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CHALLENGES OF COMBATING OIL SPILLS

Context

- The Indian Coast Guard (ICG) organized a 'Pollution Response Seminar and Mock Drill' in West Bengal to address critical challenges of combating oil spills at sea.

What is an Oil Spill?

- **An oil spill** is the release of a liquid petroleum hydrocarbon from tankers, offshore platforms, drilling rigs or wells into the environment, especially marine areas.
- **Spilled substances:** It may be refined petroleum products, such as gasoline and diesel fuel, as well as their by-products — heavier fuels used by large ships such as bunker fuel or oily refuse of any kind.

Past incidences

- **International Incidence:**
 - ♦ **Venezuela:** In 2020 oil leakage from the El Palito refinery in Venezuela.
 - ♦ **Japanese ship** MV Wakashio carrying fuel oil split into two parts near Blue Bay Marine Park in south-east Mauritius.
 - ♦ **Russia:** Arctic (Norilsk diesel fuel spill) Oil Spill
 - ♦ **Deepwater Horizon oil spill:** Gulf of Mexico, 2010
- **Indian incidents:**
 - ♦ **Chennai 2017:** Two ships collided off Kamarajar Port Limited's (KPL) harbor and resulted in a major oil spill disaster.
 - ♦ **Sundarban 2014:** Oil spill in Sela River, Bangladesh created an environmental concern for India too.
 - ♦ **ONGC Uran Plan leaked** oil in the Arabian Sea in 2013.
 - ♦ **Mumbai coast:** In 2010 two ships collided causing the 800 tonnes of the oil spill.

Damage caused by oil spill

- **Environmental Impact:** Oil spills harm various species of fish, birds, mammals, and other marine life. The oil can coat and damage the fur or feathers of animals, making it difficult for them to swim or fly.

- **Habitat Destruction:** Oil can contaminate coastal habitats, including beaches, marshes, and mangroves, leading to long-term damage.
- **Fisheries and Aquaculture:** Contaminated waters can lead to reduced fish populations and damage to fishing gear, affecting the livelihoods of communities dependent on these activities.
 - ♦ In the case of Ennore, fishermen have not been able to venture into fishing as fish catch smells of oil.
- **Tourism:** Coastal areas affected by oil spills often experience a decline in tourism due to the negative perception of polluted beaches and waters. This can result in economic losses for local businesses and communities.
- **Exposure to Toxic Substances:** The chemicals present in oil, such as polycyclic aromatic hydrocarbons (PAHs), pose health risks to humans. Inhalation of fumes, ingestion of contaminated seafood, or direct skin contact with oil can lead to respiratory problems, skin irritation, and long-term health effects.

International Efforts for dealing with Oil Spill

- **International Convention for the Prevention of Pollution from Ships (MARPOL):** It was rolled out by the International Maritime Organisation (IMO) in 1973 and recognised the need for international coherent efforts for curbing oil spill.
- **International Convention on Oil Pollution Preparedness, Response and Cooperation 1990:** It is the international instrument that provides a framework designed to facilitate international cooperation and mutual assistance in preparing for and responding to major oil pollution incidents.

Indian Efforts for dealing with Oil Spill

- **National Oil Spill Disaster Contingency Plan (NOS-DCP):** The Indian Coast Guard (ICG) is responsible for maintaining and implementing the Plan. It was promulgated in 1996 and revised in 2015. Its Objectives are:
 - ♦ Effective reporting of spillage
 - ♦ Prompt response to prevent, control and combat oil pollution
 - ♦ Adequate protection to Public Health and Welfare along with Marine Environment
 - ♦ Use of Science and Technology for preventing and managing oil spills and pollution and residuals.

- **Merchant shipping Act, 1958:** The Act, describes the power to give a notice to the owner, when the central government is satisfied the ship is not as per the prescribed rules. After notice, if the person fails to comply, the government can convict the person of an offense.

