WORLD DAY AGAINST CHILD LABOUR 2025

- World Day Against Child Labour is a global observance marked on June 12 every year, serving as a **crucial reminder to build a world free of child labour**, where children worldwide are not forced into work at the expense of their education and well-being.
- **History:** The International Labour Organization (**ILO**) first observed World Day Against Child Labour on June 12, 2002, at its Geneva headquarters.
    - Since then, it has been marked globally to shine a light on this ongoing crisis. The year 2025 marks the 21st anniversary of this important observance.
- **Theme:** The theme for this year is **'Progress is clear, but there's more to do: let's speed up efforts!'** It reflects the progress made so far in reducing child labour, while also emphasizing the need to intensify global efforts to meet international goals.
- In India, the government has implemented a **National Policy on Child Labour** since 1987. This policy emphasises both the rehabilitation of affected children and the need to tackle the root cause - poverty - by improving the economic well-being of their families.

Child Labour Latest Data and Trends

- **Global Child Labour:** In 2024, nearly 138 million children were engaged in child labour worldwide, with 54 million in hazardous work. **Africa has the highest child labour rates** (72 million children), followed by Asia and the Pacific (62 million children).
- **India:** In 2011, India's Census data showed that 10.1 million children, or 3.9% of the total child population aged 5-14, were working, either as "main workers" or "marginal workers".
    - This data represents a decrease from the 1.26 crore working children in 2001, but the issue persists, with poverty, lack of education, and economic distress identified as key drivers.
- **Sustainable Development Goals (SDGs):** SDG Target 8.7 aims to end child labour in all its forms by 2025, but this target is unlikely to be met due to persistent challenges.

UN HIGH SEAS TREATY

- The UN High Seas Treaty is formally known as the Agreement on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (**BBNJ**).
- It is the **first legally binding international instrument** aimed at protecting marine biodiversity in international waters—areas that lie beyond the jurisdiction of any single country.
- The treaty is built on the **legacy of the UN Convention on the Law of the Sea (UNCLOS)**, which is the last international agreement on ocean protection, signed 40 years ago in 1982. UNCLOS established an area called the high seas.
- **Scope:** The treaty addresses the high seas, which cover about two-thirds of the world's oceans and nearly half of the planet's surface.
- **Objective:** To establish a legal framework for the **conservation and sustainable use of marine biodiversity** in international waters, addressing regulatory gaps and promoting global cooperation.

UN High Seas Treaty Key Provisions:

- **Marine Protected Areas (MPAs):** Empowers the creation and management of MPAs in the high seas to conserve marine ecosystems.
- **Environmental Impact Assessments (EIAs):** Mandates EIAs for activities that could harm the marine environment, even if the impact is anticipated in international waters.
- **Marine Genetic Resources (MGRs):** Ensures fair and equitable sharing of benefits from marine genetic resources, including digital sequence information.
- **Capacity Building and Technology Transfer:** Supports developing countries in building capacity and accessing marine technology for conservation and sustainable use.

EXERCISE KHAAN QUEST

The Indian Army contingent reached Ulaanbaatar, Mongolia for the Multinational Military Exercise KHAAN QUEST, which is scheduled to be conducted from 14th to 28th June 2025.

- It is a **multinational military exercise.**
- The exercise will bring together military forces from **around the world to collaborate** and enhance their peacekeeping capabilities.
- **Last edition** of Exercise KHAAN QUEST was conducted **in Mongolia** in 2024.

Background:

  - The exercise first **started as a bilateral event between USA and Mongolian** Armed Forces in the **year 2003**.
  - Subsequently, from the **year 2006 onwards** the exercise graduated to a Multinational Peacekeeping Exercise with current year being the 22nd iteration.
- The Indian Army contingent comprising 40 personnel is being represented mainly by troops from a **Battalion of the KUMAON REGIMENT** along with personnel from other Arms and Services. One **Woman Officer** and two Women Soldiers will also form part of the contingent.
- Aim of Exercise to prepare Indian Armed Forces for peacekeeping missions while operating in a multinational environment, thereby increasing interoperability and military readiness in peace support operations under Chapter VII of United Nations Charter.
- The exercise will focus on a high degree of physical fitness, joint planning and joint tactical drills.
- It will enable the participating countries to share their best practices in Tactics, Techniques and Procedures for **conduct of joint operations.**

