Factly Weekly Compilation

For UPSC CSE Prelims Exam

1st Week
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Index

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Subject: 1. POLITY and NATION

UPSC tightens guidelines for appointment of State DGPs

Why in the News?

Union Public Service Commission (UPSC) has amended guidelines in the appointment of State Director General of Police (DGPs).

What is the current procedure followed in the appointment of State DGPs?

UPSC had framed guidelines in 2009, based on the Supreme Court judgment on police reforms in **Prakash Singh vs Union of India.**

According to these guidelines:

1. List of eligible officers must be provided by States to UPSC
2. Officers must have a minimum of 30 years of service.
3. Eligible officers should hold the rank of Additional Director General (ADG) or the rank of police chief or one rank below.
4. This list must reach the UPSC six months before the incumbent DGP is set to retire.
5. The committee, chaired by the UPSC Chairman and consisting of the Union Home Secretary, State Chief Secretary, State DGP, and a Central Police Organization Chief will select three officers based on merit.
6. After this, the state government must immediately appoint one of them.

What are the changes now made by the UPSC in the selection process of DGPs?

1. **Minimum service left–** Only police officers with at least six months of service left before retirement will be considered for appointment as the DGPs.
2. **Central Deputation**– If an Indian Police Service (IPS) officer is serving on a central deputation and the Union Ministry of Home Affairs (MHA) informs the respective State government that it cannot relieve the officer, that individual will not be considered for the position of DGP
3. **Experience Required**– The previous requirement of 30 years of service for DGP eligibility has been reduced to 25 years.
4. **Shortlisted officers**– The number of shortlisted officers cannot exceed three but may consist of less than three officers in 'exceptional circumstances.'
5. **Willingness of officers**– Officers will not be included in the shortlisted list unless they themselves are willing.

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Right to Privacy vs Right to Know: Supreme Court to resolve poll bonds conflict

Why in the News?

The Supreme Court of India is hearing the case on the validity of the electoral bond scheme.

The case involves resolving a conflict between two important rights:

1. **Voters Right to Know** the source of political funding for ensuring transparency
2. **Right to Privacy** and confidentiality of companies in exercising their right to choose which party to fund.

What is the Right to Privacy?

1. Privacy is defined as a human right enjoyed by every human being by virtue of his or her existence.
2. The Right to Privacy was not directly envisaged by the Constitution makers. It also did not find a mention in Part III of the Constitution relating to Fundamental Rights.
3. However, the Supreme Court gave a landmark decision on Right to Privacy in **Justice K.S Putta swamy vs Union of India case (2017).**
4. It ruled that Right to Privacy is "intrinsic to life and personal liberty". It is inherently protected under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution.
5. The court also ruled that the right to privacy is not absolute but is subject to reasonable restrictions.

What is the right to know?

Right to know is part of the right to speech and expression provided by Article 19(1).

ECI designed in-house software for complete Candidate and election management through 'ENCORE'

Why in the News?

Election Commission of India has designed in-house software called ENCORE for complete Candidate and election management.

What is ENCORE?

Specifications	Details
Launched by	Election Commission of India
Full Form	Enabling Communications on Real-time Environment (ENCORE)
Purpose	To provide a seamless facility for Returning Officers to process candidate nomination, affidavit, Voter turnout, counting, results and data management.

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What is the Advocate-on-Record system in the Supreme Court?

Why in the News?

The Supreme Court has pulled up an Advocate-on-Record (AoR) for filing a frivolous case.

What is Advocate-on-Record (AoR)?

Specifications	Details
What is it	(1) Advocate on record (AOR) is a title given to an advocate who can represent a cause or pleading before the Supreme Court (SC). (2) Only these advocates are entitled to file any matter or document before the SC. They can also file an appearance or act for a party in the SC. Hence, AOR basically serves as the link between litigants and the highest court in the country. Note: AORs can also appear before other courts.
Based on	AoR system is based on the British model of barristers and solicitors where barristers argue cases and solicitors handle client matters.
Eligibility Criteria to become AOR	The Supreme Court Rules, 2013 prescribe eligibility criteria for an AoR: First, an advocate must clear an examination set by the Supreme Court and must meet specific criteria's such as: (1) An advocate must undergo training with a court approved AoR for at least one year before taking the examination. (2) The advocate should have at least four years of legal practice before beginning the training. (3) An AoR must have an office located in Delhi within a 16-kilometer radius of the Supreme Court.
Rules governing AOR	The Supreme Court created the rules for the AoR system based on the authority given to it under Article 145 of the Constitution.

Leave benefits for women in armed forces made uniform

Why in the News?

The Defense Minister has approved a proposal for extending the rules for maternity, childcare **and** child adoption leave for women soldiers, sailors and air warriors in the Armed Forces on a par with their officer counterparts.

What are the initiatives taken to encourage women in Defence Forces?

(1) **Indian Army:** Indian Army is encouraging women officers to join the force by initiatives such as:

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- **Granting Permanent Commission:** Women Officers (WOs) in 12 Arms & Services are eligible for Permanent Commission. This ensures parity with male counterparts and fosters a gender-neutral environment.
- **Entry in National Defence Academy (NDA)**: Women candidates now join the NDA every six months.
- **Opportunities in Aviation**: WOs can serve as pilots in the Corps of Army Aviation, expanding roles.
- **Enrollment of Women as Other Ranks**: Provision introduced in 2019 for enrolling women in the Corps of Military Police.

(2) **Indian Navy Measures for women personnel:**

- **Women in all Branches:** Entry of women in all branches/ Cadres/ Specialisations (except Submarine specialization) has commenced *from June* 2023.
- **On board Ships:** Women officers are also being appointed on board warships.
- **Indian Naval Academy Inclusions:** Eligibility through the '10+2 B.Tech.' entry scheme.
- **Women Agniveers:** As a part of the Agnipath Scheme, women have been enrolled as Agniveers commencing from the first batch itself.

(3) **Indian Air Force Measures for women personnel:**

- **All Combat roles:** The experimental scheme to induct women officers in all combat roles, was initiated by the IAF in 2015 and was regularized in the year 2022 into a permanent Scheme.
- **'DISHA' cell at Indian Air Force Headquarters:** It conducts various Induction Publicity programmes across the country related to the induction/ career of officer cadre in IAF.

Subject: 2. INTERNATIONAL RELATIONS

Defence Minister talks about 'prisoner's dilemma' in international relations: What is this concept.

Why in the News?

The Defence Minister has talked about the concept of the "Prisoner's Dilemma" to emphasize the importance of international collaboration over competing interests.

What is Prisoner's Dilemma?

Prisoner's Dilemma is a concept in Game Theory

It **helps us understand how people/entities behave under different circumstances. It** demonstrates the conflict between individual rationality and collective rationality.

What are the applications of Prisoner's dilemma in international relations?

In international relations, the Prisoner's Dilemma is often used to describe situations where countries face a choice between cooperation and pursuing their individual self-interest.

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Bletchley Declaration

Why in the news?

Twenty-nine countries have agreed to work together to prevent "catastrophic harm, either deliberate or unintentional" which may arise from artificially intelligent computer models and engines.

What is Bletchley Declaration?

Central objective- The central objective of the Bletchley Declaration is to **address risks and responsibilities associated with frontier AI** in a comprehensive and collaborative manner

Member countries
Australia, Brazil, Canada, Chile, China, France, Germany, India, Indonesia, Ireland, Israel, Italy, Japan, Kenya, Saudi, Arabia, Netherlands, Nigeria, The Philippines, the Republic of Korea, Rwanda, Singapore, Spain, Switzerland, Turkey, Ukraine, United Arab Emirates, United Kingdom of Great Britain and Northern Ireland, the United States of America, and the European Union.

Rafah Crossing

Why in the news?

The Rafah border crossing between the Gaza Strip and Egypt has opened for the first time since the Israel-Hamas war broke out in early October.

What is Rafah border crossing?

1. **Southern Most Post of Exit-** It's the southernmost post of exit from Gaza and borders Egypt's Sinai Peninsula.
2. **Two other Border Crossings from and into the Gaza Strip-**

(1) **Erez-** Northern Gaza into Israel. For people crossing only.
(2) **Kerem Shalom-** Southern Gaza into Israel. For commercial goods crossing only.

What is its significance?
(1) The Rafah crossing gained heightened importance after Hamas's assault on the Erez crossing, resulting in over 1,300 casualties in southern Israel.
(2) In response, Israel closed both Erez and Kerem Shalom indefinitely, leaving

Figure 1. Source: The Indian Express

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the Rafah border as the sole means of entry and exit for Gaza's people and the only crossing for humanitarian aid.

Akhaura-Agartala rail link to be inaugurated virtually by PM Modi, Sheikh Hasina

Why in the News?

The Indian and Bangladesh Prime Minister will jointly inaugurate the Agartala-Akhaura cross-border rail link project.

