



6 June, 2024

QS World University Ranking 2025

Context: The most recent QS World University Rankings show notable advancements in the rankings of several Indian universities.

➤ Global Top Institutions:

- Massachusetts Institute of Technology (MIT) retained its position as the top institute globally for the 13th consecutive year.
- Imperial College London and Harvard University tied for third place.
- The University of Cambridge fell to fifth place from second, while Stanford University dropped from fifth to sixth.

➤ Top Indian Universities:

- IIT Bombay emerged as the top Indian institute, climbing 31 ranks from the previous year.
- IIT Kharagpur achieved the fourth position among Indian institutes, jumping from 271st to 222nd in the global rankings.
- IIT Madras made an impressive leap from 285th to 227th, improving by 58 ranks.
- The University of Delhi (DU) rose 79 ranks from 407th in 2024 to 328th, securing the seventh spot among Indian universities.

➤ India's Performance

- 61% of Indian universities have improved their rankings, while 24% have maintained their positions, and 9% have dropped in rank.
- Three universities are new entries to the rankings.
- The University of Delhi has made the most significant improvement nationally, climbing 79 places to reach the 328th position.
- Among the 11 Institutes of Eminence featured in the rankings, eight have risen, one remains stable, and one has dropped.
- India boasts 46 universities in this edition of the rankings, making it the seventh most represented globally and the third in Asia.
- India has one more university within the top 150 rankings, IIT Delhi (150th), and two more entries in the world's top 400 with the University of Delhi (328th) and Anna University (383rd) making their debut.
- India ranks second in Asia for percentage of improved rank positions, with 61%, surpassed only by mainland China with 69%.
- India excels in research and international collaboration, with a score of 37.8 in the Citations per Faculty indicator.
- Anna University leads in this category with a perfect score (100), followed by the Indian Institute of Science (99.9) and IIT Guwahati (97.6).

➤ Challenges and Opportunities for India:

- While India excels in research, challenges remain in internationalization and faculty-student ratios.
- The country lags in indicators such as International Faculty Ratio and International Student Ratio.
- India's Faculty/Student ratio score of 16.2 is well below the global average of 28.1.

➤ Research and Collaboration:

- India has made significant strides in research and international collaboration, surpassing the global average.
- With a score of 37.8, India exceeds the global average of 23.5, securing the second-highest position in Asia for systems with more than 10 ranked universities.
- Anna University leads in this category with a perfect score, followed closely by the Indian Institute of Science (IISc) and IIT Guwahati.

Special Category Status

Context: The fractured mandate in the General Elections may reignite demands for special category status for Bihar and Andhra Pradesh by Nitish Kumar's JD(U) and Chandrababu Naidu's TDP.

➤ Special Category Status:

- Initially granted in 1969 by the Fifth Finance Commission to Jammu and Kashmir (now union territories), Assam, and Nagaland.
- Justification based on social, economic, and geographic backwardness.
- Criteria include hilly terrain, low per capita income, tribal populations, and economic backwardness.
- Emerged due to constitutional changes, not explicitly stated in the Constitution.
- Administered by the central government today.

➤ Historical Perspective:

- Introduced to provide central assistance and tax benefits to underprivileged states.
- Initially, Assam, Nagaland, and Jammu and Kashmir received special status.
- Over the years, additional states were added, totaling eleven by 2001.
- Jammu and Kashmir's special status under Article 370 revoked in 2019.

➤ Criteria for Special Category Status:

- Resource scarcity
- Low per capita income
- Non-viable state finances
- Economic and structural underdevelopment
- Existence of sizable tribal population
- Hilly and challenging terrain
- Strategic border regions
- Sparsely populated areas

➤ States with Special Category Status:

- Presently, Assam, Nagaland, Himachal Pradesh, Manipur, Meghalaya, Sikkim, Tripura, Arunachal Pradesh, Mizoram, Uttarakhand, and Telangana.
- Telangana granted status post its separation from Andhra Pradesh.

➤ Benefits of Special Category Status:

- Higher Central Assistance: Special category states receive 90% of state expenditures for programs and aid, with 10% as a zero-interest loan.

Face to Face Centres





6 June, 2024

- **Favorable Loan-to-Grant Ratio:** They benefit from a 70% loan and 30% grant ratio, unlike general category states.
- **Priority Access to Funding:** They receive priority access to government funding for developmental projects.
- **Tax Incentives:** Enjoy tax reductions to attract businesses and investments.
- **Increased Share of Federal Budget:** They receive 30% of the federal budget, ensuring substantial resources for development.
- **Debt Relief Programs:** Access to debt reduction and swap programs eases financial burdens.
- **Tax Exemption:** Exempted from various taxes to stimulate investment.
- **Preference in Funds Allocation:** Given preference in central funds allocation for development projects.
- **Fund Rollover Option:** Flexibility to carry forward unused funds for future use.
- **Encouragement for Welfare Programs:** More funds encourage welfare-oriented initiatives for overall development.