Control measures for Oil Spills

- **Bioremediation:** It refers to the use of specific microorganisms to remove any toxic or harmful substances
 - ♦ TERI has developed **Oil Zapper Bacteria** which can degrade the oil quickly.
- **Oil Booms:** They are temporary floating barriers used to contain marine spills, protect the environment, and assist in recovery.
- **Using Dispersants:** Dispersal agents are chemicals that are sprayed upon the spill with the help of aircraft and boats, which aid the natural breakdown of oil components.

Indian Coast Guard (ICG)

- ICG is a maritime law enforcement and search and rescue agency of India with jurisdiction over its territorial waters including its contiguous zone and exclusive economic zone.
- **Established** in 1977 by the Coast Guard Act, 1978 of the Parliament of India.
- **Parent Agency:** Ministry of Defence
- **Headquarters:** New Delhi

Source: PIB

INDIA STEPS UP CRITICAL MINERAL ACQUISITION PLANS IN AFRICA

Context

- India is looking to ramp-up its critical mineral play in Africa as it keys resource securitisation and an upsetting of the Chinese apple-cart in the region.

Critical Minerals

- These are minerals that are **essential for economic development and national security**.
- The lack of availability of these minerals or the concentration of extraction or processing in a few geographical locations could potentially lead to **“supply chain vulnerabilities and even disruption of supplies”**.

Applications of Critical Minerals

- **Clean technologies initiatives** such as zero-emission vehicles, wind turbines, solar panels etc.
 - ♦ Critical minerals such as Cadmium, Cobalt, Gallium, Indium, Selenium and Vanadium and have uses in **batteries, semiconductors, solar panels**, etc.
- **Advanced manufacturing inputs and materials** such as defense applications, permanent magnets, ceramics.
 - ♦ Minerals like Beryllium, Titanium, Tungsten, Tantalum, etc. have usage in new technologies, electronics and defense equipment.
- **Platinum Group Metals (PGMs)** are used in medical devices, cancer treatment drugs, and dental materials.

List of Critical Minerals

- **Different countries have their own unique lists** of critical minerals based on their specific circumstances and priorities.
- **A total of 30 minerals were found to be most critical for India**, out of which two are critical as fertilizer minerals: Antimony, Beryllium, Bismuth, Cobalt, Copper, Gallium, Germanium, Graphite, Hafnium, Indium, Lithium, Molybdenum, Niobium, Nickel, PGE, Phosphorous, Potash, REE, Rhenium, Silicon, Strontium, Tantalum, Tellurium, Tin, Titanium, Tungsten, Vanadium, Zirconium, Selenium and Cadmium.

Indian Presence in africa

- **In Tanzania**, India is pitching for access to resources such as niobium and graphite; in **Zimbabwe** for lithium, and for copper and cobalt in **Congo and Zambia**.
- India signed an MoU with the Republic of **Cote d'Ivoire** for collaboration in the field of geology and mineral resources.

Khanij Bidesh India Limited (KABIL)

- It was formed in **2019** as a joint venture of state-run miners **NALCO, HCL and MECL** to source strategic minerals such as lithium and cobalt etc. from abroad.
- KABIL carries out identification, acquisition, exploration, development, mining and processing of strategic minerals overseas for commercial use and meeting the country's requirement of these minerals.



Chinese Presence

- In Congo, China is said to control over 5 percent of the cobalt processing facilities.
 - Chinese companies are estimated to own 80 per cent in **Tenke Fungurume**, a copper-cobalt mine, which produces nearly 12 percent of the world's resources.
 - Around 95 per cent of stake in a yet to be developed **cobalt and copper project Kinsafu** was picked up by the Chinese.
- In Zimbabwe substantial Chinese investments are being made towards securing lithium.

Mineral Security Partnership (MSP)

- It is a US-led collaboration of 14 countries** that would focus on the supply chains of minerals such as Cobalt, Nickel, Lithium, and also the 17 'rare earth' minerals.
- Members:** Australia, Canada, Finland, France, Germany, India, Italy, Japan, the Republic of Korea, Norway, Sweden, the UK, U.S., and the EU.
- Mandate:** To catalyze public and private investment in critical mineral supply chains globally. It directly addresses four major critical minerals challenges:
 - Diversifying and stabilizing global supply chains;
 - Investment in those supply chains;
 - Promoting high environmental, social, and governance standards in the mining, processing, and recycling sectors; and
 - Increasing recycling of critical minerals.