What is the Agartala-Akhaura cross border?

Aspect	Details
Countries Involved	It is a railway line between India and Bangladesh
Connects	Agartala in Tripura and Akhaura in Bangladesh
Distance	12.24-kms rail link (5.46 km in India and 6.78 km in Bangladesh)
Historical Connection	Akhaura used to be the railway link for Agartala during the colonial era

Who's funding the project?

The final project cost is estimated at Rs 1255.10 crore, with Rs 862.58 crore allocated for works on the Indian side alone. The entire project cost is being funded by India.

What has caused the recent thaw in U.S.-Venezuela ties? | Explained

Why in the News?

The U.S government has agreed to relax the sanctions imposed on Venezuela's oil, gas and mining industries on the condition that the Venezuelan President will hold free and fair elections in 2024.

Aspect	Details
Located in	South America.
Bordered by	Colombia, Brazil, Guyana and the Caribbean Sea
Capital	Caracas
Economy	Relies heavily on oil exports. Faced economic challenges due to sanctions
Significance	It has the world's largest oil reserves

What are the reasons for the present thaw in relations between the US and Venezuela?

1. **Oil and Ukraine Crisis:** The U.S. wants better ties with Venezuela after Russia's Ukraine invasion. This is because the ban on Russian oil has created an energy crisis. Venezuela's large oil reserves could help in mitigating this crisis.

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2. **Venezuela's Strategic Role:** Venezuela can give Russia a spot in the Western Hemisphere, challenging the U.S.-dominated world and its power. Hence, making friends with Venezuela helps isolate Russia from its Latin American allies, aligning with U.S. interests.
3. **Ending Isolation and Help for Economy**: Improving relations aims to end Venezuela's isolation caused by past U.S. sanctions.

Office for the Coordination of Humanitarian Affairs (OHCA)

Why in the News?

The UN Office for the Coordination of Humanitarian Affairs (OHCA) has said that the Israeli settler violence has increased significantly in the West Bank.

What is the UN Office for the Coordination of Humanitarian Affairs (OHCA)?

Specifications	Details
Established by	United Nations
Year	1991
Aim	Coordinates humanitarian response efforts globally in times of crises and emergencies
Headquarters	Geneva and New York
Funds	There are two types of pooled funds:
	Central Emergency Response Fund (CERF): It can fund an emergency anywhere in the world
	Country-Based Pooled Funds (CBPFs): It is a country specific fund
Initiatives	**On-Site Operations Coordination Centre's (OSOCC):** It is an OCHA tool. It provides a platform for the coordination of international response activities immediately following a sudden-onset emergency or a rapid change in a complex emergency.

What is a Seam Zone?

Seam Zone is a term used to refer to a land area in the Israeli-occupied West Bank located east of the Green Line and west of Israel's separation barrier.

Why Pakistan is forcing lakhs of Afghan migrants to leave

Why in the News?

The Pakistan government has ordered illegal migrants to leave the country. This has impacted thousands of Afghan refugees.

Why is Pakistan forcing lakhs of Afghan refugees to leave?

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1. **Terror Attacks-** Pakistan has claimed that the presence of illegal migrants has led to rising crime and terror attacks.
2. **Economic Slowdown-** Pakistan is facing hyperinflation, a balance of payment crisis and high rupee depreciation. The undocumented migrants who pay no taxes are a burden on the already limited resources.

What is the Durand Line?

1. The Durand Line is the 2,640-kilometer (1,640-mile) border between Afghanistan and Pakistan.
2. The agreement was signed in 1893 in Kabul, Afghanistan.

NMDC expands its mineral portfolio with inauguration of Mount Celia Gold Operation; Becomes 1st Gold mine in its extensive portfolio

Why in the News?

Secretary, Ministry of Steel has unveiled the Mining operations at Mount Celia Gold Project located in Western Australia.

What is the Mount Celia Gold Project?

Specifications	Details
What is it	It is a gold mining project
Located at	Western Australia
Initiative of	Legacy Iron Ore Limited, a subsidiary of NMDC Ltd (State-owned Steel CPSE)
Significance	This is the first gold mine project of NMDC

What is NMDC?

Aspects	Details
Established in	1958
Type	Navratna Public Sector Enterprise
Under	Ministry of Steel
Functions	Involved in the exploration of minerals like iron ore, copper, limestone etc.
Located at	Hyderabad, Telangana

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Indo-Pacific Maritime Domain Awareness (IPMDA) Initiative

Why in the News?

Indian Navy Chief Admiral has said that the Indo-Pacific Maritime Domain Awareness (IPMDA) initiative is a testament to the commitment to a free, open, inclusive, and rules-based Indo-Pacific region.

What is the Indo-Pacific Maritime Domain Awareness (IPMDA) Initiative?

Specifications	Details
Launched by	Quad grouping (India, Australia, Japan and U.S) at the Tokyo summit in 2022
Aim	To enhance maritime security and shared domain awareness in the region via technology and training support.
Objectives	(1) To establish a comprehensive system for monitoring and securing maritime activities in the Indo-Pacific (2) To ensure the safety of critical sea lines of communication (3) Promote cooperation among like-minded nations in the region
Significance	The initiative will help the Indo-Pacific partners to rapidly detect and respond to a wide range of challenges such as **dark shipping**, humanitarian crisis among others. Note: Dark ships are vessels with their Automatic Identification System (AIS) – a transponder system – switched off so as not to be detectable.

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Eastern Maritime Corridor(EMC): India-Russia new sea route plan in final lap

Why in the News?

As part of the Eastern Maritime Corridor (EMC), a trial run of a ship was conducted between Chennai
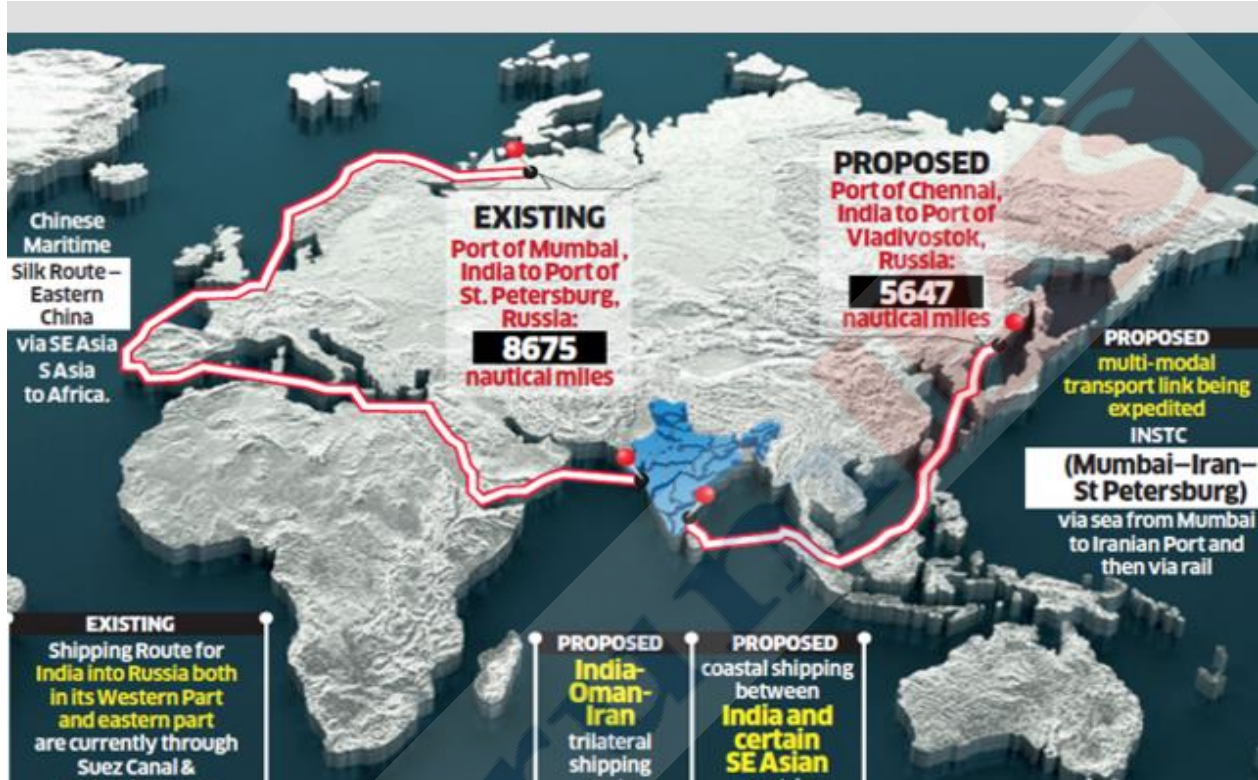
Figure 2. Source: Economic Times

port inIndia and Vladivostok in Russia.

What is the Eastern Maritime Corridor(EMC)?

