News Analysis (26 Aug, 2020)

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RBI's Annual Report: 2020

Why in News

Recently, the **Reserve Bank of India (RBI)** has released its annual report for 2019-2020.

Key Points

- **Financial Health of Banks:**
    - **Moratoriums on loan instalments, deferment of interest payments and restructuring** may have implications for the financial health of banks, unless they are closely monitored and judiciously used.

        These regulatory initiatives were taken by RBI **to reduce the economic impact of Covid-19 pandemic.** These measures have averted a big spike in **Non Performing Assets (NPAs)** till now.
    - RBI in its **July 2020 Financial Stability Report** had warned that the NPAs of all Scheduled Commercial Banks (SCBs) may increase from 8.5% in March 2020 to 12.5% by March 2021. In the severe pandemic situation, the NPAs may also worsen to as high as 14.7%.

- **Risk Aversion by Banks:**
  - **Indian banks need to shed high risk aversion** which is impeding the credit growth to productive sectors.
    > **Banks have become extremely careful while giving fresh loans** to borrowers **due to the fear that loans could turn bad in future.**
  - Bank **credit growth has slowed significantly** in 2020 despite the RBI's efforts to infuse a significant amount of liquidity into the banking system.
    - Since March 2020, the RBI has infused around Rs. 8-9 lakh crore through various schemes into the banking system including multiple rounds of long-term **repo operations.**
    - The RBI also cut the **repo rate** or the key lending rate by a total 115 basis points since March 2020.
- **Bank Fraud:**
  - Frauds reported by banks of Rs.1,00,000 and above value **have more than doubled in FY 2019-20.** The number of such frauds have increased by 28% in volume.
    > While there were 6,799 frauds involving Rs. 71,543 crore as of March 2019, the number of frauds jumped to 8,707 involving a whopping Rs 1,85,644 crore.
  - **Majority of these frauds are in loan portfolios** of banks, both in terms of number and value. The **public sector banks accounted for most of these frauds (80%).**
  - However the average lag in detection of frauds remains long.
    > Weak implementation of **Early Warning Signals (EWS)** by banks, non-cooperation of borrowers during forensic audits, inconclusive audit reports and lack of decision making in joint lenders' meetings account for delay in detection of frauds.

- **Slow Economic Recovery:**
  - The economic **contraction triggered by pandemic** will take longer time to regain the pre-Covid momentum, **as the shock to consumption is severe.**
    - **The discretionary elements in private consumption has significantly reduced,** particularly in transport services, hospitality, recreation and cultural activities.

      The **discretionary spending** includes spending on vacation and entertainment.
    - **Urban consumption demand has suffered significant loss,** passenger vehicle sales and supply of consumer durables in the first quarter of 2020-21 have dropped to $1/5^{th}$ and $1/3^{rd}$, respectively, of their level a year ago. Air passenger traffic has also ground to a halt.
    - Citing the data of **e-way bills** for the month of July 2020, RBI said that the **consumer confidence fell to an all time low,** because of pessimism relating to the general economic situation, employment, inflation and income.

      e-way bills are an indicator of domestic trading activity.
    - However, **the rural demand fared better,** tractor sales picked up by 38.5% in July 2020, spurred by the robust pace of kharif sowing. There was also an increase in motorcycle sales in July.
    - The pandemic has also exposed **new kinds of inequalities** e.g white collar employees can work from home while essential workers have to work on site, exposed to the risk of getting infected.

      In some areas of work such as hospitality, hotels and restaurants, airlines and tourism, employment losses are more severe than in other areas.
  - The **sharp cut in corporate tax rate** announced by the government in 2019 did not help in restarting the investment cycle as was intended. Instead it has been used by companies to reduce debt and build up cash balances.
- **Inflation:**

  Headline inflation may remain elevated in the second quarter of 2020-21 but may moderate during the second half of 2020- 21.

  Retail inflation was at 6.93% in July, above the upper tolerance limit of 6%.

Suggestions Made by RBI

- **Targeted public investment** funded by **asset monetisation** and **privatisation of major ports** is a viable way to revive the economy.
- **Goods and Services Tax (GST) Council type of apex authorities** can be set up in respect of land, labour and power to drive structural reforms and speedier implementation of infra projects.

- **Recapitalisation of public sector banks,** this assumes significance as the minimum capital requirements, which are calibrated on the basis of historical loss events, may no longer suffice to absorb post-pandemic losses.

