

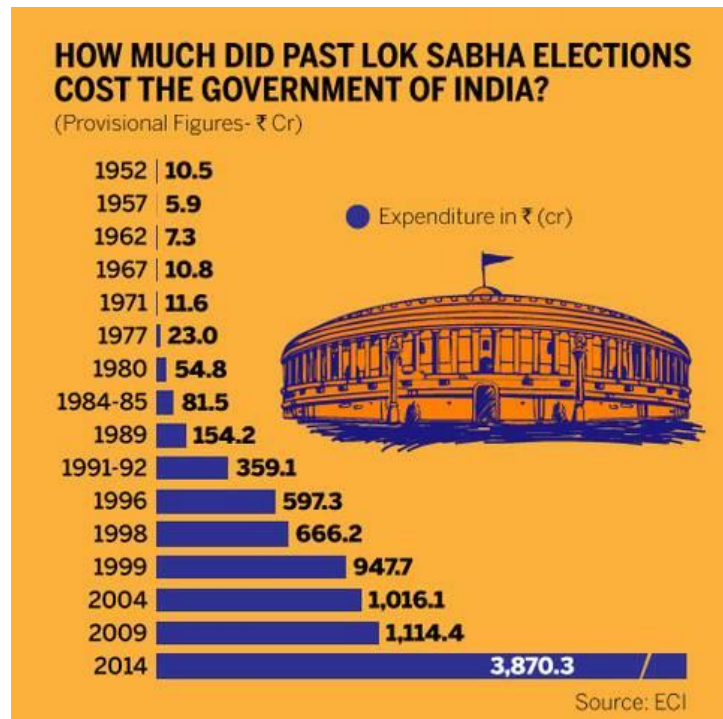
December - 17

TNPSC BITS

- ❖ Prashant Agrawal, President of Narayan Seva Sansthan, was honoured with the prestigious National Award for 'Best Personality- Empowerment of Differently-abled' by President of India.
- ❖ Mercom Capital's recent rankings was placing Adani Green Energy in second rank globally among the world's large-scale solar PV developers.
- ❖ Veteran actor Kabir Bedi was awarded the 'Order of Merit', the prestigious civilian honour bestowed by Italy.
- ❖ The 33rd Vyas Samman 2023 will be conferred to notable Hindi-Writer Pushpa Bharati.
 - It is given annually to an outstanding work of Hindi literature by an Indian citizen published in the last 10 years.

NATIONAL

Additional Funds for 2024 Lok Sabha Elections



- ❖ The government has sought Parliament's approval to spend an additional Rs 3,147.92 crore on the exercise and electronic voting machines (EVMs).

- ❖ It is taking the total proposed expenditure on the polls to over Rs 5,000 crore.
- ❖ Rs 3,147.92 crore was proposed for the Law Ministry to fund election-related expenses.
- ❖ Rs 73.67 crore is for the Election Commission for administrative expenses.
- ❖ Rs 36.20 is crore for “testing and maintenance of EVMs procured for ensuing Lok Sabha elections, 2024”.
- ❖ Rs 575.07 is crore for “procurement of EVMs for conducting Lok Sabha elections, 2024.
- ❖ The expenditure on the 2014, 2009 and 2004 elections had been Rs 3,870.34 crore, Rs 1,114.38 crore and Rs 1,016.08 crore respectively.

Adoption of Emission Control Technology in Coal plants

Classification of coal TPPs under three categories			
Category	Plants in Delhi-NCR	Parameters other than SO ₂ norms	SO ₂ emissions
A: Within 10 km radius of the National Capital Region of cities with million plus population	Dadri TPP, Indira Gandhi TPP, Mahatma Gandhi TPP and Panipat TPP	December 31, 2022	December 31, 2024
B: Within 10 km radius of critically polluted areas or non-attainment cities	-	December 31, 2023	December 31, 2025
C: Remaining plants	Harduaganj Thermal Power Station, Guru Gobind Singh TPP, Guru Hargobind TPP, Talwandi Sabo TPP, Rajiv Gandhi TPP, Yamunanagar TPP, Rajpura TPP	December 31, 2024	December 31, 2026

- ❖ Less than eight percent of India’s coal-based power plants have adopted the recommended technology to control Sulphur dioxide emissions.
- ❖ Flue Gas Desulfurization (FGD) units is crucial for reducing SO₂ emissions.
- ❖ Only 16.5 Gigawatts (GW) of coal plants in India have installed FGDs and Circulating Fluidized Bed Combustion (CFBC) boilers.
- ❖ 92 percent of the country’s coal power plants operate without FGDs.

