

Regent Education and Research Foundation Group of Institutions
Daily Current Affairs Synopsis

Date: 4th, 5th & 6th Feb 2024

(Useful for UPSC/WBPS/SSC Exams.)

- **NPCI International Payments Limited (NIPL)** in partnership with Lyra, a French leader in securing e-commerce and proximity payments, announced acceptance of UPI payment mechanism in France.
France became the **first European country to accept UPI**.
- **UPI**, launched by NPCI in 2016, is an **instant payment system** which acts as interface to facilitate **inter-bank transfers**.
UPI is an **integral part of Payments layer of India Stack**.
- **India Stack** is a set of **open APIs** (Application Program Interface) and **digital public goods** that aim to **unlock economic primitives of identity, data, and payments at population scale**.
India Stack consists of 3 layers – Identity, Payments, and Data.
APIs are set of defined rules that enable different applications to communicate with each other.
- India has been making efforts at **internationalization of India Stack** to foster collaboration in **Digital Public Infrastructure (DPI)**.
- **Significance of internationalization of India Stack**
 - **Global market expansion** for Indian startups and tech firms.
 - **Interoperability and standardization** at global scale.
 - **Innovation and collaboration** leading to **creation of new solutions and services. Soft power and digital diplomacy**, particularly in **global south**.

Efforts at Internationalization of India Stack

NIPL: Wholly owned subsidiary of NPCI, incorporated in 2020, for deployment of RuPay and UPI outside of India.

Acceptance of UPI payments in Overseas markets such as Singapore, UAE, etc.

MoU on sharing of India Stack with Armenia, Sierra Leone, Suriname, and Antigua and Barbuda. **India's**

Initiatives under G20:

➤ **Global Digital Public Infrastructure Repository.**

➤ **Social Impact Fund** to advance DPI in the **Global South**.

- Eminent physicist SN Bose was remembered on his 50th death anniversary.
- He along with Meghnad Saha, established modern theoretical physics in India.

➤ Contributions in the field of Sciences

Made significant advances in **statistical mechanics** and **Quantum statistics**.

Deduced **Planck's Black body radiation law** without any reference to **classical electrodynamics**.

◆ **Black body radiation** refers to the spectrum of radiations emitted by any hot object.

Bose's work titled "**Planck's Law and Light Quantum Hypothesis**" was **translated into German** by Einstein and published in Zeitschrift für Physik.

◆ This publication led to emergence of **Quantum statistics**.

Einstein applied Bose's method to give **theory of ideal quantum gas**, and predicted phenomenon of **Bose-Einstein Condensation (BEC)**.

◆ **BEC is a state of matter** in which separate atoms or subatomic particles, **cooled to near absolute zero (0 Kelvin/ -273.15 °C)**, coalesce into a **single quantum mechanical entity**.

◆ This single quantum entity can be **described by a wave function**, on a **near-macroscopic scale**.

➤ Significance of Bose's contributions

⊕ Laid the groundwork for contemporary understanding of **Standard Model of Physics**.

⊕ Played significant role in **fostering scientific collaboration and exchange of ideas** between Indian and Western scientists.

Rewards/ Recognitions for SN Bose

➤ Awarded **Padma Vibhushan** in 1954.

➤ **'Bosons'**: Fundamental particles with integer spin are named after him.

➤ **Rabindranath Tagore** dedicated his only book on science – **'Vishwa Parichay'** to SN Bose.

➤ Became **Vice-Chancellor of the Visva-Bharati** during 1956-58.