<u>**Source: IE**</u>

India-Vietnam Meeting

Why in News

Recently, the **17th meeting of <u>India-Vietnam</u> Joint Commission on Trade, Economic, Scientific and Technological Cooperation** was held.

Both sides reviewed the recent developments in **India-Vietnam Comprehensive Strategic Partnership** (since 2016) and discussed the future trajectory of their wide-ranging engagement.

Key Points

Indo-Pacific Region:

- India and Vietnam agreed to enhance their bilateral cooperation in line with India's **Indo-Pacific Oceans Initiative (IPOI)** and the **ASEAN's Outlook on Indo-Pacific** to achieve shared security, prosperity and growth for all in the **region.**
- This has come in the backdrop of **China's aggression** in the Indo-Pacific region including **South China Sea region** and its actions along the **Line of Actual Control (LAC)** with India.

  China claims sovereignty over most of the South China Sea, which is seen as having huge reserves of hydrocarbons and minerals. However, several **ASEAN (Association of Southeast Asian Nations)** member countries, including Vietnam, Philippines and Brunei, dispute the Chinese claims.

Indo-Pacific Oceans Initiative

- IPOI was launched by the Prime Minister of India at the **East Asia Summit** in November **2019.**
- It focuses on **seven central pillars** conceived around Maritime Security, Maritime Ecology, Maritime Resources, Capacity Building and Resource Sharing, Disaster Risk Reduction and Management, Science, Technology and Academic Cooperation, and Trade Connectivity and Maritime Transport.

- **Cooperation at Multilateral and Regional Forums:**
  - Both sides agreed to coordinate closely at multilateral forums, including at the **UN Security Council**, where both India and Vietnam will **serve concurrently as non-permanent members in 2021.**
  - They also agreed to step up cooperation and coordination at important regional forums under the ASEAN framework.
    - India and Vietnam closely cooperate in various **regional forums** such as **East Asia Summit, Mekong Ganga Cooperation, Asia Europe Meeting (ASEM).**
    - India appreciated the positive leadership provided by Vietnam to ASEAN in 2020 when the world is faced with the **Covid -19 pandemic.**
      Vietnam is the chair of ASEAN for 2020.

- **Economic Engagement:**
  - They agreed to explore closer cooperation in emerging areas such as **civil nuclear energy, space, marine sciences and new technologies.**
  - India invited Vietnam to take advantage of India's new economic capacities and demands.
    - India underlined its vision of **Atmanirbhar Bharat** for enhancing resilience through self-reliance and human-centric globalisation as the basis for its economic revival.
  - India reaffirmed its **development and capacity building assistance to Vietnam** through initiatives such as **Quick Impact Projects (QIP), Indian Technical and Economic Cooperation (ITEC)** and e-ITEC initiatives, **PhD fellowships,** as well as projects in **water resource management in Vietnam's Mekong Delta region, SDGs,** digital connectivity and heritage conservation.

Way Forward

- Vietnam is a key pillar of **India's Act East policy** and there is a scope for further cooperation between the countries.
- The close relationship between the two countries is **significant for the maintenance of strategic balance in South East Asia** which is witnessing aggressive Chinese activities.

Source: IE

BRICS 5G Innovation Base

Why in News

China has proposed the creation of a **BRICS innovation base in China** to take forward **5G** and **Artificial Intelligence** (AI) cooperation among the five countries of **BRICS** i.e. Brazil, Russia, India, China and South Africa.

Key Points

- China urged fellow nations, including India, to boost cooperation in areas including 5G and Artificial Intelligence.

- This move could pose a conundrum before **India** who is having **issues with China** in recent times but other countries seem to willing to allow China's participation in their 5G networks.
    - India is unlikely to allow Chinese participation in the roll-out of its national 5G network, particularly in the wake of recent moves to tighten investment from China and to **ban 59 Chinese apps**, citing national security concerns.
    - A high-level committee on 5G is **opposed to including Chinese vendors** including Huawei in the 5G trials.
    - Indian intelligence assessments have also expressed concerns on the possible **direct or indirect links of several Chinese companies, including Huawei, with the Chinese military.**
    - India has made clear that a return to normalcy cannot be possible while tensions along the **Line of Actual Control** remain unresolved.
    - It needs to be noted that India has recently joined the **'Global Partnership on Artificial Intelligence (GPAI)'** as a founding member to support the **responsible and human-centric development** and use of Artificial Intelligence (AI).
- **Russia** has agreed to work with China on 5G and with Chinese telecommunications firm **Huawei,** which has been largely banned by the United States.
    - Huawei has been at the centre of rising USA-China tensions over technology and security.
    - The USA has restricted China's access to chip making tools. Huawei may face shortages in supply of processor chips for which it relies on the USA.
- In **South Africa,** Huawei is providing services to three of its telecom operators in the roll-out of their 5G networks.
- **Brazil** has allowed participation of Huawein in 5G trials. More than a third of Brazil's 4G network operators use Huawei equipment. Brazil maintains that Huawei has capacity above its international competitors.

