

**DAILY
CURRENT
AFFAIRS
ANALYSIS**



LAKSHYA ACADEMY®

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1 - UNEP's Cooling Sector Action Plan:

GS III

Environmental Conservation related issues:

- **Natural Solutions:**

- Reintroducing nature to urban areas and using passive cooling techniques including shading, ventilation, insulation, green roofs, and reflective surfaces are among the suggestions.
- Energy and pollutants can be reduced and mechanical cooling can be replaced with passive cooling.

- **Efficiency Requirements:**

- highlights the significance of more energy-efficient practices and technologies for cooling appliances including fans, air conditioners, and freezers.
- Cooling systems with higher energy efficiency can use less energy, emit fewer greenhouse gases, and cost less to operate for both consumers and utilities.
- **Decomposition of Refrigerants:**
- This is the process of using chemicals other than hydrofluorocarbons (HFCs), which are strong greenhouse gases, to cool electronics. Examples of these substances are carbon dioxide, ammonia, and hydrocarbons.
- A class of artificial gases known as HFCs is mostly employed in refrigeration and air conditioning. Known as "super-pollutants," HFCs are powerful greenhouse gases that can trap heat hundreds or thousands of times more effectively than carbon dioxide.
- With an average atmospheric duration of 15 years, they are short-lived climate pollutants despite having a large influence.
- Refrigerants with low global warming potential can help phase down HFCs in accordance with the Kigali Amendment to the Montreal Protocol and lower the direct emissions of cooling systems.
- calls for a quicker phaseout of air conditioning and refrigerants that cause global warming.

- **Why Take Up the Cooling Sector Issue?**

- In order to prevent increasing temperatures, guarantee food safety, support industrial cooling processes, and promote prosperous economies, the cooling industry is essential.
- On the other hand, if nothing is done, the rising need for cooling equipment can result in a significant rise in emissions and electricity use.
- Twenty percent or more of the world's electricity is used for cooling.

- By 2050, the installed capacity of cooling equipment worldwide will triple due to present policies, more than double the amount of power consumed.
- As a result, emissions of carbon dioxide equivalent (CO₂e) could range from 4.4 billion to 6.1 billion tonnes in 2050, which would be more than 10% of the total emissions expected worldwide in that year.

- **What Advantages Does Sustainable Cooling Offer?**

- Energy-efficient cooling devices and passive cooling strategies can help customers save USD 17 trillion between 2022 and 2050.
- By reducing peak power consumption by 1.5–2 terawatts (TW), significant expenditures in power generation are predicted to be avoided.
- HFC emissions can be cut by 50% by 2050 by increasing the use of low-GWP technology in new machinery and efficiently controlling refrigerant life cycles.
- Sectoral emissions can be further reduced by 96% by decarbonising the electricity grid.

- **Which initiatives fall under the category of sustainable cooling?**

- **Worldwide:**

- **NCAPs, or National Cooling Action Plans:**

- Currently, 25 more nations are in various phases of preparing their NCAPs, while over 40 countries—including India—have developed theirs.
- Despite the inclusion of implementation mechanisms in their NCAPs, China and India have not yet completed the rollout.

- **Worldwide Cooling Promise:**

- The Global Cooling Pledge was introduced at the United Nations Framework Convention on Climate Change by the Cool Coalition and the host nation, United Arab Emirates.
- More than sixty nations pledged to lessen the cooling sector's impact on the climate when they joined the Pledge.

- **Acceleration of the Kigali Amendment:**

- An international agreement to lower HFC production and consumption is known as the Kigali Amendment.
- The Montreal Protocol on Substances that Deplete the Ozone Layer includes the addendum.
- The Kigali Amendment seeks to achieve an 80–85% reduction in HFC production and consumption by 2047.
- By doing this, it is anticipated that greenhouse gas emissions of up to 105 billion tonnes of CO₂ will be avoided, preventing a rise in world temperature of up to 0.5 degrees Celsius by 2100.

