



DAILY CURRENT AFFAIRS

Time: 45 min

Date: 02-12-2023

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GENDER-RELATED KILLINGS OF WOMEN AND GIRLS (FEMICIDE/FEMINICIDE)

In News: The United Nations Office on Drugs and Crime (UNODC) and UN Women has released the global research brief on the gender-related killings of women and girls.

About

- Gender-related killings of women and girls can be defined as **intentional killings committed on the grounds of gender-related factors**.
- **Factors:** These can include the ideology of men's entitlement and privilege over women, social norms regarding masculinity, and the need to assert male control or power, enforce gender roles, or prevent, discourage or punish what is considered to be unacceptable female behaviour.

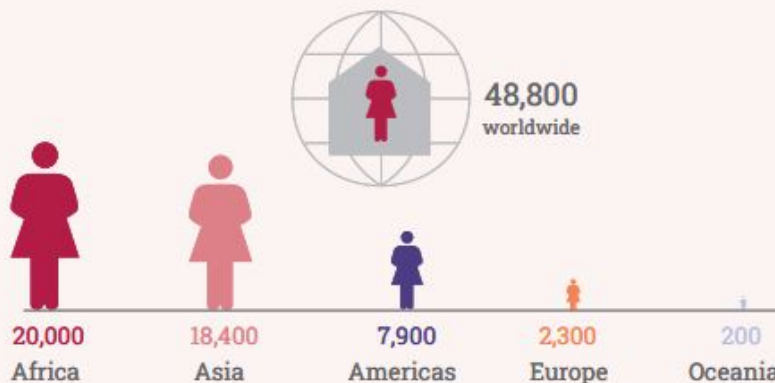
Major Findings

- **Trends:** Globally, nearly 89,000 women and girls were killed intentionally in 2022, the highest yearly number recorded in the past two decades.
 - While the overall number of homicides globally has begun to fall in 2022, the number of female homicides are not decreasing.
- **Family-related homicide:** In 2022, around 48,800 women and girls worldwide were killed by their intimate partners or other family members.
 - Females represent approximately 53% of all victims of killings in the home and 66% of all victims of intimate partner killings. Whereas, only 12% of male homicide victims were killed by persons known to them.
- **Regional Estimate:** With an estimated 20,000 victims in 2022, Africa has – for the first time since 2013, surpassed Asia as the region with the highest number of victims in absolute terms.

Global estimates

Women and girls in all regions are affected by gender-based killings. In 2022, Africa was the region with the largest absolute number of killings, and also with the highest level of violence relative to the size of its female population.

Total female intimate partner/family-related homicides
2022



- **Indian Scenario:** There has been a small decline in gender-based killings in India over the past decade.
 - The killing of women due to dowry-related reasons, accusations of witchcraft and other gender-related factors still persists.

Number of gender-related violent deaths in India (2016-2021)



UN Recommendations for Action Against Femicide

- Promote changes in social norms and attitudes harmful to women through early and continuous educational programmes and awareness-raising.
- Promote women's safety audits in order to create a safer urban environment, for example, improved street and underpass lighting and more frequent police patrols.
- Promote strategies and measures by relevant authorities and civil society to encourage the reporting and early detection of violence that may result in gender-related killing of women.
- Ensure that women have equal protection under the law and equal access to justice.
- Ensure that victims are provided with prompt and accurate information regarding their rights.
- Provide adequate human and financial resources to guarantee the rights of victims.

Violence Against Women in India

- Violence against women in India is a complex and multifaceted issue that has deep historical, cultural, and socio-economic roots. Some key aspects of violence against women in India include:
 - **Domestic Violence:** Domestic violence is prevalent across different socio-economic backgrounds in India. It includes physical, emotional, and economic abuse within the confines of the home.
 - **Sexual Violence:** Incidents such as rape, molestation, and harassment occur in public spaces, workplaces, and within homes.
 - **Female Infanticide and Foeticide:** Female infanticide (killing of female infants) and foeticide (aborting female fetuses) remain issues, driven by cultural preferences for male children and a skewed sex ratio.

- **Dowry System:** The dowry system, despite being illegal, is still prevalent in many parts of India.
 - Dowry-related violence includes harassment, physical abuse, and even murder if the demands for dowry are not met.
- **Honor Killings:** Families may resort to violence, including murder, to uphold their perceived honor, especially in cases of inter-caste or inter-religious relationships.
- **Cultural Norms and Gender Inequality:** Deep-seated patriarchal norms and gender inequality contribute to an environment where violence against women, including femicide, is tolerated or overlooked.