Way Forward

- China announced in 2017 its ambition to become the world leader in Artificial Intelligence (AI) by 2030 with its **Artificial Intelligence Development Plan.** Alongside the USA, it is already a world leader in terms of AI research. Though India has started taking steps in this direction like **National Strategy on Artificial Intelligence**, it is yet to acknowledge that superiority in critical technologies like AI, cyber and space will decide the future superpowers.
- India cannot afford to sever all its economic links with the world's second-largest economy, even in the digital space. However, through initiatives like **Make in India** and **Atmanirbhar Bharat Abhiyan**, India can try to replace chinese technology with domestic ones. Further, it needs to **boost up its economic relations** with other countries.

- The ongoing **trade war between China and the USA** has also created a dilemma for India. India is a party to many trade and diplomatic engagements with China like **RCEP**, **Russia-India-China Grouping**, BRICS etc. It also cannot afford to cut off the trade relations with the USA.

  In such a scenario, it is imperative for India to seek a middle path for balancing its strategic interests between the USA and the Russia-China axis, maintaining its historical **Non-Aligned** position.

Source: TH

Conflict in Libya

Why in News

The internal conflict in Libya that has been running since 2011 has shown signs of de-escalation as the rival authorities in the country have called for a ceasefire.

Key Points

- **Rival Forces:** The Self-proclaimed **Libyan National Army (LNA)** led by **Khalifa Haftar** has been battling forces aligned with the **Tripoli-based, internationally recognised Government of National Accord (GNA).**
  - Both sides are formed from **local armed factions,** whose **shifting loyalties** have steered the course of the conflict.
  - LNA has long enjoyed backing from countries including the **United Arab Emirates, Egypt, Russia and Jordan.**
  - **The USA, Turkey and Qatar** support the GNA.

- **Ceasefire:** The ceasefire call by GNA head proposed **demilitarising Sirte city and resumption of oil production** until a political deal is reached. It has also called for elections in March 2021.

  The LNA dismissed this proposal, but a **parallel ceasefire call** by the LNA-aligned parliament has proposed **Sirte** as the seat of a new government.

Background

- Libya was ruled by **Muammar Gaddafi** for 42 years from 1969 to 2011 after he overturned the previous monarchy and proclaimed the new **Libyan Arab Republic.**
- In 2011, the **first civil war** broke out in Libya against the regime of Gaddafi. This war was a part of a series of anti-dictatorial protests in countries of Arab world like Tunisia, Morocco, Iraq, Algeria, Lebanon, Jordan etc, known as the **Arab Spring.**
- In response to the civil war, a **multi-state NATO-led coalition** began a military intervention in Libya in March 2011, aimed at protecting civilians and providing cover for a rebel advance.

  The NATO intervention was backed by a **UN Security Council resolution 1973** which was supported by 10 countries. 5 countries viz. **India,** Brazil, Germany, Russia and China abstained from voting.
- A UN-backed internationally recognized government was put in place called the Government of National Accord (GNA) which was supposed to bring out a democratic transition.
- However, GNA **failed to provide political stability** to the country.
- LNA captured the East of Libya and has been running long campaign against Islamist groups and other opponents since then.
- Libya has no single government currently, with **LNA backing the Tobruk-based parliament which governs East of Libya,** and the **GNA which controls Libya's western parts fromTripoli.**
- Both sides have been in constant conflict since 2014, in what has been termed as the second Libyan Civil War. In addition to these, there are also **smaller rival groups** in the country like the **Shura Council of Benghazi Revolutionaries, Islamic State of Iraq and the Levant** etc.

Impact

- Nearly 4,00,000 Libyans have been **displaced** over the past nine years. Thousands more have **died.**
- The conflict has cost tens of **billions of dollars in lost oil revenue,** damaged infrastructure, and sharply reduced living standards.
- **Covid-19** infections have started to surge.