Specifications	Details
What is it	It is a proposed sea route between Chennai, India, and Vladivostok, Russia.
Passes through	Sea of Japan, East and the South China Sea through Malacca Strait to reach the Bay of Bengal and then cut across through the Andaman and Nicobar archipelago to reach Chennai.

What are the benefits of Eastern Maritime Corridor (EMC)?

1. **Reduced Duration:** This route is advantageous as: (1) Distance is reduced by 40% from 9,450 nautical miles to 5,647 nautical miles and (2) shortens the transportation time by up to 16 days.
2. **Access to Russia's Far East**: Vladivostok Port provides access to resource-rich regions, offering opportunities in sectors like energy, mining, and technology for Indian businesses.

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3. **Trade and strategy:** India is building nuclear power plants with Russia's collaboration in Kudankulam on the seacoast in Tamil Nadu's Tirunelveli district. The opening of a sea route is likely to help in the project.

WHO post: India to choose Bangladesh or Nepal nominee

Why in the News?

India has to decide between the candidates of Bangladesh or Nepal for the post of Regional Director of the World Health Organization (WHO).

What is the World Health Organization (WHO)?

Aspect	Details
Established in	1948
Type	United Nations' specialized agency
Aim	To promote health, keep the world safe, and serve the vulnerable
Membership	194 member states
World Health Assembly (WHA)	Highest decision-making body of WHO and comprises representatives from all member States. They meet yearly.
Regional Offices	WHO also has six regional offices: Africa, the Americas, Southeast Asia, Europe, Eastern Mediterranean, and Western Pacific.
Secretariat	Geneva, Switzerland.

Ahead of FATF review, Centre takes measures to implement suggestions

Why in the News?

Before India's upcoming evaluations by the Financial Action Task Force (FATF), the Government of India has implemented several measures in line with the recommendations of FATF from its 2010 review.

What is the Financial Action Task Force (FATF)?

Specifications	Details
Established in	1989 by G7
Type	Inter-governmental body
Purpose	It leads global action to tackle money laundering, terrorist and proliferation financing.
Members	39 members. 37 jurisdictions and 2 regional organizations (the Gulf Cooperation Council and the European Commission)

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India and FATF	India joined with 'observer' status in 2006 and became a full member of FATF in 2010.
Secretariat	OECD headquarters in Paris, France
FATF Sessions	FATF Plenary is the decision-making body of the FATF. It meets three times per year
Listing by FATF	**Grey List:** Countries that are considered a safe haven for supporting terror funding and money laundering are put in the grey list. This inclusion serves as a warning to the country that it may enter the blacklist
	Black List: Countries known as non-cooperative are put on the blacklist. These countries support terror funding and money laundering activities. As of now, **Iran, North Korea and Myanmar** are the three blacklisted countries.

World Local Production Forum

Why in the News?

The Union Minister of State for Chemicals and Fertilizers is participating in the 2nd World Local Production Forum (WLPF) at The Hague, Netherlands.

What is the World Local Production Forum (WLPF)?

Specifications	Details
Initiative of	World Health Organization (WHO)
Aim	To increase access to medicines and other health technologies.
Functions	The forum provides Member States a regular platform to shape strategies and foster partnerships on sustainable local production to improve timely and equitable access to quality assured health products.
Secretariat	The Local Production and Assistance Unit of WHO
WLPF meetings	**1st WLPF:** Held in 2021
	2nd WLPF: 2023
	Host Country: Netherlands

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Subject: 3. Indian Economy

Prime Minister inaugurates World Food India 2023

Why in the News?

The Prime Minister has inaugurated the second edition of the 'World Food India 2023' in New Delhi.

What is World Food India 2023?

Specification	Details
Organized by	Ministry of Food Processing Industries
Aim	To present India as the 'food basket of the world' and commemorate 2023 as the International Year of Millets.
Partner country	Netherlands
Events focus country	Japan

-The United Nations has declared **2023 as the International Year of Millets (IYM 2023)** with the aim of increasing the production and consumption of millets worldwide.

Foreign listing: pros and cons for firms, investors

Why in the News?

The Ministry of Corporate Affairs has allowed certain unlisted companies to directly list on foreign stock exchanges.

Note: Till now, only companies listed in India could seek a listing on foreign exchange.

Why is there a demand for listing of companies on foreign stock exchanges?

Traditionally, companies raise funds by listing domestically where they're best understood.

However, tech firms with global presence are changing this trend by listing overseas.This is because:

1. **Global Investor Demand:** Investors worldwide want high-growth stocks from emerging markets, leading to a demand for overseas-listed companies.
2. **Benefits of Overseas Platforms:** Global platforms offer more attractive opportunities than local markets.
3. **Tech Investor Appeal:** Platforms like Nasdaq (US Stock exchange platform) attract tech investors by providing better valuations.

 – On the other hand, domestic exchanges might undervalue tech companies, especially those operating at a loss, due to limited investor expertise and skepticism towards such businesses.

What are the new regulations brought out by the government now?

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1. Currently, any company already listed in India is eligible for foreign secondary listing.
2. Now, the government has allowed certain unlisted companies to directly list on foreign stock exchanges.
3. However, unlisted companies are unlikely to be allowed to list anywhere they want.
4. The government is expected to provide a list of jurisdictions where Indian firms will be allowed to list. IFSC in Gift City, Gandhinagar is expected to be part of permitted jurisdictions for overseas listing.

What are the regulatory issues that need to be addressed before listing on foreign exchange?

1. **Double compliance:** Firms must adhere to the rules of the country where they list. Since the firm is incorporated in India, they must also follow Indian capital raising norms as well.
2. **Taxation Challenges:** Addressing taxation issues, especially concerning capital gains, is crucial for companies listing overseas.
3. **Geopolitical Impact:** Geopolitical tensions between India and the foreign country where a company is listed could negatively impact the company's operations and market performance.

WCO-IAPH guidelines for customs, ports released

Why in the News?

The World Customs Organization (WCO) and the International Association of Ports and Harbors (IAPH) released the first ever Guidelines on Cooperation between Customs and Port Authorities.

What is the World Customs Organization(WCO)?

Specification	Details
Type	An intergovernmental organization.
Established in	1952
Aim	To enhance the effectiveness and efficiency of Customs administrations.
Main Functions	Developing standards for customs procedures, capacity building of its members and promoting cooperation between the customs administrations of its members.
Members	185 Customs administrations that collectively process approximately 98% of world trade
Headquarters	Brussels, Belgium
Significance	It is the only international organization with competence in Customs matters.

What is the International Association of Ports and Harbors (IAPH)?

Aspects	Details
Formed in	1955
Purpose	It is a global trade association for seaports worldwide.

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Focus Areas	Climate and energy, risk and resilience of port services and guiding the ports in digitalization.
Headquarters	Tokyo, Japan

What are the key recommendations given by WCO-IAPH on cooperation between Customs and Port Authorities?

1. **National port community Council (NPCC):** Institutionalize cooperation between customs and port authorities through establishment of a national port community council (NPCC)
2. **Data Collaboration:** Emphasizes sharing data between customs and port authorities.
3. **Security Programs Alignment:** Suggests aligning security programs like the authorized economic operator and the international ship and port facility security program to enhance security measures.
4. **Shared Review using Emerging Technologies:** Proposes utilizing emerging technologies for joint review and assessment to enhance operations and security in the port and customs domain.

Hunger Hotspot

Why in the News?

FAO and WFP have warned that acute food insecurity is likely to deteriorate further in 18 hunger hotspots – **comprising a total 22 countries** – during from June to November 2023.

About the report

Aspect	Details
What is the report?	The **FAO-WFP Hunger Hotspots** study focusses on acute food insecurity in hunger hotspot regions of the world.
Issued By	Jointly by Food and Agriculture Organisation(FAO) and World Food programme(WFP).
Countries Covered	22 Countries

What are the key findings of the Report?

1. **Hotspots with highest concern-** Afghanistan, Nigeria, Somalia, South Sudan and Yemen remain hotspots of highest concern for the June to November 2023 outlook. Haiti, the Sudan and Sahel region (Burkina Faso and Mali) have been included in this category for this edition, increasing the level of concern from very high in the last edition.
2. **Hotspots with very high concern-** The Central African Republic, the Democratic Republic of the Congo, Ethiopia, Kenya, Pakistan and the Syrian Arab Republic are hotspots of very high concern, and the alert is also extended to Myanmar in this edition.

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3. **Other countries that Requires monitoring-** Democratic Republic of Korea, Mozambique, Zimbabwe, Venezuela, Colombia, Gambia and Senegal.

Subject: 4. SCIENCE & TECHNOLOGY

What is Lockdown Mode and why does Apple recommend it after "state-sponsored attackers" alert?

Why in the News?

Multiple opposition leaders and a few journalists have reported receiving a notification from Apple about "state-sponsored attackers" remotely trying to compromise their iPhones.