- *Source → The Hindu*

2 – Critical Minerals:

GS III

Environmental Conservation related issues:

- **Which aspects of the First Auction of Critical Minerals are most important?**
- This is the first time that the mining rights to lithium ore are being put up for auction with the private sector. Rare earth elements (REEs), nickel, copper, molybdenum, and other minerals are also present in the blocks.
- There are eight states with mineral blocks, with Tamil Nadu having the most with seven. These blocks have different rights; 16 of the blocks are up for sale for Composite Licences (CL), which permit geological exploration prior to mining, while the remaining 4 blocks are up for auction for Mining Licences (ML), which permit immediate mining operations.
- **What is the History of Critical Minerals' First Auction?**
- The government's designation of 30 minerals as "critical" and modifications to mining legislation have prompted the current auction.
- By modifying the Mines and Minerals (Development and Regulation) Act, 1957, with the MMDR Amendment Act, 2023, the government designated 30 minerals as Critical Minerals in July 2023, giving the Central Government the authority to auction blocks of these minerals.
- Graphite, Hafnium, Indium, Lithium, Molybdenum, Niobium, Nickel, PGE, Phosphorous, Potash, REE, Rhenium, Silicon, Strontium, Tantalum, Tellurium, Tin, Titanium, Tungsten, Vanadium, Zirconium, Selenium, and Cadmium are the thirty essential minerals.
- The highest percentage of the mineral dispatch value that bidders have quoted determines the basis for bidding. There will likely be another round of crucial mineral block sales after this one.
- Critical mineral reserves are being intensively explored throughout India by the Geological Survey of India (GSI).
- **Critical Minerals: What Are They?**
- Critical minerals are those that are necessary for both national security and economic growth. Their scarcity or the concentration of their extraction or processing in a small number of geographic areas can create supply chain vulnerabilities or even cause supply disruptions.
- It's a dynamic process that might change when new technology, market conditions, and geopolitical factors come into play.

- Various nations may have distinct lists of essential minerals according to their own objectives and special conditions.
- Due to their significance for either economic growth or national security, the US has designated 50 minerals as critical.
- Thirteen minerals have been designated by Japan as essential to their economy.
- Eighteen minerals are vital to the UK, 34 to the EU, and 31 to Canada.

- **What Importance Do Critical Minerals Have for India?**

- **Development of the Economy:**

- These minerals are essential to many sectors of the economy, including defence, telecommunications, transportation, and high-tech electronics.
- Furthermore, green technology like solar panels, wind turbines, batteries, and electric cars depend on vital minerals.
- These sectors have the potential to create jobs, generate money, and foster innovation in India given the country's high domestic demand.

- **Safety of the Nation:**

- These minerals are essential for usage in space, defence, aerospace, and nuclear applications, which calls for the employment of dependable, high-quality materials that can survive harsh environments and carry out intricate tasks.

- **Sustainability of the Environment:**

- They are essential to reducing India's dependency on fossil fuels and greenhouse gas emissions as well as the country's shift to clean energy and a low-carbon economy.
- India has committed to achieving 450 GW of renewable energy capacity by 2030, therefore these minerals are critical to the country meeting its environmental goals.

- **What Problems Does India Face With Critical Minerals?**

- **The Russia-Ukraine Conflict's Implications:**

- Russia is a major producer of several essential minerals, while Ukraine has reserves of rare earth elements, lithium, cobalt, and graphite.
- These vital mineral delivery networks are impacted by the continuous conflict between the two nations.

- **Restricted Domestic Reserves:**

- Critical minerals like lithium, cobalt, and other rare earth elements are scarce in India.

- Since the majority of these minerals are imported, India is largely dependent on other nations for their supply. Due to supply disruptions, geopolitical events, and price volatility, this reliance on imports may make the country vulnerable.
- Critical minerals like lithium and nickel are heavily imported into India; 93% of copper is imported, while 100% of lithium and nickel are imported.
- **Growing Need for Minerals:**
- Minerals including copper, manganese, zinc, lithium, cobalt, and rare earth elements are needed in greater amounts for the production of renewable energy technology and the switch to electric vehicles.
- **Way Forward:**
- India has a chance to improve its partnerships and international collaboration by managing vital resources strategically. India may aid in the creation of international vital mineral supply chains by taking part in programmes like the US-led Mineral Security Partnership (MSP).
- India's position in vital mineral discovery, development, processing, and commerce can be further strengthened by bilateral agreements with nations like Australia, Canada, Japan, and South Africa.
- *Source → The Hindu*

3 – Article 99 of the United Nations Charter:

GS II

International issues:

- **What does the UN Charter's Article 99 mean?**
- The United Nations Charter contains a section known as Article 99 that functions as the organization's constitution.
- It gives the secretary-general the authority to draw the Security Council's attention to issues that they believe have the potential to jeopardise global peace and security.
- When invoked, Article 99, which is regarded as discretionary and permits the Secretary-General to draw attention to important matters, calls for the Security Council's involvement.
- This item has only been used a few times; earlier usages included the Republic of the Congo's unrest in 1960, Tunisia's 1961 protest against French military involvement, and the establishment of Bangladesh in 1971.