➤ **Concerns Related to Special Category Status:**

- Potential dilution of benefits with new states seeking special status.
- Perceived economic ineffectiveness due to minimal benefits under the current system.

State of the Ocean Report 2024

Context: The UNESCO State of the Ocean Report underscores significant gaps in research and data concerning the increasing warming of the oceans.

➤ **Insufficient Understanding of Ocean Dynamics:**

- Despite the crucial role of oceans in climate regulation, global understanding remains insufficient to address various ocean crises and validate carbon removal technologies.
- Observations and research are lacking, leading to a deficiency in comprehensive and aggregated ocean data, as highlighted in the UNESCO State of Ocean Report 2024.

➤ **Accelerated Ocean Warming:**

- The upper 2,000 meters (m) of oceans warmed at a rate of 0.32 ± 0.03 watt per square meter (W/m^2) from 1960 through 2023.
- The rate of ocean warming has doubled in the past two decades, reaching 0.66 ± 0.10 W/m^2 .
- Regular data monitoring is essential to understand the evolving impacts of ocean warming and support efforts for healthy and resilient oceans.

➤ **Deoxygenation Concerns:**

- About 90% of the Earth energy imbalance (EEI) is being absorbed by oceans, resulting in a cumulative

increase in ocean heat content (OHC) in the upper 2,000 m of the water column.

- Scientists are concerned that increased OHC may lead to deoxygenation, which can adversely affect marine ecosystems and coastal communities.
- Long-term data sets are needed to determine if deoxygenation is accelerating in response to rising OHC levels.

➤ **Ocean Acidification Crisis:**

- The open ocean has been experiencing a continuous decline in pH levels, with an average global surface ocean pH decline of 0.017-0.027 pH units per decade since the late 1980s.
- In 2024, 638 stations recorded ocean pH levels, but the current coverage is inadequate, hindering our understanding of ocean acidification trends.

➤ **Rising Sea Levels:**

- The global mean sea level from 1993 to 2023 increased at a rate of 3.4 ± 0.3 millimeters per year (mm/yr).
- Improved space-based and in situ observing systems are necessary to monitor sea level rise effectively.

➤ **Advancements in Marine Carbon Dioxide Removal (mCDR) Technologies:**

- Since 2020, there has been a surge of interest in mCDR methods, with significant funding announced by the United States and the European Union in 2023.
- There are still many unknowns regarding the potential and impacts of mCDR technologies, highlighting the need for further research and collaborative efforts.

➤ **Coastal Blue Carbon Habitat Restoration:**

- Restoration and expansion of coastal blue carbon habitats show potential for increasing carbon sequestration, but questions remain about their effectiveness.
- Continued research and monitoring are essential to evaluate the efficacy of coastal blue carbon habitat restoration initiatives.

2023 OHC (0–2,000 m) anomaly relative to 1981–2010 baseline (IAP/CAS)

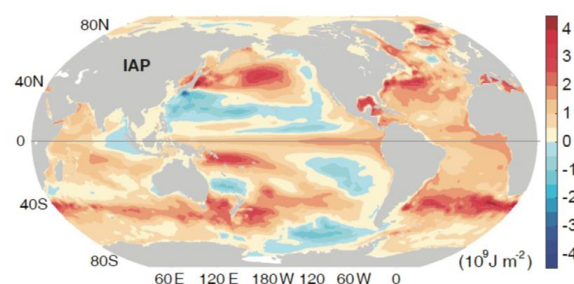


Figure 7 The annual OHC anomaly in 2023 relative to a 1981–2010 baseline for IAP/CAS data; units: 10^9 $J\ m^{-2}$. Source: Cheng et al. (2024b).

Face to Face Centres



6 June, 2024

NEWS IN BETWEEN THE LINES

Plastic Waste Management and Recycling Plant



Recently, The Trishakti Corps of the Indian Army celebrated World Environment Day with "Go Green Initiatives" in North Bengal and Sikkim, including inaugurating a plastic waste management and Recycling plant in Changgu, East Sikkim.