Apple has advised them on adopting protective measures such as activating the '**Lockdown Mode'** feature on their iPhones for added security.

What is Lockdown Mode?

Lockdown Mode is a special feature that Apple introduced in its latest software updates.

Purpose: It protects users from sophisticated spyware attacks that could compromise their devices and data.

Security Functions: When you activate Lockdown Mode, your device will enter a state of high security, where many of the usual functions will be restricted or disabled.

Reliance Jio demonstrates its satellite-based gigabit internet in India

Why in the News?

Reliance Jio has successfully demonstrated JioSpaceFiber at the India Mobile Congress.

What is JioSpaceFiber?

JioSpaceFiber is India's first satellite-based gigabit internet service.

It uses medium earth orbit (MEO) satellite technology to provide high-speed internet access to remote and underserved areas.

Partnered with: Jio has partnered with SES to access the world's latest medium earth orbit (MEO) satellite technology.

How is JioSpaceFiber different from Starlink?

Orbit: JioSpace Fiber uses medium Earth orbit (MEO) satellites while Starlink uses low Earth orbit (LEO) satellites.

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Availability: JioSpaceFiber is currently only available in India while Starlink is available in over 30 countries.

In FSSAI index, nearly all major states slip on food safety compared to 2019

Why in the News?

Recently Food safety and standards authority of India (FSSAI) published its fifth consecutive State Food Safety Index. This index is used to measure the performance of states across various parameters of food safety.

What is the state food safety index? What is the new parameter?

It is an index developed by FSSAI. It helps to measure the performance of states on five significant parameters of food safety.

A new parameter is included in 2023 index "**Improvement in SFSI rank**". **What is the parameter wise performance of large states?**

Parameter	Top performers	Worst performers
Consumer empowerment	Tamil Nadu, Kerala, Madhya Pradesh	Bihar, Jharkhand, Himachal Pradesh
Human resource and institutional data	West Bengal, Rajasthan, Tamil Nadu	Bihar, Chhattisgarh, Jharkhand
Food testing infrastructure	Gujarat, Kerala, west Bengal	Andhra Pradesh, Maharashtra, Bihar
Training and capacity building	Tamil Nadu, Kerala, Madhya Pradesh	Assam, Haryana, Rajasthan
Compliance	Punjab, Himachal Pradesh, Uttar Pradesh	Jharkhand, Assam, Telangana

Key findings of the State food safety index

1. After adjusting for a new parameter included in the 2023 index, 15 out of 20 states recorded lower 2023 scores compared to 2019.
2. 19 out of 20 large states — including Maharashtra, Bihar, Gujarat and Andhra Pradesh — recorded a drop in their 2023 scores from 2019.
3. The worst drop has been recorded in the 'Food Testing Infrastructure' parameter
4. The only parameter which recorded significant improvement was 'Training and Capacity Building'.

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Carbon nanoflorets

Why in the news?

Recently, researchers at IIT Bombay have created carbon nanoflorets capable of converting sunlight into heat with unmatched efficiency.

What are carbon nanoflorets?

Carbon nanoflorets are a unique nanostructure composed of carbon atoms arranged in a distinctive floret-like morphology. They have a high surface area and various potential applications in fields such as materials science, electronics, and nanotechnology.

Significance

1. It can **remove up to 90% of pollutants containing arsenic, chromium, cadmium and mercury.**
2. These can **absorb light at multiple frequencies** like infrared, visible and ultraviolet.
3. The nanoflorets **can generate heat sustainably**, without having to burn fossil fuels.
4. A single square meter of carbon nanofloret coating has the remarkable **capacity to vaporize 5 liters of water per hour.**

Novel therapeutic formulation developed for improved treatment of Indian red scorpion sting

Why in the News?

Researchers have developed a new therapeutic drug formulation (TDF) against the Scorpion envenomation.

What is envenomation?

Envenomation refers to the process of being poisoned or affected by venom typically from the bite or sting of a venomous animal like a snake, scorpion, or spider.

What is the current treatment for Scorpion envenomation?

The current treatment against scorpion envenomation is intravenous administration of equine anti-scorpion antivenom (ASA).

What is the treatment developed by researchers?

Researchers have developed a new therapeutic drug formulation (TDF) against the Scorpion envenomation.

This drug can inhibit the Indian red scorpion venom-induced toxicity and associated symptoms.

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India's own CAR-T cell therapy: What is it, when will it be available, and at what cost?

Why in the News?

Central Drugs Standard Control Organisation (CDSCO) has granted market authorisation for NexCAR19.

What is NexCAR19?

NexCAR19	Details
What is it	It is India's first indigenously developed CAR-T cell therapy
Developed by	ImmunoACT, a company incubated by IIT Bombay.
Purpose	Designed to target cancer cells carrying the CD19 protein
Recommended for	People with B-cell lymphomas who didn't respond to standard treatments like chemotherapy, leading to relapse or recurrence of the cancer.
Treatment Process	(1) Patient donates blood at a transfusion centre. The blood goes to the lab, where the T-cells are genetically modified. (2) In a week to 10 days, these cells return to the clinic for patient reinfusion.
Recovery	(1) Recovery typically occurs within two weeks after one cycle of the treatment.
Significance	India is one of the first developing countries with its indigenous CAR-T and gene therapy platform.

EV push: Bureau of Indian Standards approves indigenous charging standards for 2Ws, 3Ws

Why in the news?

The **Bureau of Indian Standards (BIS)** has granted approval to an **indigenous AC and DC combined charging connector standard** designed for light electric vehicles (LEVs), known as **IS17017** (Part 2/Sec 7): 2023.

What are the details of the combined charging connector?

Parameters	Details
What is it?	World's first-ever combined AC and DC charging connector standard for LEVs
Developed by	Bureau of Indian standards
Other stakeholders	NITI Aayog, the Department of Science and Technology, ARAI and EV makers

Beneficiary	All stakeholders in the EV ecosystem, including vehicle owners, manufacturers and charging point operators.
Advantages	**(1)** OEM have a choice to move away from international standards and protocols. **(2)** It facilitates both AC (slow) and DC (fast) charging from the same service point or station. **(3)** Hybrid, cost-efficient infrastructure emerges for all forms of charging for all LEVs

Billions of Years Ago, Venus May Have Had a Key Earthlike Feature

Why in the News?

A study published Thursday in the journal **The Nature Astronomy** suggests that **Venus in its youth may have possessed a key Earth-like trait: plate tectonics**, the continual reshaping of pieces of the planet's outer crust.

What are the key findings of the study?

1. **Less Nitrogen in Venus than what is estimated today-** The simulations indicated that on Venus, there would be less nitrogen than what is observed today (current estimation of Nitrogen is 3.5%).
2. **Simultaneous plate tectonic activities in both earth and Venus-** Very likely, both the planets had plate tectonics operating roughly at the same period of time.

What are the upcoming missions to study Venus?

1. **NASA's Davinci spacecraft (Launch in 2029)**
2. **NASA mission (Veritas)**
3. **The European Space Agency mission (EnVision)**

India won't meet UN targets to reduce premature mortality from major non-communicable diseases: ICMR-NCDIR

Why in the news?

According to an analysis by the Indian Council of Medical Research (ICMR), India will likely miss reaching targets set by the WHO and the United Nations-mandated Sustainable Development Goals (SDG) to **reduce premature deaths from four major Non-Communicable Diseases (NCD)**

What are the details of the ICMR study?

Key areas	Details

Target setting organizations	World Health Organization (WHO) and the United Nations
What are four major diseases	**(1)** Cancer **(2)** cardiovascular disease (CVD) **(3)** Chronic respiratory diseases (CRD) **(4)** Diabetes
Targets	**(1) "25 by 25 targets" of WHO-** 25 per cent reduction in premature mortality for the four NCDs by 2025 as compared to 2010. **(2) SDG Target by UN**– To reduce premature deaths from the four major NCDs by one-third (33 percent) from 2015 to 2030.
Source of ICMR data	**(1)** Census data **(2)** Sample Registration System (SRS) for cause of death by 5-year-age groups.

What are the results of the ICMR study?

1. **Decrease in premature mortality rate-** The premature mortality rate of the four major non-communicable diseases is projected to **decrease by 13.9 per cent from 2010 to 2025** in India.
2. **Decrease in premature deaths as compared to the SDG target-** The premature deaths due to these four NCDs in India is projected at 15.6% from 2015 to 2030. However, the SDG target is to reduce 33% from 2015 to 2030.
3. **Possible timeline of achieving the WHO and UN target-** The target of 25 per cent (WHO) and 33 per cent (SDG) could possibly be reached by 2039 and 2053 in India.

Govt plans sops for making small modular N-reactors

Why in the News?

The Government of India is planning to offer incentives along the lines of a production linked incentive (PLI) scheme for manufacturing small modular reactors (SMR).