SIGNIFICANCE OF THE NEXT CENSUS FOR INDIA'S ECONOMY

- The Census remains vital for India's economic planning and governance, far beyond the immediate political debates.
- **Foundation for All Data Collection**
  - The national Census serves as the statistical bedrock for all other surveys and analyses in India, enabling accurate sampling and representation.
- **Comprehensive Snapshot of the Nation**
  - Beyond counting individuals, the Census captures detailed data on demographics, economic status, education, migration, disability, language, and more—creating a holistic picture of India.
- **Reality Check and Historical Record**
  - It acts as a mirror for the country, showing how India has evolved over time—in this case, over 16 years—and offering insights into likely future trends.
- **Critical for Informed Policymaking**
  - Census data directly influences policies, welfare schemes, and developmental planning across sectors, ensuring that decisions are grounded in actual population needs.

Role of Census in Inflation Control and Interest Rate Policy

- **Guiding Monetary Policy Decisions**
  - The Reserve Bank of India's Monetary Policy Committee relies on the retail inflation rate, based on the Consumer Price Index (CPI), to decide interest rates.
  - CPI reflects how prices of goods and services change, with weights assigned based on consumption patterns—like food items comprising 46% of the index.
  - The Census offers a baseline of "reality" about income, location, family structure, and migration.

- **Impact on Inflation Measurement**
  - Outdated Census data can skew inflation calculations.
  - For instance, if food expenditure has fallen but CPI still uses older weights, it may overstate inflation, leading to unnecessarily high interest rates and slower economic growth.
- **Essential for Broader Economic Indicators**
  - Beyond food inflation, accurate Census data is vital for understanding migration, urbanisation, and demand trends, informing both public policy and private sector decisions.

Why There Is No Substitute for the Census?

- **Surveys Depend on Census as a Base**
  - Public and private surveys require accurate, updated Census data for modelling.
  - Without it, even the best-designed surveys risk becoming disconnected from reality.
- **Limitations of Administrative Data**
  - Although administrative data is growing in volume, it is often inconsistent, incomplete, and not comparable across departments or states due to differing definitions and collection methods.
- **Reliability Concerns and Bias**
  - Data gathered by government departments may be biased to avoid showing poor performance.
  - For example, NFHS 2020–21 contradicted official claims of India being Open Defecation Free, showing 30% of surveyed households lacked toilets.
- **Census as the Gold Standard**
  - Only the Census offers a consistent, objective, and comprehensive snapshot of the country, forming the foundation for all credible data-based policymaking and governance.

DRONE WARFARE & INDIA

- Chief of Defence Staff General Anil Chauhan warned about the increasing use of small, swarm-capable drones that are nearly undetectable and untargetable, posing a serious security challenge.
- **Asymmetric Advantage and Strategic Challenge**
  - Swarm drones are cheap but deadly — capable of inflicting massive damage on high-value targets.
  - For example, a $1,000 drone can potentially destroy a $200 million aircraft.
  - Launching them from mobile platforms near sensitive sites makes defence difficult.
- **India's Unique Vulnerabilities**
  - With porous borders and diverse populations, India faces a high risk of such surprise attacks.
  - The ability to move drones covertly, as Ukraine did across Russian territory, illustrates the scale of the threat.
- **Need for Comprehensive Security Integration**
  - Defending against swarm drones requires coordination across military, intelligence, and civil policing — even a local traffic constable could play a role in early detection.

India's Capabilities Against Drone Threats

- **Akashteer Air Defence Control System**
  - Developed by Bharat Electronics Ltd, it links with the Indian Air Force's integrated command network for real-time airspace tracking and threat response.
- **Bhargavastra**
  - Created by Solar Defence and Aerospace Ltd, this system launches 64 micro-rockets in rapid salvos to destroy incoming drone swarms.

- **DRDO's Anti-Drone System**: Offers 360-degree radar coverage and dual-action neutralisation:
  - Soft kill: Jamming communication and GPS signals
  - Hard kill: Laser targeting
  - Detects drones up to 4 km away and neutralises threats within a 1 km radius.
- **Indrajaal**
  - Developed by a Hyderabad-based startup, this AI-powered defensive grid uses a combination of jammers, spoofers, and real-time intelligence to secure up to 4,000 sq km.
  - It is operational at Indian naval installations in Gujarat and Karnataka.

