

Mains Master

Why 2023 was the warmest year on record, and what happens now

Global Temperature Records (2023):

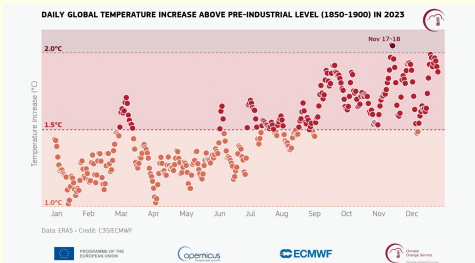
- The year 2023 marked the warmest since records began in 1850, surpassing the previous record set in 2016.
- Temperatures in 2023 likely exceeded those of any year in the last 100,000 years, according to Europe's Copernicus Climate Change Service (C3S).
- It was reported to be 1.48 degrees Celsius warmer than the average of the 1850-1900 pre-industrial level and 0.17 degrees Celsius warmer than 2016.

Extreme Weather Events (2023):

- Rising temperatures contributed to a series of extreme weather events globally, including heatwaves, floods, droughts, and wildfires.
- Canada witnessed its most destructive wildfire season on record, with over 45 million acres burned during May to September.

Temperature Records and Trends (2023):

- In 2023, every day exceeded 1 degree Celsius above the pre-industrial level, marking the first time on record.
- Approximately 50% of days were more than 1.5 degrees Celsius warmer than the 1850-1900 pre-industrial level.



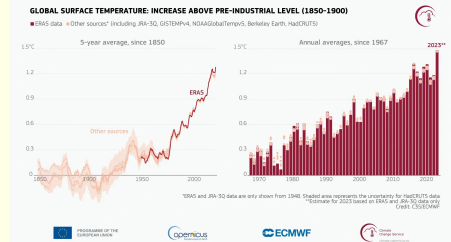
- Notably, two days in November were more than 2 degrees Celsius warmer, a phenomenon observed for the first time.

Sea Surface Temperature and Ice Extent (2023):

- From mid-March 2023, global daily average sea surface temperature reached unprecedented levels.
- Marine heatwaves occurred in various regions, affecting the Mediterranean, Gulf of Mexico, Caribbean, Indian Ocean, North Pacific, and North Atlantic.

El Niño's Influence and 2024 Predictions:

- The onset of El Niño last year played a role in the extreme warming of 2023.



- Scientists predict that 2024 could surpass 2023 in terms of temperature, with a potential to break records.
- There's a possibility of surpassing the 1.5 degrees Celsius warming threshold in the coming years, as indicated by the World Meteorological Organisation (WMO).

Call for Urgent Action:

- A long-term breach of the 1.5 degrees Celsius limit could result in more severe climate change impacts.
- Urgent implementation of measures, including greenhouse gas emission cuts, is crucial to mitigate the effects of climate change, a step that the world has failed to achieve so far.

The long-running legal dispute over the minority character of AMU

The ongoing legal battle surrounding Aligarh Muslim University (AMU)'s minority character dates back to 1967 and hinges on the interpretation of Article 30(1) of the Indian Constitution, which empowers all minorities to establish and administer educational institutions.

Key Points:

- Origins:** AMU traces its roots back to the Muhammadan Anglo-Oriental (MOA) College, established in 1875 by Sir Syed Ahmad Khan to promote education among Muslims. In 1920, MOA attained university status and became AMU.

• **Initial Dispute (1967):** The first legal challenge arose in 1967 after amendments to the AMU Act altered its administration structure. Petitioners argued that Muslims, who founded the university, should manage it.

• **Supreme Court Ruling (1967):** The Supreme Court ruled that while AMU's establishment stemmed from Muslim efforts, the 1920 Act, passed by the central government, made it a non-minority institution due to its administration structure and funding sources.

• **Protests and Amendment (1981):** Following nationwide protests, the government amended the AMU Act in 1981, explicitly declaring it a "minority institution established by the Muslims of India."

• **Reservation Policy and Fresh Challenge (2005):** In 2005, AMU implemented a 50% reservation for Muslims in postgraduate medical courses. This was challenged and struck down by the Allahabad High Court, citing the 1967 Supreme Court verdict.

• **Appeals and Current Status (2006-present):** Both the Union government and others appealed the High Court's decision. In 2016, the NDA government withdrew its appeal, expressing reservations about supporting a minority institution in a secular state. In 2019, the matter was referred to a seven-judge Bench which began hearings in January 2024.

Comprehensive Outlook:

The dispute over AMU's minority character raises complex questions about minority rights, educational autonomy, and the interpretation of constitutional provisions. It has involved various stakeholders, including the university administration, students, minorities, the government, and the judiciary.

Several factors add to the complexity:

• **Conflicting legal precedents:** The 1967 and 1981 rulings offer contrasting interpretations of AMU's minority status.

• **Political considerations:** The government's changing stance reflects the interplay of political ideologies and minority appeasement tactics.

• **Social implications:** The verdict will have implications for minority educational institutions across India and their ability to manage and reserve seats for their communities.

The upcoming seven-judge Bench hearing is likely to bring renewed focus to this long-standing dispute and its ramifications for both AMU and the broader landscape of minority rights in India.