What are Small Modular Reactors (SMR)?

Small Modular Reactors (SMRs) are a class of nuclear reactors that are smaller in size compared to traditional, large-scale nuclear power plants.

They are designed to be more flexible, scalable, and easily deployable in various settings.

Key Characteristics of SMRs:

1. They can be built in a factory. On the other hand, conventional nuclear reactors are built on site.
2. They have a power capacity of up to 300 MW per unit—which is about a third of the capacity of a traditional nuclear reactor.

What are the steps the Government of India is taking to promote Small Modular Reactors (SMR)?

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1. The government is planning to offer incentives along the lines of a production linked incentive (PLI) scheme for manufacturing small modular reactors (SMR).
2. India is having bilateral talks with France, Russia, South Korea and the US for the required technologies and investments for SMRs.

Note: Currently, India's installed nuclear power capacity stands at 7.48 GW. It is expected to reach 22.28 GW by 2031.

Zika virus

Why in the News?

Karnataka health department issues advisory after detection of Zika virus in mosquito pool in Chikkaballapura.

What is Zika Virus?

About	It is a **mosquito-borne virus first identified in Uganda** in 1947 in a Rhesus macaque monkey. This case was followed by evidence of infection and diseases in humans in other African countries in the 1950s.
Transmission	(1) Zika virus is transmitted to people through the bite of an infected mosquito from the **Aedes genus.** This is the same mosquito that transmits dengue, chikungunya, and yellow fever. (2) Zika virus **can migrate between humans** through sexual contact. (3) An infected mother can pass on the virus to her newborn around the time of birth.
Symptoms	(1) Most people with Zika virus infection do not develop symptoms. (2) People who develop symptoms of Zika virus infections have similar symptoms like infections such as dengue. Some of the common symptoms are Fever, Skin rashes, Conjunctivitis, Muscle and joint pain Malaise, and headache. (3) Zika virus infection during pregnancy **can cause infants to be born with microcephaly** (smaller than normal head size).
Diagnosis	By laboratory tests of blood
Treatment	(1) There is **no specific treatment or vaccine available** for Zika virus infection or disease. (2) People with symptoms such as rash, fever or joint pain should get plenty of rest, drink fluids, and treat symptoms with antipyretics and/or analgesics.
Prevention	(1) Prevention and control rely on reducing mosquitoes through reduction of mosquito breeding sources. (2) **Reducing contact between mosquitoes and people-** This can be done by using insect repellent; wearing clothes (preferably light-colored), using physical

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	barriers such as screens, closing doors and windows, and sleeping under mosquito nets.

Project Kusha

Why in the News?

Project Kusha entails operational deployment of India's own **long-range air defense system by 2028-29.**

What is Project Kusha?

Specification	Details
What is it?	This indigenous air defense system is designed to detect and destroy a wide array of threats, including stealth fighters, aircraft, drones, cruise missiles, and precision-guided munitions at **ranges of up to 350 km.**
Developed by	Defense Research and Development Organization (DRDO)
Aim	It seeks to establish a formidable **three-layered defense system** with the capability to neutralize enemy aircraft and missiles from extended distances effectively.
Estimated Cost	21,700 crore
Key Features	(1) The **long-range surface to air defence system (LR-SAM)** incorporates advance long-range surveillance and fire control radars. (2) **Interceptor missiles with a range of 150 km, 200 km and 350 km**, provide the ability to detect and strike hostile targets at different distances. (3) The firing units of "Project kusha" **can be seamlessly integrated with IAF's air command** and control system, facilitating coordination with a wide range of military radars. (4) Impressive single shot probability of around 80%. When two missiles are fired consecutively, kill probability rises to 90 percent.

Project 15B Warship: guided missile destroyer 'Surat' crest unveiled

Why in the News?

The crest of the under-construction guided missile destroyer of the Indian Navy named "**INS Surat**" was unveiled recently.

What is INS Surat?

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INS Surat is the fourth ship of the indigenously designed and constructed **Project 15B** (Vishakhapatnam Class) destroyers.

Being Built by: Mazagaon Dock Limited (MDL) in Mumbai

Features: The ship has been constructed using innovative block construction methodology, wherein the ship's hull has been assembled at distinct geographical locations before being integrated at the Mazagon Dock Limited (MDL).

What does the crest of INS Surat depict?

1. The crest of INS Surat depicts the renowned Hazira lighthouse. It was built in 1836, at the southern entrance of the Gulf of Khambhat. It was among India's earliest lighthouses.
2. The crest also features an Asiatic lion (the state animal of Gujarat) representing the majesty and strength of ships.

What is Project 15B?

Specifications	Details
What is it	It is a project that aims to construct four guided missile destroyers
Launched in	2011
Follow on project of	Project 15A (Kolkata Class)
Names of Four Ships	1.Visakhapatnam 2.Mormugao 3.Imphal 4.Surat
Built by	Mazagaon Dock Limited (MDL)
Features	It incorporates advanced design concepts such as state-of-the-art weapons and sensors, advanced stealth features and a high degree of automation for improved survivability.

Wolbachia Method

Why in the News?

Researchers in Indonesia have found a way to fight disease-bearing mosquitoes, by breeding a species of mosquito which carries a certain kind of bacteria that prevents viruses like dengue from growing inside them.

What is Wolbachia?

1. Wolbachia is a common **bacteria that occurs naturally in 60% of insect species**, including some mosquitoes, fruit flies, moths, dragonflies and butterflies.
2. Wolbachia is **usually not found in the Andes aegypti mosquito** (the primary species responsible for transmitting human viruses such as Zika, dengue, chikungunya and yellow fever).

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3. Wolbachia is **safe for humans, animals and the environment.**

What is Wolbachia Method? And how it works?

1. **Bacteria Introduction**– In the Wolbachia method, Aedes aegypti mosquitoes are introduced with the bacterium in the lab and then researchers release them into the wild.
2. **Population Replacement Strategy-** Now, the Wolbachia-infected mosquitoes breed with their wild counterparts which result in a growing percentage of the bacterium in those mosquitoes.
3. This makes it harder for viruses to reproduce inside the mosquitoes. And mosquitoes are much less likely to spread viruses from person to person.

What are the results of the Study?

1. **Dengue Reduction**-They found that using the Wolbachia method **reduced the occurrence of dengue in the treated population by 77%.**
2. However, Researchers have not understood why the Wolbachia bacterium interferes with the transmission of dengue. One theory is that the bacterium prevents dengue viruses from replicating in mosquito cells.

Asteroid Dinkinesh

Why in the News?

NASA's Lucy mission has discovered that the Asteroid Dinkinesh is actually a binary system of two asteroids.

What is Lucy Mission?

What is Lucy Spacecraft?	The Lucy space probe is on a **12-year voyage to Jupiter's orbit**, where it will explore the Jupiter Trojan asteroids. (Trojans are a group of small bodies that orbit the Sun in two "swarms" along the orbit of Jupiter.
Launched by	NASA on **16 October 2021** through Atlas V 401 rocket.
Aim	The objective of Mission Lucy is to **uncover the origins of the universe**, whose data can be found on the surface of the Trojan asteroids
Cost of Mission	US$981 million
Distance to be covered in mission (in kms)	Six billion

What are Asteroids?

Asteroids are small, airless rocky worlds revolving around the sun that are too small to be called planets. They are also known as planetoids or minor planets.

What is Asteroid Dinkinesh?

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Dinkinesh (Dinkinesh **means "marvelous" in the Amharic language**) is a main-belt binary asteroid. (Binary asteriod is a system of two asteroids orbiting their common centre of mass, which is also called the bary-center). It was **discovered on 4 November 1999** by the Lincoln Near-Earth Asteroid Research (LINEAR) sky survey at Socorro, New Mexico.

Figure 3. Source- NY Times

What are the Observations made by NASA about Asteroid Dinkinesh?

1.   **Binary Pair**– The main belt asteroid Dinkinesh is actually **two asteroids bound together** as a binary pair.
2.   **Brightness fluctuation**– Asteroid's brightness is changing over time.
3.   **Size Estimation**– The **larger body is about 790 meters** wide while the **smaller one is about 220 meters** in size.

Subject: 5. ENVIRONMENT

Only the Gir indigenous cow breed is being promoted under Rashtriya Gokul Mission; here is why?

Why in the News?

Rashtriya Gokul Mission has been promoting only one indigenous variety, the Gir cow breed across the country.

What is Gir cow breed?

1.   Gir is an Indigenous cow breed originating in the state of Gujarat.
2.   Other names of Gir include Bhodah, Desan, Gujarati, Kathiawari, Sorthi and Surti.

Why is Rashtriya Gokul Mission focusing more on Gir cow breed?

Rashtriya Gokul Mission primarily promotes the Gir cow breed due to its high milk yield and adaptability to various environments.

Air Quality Index

Why in the news?