Steps Taken by Government of India Against Femicide

- **Protection of Women from Domestic Violence Act, 2005:** This legislation aims to protect women from domestic violence and provides legal recourse for victims. It covers physical, emotional, verbal, economic, and sexual abuse within the home.
- **Criminal Law (Amendment) Act, 2013:** This amendment expanded the definition of sexual offenses, increased penalties for certain crimes, and introduced new offenses such as acid attacks. It was enacted in response to the Nirbhaya case, a brutal gang rape in Delhi in 2012.
- **Beti Bachao, Beti Padhao:** Launched in 2015, this national campaign focuses on improving the declining child sex ratio, preventing female infanticide, and promoting the education and empowerment of girls.
- **Fast-Track Courts:** Special fast-track courts have been established to expedite the trial of cases related to violence against women, including femicide.
- **One-Stop Centers (OSCs):** These centers provide integrated support such as medical, legal, and counseling services to survivors.
- **Women Helpline and Mobile Apps:** The Ministry of Women and Child Development operates a national helpline (181) to assist women in distress.
 - Additionally, mobile apps like 'Panic Button' have been launched to enhance the safety of women by enabling them to send emergency alerts.

91ST INTERPOL GENERAL ASSEMBLY

News: In the 91st Interpol General Assembly, India has urged other member countries to deny safe havens to crime, criminals, and the proceeds of crime.

Key Highlights

- During the assembly, discussions were held for a concerted action to **combat organized crime**, terrorism, drug trafficking, money laundering, online radicalisation, cyber enabled financial crimes etc.
- To tackle organized crime the **Vienna Declaration** was issued with five priority actions:
 - Tackling transnational organized crime must become a global national security priority,
 - Building greater cooperation to tackle criminal activity,
 - Increased information sharing,
 - Empowering frontline police,
 - Greater investment in innovation and technology.
- India also supported the adoption of **Interpol's Vision 2030** and the creation of the **Interpol Future Council**.

What is Interpol?

- **Interpol** is an intergovernmental organization, which stands for International Criminal Police Organization.

- **Background:** It was founded in **1923** at the International Police Congress in Vienna as the **International Criminal Police Commission (ICPC)**. In 1956, the ICPC adopted the name Interpol.
- **Members:** It has **196 member** countries, including India.
- **Headquarters:** Lyon, France
- **Mandate:** It connects police around the world – both technically and in person. It is the world's largest and only organization with the mandate and technical infrastructure to share police information globally.

Governance of Interpol









- **The General Secretariat** coordinates the day-to-day activities to fight a range of crimes. Headed by the **Secretary General**, it is staffed by both **police and civilians**.
- **The General Assembly** is the governing body and it brings all countries together once a year to make decisions.
- In each country, an Interpol **National Central Bureau (NCB)** provides the central point of contact for the General Secretariat and other NCBs.
 - An NCB is run by national police officials and usually sits in the government ministry responsible for policing.

India's record

- **India joined** the Interpol in **1949**.
- **The CBI (Central Bureau of Investigation)** is the National Central Bureau for Interpol in India and coordinates all international police cooperation requirements of Indian law enforcement agencies via Interpol channels.
- India hosted the 90th Interpol General Assembly in Delhi in 2022. **Interpol's first global crime trend report** was released during the Delhi Session.

Interpol Notices

- Interpol Notices are **international requests** for cooperation or alerts allowing police in member countries to share critical crime-related information.
- Notices are **published by the General Secretariat** at the request of a National Central Bureau and are made available to all our member countries.

TYPES OF INTERPOL NOTICES	
 RED NOTICE: To seek the location and arrest of wanted persons with a view to extradition or similar lawful action.	 YELLOW NOTICE: To help locate missing persons, often minors, or to help identify persons who are unable to identify themselves.
 BLUE NOTICE: To collect additional information about a person's identity, location or activities in relation to a crime.	 BLACK NOTICE: To seek information on unidentified bodies.
 GREEN NOTICE: To provide warnings and intelligence about persons who have committed criminal offences and are likely to repeat these crimes in other countries.	 ORANGE NOTICE: To warn of an event, a person, an object or a process representing a serious and imminent threat to public safety.
 INTERPOL-UN SECURITY COUNCIL SPECIAL NOTICE: Issued for groups and individuals who are the targets of UN Security Council sanctions committees.	 PURPLE NOTICE: To seek or provide information on modus operandi, objects, devices and concealment methods used by criminals.