7th Session of the Codex Committee on Spices and Culinary Herbs (CCSCH) Held at Kochi

- In this session, **quality standards for 5 spices, namely small cardamom, turmeric, juniper berry, allpice and star anise** were finalised.
 - ⊕ **CCSCH has forwarded these 5 standards to Codex Alimentarius Commission (CAC) recommending for adoption as full-fledged Codex standards.**
 - ⊕ **For first time ever in CCSCH, strategy of grouping of spices was successfully implemented.**
- **About CCSCH**
 - ⊕ **Establishment:** CCSCH was established as one of the **Commodity Committees** under CAC in 2013.
 - Host:** India hosts CCSCH since the beginning and **Spices Board India (Ministry of Commerce and Industry)** serves as the **Secretariat organization.**
 - Term of reference:**
 - ◆ **To elaborate worldwide standards for spices and culinary herbs in their dried and dehydrated state.**
 - ◆ **Consult with international organizations in the standards development process to avoid duplication.**
- **Codex Standards**

About: These are **international food texts, i.e. standards, codes of practice, codes of hygienic practice, guidelines and other recommendations.**

Nature: Codex texts are **voluntary and do not have binding effect** on national food legislation.

Codex and WTO: WTO Agreements on **Sanitary and Phytosanitary Measures (SPS Agreement)** and on **Technical Barriers to Trade (TBT Agreement)** encouraged **WTO members to harmonise national regulations** with international standards.
- **About Two Digital Modules Launched**

Maritime Single Window (MSW) Module:

 - ◆ **About:** **Digital platform** designed to **facilitate electronic exchange of maritime-related information** between **stakeholders** involved in international maritime trade.
 - ◆ **Benefit:** It will **reduce waiting time** for vessels and goods in Ports by **up to 40%.**

Mercantile Marine Department (MMD) Module:

 - ◆ **Benefit:** It will provide **greater transparency and planning** of **Vessel Departure & Maritime operations** and **reduce the time taken by upto 30%.**
- **About National Logistics Portal (NLP-Marine)**

It is a **national maritime single window platform** with **end-to-end logistics solutions.**

SAGAR-SETU mobile app, an extension of NLP-Marine, launched in 2023, offers real-time information on vessels, container freight stations, and transactions.
- **Maritime Logistics Challenges in India**

Port Congestion: **Average Turn Around Time** improved from 107.29 hours in 2011-12 to 55.99 hours during 2020-21.

 - ◆ However, it is still **higher than countries like Japan, China.**

Security Threats: **Piracy in Arabian Sea** and precarious geopolitical situation around **Red Sea** in recent times.

Poor Fleet Strength: Indian fleet is just **1.2 % of world's fleet** in terms of capacity and carries **only 7.8 % (2018-19) of India's EXIM trade.**

Key Initiatives Taken by the Government

- **Sagarmala Programme:** Vision of Sagarmala Programme is to **reduce logistics cost for EXIM and domestic trade** with **minimal infrastructure investment.**
- **Maritime India Vision 2030:** To develop **world-class mega ports, trans-shipment hubs and infrastructure modernization.**
- **Maritime Amrit Kaal Vision 2047:** Encompassing aspirations in **Logistics, Infrastructure, and Shipping** supporting India's 'Blue Economy'. ➤
- **Sagar Manthan:** A **digital platform** containing comprehensive data related to MoPSW and all its organizations.

Insolvency and Bankruptcy Board of India (IBBI) rationalizes Regulatory framework for Insolvency Professional entities

- ▶ IBBI notified amendments to the Insolvency Resolution Process (IRP) and Bankruptcy Process (BP) for Personal Guarantors (PGs) to Corporate Debtors (CDs).
- ▶ **Key highlights of the amendments**
 - ⊕ Allows appointment of same Insolvency Professional (IP) in corporate process as well as insolvency and bankruptcy proceeding of the PGs to CDs.
 - ◆ **IP is an individual registered with IBBI** who act as intermediary in insolvency and bankruptcy processes.
 - Makes **convening of meeting of creditors mandatory**.
- ▶ IBBI also issued **Clarifications on Regulatory Framework for IPs and Insolvency Professional Entities (IPEs)**, which includes:
 - Limit on number of assignments for IPs** does not apply to an IP which is an IPE.
 - ◆ **IPEs can be a company, limited liability partnership, registered partnership firm**, which are allowed to carry on activities of an IP.
 - Fee structure for IPEs acting as IPs** should be **market-determined**.
- ▶ **Significance**
 - Efficient functioning of IPEs by removing ambiguities** in their roles and responsibilities.
 - Better harmonization and effective coordination** between insolvency and bankruptcy processes.
 - Reinforcing a robust and equitable framework** for addressing financial distress in PG cases.