Way Ahead

- Critical minerals have become essential for **economic development and national security** in the country.
- Minerals such as Lithium, Cobalt etc. have gained significance in view of India's commitment towards energy transition and achieving **net-zero emission by 2070**.

Source: [BL](#)

QUARTER (Q1) PERIODIC LABOUR FORCE SURVEY

Context

- Recently, the Ministry of Statistics and Programme Implementation (MOSPI) released the Periodic Labour Force Survey (PLFS) for the first quarter (Q1) of 2024.

About the Periodic Labour Force Survey (PLFS)

- It was launched by the **National Sample Survey Office (NSSO)** in April 2017, considering the importance of availability of labour force data at more frequent time intervals.
- The data on Employment and Unemployment is collected through **Periodic Labour Force Survey (PLFS)**.

Objectives:

- To estimate the **key employment and unemployment indicators** (viz. Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate) in the short time interval of three months for the **urban areas only** in the **'Current Weekly Status' (CWS)**.

- To estimate **employment and unemployment indicators** in both 'Usual Status' (ps+ss) and CWS in both rural and urban areas annually.

National Sample Survey Office (NSSO)

- It is an organisation responsible for conducting large-scale sample surveys on an all-India basis.
- It was **merged with the Central Statistical Office (CSO)** to form the **National Statistical Office (NSO)** in 2019 and **now headed by the Ministry of Statistics and Programme Implementation (MOSPI)**.
 - Earlier, NSSO was** headed by a Director General and was responsible for conducting large-scale sample surveys in diverse fields on an all-India basis.
- Data were **primarily collected through nationwide household surveys** on various socio-economic subjects, Annual Survey of Industries, etc.
- It maintained a frame of urban area units for use in sample surveys in urban areas.

Divisions

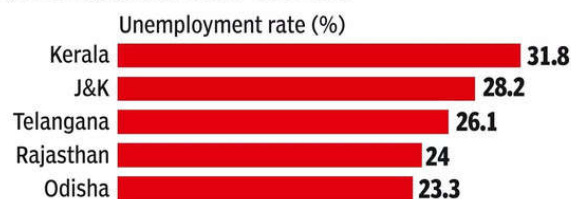
- Survey Design and Research Division (SDRD):** Located at Kolkata, this division was responsible for technical planning of surveys, formulation of concepts and definitions, sampling design, designing of inquiry schedules, drawing up of tabulation plan, analysis, and presentation of survey results.
- Field Operations Division (FOD):** With its headquarters at Delhi/Faridabad, this division was responsible for the collection of primary data for the surveys undertaken by NSS.
- Data Processing Division (DPD):** Located at Kolkata, this division was responsible for sample selection, software development, processing, validation, and tabulation of the data collected through surveys.
- Survey Coordination Division (SCD):** Located at New Delhi, this division coordinated all the activities of different divisions of NSS.

Key Findings of PLFS

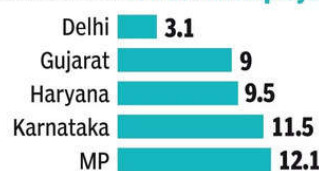
- Unemployment Rate (UR) in Urban Areas:** It decreased from 6.8% (Q1 2023) to 6.7% (Q1 2024) for persons of age 15 years and above.
- For Male:** It increased from 6.0% to 6.1%
 - Female UR** decreased from 9.2% to 8.5%

J&K TOPS IN FEMALE UNEMPLOYMENT

States with the **highest unemployment** rates in 15-29 years age group in Jan-Mar 2024



States with **lowest unemployment** rates



(Jan-Mar 2024)