Source: www.interpol.int

NATION GRAPHICS

Source: **IE**

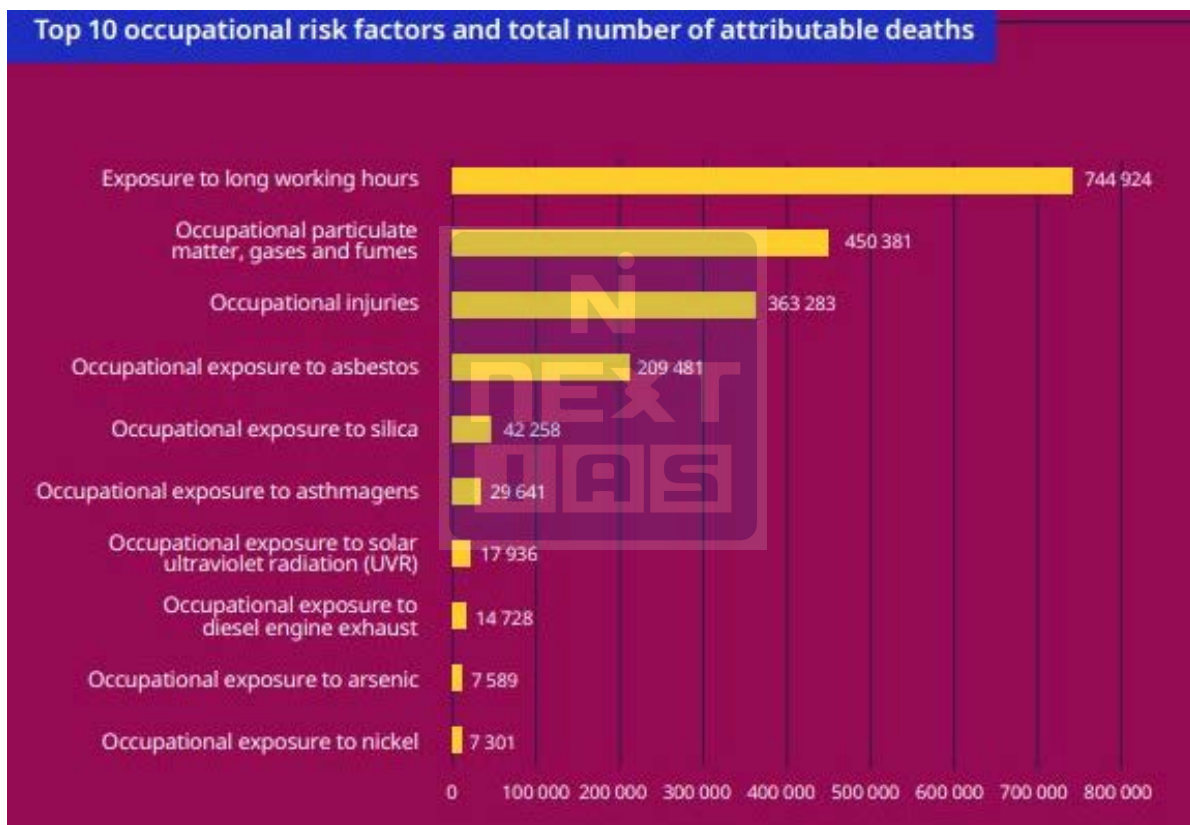
ILO REPORT ON WORKING ENVIRONMENTS

In News: The **ILO (International Labour Organization)** has released a report titled '**A Call for Safer and Healthier Working Environments**'.

The report was discussed at the **23rd World Congress on Safety and Health at Work**, one of the largest international conferences on this subject.

Major Findings

- **Global Burden of Work Related Injuries:** Nearly 30 lakh workers die every year globally due to work-related accidents and diseases.
 - More than 63% of these deaths are reported from the Asia-Pacific region.
- **Factors Responsible:** Exposure to long working hours (55 hours or more per week) was the biggest killer, followed by exposure to occupational particulate matter, gases, and fumes and occupational injuries.



