New Regulatory Structure for Financial Institutions

The Central Board of the Reserve Bank of India (RBI) has decided to create a specialised **supervisory and regulatory cadre within the RBI** in order to strengthen the supervision and regulation of commercial banks, urban cooperative banks and non-banking financial companies.

Why it is Done?

The RBI's decision to create a specialised supervisory and regulatory cadre is pertinent in light of increasing complexity of the regulated entities such as banks and non-banking financial companies (NBFCs). Cases of recent large frauds at banks and defaults by NBFCs, which roiled the financial markets over the past year, require specialized supervision to ensure that the financial sector remains in good health.

Background

- Mutual funds investments in NBFC debt instruments and promoters pledging of shares and funding of promoters have raised concerns in the wake of the liquidity shortage being faced by some NBFCs and housing finance companies.
- It is believed that RBI was lax in the supervisory functions, especially in timely detection of frauds and poor governance in the banking sector.

Ozone-Depleting Gas

An international team of researchers has said that the **rogue emissions of a gas (CFC-11) that harms the ozone layer comes from the eastern China**.

- This is in line with what many scientists, environmental groups and policymakers had suspected after an initial study a year ago. They reported new global emissions of the gas, CFC-11, but could only locate the source generally as East Asia.
- Earlier, it was also found that the factories in Shandong (China) still make or use the gas to manufacture foam insulation.

CFC-11

- CFC-11, also known as **trichlorofluoromethane,** is one of a number of chlorofluorocarbon (CFC) chemicals that were initially developed as refrigerants during the 1930s.
- It took many decades for scientists to discover that when CFCs break down in the atmosphere, they release chlorine atoms that are able to rapidly destroy the ozone layer which protects us from ultraviolet light. Excessive amounts of some types of UV radiation can cause skin cancer and eye damage in people and are harmful to crops and other vegetation.
    - **A gaping hole in the ozone layer over Antarctica was discovered in the mid 1980s.**

- The international community agreed the **Montreal Protocol** (an international pact to preserve the layer of ozone) in 1987 which **outlawed chlorofluorocarbons** for almost all uses.
- Following the ban, global concentrations of CFC-11 declined steadily until about 2012. **Pace of the slowdown dropped by half from 2013 to 2017.**

One tonne of CFC-11 is equivalent to around 5,000 tonnes of CO_2, leading not only to **decline in the ozone layer but also an increase in earth's overall temperature**. China urgently needs to take action against the use of this gas.

Huge Water Reservoir Found on Mars

Scientists have discovered one of the largest water reservoirs on Mars, in the form of ice layers buried over a kilometer beneath the surface.

Key points

- This discovery was made using **measurements gathered by the Shallow Radar (SHARAD) on NASA's Mars Reconnaissance Orbiter**.
- SHARAD emits radar waves that can penetrate up to a mile and a half beneath the surface of Mars.
- They **found layers of sand and ice** that were as much as 90% water in some places.
    - The layers formed when ice accumulated at the poles during past ice ages on Mars.
    - Each time the planet warmed, a remnant of the ice caps became covered by sand, which protected the ice from solar radiation and prevented it from dissipating into the atmosphere.
- This finding is particularly important because the layers of ice are record of past climate on Mars.
    - Studying the geometry and composition of these layers could tell scientists whether climate conditions were previously favourable for life.

Mars Reconnaissance Orbiter (MRO)

- MRO was launched in 2005, on a search for evidence that water persisted on the surface of Mars for a long period of time.
- It contains a host of scientific instruments such as cameras, spectrometers, and radar, which are used to analyze the landforms, stratigraphy, minerals, and ice of Mars.
- The spacecraft carries mainly six instruments:
    - **(HiRISE) High Resolution Imaging Science Experiment:** This visible camera reveals small-scale objects in the debris blankets of mysterious gullies and details of geologic structure of canyons, craters, and layered deposits.
    - **CTX (Context Camera):** This camera provides wide-area views to help provide a context for high-resolution analysis of key spots on Mars provided by HiRISE and CRISM.
    - **MARCI (Mars Color Imager):** This weather camera monitors clouds and dust storms.
    - **CRISM (Compact Reconnaissance Imaging Spectrometer for Mars):** This instrument splits visible and near-infrared light in its images into hundreds of "colors" that identify minerals, especially those likely formed in the presence of water, in surface areas on Mars not much bigger than a football field.
    - **MCS (Mars Climate Sounder):** This atmospheric profiler detects vertical variations in temperature, dust, and water vapor concentrations in the Martian atmosphere.
    - **Shallow Radar (SHARAD) sounder:** It seeks geologic boundaries in the first tens to thousands of meters (up to 4 kilometers) below the surface of Mars.

- SHARAD probe the subsurface using radar waves using a 15-25 MHz frequency band in order to get the desired high depth resolution.
- The radar wave return, which is captured by the SHARAD antenna, is sensitive to changes in the electrical reflection characteristics of the rock, sand, and any water present in the surface and subsurface. Water, like high-density rock, is very conducting, and will have a very strong radar return.
- Changes in the reflection characteristics of the subsurface, such as layers deposited by geological processes in the ancient history of Mars, will also be visible.
- SHARAD was provided by the **Italian Space Agency (ASI)**.

Important Facts For Prelims (24th May 2019)

New Space India Limited (NSIL)

New Space India Limited (NSIL) is the commercial arm of Indian Space Research Organisation (ISRO), which was officially inaugurated in Bengaluru.