High female unemployment rate

J&K	48.6
Kerala	46.6
Uttarakhand	39.4
Telangana	38.4
Himachal Pradesh	35.9

High male unemployment rate

Kerala	24.3
Bihar	21.2
Odisha	20.6
Rajasthan	20.6
Chhattisgarh	19.6

Low female unemployment rate

Delhi	5.7
Gujarat	10.9
Madhya Pradesh	13.5
Haryana	13.9
Karnataka	15

Low male unemployment rates

Delhi	2.5
Gujarat	8.5
Karnataka	10.1
Himachal Pradesh	10.2
Madhya Pradesh	11.7

- Labour Force Participation Rate (LFPR) in Urban Areas:** It has shown an increasing trend from **48.5% (Q1 2023) to 50.2% (Q1 2024)** for persons of age 15 years and above.
 - Male LFPR:** It increased from 73.5% to 74.4%
 - Female LFPR:** It increased from 22.7% to 25.6%
- Worker Population Ratio (WPR): Increasing Trend in WPR** for persons of age 15 years and above from 45.2% (Q1 2023) to 46.9% (Q1 2024).
 - For Male:** It increased from 69.1% to 69.8%
 - For Female:** It increased from 20.6% to 23.4%

State Wise Data on Unemployment

- Kerala had the highest unemployment rate** in the 15-29 age group in urban areas in Q1 2024, while **Delhi had the lowest joblessness rate** among 22 states and Union territories.
- J&K, Telangana, Rajasthan and Odisha** were among the five states with the **highest unemployment rates** in the 15-29 years category.
- Three out of the 22 states and UTs recorded unemployment rates in single digits - apart from Delhi (3.1%), the other states were Gujarat (9%) and Haryana (9.5%).

- The other two states among the five with low joblessness rates were Karnataka (11.5%) and Madhya Pradesh (12.1%).
- PLFS data showed that the **unemployment rate for women** was the **highest in J&K at 48.6%, followed by Kerala (46.6%)**, Uttarakhand (39.4%), Telangana (38.4%) and Himachal Pradesh (35.9%).

- **Employed:** Individuals who are currently engaged in economic activities.
- **Unemployed:** Individuals who are seeking or available for work but are currently without employment.
- **Not seeking or available for work:** Individuals who are neither actively seeking nor available for employment.

Employment Prevailing in an Indian Economy

- **Wage employment:** It is a result of labour demanded by employers in their pursuit of profits.
- **Self-employment:** Labour supply and labour demand are identical. The worker employs herself.
- The **wage labour** includes all forms of labour done for an employer including daily wage work at one extreme and highly paid corporate jobs at the other.

Related government initiatives to boost overall employment scenario in India:

- **Atmanirbhar Bharat Rojgar Yojana (ABRY):** Launched as part of the **Atmanirbhar Bharat package 3.0**, to incentivise employers for creating new employment along with social security benefits and restoration of loss of employment during the Covid-19 pandemic.
- **Pradhan Mantri Rojgar Protsahan Yojana (PMRPY):** To incentivize employers for the creation of new employment.
- **National Career Service (NCS) Project:** It provides a variety of career-related services like job matching, career counselling, vocational guidance, information on skill development courses, apprenticeships, internships, etc.
- **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA):** It provides at least 100 days of guaranteed wage employment in a financial year to every rural household whose adult members volunteer to do unskilled manual work.

- **Pradhan Mantri Garib Kalyan Rojgar Abhiyaan (PMGKRA):** To boost employment and livelihood opportunities for returnee migrant workers and similarly affected persons in rural areas.
- **Pradhan Mantri Mudra Yojana (PMMY):** It facilitates self-employment by providing collateral-free loans up to Rs. 10 lakh to micro/small business enterprises and individuals.
- **Garib Kalyan Rojgar Abhiyaan (GKRA):** To provide immediate employment and livelihood opportunities to the distressed and to saturate the villages with public infrastructure and creation of livelihood assets.
- **PM GatiShakti:** It is a transformative approach for economic growth and sustainable development, driven by seven engines, namely, Roads, Railways, Airports, Ports, Mass Transport, Waterways, and Logistics Infrastructure.

