in Haiti being tagged as climate finance.
  - The ambiguity works in favour of richer countries because it leaves the door open to arbitrarily classify any funding, including ODA and high-cost loans, as climate finance and escape the scrutiny that a clearer definition might bring.
- **How much do developing countries need?**
  - The OECD report added that by 2025, developing countries are estimated to require **around \$1 trillion a year in climate investments**, rising to roughly \$2.4 trillion each year between 2026 and 2030.
  - The \$100 billion goal is too small in comparison, dwarfed further by the fact that it remains unmet.
- **Role of private sector:**
  - To meet the scale of the challenge, people like the U.S. climate envoy **John Kerry** and World Bank president **Ajay Banga** have routinely emphasised the role the private sector could play.
  - The OECD report says that private financing for climate action has stagnated for a decade.
  - **The problem is particularly worse for climate adaptation because investment in this sector can't generate the sort of high returns that private investors seek.**
  - There also haven't yet been signs that the private sector is interested in massively scaling up its climate investments.

## Editorials, Gists and Explainers

### 1. Recognising the impact of climate change on health- The Hindu

**Relevance:** Conservation, environmental pollution and degradation, environmental impact assessment.

**Context:**

- As India gets ready for the **28th Conference of the Parties to the United Nations Framework Convention on Climate Change (UNFCCC COP28)**
- It is important to examine **how climate change affects the country's health.**

#### Climate change and health systems in India

- India's inadequate health systems make our population particularly vulnerable to the impact of climate risks on health.
- Climate change affects health directly, causing more sickness and death.
- In more indirect ways, it affects nutrition, reduces working hours, and increases climate induced stress.
- All nations during the Paris Agreement agreed to cap the rise in temperature at 1.5°C.
- but, we have failed as the year 2023 saw the highest temperatures and heat waves in recorded history.
- As per the latest report of UNFCCC (2023), the world is already on the path to cross the Paris climate deal threshold soon.
- One estimate suggests that if global temperature were to rise by 2°C, many parts of India would become uninhabitable.

#### Double burden

- The double burden of morbidity that India faces from communicable and noncommunicable diseases (NCDs) will be worsened by climate change.
- Heat also alters the virulence of pathogens.
- It could facilitate the growth of vectors such as mosquitoes, sandflies, ticks, and as yet unknown ones, and change the seasonality of infection through changes in their life cycle.
- It could also facilitate the introduction of vectors and pathogens into areas where they did not exist before, such as mosquitoes in the Himalayan States.
- Reduced availability of food and water and the decrease in nutritional value of food increases vulnerability to diseases.
- Depression, aggravated by stress generated by the change in weather conditions, and Post Traumatic Stress Disorder (PTSD) invariably accompany a climate emergency.

#### Climate change and urban India

- India is urbanising at a rapid pace, in an unplanned manner.
- Urban areas, not tempered by urban greenery and open spaces and filled with asphalt roads and heat retaining buildings that physically block air circulation, bear the worst ill effects of climate change due to the urban heat island effect.

#### Way forward: Mitigation efforts

- It begins with understanding the direct and indirect pathways by which climate change impacts health and assessing the burden.
- Currently, the health information systems are not modified to gather this data.
- We need to take interventions that focus on better urban planning, green cover, water conservation, and public health interventions will be much larger — not only for health but for many determinants of health.
- Action to control climate change needs to happen at global, regional, and local levels. Pathways of climate change and their impact will determine the appropriate area of intervention.
- To achieve this, India has to recognise climate change and its impact on health as a problem that can be and needs to be addressed.

**Conclusion**

- National, State, and local governments have to **decide to act on the policy options that have been generated by research.**
- Only when the three streams of **problematization, policy options, and political decision** making come together is meaningful change likely to happen.

### 2. Tantalum, the rare metal found in Sutlej - Indian Express

**Relevance:** Distribution of key natural resources across the world

**News**

- A team of researchers from the Indian Institute of Technology (IIT), Ropar has found the presence of tantalum, a rare metal, in the Sutlej River sand in Punjab.
- According to experts, the presence of tantalum is significant as the metal is widely used in electronics and semiconductors.

### What is tantalum?

- Tantalum is a **rare metal with the atomic number 73** — the number of protons found in one atom of the element.
- It is grey, heavy, very hard, and one of the most corrosion-resistant metals in use today.
- Tantalum also has an extremely high melting point, exceeded only by tungsten and rhenium.
- **Properties**
  - It possesses high corrosion resistance.
    - When exposed to air, it forms an oxide layer that is extremely difficult to remove, even when it interacts with strong and hot acid environments.
    - When pure, tantalum is ductile, meaning it can be stretched, pulled, or drawn into a thin wire or thread without breaking.
  - It is almost completely immune to chemical attack at temperatures below 150°C, and is attacked only by hydrofluoric acid.
- **Discovery**
  - Tantalum was discovered by Anders Gustaf Ekenberg, a Swedish chemist, in 1802 in minerals obtained from Ytterby, Sweden.