- The collapse of public services and corruption has fuelled protests in western Libya against the political elite.
- Libya, a member of **OPEC**, holds Africa**'s largest oil reserves,** producing 1.6 million barrels per day before 2011. Blockades and presence of military forces have caused **output to fluctuate** sharply since then, affecting the **oil prices.**
- **International Response:**
    - The **International Berlin conference,** held on 19th January 2020, was attended by Libyan parties and other concerned countries.
        - As a result of this conference, the UN Security Council endorsed a **55-point road map** for ending the war in Libya in February 2020.
        - The resolution demands that all countries refrain from interfering in Libya's conflict and its internal affairs and observe a **UN arms embargo,** including ceasing all support for and withdrawing all armed mercenary personnel.
    - Egypt, in association with LNA, proposed the **Cairo Declaration** on 6th June, 2020, for the Second Libyan Civil War ceasefire.
    - The USA has ordered **evacuation of its troops** stationed in **Tripoli.**
    - **India evacuated** its contingent of peacekeeping forces consisting of 15 **CRPF** personnel from Tripoli. India has also asked its citizens there to exercise extreme caution.
    - Foreign powers officially back the process of restoring peace in the country, but have **also shipped arms** to their allies, undercutting diplomatic efforts.
- **India's Stand:**
    - India has **expressed concern** over continuing conflict and instability in Libya and said it **supports** efforts towards **immediate cessation of all hostilities** in the country.
    - Although India has been critical of the USA military intervention in Libya on the ground that civilians would be affected, its stand on Libya has been more of a **realistic one** as it has many **vested interests** in LIbya.
        - **Economic :** The regime in Libya needs to be a friendly one since Libya is an oil rich country and political instability could affect Indian **industrial investments and energy security interests** there. Indian companies, especially in the hydrocarbon, power, construction and IT sector, have several ongoing projects in Libya.
        - **Diaspora:** Considering an estimated **18,000 Indians** who work in Libya, it is a considerable contribution to the remittance economy and adds to India's foreign exchange
        - **Foreign Policy:** Supporting western intrusion into sovereignty of a country will not set a good precedent for other third-world countries.

Way Forward

- Achieving peace in Libya is crucial not just for the country itself but also for stabilizing the global oil market and set a precedent for other such war-torn countries. However, a lasting deal will require **political and economic agreements** that have proved elusive for years, and **cooperation from foreign powers.**
- The western wishful thinking that the exogenous establishment of human rights democracy is possible through expeditionary intervention in domestic affairs of a country needs to end to give way to a more **organic building up of trust in democratic institutions and sovereign control.**

Source: IE

National Clean Air Programme

The **National Green Tribunal (NGT)** has directed the **Ministry of Environment, Forest and Climate Change (MoEFCC)** to modify the **National Clean Air Programme (NCAP)** which proposes 20-30% reduction of air pollution by 2024.

Key Points

- **NCAP:**
  - It was launched by the MoEFCC in **January 2019.**
  - It is the **first-ever effort in the country to frame a national framework for air quality management with a time-bound reduction target.**
  - It seeks to **cut the concentration of coarse** (particulate matter of diameter 10 micrometer or less, or **PM10**) and **fine particles** (particulate matter of diameter 2.5 micrometer or less, or **PM2.5) by at least 20%** in the **next five years,** with **2017 as the base year** for comparison.
  - **The plan includes 102 non-attainment cities,** across 23 states and Union territories, which were identified by the Central Pollution Control Board (CPCB) on the basis of their ambient air quality data between 2011 and 2015.
      - **Non-attainment cities:** These are those that have fallen short of the National Ambient Air Quality Standards (NAAQS) for over five years.

- **NGT's View:**
  - The enforcement of the **'Sustainable Development' principle** and **'Public Trust Doctrine'** require stern measures to be adopted to give effect to the mandate of international obligations related to environmental quality, for which the **Environment (Protection) Act, 1986** was enacted.
    - **Public Trust Doctrine:** It states that the sovereign, or state, holds the trust of people to manage the designated resources for the benefit of the people.
  - The **Right to Clean Air** stood recognized as part of Right to Life and failure to address air pollution is a denial of Right to Life under **Article 21.**
- **NGT's Directions:**
  - The **timeline** to reduce air pollution by 20-30% by 2024 needs to be **reduced.**
  - The **target** of reduction needs to be **increased.**
  - It suggested the Ministry to review and action in terms of **shift to e-vehicles and CNG vehicles,** intensifying public transport system, mechanical cleaning of roads, enhancement of public parking facilities, improvement in fuel quality, and traffic management.
  - It directed the state pollution control boards to ensure the **assessment and installation** of the requisite number of real-time online continuous **Ambient Air Quality Monitoring Systems within six months.**
  - It also directed an expert team of the **Central Pollution Control Board** to **design a model** for source apportionment and carrying capacity assessment within two months which may be replicated for all the non-attainment cities.
    - **Source Apportionment:** It is the practice of deriving information about pollution sources and the amount they contribute to ambient air pollution levels.
    - **Carrying Capacity:** The concept of "carrying capacity" addresses the question as to how many people can be permitted into any area without the risk of degrading the environment there.