Source: TOI

BOILER BLAST AT CHEMICAL COMPANY IN MAHARASHTRA

Context

- Eight people were killed and around 60 were injured in a **boiler blast at a chemical company in Maharashtra**.

Industrial Accidents in India

- In the last decade, 130 significant chemical accidents have been reported, which resulted in 259 deaths and left 563 people with major injuries, according to data by the National Disaster Management Authority (NDMA).
- Several industrial accidents have occurred over the years, **resulting in loss of life, injuries, and environmental damage**.
 - ♦ **Bhopal Gas Tragedy (1984):** One of the most catastrophic industrial disasters in history, where a pesticide plant owned by Union Carbide leaked methyl isocyanate gas, leading to thousands of deaths and long-term health effects for many more.
 - ♦ **Visakhapatnam Gas Leak (2020):** A gas leak at LG Polymers plant in Visakhapatnam resulted in the death of several people and caused injuries to many others.
 - ♦ **Chennai Oil Spill (2017):** Two ships collided near the Kamarajar Port in Ennore, Chennai, resulting in a massive oil spill. The spill polluted the coastline, affecting marine life and local communities.

- ♦ **Neyveli Boiler Blast (2020):** An explosion in a boiler at the Neyveli Lignite Corporation (NLC) power plant in Tamil Nadu caused several fatalities and injuries to workers.

Factors Responsible for Industrial Accidents

- **Poor Safety Regulations and Enforcement:** Some industries do not adhere to safety standards due to loopholes in regulations or insufficient monitoring by regulatory authorities.
- **Lack of Training and Awareness:** Insufficient training of workers regarding safety procedures and hazard awareness lead to accidents.
- **Equipment Failure:** Lack of regular maintenance, outdated machinery, or using equipment beyond its operational capacity increase the risk of accidents.
- **Chemical and Process Safety:** Negligence in handling or storing chemicals, improper ventilation systems, or inadequate emergency response plans lead to disasters.
- **Lack of Emergency Preparedness:** This includes insufficient firefighting equipment, emergency exits, and communication systems.
- **Informal Workforce:** In industries where contractual labor or informal workers are prevalent, safety standards are compromised to cut costs, leading to a higher risk of accidents.

Government Initiatives

- **Occupational Safety and Health (OSH) Code:** The government introduced the Occupational Safety, Health, and Working Conditions Code, 2020, which aims to consolidate and amend laws regulating occupational safety and health in India.
 - ♦ The code seeks to enhance the safety and welfare of workers by specifying standards for working conditions, safety measures, and welfare amenities.
- **National Policy on Safety, Health and Environment at Workplace (NPSHEW):** The government formulated the NPSHEW to promote a preventive safety culture in industries and workplaces. This policy aims to integrate safety, health, and environmental concerns into the decision-making processes of industries and improve the overall safety performance.
- **Industrial Safety and Disaster Management Plans:** The government mandates industries to develop and implement safety and disaster

management plans to mitigate the risks of industrial accidents.

- ♦ These plans include measures for risk assessment, emergency response, evacuation procedures, and training programs for employees.
- **National Disaster Management Authority (NDMA):** The NDMA plays a crucial role in disaster preparedness, response, and mitigation across various sectors, including industrial safety.
 - ♦ It formulates policies, plans, and guidelines for disaster management and works with relevant stakeholders to ensure effective coordination during emergencies.
- **Bureau of Indian Standards (BIS):** BIS develops and maintains standards for industrial safety equipment, materials, and processes to ensure compliance with safety regulations.
- **Labour Inspection and Enforcement:** The government conducts regular inspections of industrial establishments to assess compliance with safety regulations and identify potential risks.
 - ♦ Strict enforcement measures are taken against violators to ensure accountability and deterrence.