#### Uses of tantalum

- Use in electronic sector
  - Tantalum is most prominently used in the electronics sector.
  - The capacitors made from tantalum are capable of storing more electricity in smaller sizes without much leakage than any other type of capacitor.
  - This makes them ideal for use in portable electronic devices such as smartphones, laptops, and digital cameras.
- A substitute for platinum
  - As tantalum has a high melting point, it is frequently used as a substitute for platinum, which is more expensive.
- In making surgical equipment and implants
  - Tantalum does not react with bodily fluids and is used to make surgical equipment and implants, like artificial joints.
- Cutting edges of high-speed machine tools
  - A composite consisting of tantalum carbide (TaC) and graphite is one of the hardest materials known and is used on the cutting edges of high-speed machine tools.
- Other uses
  - The rare metal is also used to make components for chemical plants, nuclear power plants, aeroplanes and missiles.

#### Significance of the discovery of tantalum in the Sutlej River

- Semiconductor manufacturing
  - The discovery of tantalum in the Sutlej River in Punjab is significant for India because of its value in electronics and semiconductors.
  - This is quite significant as Govt. has taken multiple steps in recent past to boost the semiconductor manufacturing in India.
- Boost to India's critical mineral policy
  - The critical mineral policy lists 10 minerals (including Tantalum) where India entirely relies on imports.
    - The policy maps mineral requirements for a clutch of sectors including renewables, defence, electronics, telecommunications and transportation.
- Cut down dependence on China
  - China's hegemony over critical minerals is not optimal for India. Hence, this discovery will reduce India's dependence on China.
- India's ambitious renewable energy targets
  - India wants renewables' share in the grid to rise to 500 GW by 2030.
  - It also wants 30% of private cars, 70% of commercial vehicles and 80% of two- and three-wheelers to go electric by 2030.
- State's economy
  - The discovery of tantalum could potentially benefit the state's economy by promoting the mining of these valuable metals.



## Quick Look

### 1. Risk weight

- It is every rupee lent by the bank is a cost or has an implication on its capital position.
- Risk-weighted assets: These are used to determine the minimum amount of capital a bank must hold in relation to the risk profile of its lending activities and other assets.
- The Reserve Bank of India decided in April 1992 to introduce a risk-asset ratio system for banks (including foreign banks) in India as a capital adequacy measure in line with the Capital Adequacy Norms prescribed by the Basel Committee.
- Impacts
- Lower the risk weight, lower the rate of interest. Therefore, risk weights impact borrowers indirectly and are felt through the pricing of loans.
- The increase in risk weights by the RBI will elevate funding costs for NBFCs and impact capital requirements.

### 2. Atmospheric Waves Experiment (AWE)

- It is a first-of-its-kind NASA experimental attempt aimed at studying the interactions between terrestrial and space weather.
- It is planned under NASA's Heliophysics Explorers Programme. This mission will study the links between how waves in the lower layers of the atmosphere impact the upper atmosphere and, thus, space weather.
- It will be launched and mounted on the exterior of the Earth-orbiting International Space Station (ISS).
- From the vantage point, it will look down at the Earth and record the colourful light bands, commonly known as airglow.
- The new NASA mission will try to understand the combination of forces that drive the Space weather in the upper atmosphere.
- It will measure the airglow at mesopause (about 85 to 87 km above the Earth's surface), where the atmospheric temperatures dip to minus 100 degrees Celsius.
- At this altitude, it is possible to capture the faint airglow in the infrared bandwidth, which appears to be the brightest, enabling easy detection.
- It will be able to resolve waves at finer horizontal scales than what satellites can usually see at those altitudes, which is part of what makes the mission unique.
- The health of the ionosphere, whose lower layers sit at the edge of space, is important for maintaining seamless communication.

### 3. Tantalum

- It is a rare metal with the atomic number 73—the number of protons found in one atom of the element.
- The rare metal has been named after a Greek mythological figure, Tantalus.

#### Properties

- It's grey, heavy, very hard, and one of the most corrosion-resistant metals in use today.
- It possesses high corrosion resistance because, when exposed to air, it forms an oxide layer that is extremely difficult to remove, even when it interacts with strong and hot acid environments.

- When pure, tantalum is ductile, meaning it can be stretched, pulled, or drawn into a thin wire or thread without breaking.
- It is almost completely immune to chemical attack at temperatures below 150°C and is attacked only by hydrofluoric acid, acidic solutions containing the fluoride ion, and free sulphur trioxide."
- It also has an extremely high melting point, exceeded only by tungsten and rhenium.
- When it is placed in the midst of acids, it is incapable of taking any of them up.