- **United Nations Charter:**

- The United Nations Charter is the organization's foundational text. It was signed in San Francisco on June 26, 1945, and it became official on October 24, 1945.
- Because of its distinct international nature and the authority granted by its Charter, which is regarded as an international agreement, the UN is able to act on a broad range of topics.
- Because of this, the UN Charter is a tool of international law, and all UN members are required to abide by it.
- The main court of the United Nations, the International Court of Justice (ICJ), is governed by its Statute, which is an essential appendix to the UN Charter.
- *Source → The Hindu*

4 - Explaining the Ethics of Online Gaming:

GS II

Government Policies and Interventions:

- **Internet gaming: what is it?**
- **About:**
- Playing games online allows players to interact with each other and play cooperatively even when they are not physically in the same place.
- It may be accessed on a number of devices, such as smartphones and desktops.
- **What Separates Online Gaming from Gambling?**
- Placing wagers on events with unknown outcomes with the primary goal of earning money or material things is known as gambling.
- There are many different types of gambling, including lotteries, sports betting, and casino games.
- Gambling involves a chance of losing money or valuables, unlike internet games.
- In India, games of chance are classified as gambling and are typically forbidden, whereas games of skill are typically excluded from this restriction.
- The Supreme Court used the "skill test" in *RMD Chamarbaugawala v. Union of India* to determine whether or not a particular activity qualifies as gambling.
- The court ruled that contests involving a significant amount of skill are not considered gambling activities.

- **What is the relationship between the Code and the laws governing online gaming?**
- **Act on Public Gambling, 1867:**
 - The statute mainly deals with gambling that takes place in person. Its significance does, however, extend to online gaming since it offers a framework for regulation.
- **The Information Technology Act of 2000:**
 - One important piece of legislation governing internet activity, including gambling, is the Information Technology Act of 2000. The IT Act's Section 66 addresses computer-related offences and offers a legal foundation for combating cybercrimes linked to online gaming.
 - Recognising the need for discretion in regulating activities that involve elements of chance, gambling, and betting, Sections 67, 67A, and 67B of the IT Act give authorities the authority to create legislation pertaining to online gaming.
 - This acknowledgement places gambling and betting under state supervision, in line with the constitutional division of responsibilities.
 - **Self-Governing Organisations:**
 - New regulations from the Ministry of Electronics and Information Technology allow the development of self-regulatory organisations in the online gambling sector.
- **Guidelines from the Inter-Ministerial Task Force:**
 - The suggestions made by the interministerial task force demonstrate the government's proactive stance and helped shape the regulations governing online gambling.
 - These suggestions are the result of a cooperative effort to find a middle ground between consumer protection and industry expansion.
- **Integrating Technology to Ensure Compliance:**
 - Invest in technological solutions, like reliable KYC processes and clear disclosure systems, that make it easier to implement the code's requirements.
 - To provide a fair and responsible gaming environment, use blockchain or other secure technology to improve transparency in financial transactions and winner determination.
- **Frequent Reporting and Audits:**
 - Provide a mechanism for independent organisations to conduct recurring audits to evaluate adherence to the requirements of the code.

- Require online gaming companies to post reports on a regular basis on their platforms that explain how winners are chosen, how platform fees are used, and how deposits are used. This will encourage openness and accountability.
- **Customer Input Method:**
 - Establish a strong feedback system that enables participants to voice their opinions and offer suggestions regarding the industry's compliance with the code.
 - Utilise user feedback to fix new bugs, update the code, and improve the overall gameplay experience.
- **Adoption of International Best Practices:**
 - Keep up with international best practices for ethical online gaming, and think about implementing pertinent policies that have worked well in other countries.
 - Engage in worldwide discussions to exchange perspectives and gain knowledge from the experiences of other gamers around the world.
- *Source → The Hindu*



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