Way Ahead

- Bhopal Tragedy teaches us lessons not about better technology or stricter regulation, but about a **basic respect for life** – of the living and the yet-to-be-born; about the primacy of life over profits.
- The **right of citizens to a safe workplace and clean environment** can only be achieved if the imbalance of power between citizens and corporations is corrected.
- **The International Medical Commission on Bhopal had recommended** that citizen organisations be adequately represented in national and state commissions dealing with disasters; that compensation criteria should include medical, economic and social damage to victims; and that resources should be allocated for the economic and social rehabilitation of people and their communities.
- If India wishes to transform itself into an economic powerhouse, it should guard both its people and environment against the deadly effects of this transformation.

Source: IE

CYBERCRIME SURGE IN INDIA

Context

- Recently, the CEO of the **Indian Cyber Crime Coordination Centre (I4C)** highlighted that India has witnessed a sharp increase in cybercrime incidents.

Do You Know?

- Cyber Crime is **not defined in Information Technology Act 2000** nor in the I.T. Amendment Act 2008 **nor in any other legislation in India.**
- However, the IT Act defines a computer, computer network, data, information and all other necessary ingredients that form part of a cyber crime.
- It is interpreted as **any offence or crime in which a computer is used is a cyber crime.**

About the Cyber Crime

- It is the **use of digital technologies** such as computers and the internet **to commit criminal activities.**
- It includes **financial fraud** (credit card fraud, online transaction fraud), **crime against women and children** with regard to **sexually explicit material, and deep fake content** etc.
- Reasons for increase in Cybercrime:** Rapid Digitalisation, Large Internet User Base, Inadequate Cybersecurity Infrastructure, Insider Threats, Payment Systems Vulnerability, and Vulnerable population because of Low digital literacy etc.

Rise in Cybercrime in India

- Daily Complaints:** India is facing a rise in cybercrime, averaging more than 7,000 complaints daily up to May this year.
- Cyber Fraudsters' Locations:** Many cyber fraudsters targeting India are believed to be operating from **key locations in Southeast Asia**, including Pursat, Koh Kong, Sihanoukville, Kandal, Bavet, and Poipet in Cambodia; Thailand; and Myawaddy and Shwe Kokko in Myanmar.
- Upward Trend in Cybercrime:** Complaints surged by 113.7% from 2021 to 2022 and 60.9% from 2022 to 2023. The number of complaints has steadily increased over the years.

CHINA CONNECTION?

➤ **6L+ complaints involving ₹7,061cr** received on India's national cyber crime portal

➤ **3.2L mule accounts frozen** in last 4 months & **over 3k URLs and 595 apps blocked**

➤ **5.3L SIM cards** and **over 80,000 IMEI numbers suspended** since July 2023

➤ India doesn't rule out China's involvement in these scams as many Chinese people work in these hubs

Cyber Fraud Incidents in 2024

- Types of Scams:** Most cyber fraud incidents involve fake trading apps, loan apps, gaming apps, dating apps, and algorithm manipulation.
- Reported Scams:** Between January and April, the I4C received 4,599 complaints about digital fraud amounting to Rs 1,203.06 crore.
 - Additionally, trading scams, investment scams, and dating scams were reported.

Modus Operandi of Fraudsters

- Contact Method:** Victims are contacted via normal call from India number using **call spoofing.**
- Impersonation:** The fraudsters also make calls posing as officers of various law enforcement agencies.

Challenges and Necessities

- Alarming Trend:** This surge in cybercrime cases suggests an alarming trend and underscores the increasing challenges related to cybersecurity in the country.
- Need for Enhanced Cyber Defence:** This also highlights the necessity for enhanced cyber defence mechanisms, public awareness, and robust legal frameworks to tackle the burgeoning issue of cybercrime.

- **Challenges and impacts** of cyber crime are **multifaceted** that include Financial Losses, Data Breaches, Identity Theft, Disruption of Services, Loss of Intellectual Property, Reputational Damage, and National Security Concerns etc.

Actions Taken by Law Enforcement

- **Freezing of Mule Bank Accounts:** The I4C and various law enforcement agencies have frozen nearly 325,000 mule bank accounts in the past four months.
- **Blocking of SIM Cards and Social Media Accounts:** Additionally, 530,000 SIM cards and 3,401 social media accounts, including WhatsApp groups, have been blocked.