Looking Ahead: The Future of Drone Warfare and India's Preparedness

- **Global Drone Arms Race**
  - There is an ongoing global race to enhance both drone and anti-drone technologies. For example:
    - Iran is producing 20+ Shahed drones daily, showcasing rapid scalability.
    - India has established a growing drone ecosystem, supported by 550+ startups, combining indigenous development and acquired technologies.
- **The New Face of War**
  - Future conflicts are expected to be:
    - **Unmanned:** With drones taking over many battlefield roles
    - **AI-Driven:** Enabling autonomous decision-making
    - **Asymmetric:** Where low-cost tech can target high-value assets
  - CDS General Anil Chauhan emphasizes a paradigm shift:
    - "We are at a cusp where war may be between humans and machines — and tomorrow, between machines themselves."
  - This underscores the urgent need for resilient, AI-integrated defence systems to counter increasingly sophisticated threats.

NUCLEAR ENERGY FOR NET ZERO VIKSIT BHARAT - CHALLENGES AND STRATEGIC ROADMAP

The Energy Imperative for Viksit Bharat:

- **Aspirational targets:**
  - **Net Zero by 2070** with significant economic growth and high Human Development Index (HDI) of 0.95.
  - **Estimated clean energy need:** 28,000 TWh annually.
- **Present energy status:**
  - **Current energy consumption:** 9,800 TWh (96% from fossil fuels).
  - **Clean energy** needs to increase **70 times** and around **70% of it needs to come from nuclear in 45 years.**

Strengthening Domestic Nuclear Capabilities:

- **PHWRs - India's primary workhorse**:
  - PHWRs [supplemented by proven large light water reactors (LWRs)] are a **proven, indigenous technology** that meets global benchmarks.
  - It forms the **foundation for scalable**, domestically-driven nuclear capacity expansion under the **100 GWe mission** (by 2047).
  - However, there is the need to bring in **multiple deployment agencies**, beyond NPCIL and now NTPC.
- **Fast Breeder and Thorium utilisation:**
  - FBRs enable **60-70 times more energy** from the same quantity of mined fuel.
  - Thorium can be irradiated in PHWRs to advance the third stage. MSRs can recycle thorium-based spent fuel.

Fuel Supply and Energy Security:

- **Uranium dependency:**

- 100 GWe capacity needs about **20,000 tons of uranium/year**, which is approximately **15% of global production.**
- Given the potential for geopolitical disruptions in uranium imports, there is the need for **domestic** uranium **development** and **fuel recycling**.

- **Role of HALEU and ANEEL fuel:**
  - High Assay Low Enriched Uranium (**HALEU**) needed for PHWR thorium use.
  - **ANEEL fuel** under development with economic and safety advantages.
    - ANEEL (Advanced Nuclear Energy for Enriched Life) fuel is a thorium-uranium mixture developed by Clean Core Thorium Energy.

Strategic Technology Directions:

- **Beyond Small Modular Reactors (SMRs):**
  - **SMRs**, which would take at least two decades to mature before deployment, are unlikely to meet 2047 deadlines.
  - **Redirect R&D** to thorium MSR-based SMRs and fast reactors.
- **International collaboration:**
  - HALEU and advanced reactor fuel cooperation can benefit India and developing nations.

Way Forward:

- The 100 GWe mission should be seen as **a stepping stone, not a limit.**
- Accelerated, **multi-agency nuclear deployment** is vital.
- Strong focus needed on **R&D** in thorium and fast reactor technologies.
- **Nuclear energy is not optional**, but central to India's net zero and development goals.

Conclusion:

- By strategically **accelerating its indigenous nuclear programme** - anchored in PHWRs, fast breeder reactors, and thorium-based technologies - India can not only meet its clean energy targets but also emerge as **a global leader in sustainable nuclear innovation.**
- A "Viksit Bharat" by 2047 powered by secure, scalable, and self-reliant nuclear energy will be a testament to **visionary planning and technological sovereignty.**