- **Global Burden of Work Related Diseases:** The diseases that caused most work-related deaths were circulatory diseases, malignant neoplasms and respiratory diseases.
 - The attributable fraction of work-related deaths is estimated to be highest in Africa, followed by Asia and the Pacific and Oceania.
 - The rate of trachea, bronchus, and lung cancers attributable to occupational exposure to chromium doubled between 2000 and 2016.
 - The rate of non-melanoma skin cancer increased by over 37% between 2000 and 2020.
- **Hazardous Sectors:** Mining and quarrying, construction, and utilities sectors were the three most hazardous sectors globally.
 - Each year, 200,000 fatal injuries occur in these sectors, representing 60 per cent of all fatal occupational injuries.
- **Positive Trends:** Deaths due to exposure to asthmagens and particulate matter, gases, and fumes decreased by over 20%

- **ILO Conventions:** So far 79 out of the 187 member countries have ratified the ILO Occupational Safety and Health Convention, while 62 countries have ratified the Promotional Framework for Occupational Safety and Health Convention, 2006. India has not ratified both the conventions.
 - In the wake of the Uttarkashi tunnel incident, the Central Trade Unions had urged the Union government to ratify the conventions.
- **Recommendations:** The five categories of Fundamental Principles and Rights at Work:
 - Freedom of association and the effective recognition of the right to collective bargaining;
 - Elimination of all forms of forced or compulsory labour;
 - Abolition of child labour;
 - Elimination of discrimination in respect of employment and occupation;
 - A safe and healthy working environment.

About International Labour Organization

- It is an United Nations Agency established in **1919** as part of the Treaty of Versailles that ended World War I, and it became the **first specialized agency of the UN in 1946**.
- It has **187 Member states**.
- It sets labour standards, develops policies and devises programmes promoting decent work for all women and men.
- It is the only tripartite U.N. agency that brings together governments, employers and workers.
- It is headquartered in **Geneva, Switzerland**.
- **Major Reports:** World Employment and Social Outlook (WESO), Global Wage Report, World Social Protection Report, World Employment and Social Outlook for Youth, World of Work Report.

Source: **TH**

WARMER WINTER IN INDIA

Context: The India Meteorological Department (IMD) has forecast a warm winter season across the country, saying minimum temperature could remain higher than normal.

More about the news:

- The sudden spike in warming in 2023 comes from a combination of factors – climate change, a strong **El Nino**, sea ice failing to reform after winter, reduced aerosol pollution and increased solar activity.
 - In September, the world passed 1.5°C of warming, and two months later, hit 2°C of warming. World is now 2°C hotter than it was in the pre-industrial period.
 - As per the recent observations by the IMD, the region remained 2.4°C above the threshold.
- It is aggravated by, in addition, the **regional factors** like **western disturbances and the upcoming cyclone developing in the Bay of Bengal**, there are chances of higher-than-normal minimum temperatures, making it a warm winter season in the country.

Factors associated with winter warming:

- **Climate Change:** Greenhouse gases trap heat, which is why the Earth is not a snowball. But the 2 trillion tonnes of fossil carbon in the atmosphere are trapping more heat, and it will continue until world countries stop burning fossil fuels for heat or power.
 - Anthropogenic emissions and other activities have contributed about 1.2°C of warming.

- **El Nino:** The El Nino-Southern Oscillation (ENSO) climate cycle in the Pacific has the biggest natural influence on climate.
 - El Nino will likely peak in the next two months, but its effects may well persist throughout 2024, driving global average temperatures higher by perhaps 0.15°C.

El Nino condition:

- The warmer than usual sea surface temperatures recorded over the equatorial Pacific Ocean.
 - When in the El Nino phase, the seas off South America heat up. This, in turn, usually makes average global temperatures hotter.
- **Melting of Antarctic sea ice:** The declines in Arctic sea ice and its failing to recover affects the winter warming. Normally, the ring of frozen seawater around the ice continent reaches maximum extent in September.
 - In summer, more dark water is exposed which absorbs more heat. It means more heat goes into the oceans rather than back out to space.
 - **Increased solar activity:** The solar maximums were forecast for 2025 and a clear increase is occurring that adds extra heat into the atmosphere. However, the effect is only around 0.05°C, about a third of an El Niño.
 - **The volcanic activity:** Usually, volcanic eruptions cool the planet, as their vast plumes of aerosols block sunlight. But the largest volcanic eruption this century near Tonga in 2022 did the opposite.
 - It is because **Hunga Tonga-Hunga Ha'apai volcano** was under the sea, and its explosive force **evaporated vast volumes of seawater** – and **water vapour is a greenhouse gas**. It is estimated that it will add 0.035°C for about five years.
 - **Cutting aerosol pollution: New international shipping rules** came into force in 2020, **mandating low-sulphur fuels** by cutting sulphur dioxide emissions by about 10%.
 - Aerosols in the atmosphere block heat and have added to atmospheric warming. However, the effect is small, adding an estimated 0.05°C of warming by 2050.