National Green Tribunal

- It is a specialised body set up under the **National Green Tribunal Act, 2010** for effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.
- It draws inspiration from India's constitutional provision of **Article 21,** which assures the citizens of India the **right to a healthy environment.**
- **Original Jurisdiction:** It is related to matters of "substantial question relating to the environment" and "damage to the environment due to specific activity".
- It follows **principles of Natural Justice.**

- NGT is mandated to make disposal of applications or appeals finally **within 6 months** of filing the same.
- The NGT has **five places** of sittings, **New Delhi is the Principal** place of sitting and **Bhopal, Pune, Kolkata** and **Chennai** are the other four.

Source TH

Star Formation in Dwarf Galaxies

Why in News

Recently, astronomers from the **Aryabhatta Research Institute of Observational Sciences (ARIES)** have found out the **reasons behind intense star formation in some dwarf galaxies.**

ARIES is an autonomous institute of Department of Science & Technology (DST).

Key Points

- **Background:**
    - Amidst the billions of galaxies in the universe, a large number are tiny ones - **100 times less massive than the Milky-way galaxy.** Most of these are called **dwarf galaxies and form stars at a much slower rate** than the massive ones.
        > **Dwarf galaxies** are the most abundant type of galaxy in the universe but are difficult to detect due to their **low luminosity, low mass** and **small size.**
    - **However,** some dwarf galaxies have been **seen forming new stars at a mass-normalized rate** i.e. 10-100 times more than that of the Milky-way galaxy.
        > The star-formation activities do not last longer than a few tens of million-years, a period which is much shorter than the age of these galaxies - typically a few billion years.
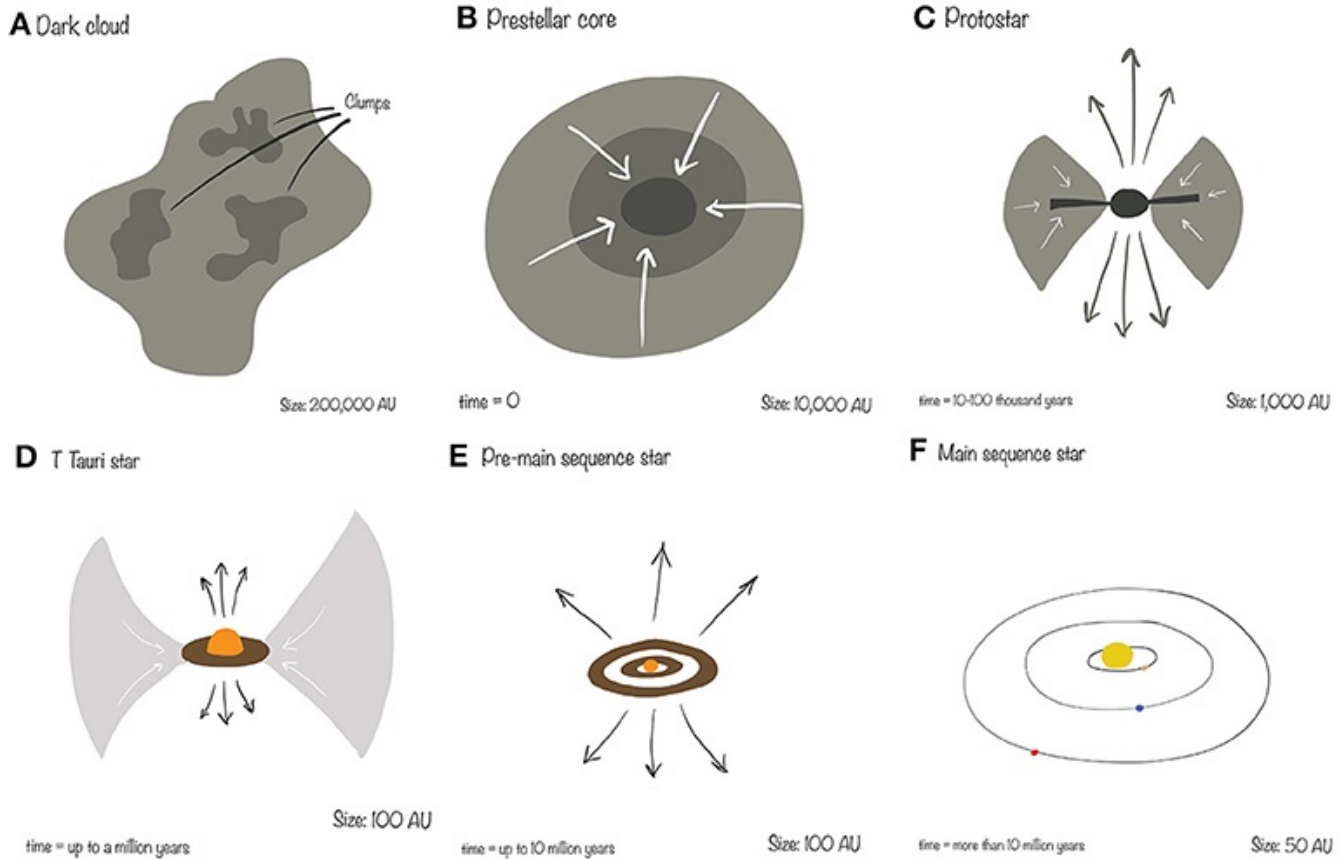
- **Reasons Found Out by the Aries Astronomers:**
  - **Disturbed Hydrogen Distribution:**
    - Star formation at a high rate requires very high density of Hydrogen in the galaxies. Multiple nuclei and high concentration of ionized hydrogen have been found in the central region of such galaxies.
    - Hydrogen in these dwarf galaxies is found to be irregular and sometimes not moving in well-defined orbits i.e. non-symmetric distribution of hydrogen.
  - **Galaxy-Galaxy Collision:**
    - Some Hydrogen around these galaxies is also detected in forms of isolated clouds, plumes, and tails as if some other galaxy recently has collided or brushed away with these galaxies, and gas is scattered as debris around the galaxies.
- **Telescopes Used for the Study:**
  - Scientists used the **1.3-meter Devasthal Fast Optical Telescope (DFOT) near Nainital** (Uttarakhand) and the **Giant Metrewave Radio Telescope (GMRT) in Maharashtra.**

