News Analysis (25 Sep, 2020)

SAARC and CICA Meetings

Why in News

Recently, the Foreign Ministers' meetings of the **South Asian Association for Regional Cooperation** (SAARC) and the **Conference on Interaction and Confidence-Building Measures in Asia (CICA)** took place in a virtual manner.

Key Points

- **India-Pakistan Tussle:**
  - India called the SAARC countries to collectively resolve to defeat the scourge of **terrorism,** including the forces that nurture, support and encourage an environment of terror and conflict.
    > This was a **clear criticism of Pakistan** who has been involved in crossborder terrorism.
  - Pakistan also made a detailed statement on the resolution of "long-standing disputes", a veiled reference to Jammu and Kashmir and India's move to **withdraw Article 370.**
  - **Background:**
    - Recently, **India said** that the degree of seriousness of each SAARC member-nation in collectively fighting the **Covid-19** pandemic can be gauged by their behaviour. The statement was in clear reference to **Pakistan's opposition to India's leadership** in dealing with the crisis in the region.
    - The National Security Advisor of India had walked off from a virtual meeting of the **Shanghai Cooperation Organisation (SCO)** in September, 2020 after his Pakistani counterpart appeared with a **Pakistani version of its map that included Indian territories.**
    - In 2019, at the SAARC Foreign Ministers' meeting, Foreign Ministers of India and Pakistan had **boycotted** each other's speeches.
    - The Prime Minister of India had also refused to attend the 19 [th] edition of the SAARC summit, due to be held in Islamabad in 2016, over the issue of Pakistan's continued support to terror groups in light of **Uri attacks.**
- **Covid-19:** All SAARC nations built a common stand on the need to cooperate in battling the **coronavirus pandemic.**
  - **SAARC initiatives to combat Covid-19:** SAARC Covid-19 Information Exchange Platform (COINEX), SAARC Food Bank mechanism, SAARC Covid-19 Emergency Fund.
  - **India's Contribution:** India has contributed 10 million USD to **SAARC Covid-19 Emergency Fund** and manufactured essential drugs, Covid protection and testing kits, for countries in the SAARC region **(Eg. Operation Sanjeevani** for Maldives).

- **Relevance of SAARC:** SAARC has not been very effective since 2016 as its biennial summits have not taken place since the last one in Kathmandu (Nepal) in 2014.
  - India, Bangladesh, Bhutan and Afghanistan also declined to participate in the Islamabad meet planned in 2016.
  - **The reasons for a dysfunctional SAARC:**
    - Bilateral issues cannot be discussed in SAARC but since the organisation relies on the **principle of unanimity** for all major decisions, Pakistan has often vetoed the major initiatives proposed at SAARC. For example, **SAARC Motor Vehicle Agreement proposed at Kathmandu summit, 2014.**
    - **India-Pakistan** conflict has undermined SAARC. For India, Pakistan's use of terror as an instrument of foreign policy has made normal business impossible.
    - **Dispute between Pakistan and Afghanistan** over the Durand line, is also a reason.
    - Also, **India's economic position** vis-a vis other SAARC countries, creates an impression of India being a big brother rather than a strategic partner.
    - SAARC has become almost marginal to the regions' collective consciousness and other organisations such as the **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)** came into the forefront.
- **CICA Meeting:**
  India underlined its commitment to a pluralistic cooperative security order in Asia through CICA. It also reaffirmed its support for **Afghan peace process.**
- **About CICA:**
  - **Conference on Interaction and Confidence-Building Measures in Asia** (CICA) is a **multi-national forum** for enhancing cooperation towards promoting peace, security and stability in **Asia.**
  - The idea of convening the CICA was first proposed by the First President of the Republic of Kazakhstan on 5th October 1992, at the 47th Session of the **United Nations General Assembly.**
  - The First Ministerial Meeting of CICA took place in September, 1999.
  - It consists of **27 member nations** from Asia including Afghanistan, Bangladesh, Cambodia, China, Egypt, India etc. Japan, Indonesia, USA etc. are some of its **Observer Nations.**
  - Republic of Tajikistan is the CICA Chairman for the period 2018-2020.