Impacts of winter warming:

- **Extreme Heat:** Under 4°C warming, the west coast and southern India are projected to shift to new, high-temperature climatic regimes with significant impacts on agriculture.
- **Changing Rainfall Patterns:** A 2°C rise in the world's average temperatures will make India's summer monsoon highly unpredictable.
 - At 4°C warming, an extremely wet monsoon that currently has a chance of occurring only once in 100 years is projected to occur every 10 years by the end of the century.
 - Dry years are expected to be drier and wet years wetter.
- **Droughts:** Droughts are expected to be more frequent especially in areas of north-western India, Jharkhand, Orissa and Chhattisgarh.
 - Crop yields are expected to fall significantly because of extreme heat by the 2040s.
- **Agriculture and food security:** Seasonal water scarcity, rising temperatures, and intrusion of seawater would threaten crop yields, jeopardising the country's food security.
 - Under 2°C warming by the 2050s, the country may need to import more than twice the amount of food-grain than would be required without climate change.
- **Glacier Melt:** At 2.5°C warming, melting glaciers and the loss of snow cover over the Himalayas are expected to threaten the stability and reliability of northern India's primarily glacier-fed rivers, particularly the Indus and the Brahmaputra.
- **Sea level rise and related issues:** With India close to the equator, the sub-continent would see much higher rises in sea levels than higher latitudes.
 - Sea-level rise and storm surges would lead to saltwater intrusion in the coastal areas, impacting agriculture, degrading groundwater quality, contaminating drinking water, and

possibly causing a rise in diarrhoea cases and cholera outbreaks, as the cholera bacterium survives longer in saline water.

- **Migration and conflict:** Climate change impacts on agriculture and livelihoods can increase the number of climate refugees.

What Does a Warmer Winter Mean for Indian States?

- The higher temperatures are likely to lead to glacier melting in mountainous regions, such as Jammu and Kashmir, Himachal Pradesh, Arunachal Pradesh and Uttarakhand.
- On the other hand, in the plains, Rajasthan, Haryana and Punjab are expected to see a 75% chance of above usual maximum temperatures, which would make warmer days prevalent over a much larger area.
- South Indian states are expected to see colder days and nights, in comparison to northern mountainous and plain regions.

Source: TH

GUIDELINES AGAINST 'DARK PATTERNS'

News: The Central Consumer Protection Authority (CCPA), has notified guidelines for the "prevention and regulation" of dark patterns.

About

- The CCPA has notified the **Guidelines for Prevention and Regulation of Dark Patterns, 2023**, under section 18 of the **Consumer Protection Act, 2019**.
- The guidelines will **apply to all platforms**, systematically offering goods or services in India; advertisers and sellers.
- The guidelines have a list of **13 specified dark patterns**. These are: false urgency; basket sneaking; confirm shaming; forced action; subscription trap; interface interference; bait and switch; drip pricing; disguise advertisement; nagging; trick question; Saas billing; and rogue malwares.

Dark Patterns

- **Dark patterns are tactics** used by online platforms to mislead customers and prevent them from making right choices.
- **The guidelines define dark patterns as** "any practices or deceptive design pattern using user interface or user experience interactions on any platform that is designed to mislead or trick users to do something they originally did not intend or want to do, by subverting or impairing the consumer autonomy, decision making or choice, amounting to misleading advertisement or unfair trade practice or violation of consumer rights."