The Air Quality Index (AQI) in New Delhi persisted in the 'severe' category, registering at 466, according to the **data published by the Central Pollution Control Board.**

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What is AQI?

Specification	Details
Aim	Measures how safe the air around you is for breathing.
Who's given National Air Quality Index	Launched by Central Pollution Control Board in 2014.
Measuring criteria	**(1)**24 hours average data. Its unit is micrograms per cubic meter. **(2)** Each pollutant's quantity in the air is adjusted to a common scale (say, 0 to 500) that works for all pollutants.
NAAQ standards	**(1)** Central pollution control board is empowered to set standards for air under Air (Prevention and control of pollution). **(2)** The current National ambient air quality standards were notified by CPCB in 2009. **(3)** India had set air quality standards in 1994, and this later revised in 1998
Pollutants Covered	**(1)** Particulate matter (PM2.5) **(2)** Particulate matter10 (PM10) **(3)** Ozone (O3) **(4)** Carbon Monoxide (CO) **(5)** Nitrogen Dioxide (NO2) **(6)** Sulphur Dioxide (SO2) **(7)** Lead (Pb) **(8)** Ammonia (NH3)
Number of categories	**Six**- Good, Satisfactory, Moderately Polluted, Poor, Very Poor and Severe.

CENTRAL POLLUTION CONTROL BOARD'S AIR QUALITY STANDARDS

AIR QUALITY INDEX (AQI)	CATEGORY
0-50	Good
51-100	Satisfactory
101-200	Moderate
201-300	Poor
301-400	Very Poor
401-500	Severe

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NHAI sets up Centre to manage dust

Why in the News?

The National Highways Authority of India (NHAI) has set up a 'Dust and Control Management Centre'.

What is the Dust and Control Management Centre?

Specifications	Details
Setup by	National Highways Authority of India (NHAI)
Recommended by	Commission of Air Quality Management (CAQM)
Purpose	To monitor the effective implementation of dust control measures in National Highway (NH) projects in Delhi-NCR.

Note: National Highways/Expressways constitute only about 1.7% of the length of all roads but they carry about 40% of the road traffic.

Scientists Have Discovered 'White Hydrogen' Beneath France

Why in the News?

White hydrogen has recently been discovered in an area called Lorraine in northeastern France. It is estimated to be between 6 million and 250 million metric tons of hydrogen.

What is White Hydrogen?

White hydrogen is also known as natural, gold or geologic hydrogen. It is a naturally occurring form of hydrogen found in the Earth's crust.

Unlike other forms of hydrogen, white hydrogen only produces water when it is burned making it an exceptionally clean energy source with enormous potential.

What are the advantages of White Hydrogen over other types of Hydrogen?

1. **Abundant and Untapped Source-**White hydrogen is seen as a potential abundant and untapped source of clean-burning energy.
2. **Natural Existence-** White hydrogen can be found naturally without relying on energy-intensive processes.
3. **Cost efficiency-** White hydrogen's estimated cost is around $1 per kilogram.
4. **No Emission**- It causes no CO_2 emissions when used as a fuel.

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Mercury Contamination

Why in the News?

According to a study, tropical birds are being affected by mercury pollution due to expanding artisanal and small-scale gold mining operations in jungle areas.

What is Artisanal Mining?

Artisanal mining refers to small-scale, subsistence-based mining activities typically carried out by individuals or small groups using basic tools and limited machinery.

Why is Mercury used in gold mining?

Mercury is commonly used in small-scale gold mining to separate gold from other minerals due to its ability to bind to gold and form amalgam.

Due to this, small-scale gold mining releases large amounts of mercury to the environment and is estimated to contribute approximately 37% of mercury emissions on a global scale.

According to the study:

1. Mercury may be playing a role in the **declining biodiversity of tropical birds** like kingfishers, wrens, warblers among others.
2. Birds living within 7 km (4 miles) of such gold mining activity were found to have **mercury concentrations over four times higher** than those living at other sites across the tropics of Central and South America.

Note: Birds are called the **"canary in the gold mine"** because the condition of birds in an ecosystem serves as an indicator of the health of the environment impacted by gold mining.

What is Mercury?

Specifications	Details
What is it	Mercury is a naturally occurring element that is found in air, water and soil
Natural Sources	Volcanoes, geothermal springs, geologic deposits and the ocean
Human related sources	Coal combustion, waste incineration, industrial uses and mining
Convention	**Minamata Convention:** It obliges government Parties to take a range of actions to address mercury emissions to air and to phase-out certain mercury-containing products.

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New technology for converting CO2 to CO holds potential for carbon capture and energy saving in the steel sector

Why in the News?

The National Centre of Excellence in Carbon Capture and Utilisation (NCoE-CCU) at IIT Bombay has developed carbon dioxide (CO2) conversion technology.

What is CO2 Conversion Technology developed?

Developed by: National Centre of Excellence in Carbon Capture and Utilisation (NCoE-CCU) at IIT Bombay.

Purpose: It converts carbon dioxide (CO2) to carbon monoxide (CO) under electrocatalytic conditions at ambient temperatures and in the presence of water.

What is the significance of this CO2 Conversion Technology?

1. Carbon monoxide (CO) is a widely used chemical in industry, especially in the form of syngas.
2. In the steel industry, CO is an essential ingredient for converting iron ores to metallic iron in blast furnaces.
3. Currently, CO is generated by partial oxidation of coke/coal which leads to a significant production of CO2 as an end product of this process.
4. If this emitted CO2 can be captured and converted into CO, it can lead to a circular economy in this process while reducing the carbon footprint and associated costs.
5. Currently, the process for CO2 to CO conversion occurs at elevated temperatures (400-750 °C) making it an energy-intensive process.
6. But this newly developed CO2 conversion process requires only minimal energy as it can proceed under ambient temperatures (25-40 °C) in the presence of water.
7. Moreover, the energy required for this electrocatalysis reaction can be harnessed directly from a renewable energy source (in the form of a solar panel or windmill) for a carbon-neutral conversion process.

Adaptation Gap Report 2023

Why in the News?

Recently, The Adaptation Gap Report 2023 was issued by the United Nations Environment Programme (UNEP). According to the report, the world is **underprepared, under invested** and lacks the necessary planning for adaptation to climate change.

What is UNEP?

Genesis	It was established after the United Nations Conference on the Human Environment in Stockholm in June 1972.
Establishment year	1972

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Objective	UNEP's mission is to inspire, inform, and enable nations and peoples to improve their quality of life without compromising that of future generations.
Secretariat	Nairobi, Kenya
Membership	All countries are part of UN. (India is a member)

What is Adaptation Gap Report? What are the findings of 2023 Report?

What is it?	The UNEP Adaptation Gap Report (AGR) series provides an annual science-based assessment of the global progress on adaptation planning, financing, and implementation.
Issued by	The AGR is co-produced by **UNEP**, **the UNEP Copenhagen Climate Centre (UNEP-CCC)** and **World Adaptation Science Programme (WASP)**.
Other Reports by UNEP	Emission Gap Report, Global Environment Outlook, Frontiers, Invest into Healthy Planet.

Key observations of the report

(1) **Slowed climate Adaptation progress**

(a) Countries need financing of $215 billion to $387 billion every year to adapt to climate change. But they have been receiving only $21.3 billion.

(b) The adaptation finance needs of developing countries are 10-18 times greater than what they have been receiving.

(2) **Increasing Loss and damages**

(a) A recent study indicates that the 55 most climate-vulnerable economies alone have already experienced losses and damages of more than US $500 billion in the last two decades.

Recommendations of the report

(1) **Invest in adaptation and mitigation-** Every billion invested in adaptation against coastal flooding leads to a USD 14 billion reduction in economic damages.

(2) **COP 28 must deliver new momentum on adaptation and loss and damage –**Policymakers, multilateral banks, investors and the private sector must ensure the same

Subject: 6. SCHEMES AND PROGRAMMES

Prime Minister launches 'Mera Yuva Bharat (MY Bharat)' platform on the National Unity Day

Why in the News?

The Prime Minister has launched 'Mera Yuva Bharat (MY Bharat)' platform for youth of the country.

What is Mera Yuva Bharat?

Aspect	Details

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Initiative of	Ministry of Youth Affairs and Sports
Type	Autonomous Body
Purpose	It is a mechanism powered by technology for youth development and youth-led development.
Objectives	**1.Leadership Development** in the Youth **2.Better alignment** between the aspirations of the youth and the community needs **3.Enhanced efficiency** through Convergence of existing programmes **4.**Act as a **one-stop shop** for young people and Ministries **5.**Create a **centralized youth database**
Target Group	**(1)** It will benefit the youth in the age group of 15-29 years. **(2)** However, the beneficiaries of programme components aimed specifically at youths between the age group of 10 and 19.
Significance	The program will empower and engage young people, encouraging them to become leaders and active citizens within their communities.