Star Formation in Galaxies

- Stars are **born within the clouds of dust and gas** scattered throughout most galaxies.
- Turbulence deep within these clouds gives rise to knots with sufficient mass that the gas and dust can begin to collapse under its own gravitational attraction.
- As the cloud collapses, the material at the center begins to heat up. Known as a **protostar,** it is this hot core that one day becomes a star.
  - Not all of this material ends up as part of a star — the remaining dust can become planets, **asteroids**, or comets or may remain as dust.
- Stars are **fueled by the nuclear fusion of hydrogen to form helium** deep in their interiors. The outflow of energy from the central regions of the star provides the pressure necessary to keep the star from collapsing under its own weight, and the energy by which it shines.

A Dark cloud · Clumps · Size: 200,000 AU

B Prestellar core · time = 0 · Size: 10,000 AU

C Protostar · time = 10-100 thousand years · Size: 1,000 AU

D T Tauri star · Size: 100 AU · time = up to a million years

E Pre-main sequence star · time = up to 10 million years · Size: 100 AU

F Main sequence star · time = more than 10 million years · Size: 50 AU

The above illustration shows the **six steps of star formation** for Sun-like stars.

- The process starts on **(A),** where gas and dust in the space between stars (also called the **InterStellar medium,** ISM) collapse into a dense ball of gas called a **prestellar core (B)** that eventually will become the sun.
- During the collapse a disk **(C)** forms around the core, while two jets are emitted at the poles.
- At some point the star stops growing, but gas still falls onto the disk **(D).** After a few million years this process also halts. The **star is now born (E),** while the planets are being formed from the left-over material, which will eventually become a solar system **(F).**

  A solar system typically lives 10 billion years after the formation process.

Source: PIB

Early Galaxy Detected by AstroSat

Why in News

A team of Scientists from the **Inter University Centre for Astronomy and Astrophysics (IUCAA)** has discovered one of the earliest galaxies called **AUDFs01** using **AstroSat.**

- The galaxy is located in the **Hubble Extreme Deep field, 9.3 billion light-years** away from Earth.
- The team comprises scientists from **India, Switzerland, France, USA, Japan and Netherlands.**

Hubble eXtreme Deep Field (XDF) :

It is a portion of space that contains approximately 5,500 galaxies, the oldest of which are seen as they were 13.2 billion years ago, recorded by the Hubble Space Telescope for over 10 years.