Specified Dark Patterns

- **False Urgency:** It means falsely stating or implying the sense of urgency or scarcity so as to mislead a user into making an immediate purchase.
- **Basket sneaking:** It means inclusion of additional items such as products, services, payments to charity or donation at the time of checkout from a platform, without the consent of the user.
- **Confirm shaming:** It means using a phrase, video, audio or any other means to create a sense of fear or shame or ridicule or guilt in the mind of the user so as to nudge the user to act in a certain way that results in the user purchasing a product or service from the platform or continuing a subscription of a service.
- **Subscription trap:** It is the process of making cancellation of a paid subscription impossible or a complex and lengthy process; or hiding the cancellation option for a subscription.
- **Interface interference:** It means a design element that manipulates the user interface in ways that
 - Highlights certain specific information; and

- Obscures other relevant information relative to the other information; to misdirect a user from taking an action as desired.
- **Bait and switch:** It means the practice of advertising a particular outcome based on the user's action but deceptively serving an alternate outcome.
- **Drip pricing:** It refers to the practice whereby;
 - **Elements of prices are not revealed upfront** or are revealed surreptitiously within the user experience;
 - **Revealing the price post-confirmation of purchase,**
 - **A product or service is advertised as free** without appropriate disclosure of the fact that the continuation of use requires in-app purchase;
 - **A user is prevented from availing a service** which is already paid for unless something additional is purchased.
- **Nagging:** It means a dark pattern practice due to which a user is disrupted and annoyed by repeated and persistent interactions, in the form of requests, information, options, or interruptions, to effectuate a transaction and make some commercial gains.
- **SaaS billing:** It refers to the process of generating and collecting payments from consumers on a recurring basis in a software as a service (SaaS) business model by exploiting positive acquisition loops in recurring subscriptions to get money from users as surreptitiously as possible.
- **Rogue Malwares:** It means using ransomware or scareware to mislead or trick users into believing there is a virus on their computer and aims to convince them to pay for a fake malware removal tool that actually installs malware on their computer.

Source: [IE](#)



FACTS IN NEWS

HORNBILL FESTIVAL AND STATEHOOD DAY OF NAGALAND

Context: Nagaland is celebrating the 24th edition of the Hornbill Festival.

About

- There will be an exhibition featuring the **Mithun (the State animal)** and **Tenyi Vo (a native breed of pig)** from the rural Nagaland.
- **Nagaland Beekeeping and Honey Mission** is launching the **first 'Bee Tourism'** to showcase Nagaland's rich beekeeping tradition and unique practices carried out across the state.

Hornbill Festival

- It is an annual event and the largest celebration of the Indigenous Warrior Tribes of Nagaland.
- It was **conceptualised** in the year 2000 to showcase Nagaland's rich and traditional cultural heritage, traditional and contemporary, in all its ethnicity, diversity and grandeur.
- The festival is named after the hornbill, the bird which is displayed in folklore in most of the state's tribes.
- It is also called the **'Festival of Festivals'** and celebrated to encourage inter-tribal interaction and to promote cultural heritage of Nagaland.
- It is organised by the **State Tourism and Art & Culture Departments**.

Nagaland's Festivals Linked to Agriculture

- Nagaland is the Land of Festivals, with each tribe having its festivals and customs.
- Most of Nagaland's festivals revolve around agriculture as that is the main occupation of the people in Naga society.
- Over 71% population of Nagaland is directly dependent on agriculture.

Statehood of Nagaland

- Until 1957, the present Nagaland was just **a district of the state of Assam**, and known as **'The Naga Hills'**.
- The leaders of various Naga tribes formed the **Naga People's Convention (NPC)** in August 1957.
- In July 1960, a delegation of the party met with the then Prime Minister and demanded a separate state for the Nagas within the Indian Union to be known as **'Nagaland'**.
 - On 4th September 1962 with the bill for the formation of Nagaland receiving President's assent, the **State of Nagaland Act, 1962** was passed.
 - Nagaland was formally inaugurated on December 1, 1963, as the **16th state of India**.
- Since then, **December 1** has been celebrated annually as **Nagaland Statehood Day**.

Present Status

- Nagaland, with Kohima as the capital city, is bound by Assam in the west, Myanmar in the east, Arunachal Pradesh and part of Assam in the North and Manipur in the South.
- It consists of **16 administrative districts**, inhabited by **17 major tribes** like *Angami, Ao, Chakhesang, Chang, Kachari, Khiamniungan, Konyak, Kuki, Lotha, Phom, Pochury, Rengma, Sangtam, Sumi, Tikhir, Yimkhiung, and Zeliang* and along with other sub-tribes.
- **Official language: English.**

Source: PIB

SINDHUDURG FORT

News: The Indian Navy is set to celebrate **Navy Day** at the Sindhudurg Fort in Maharashtra.