- ❖ India is the world's largest emitter of Sulphur dioxide.

INTERNATIONAL

UN Peacekeeping Mission in Mali

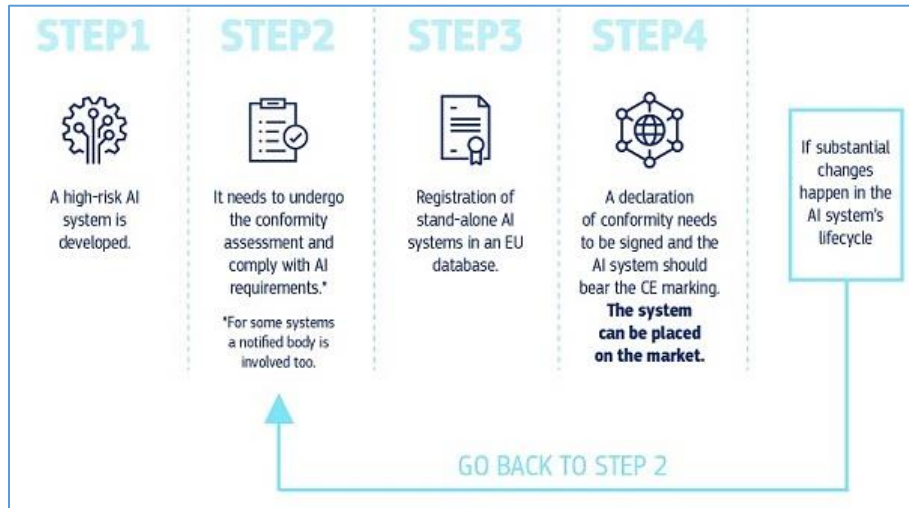
- ❖ The United Nations mission in Mali has officially ended a 10-year deployment in the country.
- ❖ The mission is known as the UN Multidimensional Integrated Stabilization Mission in Mali (MINUSMA).
- ❖ The mission had maintained about 15,000 soldiers and police in Mali for the past decade.
- ❖ Landlocked Mali has struggled to contain an Islamic extremist insurgency since 2012.



Framework to Regulate AI

- ❖ The Economic Advisory Council to the Prime Minister (EAC-PM) has released a paper "A Complex Adaptive System Framework to Regulate AI".
- ❖ Also, the European Union (EU) has reached a historic provisional deal on the world's first comprehensive laws to regulate artificial intelligence (AI).

- ❖ The deal includes strong restrictions on facial recognition technology, and on using AI to manipulate human behaviour, alongside provisions for tough penalties for companies breaking the rules.



SCIENCE AND TECHNOLOGY

Polarized emissions from an Extragalactic Black hole



IIT Guwahati and ISRO Researchers Uncover X-Ray Polarization in Extragalactic Black Hole Source



Prof. Santabrata Das
IIT Guwahati



Dr. Anuj Nand
URSC, ISRO
Bengaluru



Seshadri Majumder
IIT Guwahati



Ankur Kushwaha
URSC, ISRO
Bengaluru

- ❖ IIT Guwahati and ISRO researchers have uncovered X-ray polarisation in extragalactic black hole source.



- ❖ It's for the first time that the researchers have detected polarised emissions from a black hole source that exists beyond the Milky Way through a technique called X-Ray polarimetry.
- ❖ X-Ray polarisation reveals the pathway to decipher the accreting nature of black hole sources.
- ❖ This is a unique observational technique to identify where radiation comes from near black holes.
- ❖ LMC X-3 emits X-rays that are 10,000 times more powerful than those from the Sun.
- ❖ When these X-rays interact with the material around black holes, specifically when they scatter, it changes the polarisation characteristics, i.e. degree and angle.
- ❖ The Large Magellanic Cloud X-3 (LMC X3) is a binary star system consisting of a black hole and a “normal” star that is much hotter, bigger, and more massive than the Sun.
- ❖ Located in a satellite galaxy of the Milky Way, around 200,000 light years away from Earth.