Hubble Space Telescope :

The HST or Hubble is a space telescope that was launched into **Low Earth orbit** in 1990 and remains in operation. It is one of the largest and most versatile space telescopes till date.

Key Points

- The galaxy was discovered using **UltraViolet Imaging Telescope (UVIT)** on Astrosat. AstroSat detected **Extreme Ultraviolet light** from the galaxy.
- Earlier, **NASA's Hubble Space Telescope (HST),** which is **significantly larger than UVIT,** did not detect any UV emission from this galaxy because **it is too faint.**
- AstroSat/UVIT was able to achieve this unique feat because the **background noise in the UVIT detector is much less** than the ones on HST.
- These observations lasted for more than **28 hours in October 2016,** but it took nearly **two years since then to carefully analyse the data** to ascertain that the emission is indeed from the galaxy.

AstroSat

- It is a **multi-wavelength astronomy mission** on an **IRS-class** (Indian Remote Sensing-Class) satellite in a 650-km, near-equatorial orbit.
- It was launched by the Indian launch vehicle **PSLV** from **Satish Dhawan Space Centre, Sriharikota** on **September 28, 2015 by ISRO.**
- It is the **first dedicated Indian astronomy mission** aimed at studying celestial sources in X-ray, optical and UV spectral bands simultaneously with its **five unique X-ray and ultraviolet telescopes working in tandem.**

- One of the unique features of AstroSat mission is that it enables the **simultaneous multi-wavelength observations of various astronomical objects** with a single satellite.
- The **Ground Command and Control Centre** for ASTROSAT is located at **ISRO** Telemetry, Tracking and Command Network **(ISTRAC)**, Bangalore, India.

  Detection of an Early Galaxy
  - Before the Big Bang, the universe **consisted only of particles like electrons and protons.** As the universe started to cool, the protons and neutrons began combining into **ionized atoms** of hydrogen (and eventually some helium).
  - Creation of neutral atoms allowed light to pass through the universe and thus, **made it transparent,** but it was still dark due to absence of any stars (dark ages).
  - A few hundred million years later, the dark age ended **when the first stars and galaxies formed.**
  - The creation of stars and galaxies released an immense amount of energy that **re-ionized neutral atoms** and emitted UV lights.
  - These **early UV lights are detected** for detecting the earliest astronomical objects.
  - The probability that a fraction of extreme-UV photons escape the host galaxy and are caught by a telescope on Earth is almost zero. That's why they are **detected using telescopes placed in space** like HST and AstroSat.

Way Forward

The detection of UV emission from AUDFs01 can help reveal details about the Big Bang, the end of dark ages and the formation of early stars and galaxies and thus give a boost to the ongoing cosmological research.

Source: IE

Prime Minister's Awards for Excellence in PubAd 2020

Why in News

Recently, 702 Districts have registered and participated in the **Prime Minister's Awards for Excellence in Public Administration for 2020.**

- The government had launched **PM's Awards portal in July 2020 to** register and participate for the Award.

- The Award will be conferred by the Prime Minister on **Rashtriya Ekta Diwas** -31st October 2020 at the Statue of Unity, Gujarat.

Key Points

- **PM's Awards for Excellence in Public Administration:**
    - It was **constituted in 2006** by the Government of India **to acknowledge, recognize and reward the extraordinary and innovative work** done by districts and organizations of the Central and State Governments.
    - The **award consists of a trophy, scroll and an incentive of Rs. 10 lakh** to the awarded district or organization to be utilized for implementation of project/ programme or bridging resource gaps in any area of public welfare.
- **Restructuring:**
    - The award programme was **restructured in 2014** for recognizing the performance of District Collectors in Priority Programs, Innovations and Aspirational Districts.
    - It has been restructured again **in 2020, to recognize the contribution of civil servants in strengthening of:**
        - **Inclusive Development** through Credit Flow to the **Priority Sector**.
        - **Promoting people's movements** through **Swachh Bharat Mission** in the District.
        - **Improving Service Delivery** and **Redressal of Public Grievances.**
    - The restructuring also seeks to **recognize the efforts of District level officials in the Namami Gange Program** and to recognize the **performance of District Collectors towards economic development of the District.**
        The award for the **Aspirational Districts Program** has been revamped to reward the District having the best overall progress under the Scheme following 2 years of implementation.
    - Through restructuring, the scope of the awards has been expanded **to identify areas of overall outcome-oriented performance** in the districts across sectors.