About

- **Location:** The fort lies on the shore of Malvan town of Sindhudurg District in the Konkan region of Maharashtra.
- **History:** Sindhudurg island-fort was built **in the 1660s** by **Shivaji I**, the ruler of **Maratha Empire**. The Construction was supervised by **Hiroji Indulkar**.
- **Its main objective** was to counter the rising influence of foreign (English, Dutch, French and Portuguese) merchants and to curb the rise of Siddhis of Janjira.

Source: [DC](#)

EXIT POLLS

Context: Recently, Exit polls predictions were released for the General election to the Legislative Assemblies.

About

- The Election Commission of India defines exit polls as polls, surveys, or other activities that are aimed at ascertaining the voting preferences of electors.
- It is carried out with voters right after they have left the polling stations on the day of the election.

Regulations for Exit Polls

- The Election Commission of India (ECI) has established **certain rules and guidelines** regarding the release and conduct of exit polls to ensure the integrity of the electoral process.
- The publication or dissemination of exit polls is prohibited starting from the beginning of the hours fixed for the poll and continues until half an hour after the closing of the polls in all phases of the election.
- Media outlets, agencies, and individuals are not allowed to publish or air the results of any exit polls during the specified prohibition period.
- In the case of multi-phase elections, where polling takes place in different regions on different dates, the prohibition on exit polls extends until the completion of all phases of the election.
- **Violation Penalties:** Section 126A and 126B of the Representation of the People Act, 1951 prescribe penalties. These may include imprisonment for a term that may extend to two years or with a fine or both.

Opinion Polls vs. Exit Polls:

- While exit polls are conducted immediately after voters have cast their votes, opinion polls are surveys conducted before the election to gauge public opinion.

Source: [TOI](#)

CODEX ALIMENTARIUS COMMISSION

In News: The **Codex Alimentarius Commission (CAC)**, has praised [India's Standards on Millets](#) and accepted its proposal for the development of global standards for millets during its **46th session held in Rome, Italy**.

Codex Alimentarius Commission (CAC)

- It is an **intergovernmental food standards body**, set up in **1963**. The term "Codex Alimentarius" is Latin for "**Food Code**."

- It was established jointly by the **UN's Food and Agriculture Organisation (FAO) and the World Health Organisation (WHO)**, within the framework of the Joint Food Standards Programme.
- **Objective:** To protect consumer's health and ensure fair practices in the food trade.
- **Members:** Currently, 189 members (188 UN member countries and the European Union).
- The Commission meets in regular session once a year alternating between Geneva and Rome.
- India became a member in **1964**.

Source: **PIB**

PURCHASING MANAGERS' INDEX (PMI)

Context: India's manufacturing sector has performed better with **Purchasing Managers' Index (PMI)** rising to 56 in November against 55.5 in October.

About

- PMI is an economic indicator derived from monthly surveys of private sector companies.
- It provides insight into the health of a country's manufacturing sector. It is widely used by businesses, analysts, and policymakers to gauge the economic activity and overall business conditions.
- **Released by:** For India, PMI is released by S&P Global. (Earlier released by IHS Markit before it was merged with S&P Global)
- **Scale:** The PMI is presented as an index number on a scale of 0 to 100. A PMI reading above 50 generally indicates expansion in the manufacturing sector, while a reading below 50 suggests contraction.
- **Types:** Two types of PMI are there: Services PMI and Manufacturing PMI.
- **Survey Methodology:**
 - It is based on surveys conducted among purchasing managers in a representative sample of companies (For India approx 500 companies are surveyed).
 - Managers are asked about changes in production, employment, inventories, and new orders, among other factors.
- **Timelines:** Released on a monthly basis, making it a timely indicator of economic conditions.

Source: **TH**

METHOTREXATE

Context: A new **highly fluorescent material** (Ph-Cys-Au) using phosphorene, cystine, and gold has been developed for detection of anticancer **drug Methotrexate**.

About

- Methotrexate(MTX) is commonly used in chemotherapy to treat certain types of cancers including leukemia, lymphoma, and breast cancer.
- **Mechanism of Action:** It works by inhibiting the activity of an enzyme called dihydrofolate reductase, which is essential for the synthesis of DNA, RNA, and proteins. This interference hampers the growth of cancer cells and suppresses the immune system in autoimmune conditions.
- **Administration:** It can be administered orally or through injections, depending on the medical condition being treated.

Source: **PIB**