

NEWS TODAY

Russian Missiles hit Children's Cancer Hospital in Kyiv (Ukraine)

Such incidents raise debate around the **Ethics of War** leading to the question whether a **war is ever justified**.

- ▶ According to **Tolstoyan view war is a crime** under all circumstances.
- ▶ Whereas, '**Just War**' theory presumes that there are **legitimate uses of war** under certain circumstance (refer to the box in the end)

Key Stakeholders involved in a war and their interest

- ▶ **Countries:** Fulfilling the objective of war like resolving territorial disputes.
- ▶ **Citizens:** Desire for end of war and desire to fulfil national interest.
- ▶ **Soldiers:** Defending their country and its interests.
- ▶ **Industries, and Financial Institutions:** Disruptions in supply chains, loss of investments, etc.
- ▶ **International community:** Provide humanitarian aid, diplomatic support, or engage in peacekeeping efforts

Ethical issues associated with war

- ▶ **Loss of human life** including civilians, women and children
- ▶ **Degradation of Moral Equality** by dehumanization of the enemy, Prisoners of War, etc.
 - ⊕ Moral Equality is the belief that all **people are of equal worth** and are entitled to equal respect.
- ▶ **War Crimes and Atrocities**, including genocide, and summary execution.
- ▶ **Fear of arms race** and use of weapons of mass destruction

Just War Theory

- ▶ **Vedic literature, Mahabharat, etc.** have emphasised on Just war.
- ▶ In **West Aristotle, Cicero, Augustine, etc.** have espoused some form of a just war philosophy.
- ▶ It incorporates:
 - ⊕ **Jus ad bellum (moral justifications for going to war):** Requires that the cause for war is just; the right authority makes the decision; war is a last resort; etc.
 - ⊕ **Jus in bello (moral principles to follow during war):** Governs the treatment of prisoners; requires the protection of civilians, and prohibits the disproportionate use of force.
 - ⊕ **Jus post bellum (justice after war).**

SBI Report Pitches for "A New Comprehensive Mineral" policy

India is endowed with **huge resources of many metallic and non-metallic minerals, and currently produces as many as 95 minerals**. But India's **mineral production growth has stagnated** since last five years.

Need for New Mineral Policy:

- ▶ **Low CAGR:** 5-year CAGR (from FY19 to FY24) of most of the major minerals (in quantity terms) is in single digits or declining.
- ▶ **High Employment Potential Sector:** Mining is a huge **labor-intensive sector**.
 - ⊕ **10% increase in mineral production**, in value terms, could generate an additional **50,000 - 70,000 daily jobs**.
- ▶ **Import Reliance:** India is **100% import dependent** for certain critical minerals.
 - ⊕ Critical minerals are **metallic or non-metallic elements like lithium, graphite**, etc that are considered to have a role in a country's economic or national security.
- ▶ **To curb Other challenges:** Bureaucratic hurdles, regulatory hurdles, and lack of infrastructure.

Recommendations of Report:

- ▶ **Comprehensive policy that spans entire value chain**
 - ⊕ E.g.: Advanced geoscience techniques, sustainable extraction methods.
- ▶ **International Collaboration** with other countries.
- ▶ **Enhancing of processing capacity.**
- ▶ **Involvement of private sector.**
- ▶ **Introduction of PLI, Promoting a circular economy** through recycling.

Steps Taken to promote mining sector:

- ⊕ **Khanij Bidesh India Ltd. (KABIL):** Mandated to identify and acquire overseas minerals of critical and strategic nature.
- ⊕ **Mines & Mineral (Development and Regulation) Act 1957** with amendments in 2015 and 2020.
- ⊕ **Pradhan Mantri Khanij Kshetera Kalyan Yojana (PMKKKY) and District Mineral Foundation (DMF)**

IUCN Report Calls for Renewed Conservation Approach

IUCN released the report 'Planet on the move: Reimagining conservation at the intersection of migration, environmental change, and conflict'.