About:

- This project is part of the **Indian Army's Sadbhavana initiative**, aiming to enhance **waste management** and **promote sustainability**.
- The plant aims to improve waste management practices, promote sustainability by transforming plastic waste into usable materials and benefit the local economy.
- The **plant will convert plastic waste** into materials that can be used for **road construction** and **brick-making**.
- This process **helps reduce pollution** and the **burden on landfills**.
- The initiative **provides employment opportunities for local villagers**, contributing to economic resilience.
- The Indian Army is committed to environmental sustainability through various efforts, including solid waste management and the "**Apashisht Mukh Sainya Abhiyan**" to eliminate army **landfills by 2027**.

Commission for Air Quality Management



Recently, for World Environment Day 2024, the Commission for Air Quality Management in Delhi NCR organized an awareness campaign for employees in the State Trading Corporation building.

About the Commission for Air Quality Management:

- The Commission for Air Quality Management (CAQM) is a **statutory body** established by the Government of India.
- The commission has the authority to **formulate policies, issue directions** and take measures to **mitigate air pollution** and ensure compliance with air quality standards.
- It was **established by an ordinance promulgated** by the President of India in **October 2020**, which was later **replaced by an act of Parliament in August 2021**.
- The commission is tasked with **addressing air pollution** and **coordinating efforts** to improve air quality in the **National Capital Region (NCR)** and **adjoining areas**.
- It has jurisdiction over the National Capital Region (NCR) and its adjoining areas in the states of **Haryana, Punjab, Rajasthan** and **Uttar Pradesh**.
- The composition includes a **Chairperson, five ex officio members** from the states' environmental departments, **three full-time technical members, three members from non-government organizations** and **technical representatives from CPCB, ISRO, and NITI Aayog**.
- The chairperson will **hold the post for three years** or until s/he attains the **age of 70 years**.

UNESCO



Recently, the Ministry of Electronics and Information Technology in collaboration with the United Nations Education, Scientific and Cultural Organization (UNESCO) South Asia Regional Office hosted a Workshop on Safe, Trusted and Ethical Artificial Intelligence in New Delhi.

About UNESCO:

- UNESCO (United Nations Educational, Scientific and Cultural Organization), is a **specialized agency of the United Nations**.
- It was **established on 16th November 1945** with the aim of **promoting peace** and security through international cooperation in **education, science, culture** and **communication**.
- The **first session** of the General Conference of UNESCO was held in Paris during **November-December of 1946**.
- It **administers the World Heritage Programme**, which identifies and **protects cultural and natural heritage sites** of outstanding universal value.
- UNESCO has **193 Members** and **11 Associate Members** (as of April 2020) and is run by the General Conference and Executive Board.
- Some UNESCO members aren't part of the UN, like **Cook Islands, Niue, and Palestine**, while some UN members, like **Israel, Liechtenstein** and the **United States**, aren't UNESCO members.
- Its headquarter is located in **Paris, France**.

Face to Face Centres





6 June, 2024

Place in News

Balochistan

Recently, at least 11 people lost their lives in coal mine due to inhaling methane gas inside a coal mine in the Sanjdi area in Pakistan's Balochistan.

Balochistan (Capital: Quetta)

Location: Balochistan is a province in Pakistan, located in the southwestern region of the country.

Boundaries: Balochistan shares its borders with Iran (West), Afghanistan (North) and the Arabian Sea (South).

Physical Features:

- The highest point in Balochistan is **Zarghoon Mountain**, also known as **Zarghoon Ghar**, located near the provincial capital, Quetta.
- Balochistan is home to several notable mountain ranges, including the **Sulaiman Range**, **Kirthar Range** and **Toba Kakar Range**.
- The major rivers in the province include the **Zhob River**, **Hingol River** and **Dasht River**.
- Balochistan is rich in natural resources such as **natural gas**, **coal**, **copper**, **gold** and other minerals.
- The **Gwadar Port**, located in Balochistan, is a key project under the China-Pakistan Economic Corridor (CPEC) and serves as a major hub for trade and commerce.



POINTS TO PONDER

- Which astronaut, along with Butch Wilmore, of Indian origin, recently became one of the first to fly to space aboard the Boeing Starliner in its inaugural crewed mission? – **Sunita Williams**
- Which Indian state government recently announced plans to construct an 890-metre-long double-lane tunnel under the Jakhu Hill in Shimla to ease traffic congestion? – **Himachal Pradesh**
- Which country recently announced its decision to allow non-citizen residents from the Five Eyes Alliance to join its armed forces? – **Australia**
- A research group recently made a significant finding regarding which type of radiation, named after the physicist Stephen Hawking? – **Hawking radiation**
- A recent discovery highlighted the ability of a marine organism to break down plastic polyethylene (PE) in the ocean. What is the name of this marine fungus? – **Parengyodontium album**

Face to Face Centres