#### 4. VAJRA PRAHAR

- It is a joint exercise conducted between the Indian Army and the US Army Special Forces.
- It aims at sharing best practises and experiences in areas such as joint mission planning and operational tactics.
- It is the 14th Edition of the Indo-US Joint Special Forces exercise "VAJRA PRAHAR 2023," which commenced at the Joint Training Node, Umroi
- The US contingent is represented by personnel from the 1st Special Forces Group (SFG) of the US Special Forces. The Indian Army contingent is led by Special Forces personnel from the Eastern Command.
- The first edition was conducted in 2010 in India, and the 13th edition of the Indo-US Joint Special Forces exercise was conducted at the Special Forces Training School (SFTS), Bakloh (HP).
- The current edition is being conducted in Umroi Cantonment, Meghalaya from 21st November to 11th December 2023.
- It is also a platform to enhance inter-operability and strengthen defence cooperation between the armies of India and the United States of America.



**Mentorship**  
India

## Prelims Track Question

**Q1. Consider the following statements regarding the provisions of Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006, known as FRA, 2006:**

1. The Act allows ownership of minor forest produce to forest dwellers.
2. Bamboo is notified as a minor forest produce under provisions of the 2006 Act.
3. Under the Act, the respective state government is the authority to initiate the process for determining the nature and extent of Individual Forest Rights (IFR) or Community Forest Rights (CFR).

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

- A. 1 only
- B. 2 and 3 only
- C. Both 1 and 2
- D. 3 only

**Q2 With reference to the Surrogacy act, consider the following statements:**

1. Single men are not allowed to resort to surrogacy under the Act.
2. Only a close relative of the couple can be a surrogate mother.

**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

**Q3. With reference to adoption procedure in India, consider the following statements;**

1. Adoptions in India are governed only by Juvenile Justice Act, 2015.
2. Central Adoption Resource Authority (CARA) functions as the nodal body for adoption of Indian children.

**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

**Q4. Consider the following statements regarding "SATHEE (Self Assessment Test and Help for Entrance Exams)**

1. It is a government program aimed at providing financial assistance to entrepreneurs in the manufacturing sector.
2. It focuses on offering self-assessment tests and support for entrance exams to students.

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

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

**Q5. Consider the following statements regarding "Simultaneous Elections":**

1. It is the practice of conducting general elections for both the Lok Sabha and State Legislative Assemblies at the same time.
2. Its primary objective is to reduce the frequency of elections, ensuring stability and continuity in governance.
3. Currently it is a mandatory constitutional provision in India.

**How many of the statements given above is/are correct?**

- A. Only one
- B. Only two
- C. All three
- D. None

**Q6. Consider the following statements regarding "Sickle Cell Anemia":**

1. It is a genetic disorder characterized by abnormal hemoglobin, leading to misshapen red blood cells.
2. The prevalence of this disease is higher in populations with a historical association with malaria-endemic regions.
3. It is caused by a deficiency of iron in the body.

**How many of the statements given above is/are correct?**

- A. Only one
- B. Only two
- C. All three



D. None

**Q7. Consider the following statements regarding the "Unlawful Activities (Prevention) Act, 1967":**

1. Act aimed at preventing activities directed against the sovereignty and integrity of India.
2. The Act provides for the establishment of special courts for the speedy trial of offenses under its purview.
3. Act allows for the detention of individuals without trial for an indefinite period.

**How many of the statements given above is/are correct?**

- A. Only one
- B. Only two
- C. All three
- D. None

**Q8. Consider the following statements regarding Organisation for Economic Co-operation and Development (OECD):**

1. It is an intergovernmental organisation with 38 member countries currently.
2. It was founded in 1999 as a response to the East Asian financial crisis of 1997.
3. The majority of OECD Members are high-income economies ranked as "very high" in the Human Development Index.

**How many of the above statements is/are correct?**

- A. None
- B. Only one
- C. Only two
- D. All three

**Q9. "Climate Equality: A Planet for the 99%" report is released by which one of the following institutes/organizations?**

- A. United Nations Environment Programme (UNEP)
- B. World Economic Forum (WEF)
- C. Oxfam
- D. Global Sustainability Network (GSN)

**10. Consider the Following statements regarding Tantalum**

1. The rare metal has been named after a Greek mythological figure, Tantalus.
2. It's grey, heavy, very hard, and one of the most corrosion-resistant metals.
3. It is almost completely immune to chemical attack at temperatures below 150°C.

**How many of the above given statements is/are Incorrect?**

- A. Only One
- B. Only Two
- C. All Three
- D. None of the above

## Prelims Track Answer

### Ans:1 Option C is Correct

#### Explanation

- Forest Rights Act, 2006 (FRA) recognises the rights of forest-dwelling tribal communities (FDST) and other traditional forest dwellers (OTFD) to forest resources on which these communities were dependent for a variety of needs, including livelihood, habitation and other sociocultural needs.
- For example, The Act allows ownership of minor forest produce (MFP) to forest dwellers, such as bamboo (a notified MFP).
- Gram Sabha is the authority to initiate the process for determining the nature and extent of Individual Forest Rights (IFR) or Community Forest Rights (CFR) or both that may be given to FDST and OTFD.