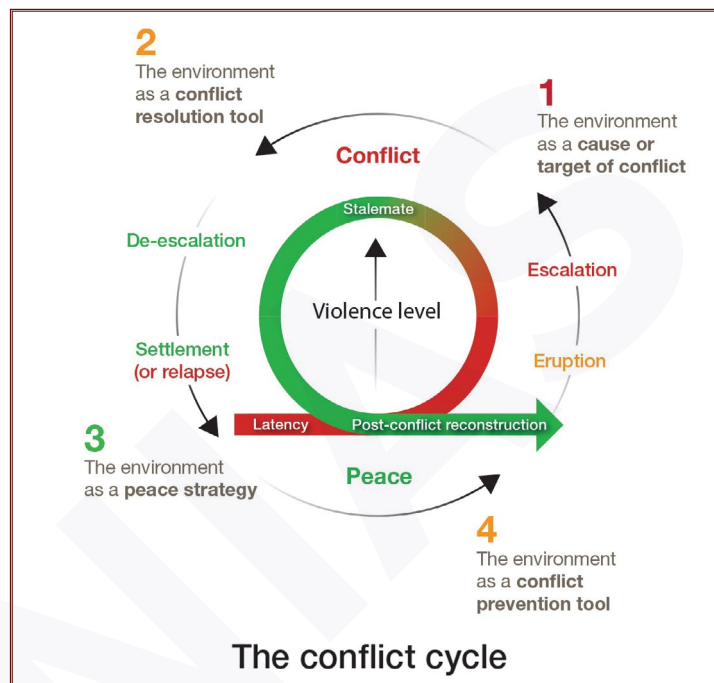
- The report calls for **reimagining conservation** in an era defined by **migration, environmental change, and conflict**.

Need for New Conservation Approach

- **Existence of nexus among migration, environmental change, and conflict:** Environmental changes force humans and other species to **migrate** which may result in **conflict** for scarce natural resources degrading the **environment further and undoing conservation gains**.
 - ⊕ **Conservation efforts need to respond to this nexus** both today and in the future.
- **Siloed policies for migration:** Migration policies often treat **human and wildlife migration** separately, despite the planet being a shared space. For instance,
 - ⊕ **1951 Refugee Convention** and the **2012 Kampala Convention** define human refugees and displaced persons respectively, whereas
 - ⊕ **Convention on the Conservation of Migratory Species of Wild Animals** adopted a Programme of Work on Climate Change and Migratory Species in 2014.

Recommendations for New Conservation Approaches

- Address migration, humanitarian and development needs **without compromising biodiversity and nature**.
- International legal mechanisms to **protect 'environmental migrants'** and resolve **conflicts** in places of transit and destination.
- **Greater synergies** between various laws to protect **intersecting human and other species migrations**.



Researchers and governments call for Quantum Governance to harness the value of Quantum Science & Technology

Recently, the **University of Oxford** has cautioned against inflated expectations of quantum technologies.

- In spite of **quantum technologies potential** (e.g., quantum computing, quantum sensors, etc.) it **carries risks of misuse due to potential dual-use applications**, especially in digital security.
- In this regard, many have called for **Quantum Governance** to create **awareness of its concepts** and **explore its benefits for humankind**.

About Quantum Governance

- **World Economic Forum (WEF)** was one of the first organisations to discuss quantum computing governance.
- 'Quantum Governance' framework is based on the **principles of transparency, inclusiveness, accessibility, non-maleficence, equitability, accountability, and the common good**.
- **Significance:**
 - ⊕ **Accelerate the development of responsible quantum computing** by building trust in the technology.
 - ⊕ **Early ethical consideration** by addressing quantum computing ethics during design and development phases.
 - ⊕ **Learning from other technologies** by applying ethical principles from AI, nanotech, nuclear, etc.
- **Challenges:**
 - ⊕ Researchers **favor open quantum frameworks**, while national policies prioritize **strong intellectual property** protections for quantum technologies.
 - ⊕ Private sector's **profit-driven approach** may **hinder responsible, open quantum development**.
 - ⊕ There is **limited evidence on the impact of responsible innovation policies** in quantum governance.

About Quantum Technologies

- Quantum Technology is based on the **principles of Quantum mechanics** developed in the **early 20th century** to describe nature at the scale of atoms and elementary particles.
- **Application:** secure communication, disaster management through better prediction, computing, simulation, chemistry, healthcare, cryptography, etc.

Initiatives taken by India

- National Mission on Quantum Technologies and Applications, 2023.
- 21 Quantum hubs in the country and 4 Quantum research parks across India.