Insolvency and Bankruptcy Board of India

Statutory body under the **Insolvency and Bankruptcy Code, 2016**.

Regulates both **Insolvency profession as well as processes**.

Regulatory oversight over IPs, Insolvency Professional Agencies, IPEs and Information Utilities.

Composition: Chairperson, 3 ex-officio members of Central Government, 1 ex-officio member of RBI, and 5 other members (atleast 3 full-time) nominated by centre.

NASA's Fission Surface Power Project

- ▶ **NASA completed first phase** of its plans to put a **nuclear fission reactor on the Moon**.
- ▶ **About Project**
 - It focused on **developing concept designs** for a small, **electricity-generating nuclear fission reactor** that could be used during a **future demonstration on the Moon** and to inform future designs for Mars.
- ▶ **Significance**
 - ⊕ **Solar power systems have limitations on the Moon** because a **lunar night lasts nearly 14 Earth days**.
 - ⊕ **But a nuclear reactor**, even when placed in permanently shadowed areas (where there might be water ice), could **generate continuous power** without external dependence.

WHO's Cancer Agency, International Agency for Research on Cancer (IARC), released Latest Estimates of Global Burden of Cancer

- ▶ **Key Findings**
 - ⊕ **Global level:** In 2022, there were an estimated **20 million new cancer cases** and over **9 million deaths globally**.
 - ◆ **Global cancer cases may rise 77% by 2050, deaths by 50%.**
 - ◆ **About 1 in 5 people** develop cancer in their lifetime, **approximately 1 in 9 men and 1 in 12 women die** from disease.
 - Indian Scenario:** India reported over **14 lakh new cancer cases** and about **9 lakh deaths in 2022**.
 - ◆ **Cancer cases in women** marginally outnumbered those in men.
 - ◆ **Breast, Lip and oral cavity, Cervix uteri, Lung** are top 4 leading cancers.
- ▶ **About Cancer (World Cancer Day on 4th February)**
 - Cancer is caused by an uncontrolled, abnormal growth** of cells in the body that causes lump or tumour in most causes.
 - ◆ **If left untreated**, tumours can grow and **spread to other body parts and affect all body functions**.
- ▶ **Measures Taken by India to Address Rising Cases of Cancer**
 - Diagnosis and Treatment under Ayushman Bharat Health and Wellness Centres.**
 - India's first indigenously developed vaccine, "CERVAVAC"** for prevention of Cervical Cancer.
 - National Pharmaceutical Pricing Authority** put out list of **390 anti-cancer non-scheduled medicines** with MRP reduction up to **87% in 2019**.

Recent Breakthroughs in the Fight against Cancer

Kill Switch For Cancer Cells: Scientists have identified a crucial epitope (a **protein section that can activate the larger protein**) on the **CD95 receptor** that can cause cells to die.

2018 Nobel Prize in Medicine: For discovery of **cancer therapy by inhibition of negative immune regulation**.

CAR-T Cell Therapy: Involves removing and **genetically altering immune cells**, called T cells, from cancer patients.

Exemptions under RTI Act, 2005

Recently, Delhi HC held that **CBI is not completely exempted** from disclosing information under RTI as per **Section 24 of RTI Act**.

Section 24 of RTI Act

It provides **immunity from the Act, to intelligence and security organizations** specified in **Second Schedule of the Act**.

- ⊕ However, information pertaining to the **allegations of corruption and human rights violations** need to be disclosed by such agencies.