Related Key Provisions

- **Constitution of India:** According to the **Seventh Schedule** of the Indian Constitution, cybercrimes are within the purview of **State Subjects**.
- **Information Technology Act, 2000:** Section 43, 66, 70, and 74 of the IT Act, 2000 deal with hacking and cyber crimes.
- **Indian Computer Emergency Response Team (CERT-In)** issues alerts and advisories regarding latest cyber threats/vulnerabilities and countermeasures to protect computers and networks on a regular basis.
- **National Cyber Coordination Centre (NCCC)** has been set up to generate necessary situational awareness of existing and potential cyber security threats and enable timely information sharing for proactive, preventive and protective actions by individual entities.

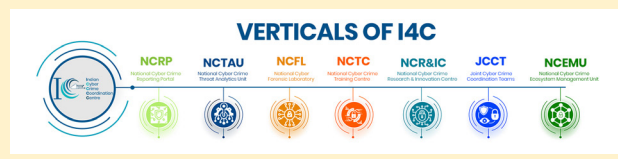
Indian Cyber Crime Coordination Centre (I4C)

- It is an initiative of the **Union Ministry of Home Affairs (MHA)** to deal with cyber crime in the country in a coordinated and comprehensive manner.
- It focuses on **tackling all the issues related to Cybercrime** for the citizens, which includes improving coordination between various Law Enforcement Agencies and the stakeholders.

Objectives

- To act as a **nodal point** to curb Cybercrime in the country.
- To strengthen the fight against Cybercrime committed against **women and children**.

- Facilitate easy filing Cybercrime related complaints and identifying Cybercrime trends and patterns.
- To act as an **early warning system for Law Enforcement Agencies** for proactive Cybercrime prevention and detection.
- **Assist States/UTs** in capacity building of Police Officers, Public Prosecutors and Judicial Officers in the area of **cyber forensic, investigation, cyber hygiene, cyber-criminology**, etc.



Strengthening the Cyber Security

- **Data localisation:** Most cyber crimes are trans-national in nature with extra-territorial jurisdiction. Therefore, 'data localisation' is required, so that enforcement agencies are able to get timely access to the data of suspected Indian citizens.
- **Upgrade cyber labs:** The cyber forensic laboratories of States must be upgraded with the advent of new technologies.
- **Cyber insurance:** Designing cyber insurance policies tailored to the unique requirements of diverse businesses and industries is essential.
- **Stringent Data Protection Law:** Data necessitates a robust data protection framework in India. India's Personal Data Protection Bill, 2019 is a good step in the right direction.

Related International Measures

- **Budapest Convention:** It is the 1st international treaty to address cybercrime.
 - ♦ **India is not a signatory to the treaty.**
- **Internet Corporation for Assigned Names and Numbers (ICANN):** It is a US-based not-for-profit organisation for coordinating & maintenance of several databases.
- **Internet Governance Forum:** It is the **United Nations forum** for multi-stakeholder policy dialogue on Internet governance issues.

Conclusion

- As the digital landscape continues to evolve, so does the nature of cyber threats. It is crucial for individuals, businesses, and the government to stay vigilant and proactive in the face of these challenges.

- With collective efforts and robust cybersecurity measures, we can hope to mitigate the risks and safeguard our digital space.

Source: DD News

NEWS IN SHORT

GRAPHITE

Context

- **India** is in talks with **Sri Lanka** to acquire a graphite mine block, pushing ahead with its plan to **forge global alliances to secure critical mineral supplies**.

About Graphite

- Graphite, a naturally occurring form of **crystalline carbon**, is a vital material in modern technology.

Do You Know?

- **India** signed an agreement with the:
 - **Democratic Republic of the Congo** for cobalt and copper;
 - **Tanzania** for niobium and graphite and;
 - **South Africa** for graphite and titanium.