High-intensity wildfire reported in Arctic for third time in five years: EU's Copernicus

Wildfires have been a natural part of the Arctic's boreal forest and tundra ecosystems.

- However, their **frequency and scale** in the regions have **increased in recent years**.

Reasons for such Arctic wildfires

- **Fast-paced Arctic warming:** Arctic is warming nearly four times faster than the global average rate.
- **Increased Lightning:** Warm, moist updrafts (of air) needed for thunderstorms and lightning are more common over ice-free land (caused by warming).
- **Slowing polar jet stream:** Warming has slowed down the polar jet stream responsible for **circulating air between the mid- and northern latitudes**.
- The jet stream's stagnation may bring **unseasonably prolonged warm weather**.

Concerns

Such wildfires may reinforce Arctic Warming due to:

- **Reduced albedo** (fraction of light that a surface reflects) due to smoke from wildfires and melting of ice sheet.
- Burning boreal forests and tundra releases vast amounts of **greenhouse gases from carbon-rich soils**.
 - ⊕ **June 2024 wildfire carbon emissions** were the **third highest in two decades** (Copernicus data).
- **Permafrost Thawing:** Permafrost is any ground that remains **completely frozen** (i.e. 0°C or colder) for at least **two years** straight.
 - ⊕ **Arctic permafrost** holds around **1,700 billion metric tons** of carbon.

Union Cabinet approves India's signing of the Biodiversity Beyond National Jurisdiction (BBNJ) Agreement

It is a **significant step towards the conservation and sustainable utilisation of marine biological diversity** in areas beyond national jurisdiction.

BBNJ Agreement

- It is an agreement under **United Nations Convention on Law of the Sea (UNCLOS)** on Conservation of Marine Biological Diversity of Areas beyond National Jurisdiction.
- It is also referred as **High Seas Treaty**.
 - ⊕ **'High Seas'** are areas beyond national jurisdiction which are global common oceans open to all for internationally lawful purposes such as navigation, overflight, laying submarine cables and pipelines, etc.
- It was **adopted in 2023 by Intergovernmental Conference on Marine Biodiversity of Areas Beyond National Jurisdiction**.
- It will become international law only when it is **signed and ratified by at least 60 countries**.
- It is **third implementing agreement** to UNCLOS with other two being 1994 Agreement related to implementation of UNCLOS and 1995 U.N. Fish Stocks Agreement
- **Ministry of Earth Sciences** is implementing the agreement in India.

Agreement addresses four main issues

- Marine genetic resources, including **fair and equitable sharing of benefits**
- Measures such as **area-based management tools**, including marine protected areas
- **Environmental impact assessments**
- **Capacity-building & transfer of marine technology**

About UNCLOS

- International Convention that was **adopted in 1982** & came into force in **1994**.
- Lays down comprehensive regime of **law and order in world's oceans & seas**.
- Establishes rules governing **uses of oceans and their resources by Countries**.
- Divides marine areas into zones namely- **Territorial Sea, Contiguous Zone, Exclusive Economic Zone (EEZ) and High Seas**.

Also in News



Production Linked Incentive PLI Scheme for White Goods (PLIWG)

Government has invited applications for PLIWG Scheme for White Goods (ACs and LED Lights).

- White Goods are **large electrical goods and home appliances** like refrigerators, washing machines, and ACs.
 - ⊕ **Brown goods** generally refer to **Consumer Electronics** like televisions, DVD players, stereos, and computers.

About PLIWG

- **Nodal Ministry:** Ministry of Commerce & Industry
- **Type:** Central Sector Scheme
- **Background:** Launched in 2021 in pursuance of 'Atmanirbhar Bharat'.
- **Financial incentives to applicants:** An incentive of **4% to 6% on incremental sales (net of taxes)** over the **base year 2019-20**.
- **Tenure:** FY 2021-22 to FY 2028-29



World's oldest cave painting

Scientists have discovered the **world's oldest-known cave painting** inside **Leang Karampuang** cave in **Sulawesi, Indonesia**, dating back at least **51,200 years**.

- Previously, the **oldest known painting** was in Sulawesi's **Leang Tedongge** cave, dating to at least **45,500 years ago**.
- However, some believe that the painting in **Spain's Maltravieso cave** attributed to Neanderthals is the oldest and dates back to around **64,000 years ago**.