Other Exemptions

- ⊕ **Section 8(1)** lists exemption from disclosure of information. e.g. **Information which,**
 - ◆ **Would prejudicially affect sovereignty and integrity of India.**
 - ◆ **May constitute contempt of court or breach of privilege of Parliament etc.**



Atmospheric river

- California (the USA) has been hit by two back-to-back Atmospheric River storms.
 - Atmospheric Rivers**
 - Atmospheric Rivers indicate **narrow, elongated corridors of concentrated moisture transport** associated with extra-tropical cyclones.
 - Typically **located within low-level jet**, an area of strong winds in lower levels of atmosphere, ahead of **cold front in an extra-tropical cyclone**.
- These are **largest transport mechanisms of freshwater** on Earth. Strong landfall by interacting with topography, can deposit **significant amounts of precipitation in short periods** of time leading to **flooding and mudslides**.

Maa Kamakhya Access Corridor (Maa Kamakhya Divya Pariyojana)

- PM laid foundation stone for **Maa Kamakhya Access Corridor** under the PM's Development Initiative for North Eastern Region (PM-DevINE) scheme.
- About Kamakhya Temple**
 - Situated on Nilachal Hills in Guwahati, Assam, it is one of the **51 Shakti peethas**.
 - An important **pilgrimage centre for tantric worshippers**.
 - Present temple was **rebuilt in 1565 CE by Chilarai**. Architecture is a **combination of Nagara style and Saracenic style**.
 - Annual festival **Ambubachi Mela** commemorates **yearly menstruation of goddess Kamakhya**.

Ergosphere

- Scientists believe that it is possible to extract matter and energy from the Ergosphere within the event horizon.
- Ergosphere is the **region between event horizon and stationary limit of a rotating black hole (Kerr Black hole)**.
 - "Stationary limit" is a surface around the outside of a rotating black hole.
 - Objects which pass through this is always in motion due to distortion of space caused by black hole.
 - "Event horizon" is a **notional boundary** around a black hole beyond which **no radiation can escape**.

Argentina (Capital: Buenos Aires)

- Argentina's Lower House of Congress approved 'Omnibus' reform bill to transform its economy and the state.
- Political Features**
 - Country in **South America**.
 - Neighboring Countries:** Chile (south and west), **Bolivia and Paraguay** (north), and **Brazil, Uruguay** (east).
- Geographical Features**
 - Geographically divided into **four major regions: Andes, North, Pampas, and Patagonia**. Pampas is the **agricultural heartland**.
 - Bounded to the east by **Atlantic Ocean**.
 - Major rivers:** Parana, Paraguay, Uruguay, Iguazu, Salado, etc.
 - Highest peak:** Cerro Aconcagua.



One Stop Centres (OSCs)

- There are **more than 700 OSCs** set up across India.
 - OSCs fall under **Sambal Sub Scheme of Mission Shakti** initiated by **Ministry of Women and Child Development**.
 - Scheme of OSC is being implemented since **2015**.
- Objectives**
 - To provide **integrated support and assistance** to women affected by **violence and in distress**.
 - To facilitate emergency and non-emergency access to **range of services**.
- Services offered**
 - Medical assistance
 - Assistance to women in lodging FIR
 - Legal aid and counselling etc.

TOI-715 b

TOI-715 b is a **super Earth exoplanet** discovered by NASA, which is **about 137 light-years** away from Earth.

It revolves around its parent star in the **conservative habitable zone**.

Super-Earth is a reference only to an exoplanet's size - larger than Earth and smaller than Neptune - but not suggesting they are necessarily similar to Earth.

About habitable zone or Goldilocks zone

It is the area around a star where it is **not too hot and not too cold** for **liquid water** to exist on the **surface of surrounding planets**.

INS Sandhyak

INS Sandhyak, **first Survey Vessel Large (SVL) Ship**, commissioned into Indian Navy in Visakhapatnam.

About INS Sandhyak

First in a series of **four SVL ships**.

Equipped with **state-of-the-art hydrographic equipment** including Deep & Shallow Water Multi-Beam Echo-Sounders, Autonomous Underwater Vehicle, etc.

Can offer **limited defence capabilities** and serve as **hospital ship** during wartime or emergencies.

Has an **indigenous content** of over **80% by cost**.