REPORTS AND INDICES

Africa Regional Overview of Food Security and Nutrition

Prevalence of undernourishment (percent)							
	2000	2010	2014	2019	2020	2021	2022
World	12.7	8.6	7.7	7.9	8.9	9.3	9.2
Africa	22.4	15.1	15.3	17.0	18.7	19.4	19.7
Central Africa	35.6	22.5	21.9	24.8	27.6	28.5	29.1
Eastern Africa	38.4	23.8	23.9	26.7	28.1	28.4	28.5
Northern Africa	6.3	4.7	5.3	5.8	6.0	6.9	7.5
Southern Africa	5.7	7.2	8.2	8.3	9.5	10.0	11.1
Western Africa	15.0	10.8	10.6	11.0	13.7	14.5	14.6

- ❖ Nearly 282 million people in Africa, constituting about 20% of the population, experienced undernourishment in 2022.
- ❖ Eastern Africa tops the list with 134.6 million undernourished individuals, followed by Western Africa with 62.8 million, Central Africa with 57 million, Northern Africa with 19.5 million, and Southern Africa with 7.6 million.
- ❖ Around 868 million people in Africa were moderately or severely food-insecure, with 342 million severely food-insecure individuals.

- ❖ 77.5% of Africa's population, approximately one billion individuals, could not afford a healthy diet in 2021.
- ❖ This contrasts sharply with the global rate of 42%.

STATES

Breeding centre in Banni grassland



- Spread over 3,000 sq km, Banni, Asia's largest grassland, is a reserve forest
- Around 48 villages, populated by around 8,000 families, are part of the Banni grassland
- Around 1 lakh animals graze on the grassland
- Out of the 8,760 hectares of encroached land in Banni, 540 hectares land cleared so far

HOME TO RICH FLORA AND FAUNA: The Banni area consists of two ecosystems — wetlands and grasslands — in juxtaposition. Banni falls under the Dichanthium-Cenchrus Lasiurus type of grass cover. These grasslands are home to a rich array of flora and fauna including 192 species of plants, 262 species of birds, several species of mammals, reptiles and amphibians. Traditionally, Banni grasslands were managed following a system of rotational grazing.

- ❖ Gujarat had prepared a project to set up a breeding centre of cheetahs in Banni grassland.
- ❖ Spread over 2,500 sq km in Gujarat's Kutch district, Banni is among the finest and largest grasslands in India.
- ❖ A protected forest is known for the coveted Banni breed of buffaloes.
- ❖ Besides having 40 species of grass and 99 species of flowering plants, It also supports 273 bird species.

SPORTS

ITF World Champion

- ❖ Novak Djokovic and Aryna Sabalenka were named the ITF World Champions following their incredible 2023 tennis seasons.
- ❖ Djokovic, with an 8th ITF World Champion crown, the 24-time Major winner also broke the record for most ITF World Champion titles.

- ❖ Iga Swiatek was declared the WTA Player of the Year for 2023.
- ❖ Swiatek became only the sixth player to win the award in consecutive years since it was introduced in 1977.
- ❖ Serena Williams was the last to secure the accolade for multiple years on the trot, from 2012 to 2015.



IMPORTANT DAYS

International Day of Neutrality 2023 - December 12



- ❖ This day is raising awareness levels in public about the value of neutrality in international relations.

- ❖ Neutrality is defined as a legal status which arises when the state decides not to take part in any armed conflict.
- ❖ Article 2 of the UN charter also permits the member states to settle their disputes by peaceful means.
- ❖ UN General Assembly declared this day on February 2, 2017.

National Energy Conservation Day 2023 - December 14



- ❖ This day aims to spread the message on the importance of conserving energy and to showcase the achievements of the nation in energy efficiency and conservation.
- ❖ On December 14, 1991, the National Energy Conservation Awards were given to the winners for the first time.
- ❖ The Bureau of Energy Efficiency is a statutory body plays a key role in framing policies and strategies to reduce energy use.

MISCELLANEOUS

Dictionaries' words of the year 2023

- ❖ "Hallucinate" is Dictionary.com's word of the year.
- ❖ Oxford English Dictionary has unveiled its 2023 Word of the Year: 'Rizz'.
- ❖ Collins English Dictionary, went a step further and announced "AI" as its Word of the Year 2023.
- ❖ The Cambridge Dictionary announced "hallucinate" as its Word of the Year 2023.

- ❖ Merriam-Webster Dictionary has announced "authentic" as the Word of the Year for 2023.

The Cambridge Dictionary
Word of the Year 2023 is...

hallucinate
verb

When an artificial intelligence hallucinates,
it produces false information.