Source: PIB

China Launches Warship for Pakistan

Why In News

Recently, China has launched **first of the four advanced naval warships** it is building for Pakistan.

- This is the first ship of **Type-054 class frigate.**
- The Type-054A is **roughly the same size** as the Indian Navy's existing **Talwar class** of frigates, purchased from Russia

Key Points

- **Comparing with Talwar Class:**
  - **Size and Dimensions:** The Type-054A and Talwar class **displace approximately 4,000 tonnes** and have a length of around **130 metres.**
  - **Stealth Level:** Both classes, designed the 1990s, have features **to reduce their radar and infra-red signatures.**
  - **Missile System:**
    - The Type-054A uses a **surface-to-air missile** system called the **HQ-16,** which experts claim is derived from the **Russian Shtil missile,** already in service on the Talwar class frigates.
    - Type-054A has an **advantage over the existing Talwar class** ships as the former uses a **vertical launch system** (VLS).
      - The **vertical launch system** allows the launch of **multiple missiles simultaneously.**
      - Talwar class frigates use an **older 'single-arm' launcher** that can fire only **one missile at a time.**
    - The Talwar class ships use the **supersonic Klub and Brahmos missiles,** and are regarded to have better anti-ship capabilities than the Type-054A class.
  - **Radar:** The HQ-16, which relies on **'passive' radar** to detect targets, is considered **inferior to the new Indo-Israeli Barak-8 missile.**
- The relatively small size of the Type-054AP frigates means there is **little scope to mount** heavier radars and longer-range anti-aircraft or anti-ship weapons.
- While the new Type-054AP frigates will be the most capable ships in the Pakistan Navy, they are **not expected to significantly alter the balance of power in the region,** given Pakistan's limitations in airborne anti-submarine capabilities.

Source TH

INS Viraat

Why in News

Indian Naval Ship (INS) Viraat **will be scrapped** at a ship breaking yard at Alang in Gujarat soon.

The **decision** to scrap INS Viraat was taken in **2019.**

Key Points

- INS Viraat holds the **Guinness World Record** for being the **longest serving warship of the world.**
- Viraat, a **Centaur class aircraft carrier** weighing 27,800 tonnes, served in the **British Navy** as **HMS Hermes for 25 years** from November 1959 to April 1984. It was **commissioned into the Indian Navy in May 1987** after refurbishment.
    - The Centaur class of aircraft carriers of the Royal Navy was the **last of the light fleet carrier designs** started during the closing years of **World War II (1939-45).**
- Viraat played a major role in **Operation Jupiter** in 1989 during the Sri Lankan Peacekeeping operation. It also saw action during **Op Parakram** in 2001-2002, post the terrorist attack on Parliament.
- The indigenous Advance Light Helicopters **'Dhruv'** and the Russian twin rotor **Kamov-31** have also operated from the ship.
- It was **decommissioned in March 2017,** and the **Navy had been incurring expenditure** since then on its upkeep, such as the provision of electricity and water, and repairs. It was also **taking up space in the crowded Naval dockyard.**
- There had been demands from various quarters to not let Viraat go the way of **Vikrant, India's first carrier** that was eventually scrapped.
    - In 2014, **INS Vikrant,** which played a role in the 1971 war with Pakistan was broken down in Mumbai.
- However, several attempts by the Navy to preserve the carrier, by converting it into a museum or by other means, failed.
    - The **vessel could not be handed over to any state government** because of lack of "self-sustaining financially complete" proposal to preserve it. The state governments of Maharashtra and Andhra Pradesh had planned to preserve the aircraft carrier (in the form of a museum).
- India is currently doing with only the **44,500-tonne INS Vikramaditya,** the refurbished Admiral Gorshkov inducted from Russia in November 2013.
    - The trials of the first indigenous aircraft carrier **(IAC-I, to be named as INS Vikrant)** being built at the Cochin Shipyard have been derailed by the pandemic.
    - The government's approvals for a third carrier, the 65,000-tonne **IAC-II (tentatively christened INS Vishal)** has been pending since May 2015.
    - India needs aircraft carriers to secure the seas of the Indo-Pacific, to maintain peace, secure trade routes, and provide security to the region.

Source: TH