This article paints a complex and concerning picture of India's security challenges in 2024, drawing parallels and lessons from recent global events. Here are the key points:

Global Trends:

- The Ukraine war highlights the possibility of major powers engaging in conventional warfare over contested territory, and the potential use of nuclear threats.
- The Hamas and Houthi attacks showcase the effectiveness of non-state actors using low-cost technology and surprise tactics to disrupt critical infrastructure like shipping.
- These conflicts expose weaknesses in intelligence gathering and anticipating unconventional threats.

India's Specific Challenges:

• External:

- China and Pakistan remain major threats, individually and through their collaboration.
- Spillover from Myanmar instability and a pro-China Maldives could be detrimental.
- Anti-India sentiment in Pakistan could escalate depending on its election dynamics.

• Internal:

- LIC-IS groups like those in Jammu could be emboldened by global developments.
- Electoral compulsions may compromise security decisions and resource allocation.
- Funding constraints may hinder crucial military modernization.
- Radical changes in military hierarchy (CDS appointment, Agniveer scheme) might impact combat efficiency.

Future Concerns:

- Predicting the effectiveness of traditional combat platforms in the face of evolving conflict scenarios involving non-state actors and disruptive technologies like AI.
- Adapting security strategies to address these complex and unforeseen threats.

Overall Outlook:





- India's security index in 2024 appears vulnerable due to a confluence of internal and external factors.
- The next government and the higher defense management team will need agility and foresight to navigate these challenges.





This article raises several important questions for further discussion:

- How can India improve its intelligence gathering and threat anticipation capabilities?
- What strategies can be adopted to counter non-state actors and emerging technologies?
- How can India balance electoral needs with the imperative of ensuring robust national security?
- What steps can be taken to manage the transition in the military hierarchy and maintain combat effectiveness?







By critically analyzing these questions and taking proactive measures, India can better prepare for the diverse and potentially volatile security landscape of 2024 and beyond.

Prelims Booster**India & giant radio telescope**

-  **Formal Entry and Financial Commitment:** INDIA HAS decided to formally join the Square Kilometer Array (SKA) project, an international scientific collaboration working to build the World's largest radio telescope and allocating Rs 1,250 crore for construction, marking its deeper involvement in this international scientific collaboration.
-  **India's Scientific Engagements:** India's participation in SKA adds to its involvement in other cutting-edge scientific endeavors like the LIGO network, ITER project for nuclear fusion, and contributions to the Large Hadron Collider (LHC) for particle physics.
-  **About the SKA Project:** The SKA will comprise thousands of dish antennas operating collectively, aiming to achieve an effective radio wave collecting area initially intended to cover one square kilometer. Antennas are being installed in South Africa and Australia, with enhanced capabilities projected to be significantly more potent than existing advanced radio telescopes.
-  **Benefits for India:** Full membership promises significant scientific and technological advantages, preferential access to SKA facilities, and opportunities for capacity building, training, and research expansion across various institutions and private companies.

-  **Short Selling:** An investment or trading strategy speculating on a stock's decline or other security's price, undertaken by experienced traders and investors.
-  **Speculation and Hedging:** Traders may use short selling as speculation, while investors or portfolio managers may use it as a hedge against the downside risk of a long position in the same security or a related one. Speculation carries substantial risk, while hedging involves placing an offsetting position to reduce risk exposure.
-  **Process:** In short selling, a position is opened by borrowing shares of a stock, bond, or other asset that the investor believes will decrease in value. The borrowed shares are sold to buyers, with the trader betting that the price will continue to decline before the borrowed shares must be returned.
-  **Risk:** The risk of loss on a short sale is theoretically unlimited since the price of any asset can climb to infinity.

A look at Project Tiger, 50 years on

-  **Project Tiger and Tiger Reserves:** Launched in 1973, Project Tiger aimed to conserve tigers, leading to the establishment of 54 reserves in 18 states, encompassing 78,135.956 sq. km. The initiative led to conflicts between forest-dwellers and conservation efforts.
-  **Tiger Census Evolution:** Tiger census methods evolved from unreliable pug-mark techniques to more accurate camera-trap methods, estimating India's tiger population at 3,167-3,925, claiming to host three-quarters of the world's tiger population.
-  **Impact of Wildlife Protection Act:** The enactment of the Wildlife (Protection) Act in 1972 led to the creation of National Parks and Wildlife Sanctuaries, impacting forest-dwellers' rights, causing conflicts, and displacing generations coexisting with tigers.
-  **Tiger Task Force and NTCA:** Prime Minister Manmohan Singh appointed a 'Tiger Task Force' in 2005, leading to amendments in 2006 that established the National Tiger Conservation Authority (NTCA) and a tiger conservation plan, addressing the need to safeguard both tigers and the forests they inhabit.
-  **Forest Rights Act and Conflict:** The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA) recognized customary forest rights and introduced the 'Critical Wildlife Habitat' (CWH) concept. However, hurried notifications and the lack of inclusive consultation affected forest-dwellers' lives and led to a conflict-ridden landscape.
-  **Balanced Approach:** The article emphasizes the need for informed consent, relocation, and rehabilitation provisions for affected forest-dwellers, highlighting the discrepancies between existing laws and their implementation, urging a balanced approach aligning tiger conservation with the rights and livelihoods of forest-dwelling communities.