PM participates in program marking culmination of Meri Maati Mera Desh campaign's Amrit Kalash Yatra

Why in the News?

The Prime Minister has participated in the programme marking the culmination of the Meri Maati Mera Desh campaign.

What is the Meri Maati Mera Desh campaign?

Aspect	Details
Nodal Ministry	Ministry of Culture
Aim	To honour the brave freedom fighters and Bravehearts who sacrificed their lives for the country.
Significance	The campaign will inspire the nation, foster unity and gratitude for the sacrifices of our freedom fighters and security forces.

Activities under the campaign

1. **Shilaphalakams (memorial plaques):** It will be built in every village or panchayat to pay tribute to those who laid down their lives during the freedom struggle or defence personnel who lost their lives.
2. **Veeron Ka Vandan:** It will felicitate freedom fighters and the families of deceased freedom fighters
3. **Vasudha Vandhan:** Under this, every gram panchayat is encouraged to plant 75 saplings of indigenous species.

4. **Amrit Vatika:** Volunteers have been tasked with collecting "mitti" from each of the panchayats or villages and bringing them to the block level. From each block, a "mitti kalash", will be carried to Delhi.

5. **Taking the Panch Pran Pledge -** With focus to make India a developed country, eliminate the mentality of slavery, be proud of our rich heritage, uphold unity and solidarity, fulfill duties as citizens, and respect those who protect the nation.

National Efficient Cooking Programme launched, to promote affordable and energy-efficient induction cookers

Why in the News?

Energy Efficiency Services Limited (EESL) has launched the National Efficient Cooking Programme (NECP) and Energy Efficient Fans Programme(EEFP).

What is the National Efficient Cooking Programme(NECP)?

Specifications	Details
Launched by	Energy Efficiency Services Limited (EESL)
Launched under	Clean Cooking Scheme
Aim	To transform cooking practices in India by introducing induction-based cook stoves
Target	To deploy 20 Lakh Induction, cook-stoves across India
Partnered with	Modern Energy Cooking Services (MECS) for the large-scale deployment of induction cooktops.
Benefits	The cookstoves offer a cost advantage of 25-30 per cent over traditional cooking methods, promising both energy savings and cost-effective cooking solutions. **It supports India's Go-electric campaign and contributes to carbon mitigation goals.**

Govt likely to extend RoSCTL (Rebate of State and Central Taxes and Levies) scheme

Why in the News?

The Government of India is likely to extend the Rebate of State and Central Levies and Taxes (RoSCTL) scheme till 2025-26.

What is the Rebate of State and Central Levies and Taxes (RoSCTL) Scheme?

Specifications	Details
Launched in	2019
Nodal Ministry	Ministry of Textiles

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Scheme it replaced	Rebate of State Levies (RoSL) Scheme
Aim	To rebate all embedded State and Central Taxes and Levies on garments and made ups to enhance competitiveness of these sectors.
Validity of the scheme currently	March 31,2024
Features	**(1)** The rebate under the Scheme shall be given to the exporter in the form of duty credit scrips which will be maintained in the electronic duty credit ledger. **(2)** The exporters can use the scrip to pay the tax while importing equipment and machinery.

Identify poor prisoners for financial aid to secure release, MHA tells States

Why in the News?

The Ministry of Home Affairs has asked states and union territories to identify poor prisoners for financial aid under the Scheme for Support to Poor Prisoners.

What is the Scheme for Support to Poor Prisoners?

Specifications	Details
Launched by	Ministry of Home Affairs
Aim	To provide financial support to poor prisoners who are not being released from jails as they are unable to pay the fine imposed on them or are not able to secure bail due to financial constraints.
Identification of beneficiaries	An 'Empowered Committee' may be constituted in each District to identify under-trials who need financial support.
Funding	(1) Funds to the States/UTs will be provided through the Central Nodal Agency (CNA). (2) The National Crime Records Bureau (NCRB) has been designated as the CNA for this scheme.
Significance of this scheme	(1) According to the National Crime Records Bureau (NCRB) data of 2020, roughly 76% of individuals in Indian prisons were under-trials. Among these, approximately 68% were either illiterate or school dropouts. (2) Lengthy detention of under-trials is often linked to their economic status. Many lack the financial resources to pay for bail or legal representation.

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Krishi 24/7, the first-ever AI-powered solution for automated agricultural news monitoring and analysis

Why in the News?

Department of Agriculture and Farmers Welfare (DA&FW) has launched Krishi 24/7.

What is Krishi 24/7?

Aspects	Details
What is it	It is an AI powered tool designed to automatically monitor and analyze agricultural news.
Developed by	Department of Agriculture and Farmers Welfare (DA&FW) in partnership with Wadhwani Institute for Artificial Intelligence (Wadhwani AI)
Features	1.It scans news articles in multiple languages and translates them into English. 2.Extracts essential information from news articles including headline, crop name, event type, date, location, severity, summary and source link to ensure the government receives timely updates.
Significance	Krishi 24/7 is an efficient mechanism for the government to identify and handle important agricultural news for quick decision-making.

Bharat Atta to cost ₹2 less as govt aims to put lid on prices

Why in the News?

The Government of India has launched a new wheat flour scheme called "Bharat Atta."

What is Bharat Atta?

Bharat Atta is a fortified wheat flour that is made with a blend of wheat, rice, and pulses. It is a good source of protein, iron, and other essential nutrients.

What is Bharat Atta scheme?

Aim: To provide affordable wheat flour to the poor and vulnerable sections of society.

Under this scheme, Bharat Atta will be available at a subsidized rate.The atta will be made available through outlets such as Kendriya Bhandar, National Agricultural Cooperative Marketing Federation (NAFED) and National Cooperative Consumers' Federation (NCCF).

-These agencies will utilize their extensive network of 800 mobile vans and 2,000-odd outlets spread across the country to effectively distribute the subsidized wheat flour.

Significance: This scheme will help in moderating the prices of essential food items, which will in turn ease the financial burden on consumers.

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LEAP AHEAD initiative: Launched by STPI for startups to get access to investment, mentorship & global connect

Why in the News?

The Ministry of Electronics & Information Technology (MeitY) Secretary has launched the LEAP AHEAD initiative.

What is the LEAP AHEAD Initiative?

Aspects	Details
Launched by	Software Technology Parks of India (STPI) and The Indus Entrepreneurs (TiE) Delhi-NCR
Aim	To support tech startups by offering them access to funding, mentorship and global connections.
Full Form	Launchpad for Tech Entrepreneurs towards Accelerated Growth and Pioneering AHEAD (LEAP AHEAD)
Benefits for Startups	1.Intensive Three-Month Mentorship Program 2.One-on-One Mentorship with investors and industry experts. 3.Funding Potential of up to ₹1 crore 4.Access to networks and exposure in the global market. 5.One year of free associate membership with TiE Delhi-NCR
Eligibility	Startups involved in software product development, registered with DPIIT under the Startup India program and have demonstrated revenue generation and external investment .

What are Software Technology Parks of India(STPI)?

Specifications	Details
What is it	Autonomous Society under the Ministry of Electronics and Information Technology (MeitY).
Established in	1991
Aim	To encourage, promote and boost the Software Exports from India.
Chaired by	Union Minister for Electronics & Information Technology.
Headquarters	New Delhi

PM Vishwakarma Yojana: Master Trainers &; Assessors Program launched

Why in the News?

The Ministry of Skill Development & Entrepreneurship(MSDE) has announced the commencement of the Training of Master Trainers & Assessors Program under the PM Vishwakarma scheme.

What is the PM Vishwakarma Scheme?

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Aspects	Details
Launched in	2023
Nodal Ministry	Ministry of Micro, Small & Medium Enterprise.
Type	Central Sector Scheme
Aim	To provide end-to-end support to artisans and craftspeople who work with their hands and tools
Beneficiaries	The Scheme covers artisans and craftspeople engaged in 18 trades such as carpenter, boat maker, blacksmith etc.
Benefits	1. **Recognition of artisans** through PM Vishwakarma certificate and ID card. 2. **Skill Upgradation** and advanced Training 3. **Toolkit Incentive** of upto Rs. 15,000 in the form of e-vouchers 4. **Collateral free loans** of upto Rs. 3 lakh at low rate of interest. 5. **Incentive for Digital Transaction** 6. **Marketing Support** in the form of quality certification, branding, onboarding on e-commerce platforms
Eligibility Criteria	1. Minimum age of beneficiary should be 18 years. 2. The beneficiary should be engaged in the trade concerned. 3. Should not have availed loans under similar credit-based schemes of Central Government or State Government. 4. The registration and benefits under the Scheme shall be restricted to one member of the family.

Subject: 7. ART & CULTURE

India's 800-year-old connection with Jerusalem: Baba Farid's lodge, now a rest stop for Indian travellers

Why in the News?