### Ans:2 Option C is Correct

#### Explanation

- Single men are not allowed.
- Only a close relative of the couple can be a surrogate mother, one who is able to provide a medical fitness certificate.
- She should have been married, with a child of her own, and must be between 25 and 35 years, but can be a surrogate mother only once.

### Ans:3 Option B is Correct

#### Explanation

- Adoptions in India are governed by two laws — the Hindu Adoption and Maintenance Act, 1956 (HAMA) and the Juvenile Justice Act, 2015. Both laws have separate eligibility criteria for adoptive parents.
- Central Adoption Resource Authority (CARA) functions as the nodal body for adoption of Indian children.

### Ans:4 Option B is correct

#### Explanation

- SATHEE is not a government program aimed at providing financial assistance to entrepreneurs in the manufacturing sector. The statement is inaccurate.
- It focuses on offering self-assessment tests and support for entrance exams to students.
- SATHEE is a platform that provides self-assessment tests and assistance for entrance exams to students, helping them prepare for various competitive exams.

### Ans:5 Option B is correct

#### Explanation

- Simultaneous Elections involve holding elections for both the central and state legislatures simultaneously to synchronize electoral cycles.
- The primary objective of Simultaneous Elections is to reduce the frequency of elections, ensuring stability and continuity in governance.
- One of the key arguments in favor of Simultaneous Elections is to reduce the frequency of elections, providing stability and continuity in governance. This is seen as a way to avoid frequent disruptions due to elections.
- As of now, Simultaneous Elections are not a mandatory constitutional provision in India. The idea has been discussed and debated, but it has not been implemented as a constitutional mandate.

### Ans:6 Option B is correct

#### Explanation

- Sickle Cell Anemia is a genetic disorder caused by a mutation in the hemoglobin gene, resulting in abnormal hemoglobin and misshapen red blood cells.
- The prevalence of Sickle Cell Anemia is higher in populations with a historical association with malaria-endemic regions.
- There is a higher prevalence of Sickle Cell Anemia in populations with a historical association with malaria-endemic regions. The genetic mutation that causes Sickle Cell Anemia also provides some resistance to malaria, which has led to a higher occurrence in regions where malaria is prevalent.
- Sickle Cell Anemia is not caused by a deficiency of iron. It is a genetic disorder resulting from the inheritance of abnormal hemoglobin genes.

### Ans:7 Option B is correct

#### Explanation

- The primary objective of the Unlawful Activities (Prevention) Act, 1967 is to prevent activities that are directed against the sovereignty and integrity of India.
- The Act does provide for the establishment of special courts for the speedy trial of offenses under its purview, ensuring swift

justice in cases related to unlawful activities.

- The Act does provide for preventive detention, but it is subject to certain safeguards and is not for an indefinite period. There are legal provisions and limitations on the duration of detention without trial.

**Ans:8 Option C is Correct**

**Explanation**

- Organization for Economic Co-operation and Development (OECD) is an intergovernmental organisation with 38 member countries, founded in 1961 to stimulate economic progress and world trade.
- It is a forum whose member countries describe themselves as committed to democracy and the market economy, providing a platform to compare policy experiences, seek answers to common problems, identify good practices, and coordinate domestic and international policies of its members.
- The majority of OECD Members are high-income economies ranked as "very high" in the Human Development Index/HDI, and are regarded as developed countries.

**Ans:9 Option C is Correct**

**Explanation**

- Oxfam released a report titled "Climate Equality: A Planet for the 99%".

- The report emphasizes on the Climate Breakdown and Extreme Inequality as twin challenges facing humanity.

**Ans:10 Option D is Correct**

**Explanation**

**Tantalum:**

- It is a rare metal with the atomic number 73—the number of protons found in one atom of the element.
- The rare metal has been named after a Greek mythological figure, Tantalus.

**Properties**

- It's grey, heavy, very hard, and one of the most corrosion-resistant metals in use today.
- It possesses high corrosion resistance because, when exposed to air, it forms an oxide layer that is extremely difficult to remove, even when it interacts with strong and hot acid environments.
- When pure, tantalum is ductile, meaning it can be stretched, pulled, or drawn into a thin wire or thread without breaking.
- It is almost completely immune to chemical attack at temperatures below 150°C and is attacked only by hydrofluoric acid, acidic solutions containing the fluoride ion, and free sulphur trioxide."
- It also has an extremely high melting point, exceeded only by tungsten and rhenium.
- When it is placed in the midst of acids, it is incapable of taking any of them up.


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