- Its unique properties such as **high heat resistance, electrical conductivity, and chemical inertness** make it a crucial element in numerous industrial applications like lubricants or repellents, refractories, in nuclear reactors, in batteries, for graphene sheets.
 - ♦ The demand for graphite has been on the rise, primarily driven by its use in **lithium-ion batteries**, which are **extensively used in electric vehicles (EVs)**.
- **Sri Lankan graphite** is considered among the **purest in the world** with more than **98% carbon content**.

Source: ET

SHALLOW AQUIFER MANAGEMENT (SAM)

Context

- Recently, the Greater Hyderabad Municipal Corporation (GHMC) has taken up Shallow Aquifer Management (SAM) model on a pilot basis in the city.

About Shallow Aquifer Management

- It is an innovative approach to **urban water management** that addresses persistent issues of groundwater depletion, drying up of borewells, and quick flooding of city streets.

Aquifer

- It is a body of **porous rock or sediment saturated with groundwater**.
- Groundwater enters an aquifer as precipitation seeps through the soil, and can move through the aquifer and **resurface through springs and wells**.

- It involves **drilling shallow water injection borewells** to a depth of 100-120 feet and pumping out water in the shallow aquifers.
- It allows the **layers underneath** to get recharged whenever there is rainfall, while collecting water from the surrounding watershed and channeling it through recharge pits.

Benefits of SAM

- It helps in recharging the underground layers, leading to a rise in the water table.
- This sustainable urban water management technique can help secure water for the future.
- Moreover, it can also provide natural filtration and purification of contaminants, acting as a form of waste treatment.

SAM Pilot Models in India

- It is a part of the **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)** scheme of the **Ministry of Housing and Urban Affairs (MoHUA)**.
- The **nodal implementation agency** is the **National Institute of Urban Affairs**.
 - ♦ It was established as **an autonomous body in 1976** under the aegis of the MoHUA, and then the institute was **registered as a society under the Societies Registration Act XXI of 1860**.
- In **2022**, the AMRUT initiated a **SAM pilot across 10 cities in nine states**: Bengaluru (Karnataka), Chennai (Tamil Nadu), Dhanbad (Jharkhand), Gwalior (Madhya Pradesh), Hyderabad (Telangana), Jaipur (Rajasthan), Kolkata (West Bengal), Pune and Thane (Maharashtra), and Rajkot (Gujarat).

- ◆ It is a collaboration between the city-specific Urban Local Bodies (ULBs) and local non-governmental organisations (NGOs).

Source: TH

DEPARTMENT OF MILITARY AFFAIRS

Context

The Department of Military Affairs (DMA) has sought feedback from the forces on the [Agnipath scheme](#).

About

- The Government of India is responsible for **ensuring the defence of India**.
- **The Supreme Command of the Armed Forces vests in the President.** The responsibility for **national defence rests with the Cabinet**.
- This is discharged through the **Ministry of Defence**, which provides the policy framework in the context of the defence of the country.
- **The Raksha Mantri** (Defence Minister) is the head of the Ministry of Defence.
- The Ministry of Defence comprises **five Departments** viz. Department of Defence (DOD), Department of Defence Production (DDP), Department of Defence Research & Development (DDR&D) and Department of Ex-Servicemen Welfare and also Finance Division.

- ◆ The Department of Military Affairs was created in 2019.
- ◆ DMA is headed by **Chief of Defence Staff (CDS)** as Secretary and was created to facilitate **optimal utilization of resources and promote jointness among the three Services**.

Source: TH

PARA ATHLETICS WORLD CHAMPIONSHIP

Context

- **Indian para athlete Deepthi Jeevanji** set a world record of 55.06 seconds in the women's 400m T20 category, at the **ongoing Para Athletics World Championship 2024 in Kobe, Japan**.

About

- The Para Athletics World Championships is the world's premier para athletics event established by the **International Paralympic Committee**.
- The first Championships was held in **Berlin, Germany in 1994**, and since the fifth Championships in Christchurch, New Zealand in 2011, it has been held **every two years**.

Source: DD News