About Karampuang cave painting

- Its age was determined using **uranium-based dating technology**.
- Features a **standing pig** and **three smaller human-like figures** in **dark red pigment**.
- Demonstrates the **mental capacity of ancient people**.



Zombie startups

Recently shutting down of Koo (India's Twitter-like app) has raised debate around Zombie startups.

About Zombie startups

- It refers to **startups that have raised enough funds** (during the boom cycle) to operate but are **currently not generating significant revenue**.
- It can be considered to be stuck in a situation of **consuming resources without** growing into a successful enterprise.
 - ⊕ In the long term, such startups may vanish.
- Lack of market-suitable **products**, **high cost** of acquiring customers, **funding winter**, etc. can make a startup Zombie.



Earth's inner core

A study has confirmed that since around 2010, Earth's inner core has slowed down significantly.

Impact of Slowing down of Inner core:

- Usually when **core spins slowly, mantle speeds up**.
 - ⊕ This shift **causes Earth to move faster and shortens length of a day**.
 - Can affect **Earth's Magnetic field**.
- Earth's Inner Core (Composed of Iron & Nickel):**
- **Core (Innermost layer of earth)** is divided into **outer (liquid state) and inner core (solid state)**.
 - **Spin of inner core is influenced by magnetic field** generated in outer core and gravitational effects within Earth's mantle.



Kallakkadal

Weather agencies has sent an alert in **coastal areas of Kerala and Tamil Nadu** about possibility of 'Kallakkadal' phenomenon.

About Kallakadal:

- It is essentially **coastal flooding usually in pre-monsoon (April-May) or post - monsoon season** by swell waves on **southwest coast of India**.
- **Swell waves** are a **series of mechanical or surface gravity waves** generated by distant weather storms **E.g. Hurricane** that propagate thousands of miles across oceans and seas.
- Swell waves can **propagate** in directions that **differ from direction of the wind**.



Regenerative Braking

Regenerative braking, a feature of EVs, is being widely used among those developing next-gen cars.

Regenerative Braking

- **Braking slows down a vehicle** by removing kinetic energy.
- Regenerative braking works on the principle of **conversion of combined kinetic energy and potential energy of the braking system** directly into **electrical energy** using a generator.
 - ⊕ This electric energy is used for **recharging the battery** (hence, braking in EVs increases the mileage slightly)
- **Benefits:** Better efficiency and less maintenance (wear and tear on brake systems is reduced).



Udayagiri and Khandagiri Caves

The President of India recently visited Udayagiri Caves in Bhubaneswar.

About Udayagiri and Khandagiri Caves

- They are built on the **Kumari mountain range** and are the **earliest examples of rock-cut cave tradition** in Odisha.
- They were built around **2nd century BC** by **King Kharavela** of the **Meghavahana dynasty** for Jain monks.
- **Udayagiri caves** are famous for the **Hathigumpha inscription** which is carved out in **Brahmi script** highlighting **military campaigns undertaken by Kharavela**.
- There are other sets of **Vaishnavite caves** built during **Gupta period** in Udayagiri near Vidisha in Madhya Pradesh.



RIMPAC 2024

Indian Navy's P-8I aircraft joined Rim of the Pacific Exercise (RIMPAC) 2024 in Hawaii (USA).

About RIMPAC

- RIMPAC is the world's **largest multinational naval exercise** held **biennially**.
- **Aim of RIMPAC 2024:** bolster multilateral relationships and enhance operational preparedness **across the Indo-Pacific region**, reinforcing stability and security.

Places in News



Mongolia (Capital: Ulaanbaatar)

India will import coking coal (the primary source of carbon used in steelmaking) from Mongolia on a trial basis.

Political Boundaries:

- It's a **landlocked country** located in north-central Asia.
- **Land Boundary:** Russia (north) and China (south).

Geographical features:

- **Landform:** It is largely a plateau.
- **Major mountain chains:** Altai, Khangai, Khentii
- **Longest river:** Orkhon River (Orkhon Valley is a UNESCO World Heritage Site).
- **Largest freshwater lake:** **Lake Khuvsgul** (known as the "younger sister" to Lake Baikal of Russia).
- **Major commodities:** Coal, Gold, copper, Lithium, Fluorspar.