- NSIL was incorporated on March 6, 2019, for commercially utilising research and development activities carried out by ISRO in the area of space with an authorised share capital of Rs 100 crore and initially paid-up capital of Rs 10 crore.
- It is the second commercial arm of the ISRO after the **Antrix Corporation,** which was set up in 1992 primarily to facilitate ISRO's commercial launch of foreign satellites.
- **The objective of NSIL:** is to enhance industry participation in Indian space programmes. NSIL will act as an aggregator for all space-related activities in industry and develop private entrepreneurship in space-related technologies.
- **Responsibility of NSIL:** manufacturing and production of Small Satellite Launch Vehicle (SSLV) and Polar Satellite Launch Vehicle (PSLV) through technology transfer mechanisms.
    - It will also cater to emerging global commercial SSLV market demand, providing satellite building and satellite-based services, including the supply of sub-systems for various domestic and international application needs and will enable space technology spin-offs through Indian industry interface.
    - It will also be organising an interactive workshop with industry, wherein it would seek industry's feedback as well as their expression of interest to take a newer and larger share of work with ISRO.

Man Booker International Prize

- **Jokha Alharthi has become the first Arabic author** to win the Man Booker International prize for her **novel 'Celestial Bodies'** which reveals her Omani homeland's post-colonial transformation.
- The prestigious 50,000-pound prize, which celebrates translated fiction from around the world, is divided equally between the author and translator. Alharthi's **translator was US academic Marilyn Booth,** who teaches Arabic literature at Oxford University.
- **The Man Booker International Prize** was **established in 2005** and in 2016 became a prize for fiction in translation, awarded annually for a single work, **translated into English** and published in the UK or Ireland.
- **The Man Booker Prize** launched in **1969,** aims to promote the finest in fiction by rewarding the best novel of the year **written in English** and published in the United Kingdom. **'Milkman' by the writer Anna Burns won the 2018 prize.**

Khyal

Khyal is a form of Hindustani Classical Music. The word 'Khyal' is derived from Persian and means "idea or imagination".

- It is said that Amir Khusrou in the 13th century gave it an impetus.
- Sultan Mohammed Sharkhi of the 15th century is credited with encouraging this form. However, it attained its maturity at the hands of Niyamat Khan Sadarang and Adarang of the 18th century.
- The Khyal has two varieties: the slow or *Vilambit* Khyal and the fast or *Drut* Khyal.
    - The *Vilambit* is sung in slow tempo and the *Drut* at a faster speed.
- Both types of *Khyals* have **two sections:** *Asthayee* and *Antara*. Together *Asthayee* and *Antara* make one song, a composition, or *bandish*.
- Usually, the theme for these Khyal bandish is romantic in nature.
- The major *Gharanas* (schools) under Khyal music are **Gwalior** *Gharana,* **Agra** *Gharana,* **Jaipur Atroli** *Gharana,* **Rampur Saheswan** *Gharana*.

Thumri

Thumri is based on mixed ragas and is commonly considered to be **semi-classical Indian music**.

- The **compositions are romantic or devotional** in nature. This was **inspired by the Bhakti movement**.
- As Thumri is a love song and hence the textual beauty is very important. This is **closely coordinated with the musical rendition**.
- The **language of the composition is usually Hindi or Awadhi dialect or the Braj Bhasha dialect** and the **grammar is not strictly adhered** in *Thumri*.
- There are two styles of *Thumri* singing: the **Poorab or Banaras which is fairly slow** and staid and the **Punjab style which is more mercurial**.

Collaboration of National Health Authority and National Cancer Grid

- **National Health Authority (NHA)** and **National Cancer Grid (NCG)** have signed an MoU under the **Ayushman Bharat-Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)**.
- MOU will jointly review existing **cancer treatment packages, pricing** of services, and **standard treatment workflows** covered under the AB-PMJAY, and plug-in necessary gaps to ensure enhanced quality of cancer care.

National Cancer Grid (NCG)

- **NCG** formed in August 2012, is a **network of major cancer centers, research institutes, patient groups and charitable institutions across India**.
- **Objectives of NCG:**
    - Establish **uniform standards** of patient care for prevention, diagnosis, and treatment of cancer.
    - Providing **specialized training and education** in oncology.
    - Facilitating **collaborative basic, translational and clinical research** in cancer and shape cancer policy in India.

National Health Authority (NHA)

- NHA is an attached office to the Ministry of Health & Family Welfare.
- Its **Governing Board is chaired by Minister of Health & Family Welfare,** Government of India.
- The NHA is envisaged to lead the development of **strategic partnerships and collaborations** with Central and State Governments, **civil society, financial and insurance agencies, academia, think tanks, national and international organizations** and other stakeholders to **further the objectives of** Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY).

PRAAPTI

- A web portal and an App namely **PRAAPTI (Payment Ratification and Analysis in Power procurement for bringing Transparency in Invoicing of generators),** was launched by the **Ministry of Power** in May 2018 to capture the invoicing and payment data for various long term Power Purchase Agreements (PPAs) from the Generators.
- **Purpose** of this initiative is to herald a new era of transparency in a financial transaction in the power sector.
    - This will help the stakeholders in getting month-wise and legacy data on outstanding amounts of Discoms against power purchase.
    - The portal would facilitate the relative assessment of various State DISCOMs on **“Ease of making payments”** to various Generation Companies, and will also help make transactions in the power Sector more transparent.
- The Ministry of New and Renewable Energy (MNRE) is also considering setting up a similar web portal to publicly disclose payment delays to renewable energy players from power distribution companies.