India's connection with Jerusalem dates back to 800 years to the establishment of Baba Farid's lodge.

Who was Baba Farid?

Aspect	Details
Birth	1173 (Talwandi, Punjab, present-day Pakistan)
Occupation	Sufi Saint
Belongs to	Chishti Sufi Order
Contribution	Prominent Punjabi Sufi poet; His works are part of the Sikh scripture Granth Sahib
Philosophy	Emphasized love, devotion, and unity with God; Simplicity in life

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Famous Disciple	Shaikh Nizamuddin Auliya (1238-1325). He was responsible for making Delhi an important Centre of the Chishti Silsila.

What was Baba Farid's connection with Jerusalem?

Shrine: Baba Farid is said to have meditated at a place in Jerusalem for 40 days.

1. Indian Muslims on their way to Mecca started coming to the walled city of Jerusalem to pray at this location.

Lodge: Baba Farid during his travels to Jerusalem prayed at the Al-Aqsa Mosque and stayed at a lodge.

1. This lodge later came to be known as **Zawiya Al-Hindiya,** meaning "the Lodge of Hind." After Baba Farid's departure, the lodge maintained its association with India.
2. The medieval Traveller **Evliya Chelebi** described Zawiya Al-Hindiya as one of the largest Zawiyas in the city in 1671.
3. This lodge is currently under the **ownership of the Waqf Board of India** and is accessible only to individuals of Indian citizenship or heritage.

PM lauds inclusion of Kozhikode as 'City of Literature' and Gwalior as the 'City of Music' in UNESCO's Creative Cities Network

Why in the News?

Kozhikode in Kerala and Gwalior in Madhya Pradesh have been included in the UNESCO's Creative Cities Network.

What is UNESCO Creative Cities Network?

Specification	Details
Started by	United Nations Educational, Scientific and Cultural Organization (UNESCO)
Launched in	2004
Aim	To promote cooperation among cities which recognized creativity as a major factor in their urban development.
Categories	1.Crafts and folk arts 2. Media arts 3. Film 4. Design 5. Gastronomy 6. Literature and 7. Music.

Which Indian Cities are part of UNESCO Creative Cities Network?

Cities	Category
Kozhikode	City of Literature
Gwalior	City of Music
Srinagar	Crafts and Folk Arts
Mumbai	Film

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Hyderabad	Gastronomy
Chennai	City of Music
Jaipur	Crafts and Folk Arts
Varanasi	City of Music

Why have Kozhikode and Gwalior been included in UNESCO's Creative Cities Network?

Kozhikode- Kozhikode carries the distinction of being home to over 500 public libraries. The effort of the city's people, writers, journalists and local libraries have led to its inclusion as the 'City of Literature'.

Gwalior- Gwalior is home to the Gwalior Gharana, which has one of the best music maestros like Baiju Bawra and Tansen. The city has become a popular destination for learning Indian classical music from musicians in the Guru-Shishya Parampara.

The recognition by UNESCO will help in boosting tourism in the two Indian cities.

Chennai hosts an art exhibit showcasing Pichwai, some dating back 350 years

Why in the News?

Chennai's Collage is hosting an art exhibition showcasing Pichwai paintings, some of which date back 350 years.

What are Pichwai Paintings?

Pichwai paintings are a traditional form of Indian art that originated in the town of Nathdwara near Udaipur in the state of Rajasthan.

Key Features:

Specifications	Details
Subject matter	Predominantly depicts stories and legends of Lord Krishna
Traditional Techniques	Done on clothes, usually khadi.

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Materials used	Uses natural colors made from minerals and plant extracts.
	Stone pigments are used for gold and silver tones.
	Vegetable dyes are used for brighter orange, red, chrome yellow and kesari colors.
Usage	Hung behind the idol of Shrinathji, a local form of Krishna and the centre of Pushtimarg worship

Subject: 8. REPORTS & INDICES

53 accidents, 19 deaths per hour in road crashes in 2022: Road Transport Ministry

Why in the News?

The Ministry of Road Transport and Highways (MoRTH) has released a report titled 'Road accidents in India -2022'.

What are the key findings of the report?

Aspect	2022 Statistics
Total Road Accidents	4.6 lakhs
Total deaths due to Road accidents	1.68 lakhs
Increase in accidents and deaths from previous year	11.9% in accidents and 9.4% in fatalities
Road accidents and deaths every hour or daily	India witnessed 53 accidents and 19 deaths every hour or an average of 1,264 accidents and 42 deaths daily due to road crashes.
Location of accidents	National Highways (32.9%), State Highways (23.1%) and Other Roads (43.9%)
Age group of accident victims	Young adults in the age group of 18 – 45 years accounted for 66.5% of victims
Childrens died in accidents	Over 9000 children were killed due to road crashes. This means that around 26 children died every day during 2022.
Rural vs. Urban Accident Deaths	Rural: 68%, Urban: 32%
Vehicle categories involved in road accidents	Two-wheelers accounted for the highest share in total accidents and fatalities
States with Most Accidents on National Highways	Tamil Nadu followed by Madhya Pradesh
States with Highest Fatalities	Uttar Pradesh followed by Tamil Nadu

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Annual Survey of India's City-Systems 2023

Why in the News?

The sixth edition of the Annual Survey of India's City-Systems (ASICS) 2023 report has been released.

What is the Annual Survey of India's City-Systems (ASICS) 2023 report?

Released by: Janaagraha Centre for Citizenship and Democracy, a non-profit institution

Aim: To highlight the challenges and constraints faced by the Local Governments in Indian Cities.

Key Highlights from the report:

Specifications	Details
Active Master Plan	39% of India's capital cities lack an active master plan.
Sectoral Plans	Only nine cities have prepared sectoral plans for key aspects such as sanitation, comprehensive mobility, and sustainability.
Urban Legislations	Eastern states, comprising Bihar, Chhattisgarh, Jharkhand, Odisha and West Bengal have relatively better urban legislations followed by southern states.
Limited control over finances	(1) Majority of local governments are financially dependent on their state governments. (2) Only Assam empowers its city governments to collect all key taxes. (3) Except five States — Bihar, Jharkhand, Odisha, Meghalaya, and Rajasthan — all the others must get approval from the State before borrowing money.
Power Asymmetry across city categories	Mayors in megacities are not directly elected and do not have a five-year tenure, whereas mayors in smaller cities are directly elected but have limited authority over city finances
Limited Authority in Staff appointments	Mayors and city councils have limited authority in appointing and promoting staff, including senior management teams, leading to challenges in accountability and efficient administration.
Transparency issues	Only 11 of the 35 States/Union Territories have enacted the Public Disclosure Law that mandates publishing of key civic data
Staff Shortage	(1) 35% of posts in India's municipal corporations are vacant. (2) The vacancy progressively worsens with 41% posts being vacant among municipalities and 58% being vacant in town panchayats

NITI weighs discontinuing key water report launched 5 years ago

Why in the News?

NITI Aayog is said to have marked the Composite Water Management Index' report for the year 2018-19 and 2019-20 for "internal use" after having publicly released the previous editions.

What is the Composite Water Management Index?

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Specifications	Details
Started in	2018
Started by	NITI Aayog
Associated Ministries	Water Resources, Drinking Water & Sanitation and Rural Development
Aim	To evaluate and rank the states and Union Territories in India on their management of water resources.
Objective	To enable effective water management in Indian states in the face of this growing crisis.
Parameters	The index consists of 9 key themes which are 1.Restoration of Water Bodies 2.Groundwater 3.Major and Medium Irrigation 4.Watershed Development 5.Participatory Irrigation Practices 6.Sustainable on-form Water Use Practices 7.Rural Drinking Water 8.Urban Water Supply and Sanitation 9.Policy and Governance.

What does the latest Composite Water Management Index report say?

The latest Composite Water Management Index report maps the performance of states for 2018-19 and 2019-20. According to the report:

1. Water scarcity is a "national problem".
2. The average annual per capita water availability is expected to reduce to 1,486 cubic meters per person per year by 2021 from 1,545 cubic meters per person per year in 2011.
3. **Note:** As per the annual water availability norms, the availability value of less than 1,700 cubic meters/person/year indicates water shortage. Water availability below 1,000 cubic metre/ capita/ year is considered as "scarcity".
4. Gujarat tops the list with continuous improvements year on year. It is closely followed by Rajasthan, Andhra Pradesh and Madhya Pradesh in terms of performance.

Subject: 9. AWARDS & PRIZES

Author Nandini Das wins 2023 British Academy Book Prize

Why in the News?

Indian-born author Nandini Das has been named the winner of the 2023 British Academy Book Prize for Global Cultural Understanding.

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What is the British Academy Book Prize?

Specification	Details
Given by	The British Academy
Established in	2013
Formerly known as	Nayef Al-Rodhan Prize
Aim	To reward and celebrate the best works of non-fiction books
Prize Money	£25,000

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