Conference on Interaction and Confidence Building Measures in Asia (CICA)

- A multinational forum for enhancing cooperation towards promoting peace, security and stability in Asia
- Proposed by Nursultan Nazarbayev, Kazakhstan's first president, at the 47th Session of the United Nations General Assembly on October 5, 1992

Member states (27):

- Afghanistan
- Azerbaijan
- Bahrain
- Bangladesh
- Cambodia
- China
- United Arab Emirates
- Egypt
- India
- Iran
- Iraq
- Israel
- Jordan
- Uzbekistan
- Kazakhstan
- Kyrgyzstan
- Mongolia
- Pakistan
- Palestine
- Qatar
- Vietnam
- Republic of Korea
- Russian Federation
- Sri Lanka
- Tajikistan
- Thailand
- Turkey

Summits:

Second CICA summit
Almaty, Kazakhstan

Fourth CICA summit
Shanghai, China

June 4 2002

June 17 2006

June 8 2010

May 21 2014

June 14–15 2019

First CICA summit
Almaty, Kazakhstan

Third CICA summit
Istanbul, Turkey

Fifth CICA summit
Dushanbe, Tajikistan

Way Forward

Keeping SAARC in deep-freeze because of Pakistan was not serving anybody's interest. Despite the recent ineffectiveness of SAARC, its revival will facilitate India's **neighbourhood first policy** in meeting the challenge of regional strategic encroachment by China through its **Belt and Road Initiative.**

Source: IE

Foreign Contribution (Regulation) Amendment Bill, 2020

Why in News

The **Foreign Contribution (Regulation) Amendment Bill, 2020** was passed by the Parliament. The Bill amends the **Foreign Contribution (Regulation) Act, 2010.**

Key Points

- **Provisions of the Bill:**
  - **Prohibition to accept foreign contribution:** The Bill **bars public servants** from receiving foreign contributions.
    - **Public servant** includes any person who is in service or pay of the government, or remunerated by the government for the performance of any public duty.
    - The **FCRA 2010** also bars certain persons to accept any foreign contribution. These include: election candidates, editor or publisher of a newspaper, judges, government servants, members of any legislature, and political parties, among others.
  - **Transfer of foreign contribution:** The Bill prohibits the transfer of foreign contribution to any other person.
    - The term **'person'** under the Bill includes an **individual, an association, or a registered company.**
    - The **FCRA 2010** allows transfer of foreign contributions to persons registered to accept foreign contributions.
  - **Aadhaar for registration:** The Bill makes **Aadhaar number mandatory** for all office bearers, directors or key functionaries of a person receiving foreign contribution, as an identification document.
    - In case of a foreigner, a copy of the **passport** or the **Overseas Citizen of India card** for identification is required.
  - **FCRA account:** The Bill states that foreign contribution must be received only in an account designated by the bank as **FCRA account** in such branches of the State Bank of India, New Delhi. No funds other than the foreign contribution should be received or deposited in this account.
    - The person may open another FCRA account in any scheduled bank of their choice for keeping or utilising the received contribution.
  - **Restriction in utilisation of foreign contribution:** The Bill allows the government to restrict usage of unutilised foreign contribution. This may be done if, based on an inquiry the government believes that such person has contravened provisions of the FCRA.
  - **Reduction in use of foreign contribution for administrative purposes:** The Bill proposes that not more than 20% of the total foreign funds received could be defrayed for administrative expenses. In FCRA 2010 the limit was 50%.
  - **Surrender of certificate:** The Bill allows the central government to permit a person to surrender their registration certificate.
    - The government may do so if, post an inquiry, it is satisfied that such person has not violated any provisions of the FCRA 2010, and the management of its foreign contribution has been vested in an authority prescribed by the government.

- **Purpose for Amendment:**
  - The annual inflow of **foreign contribution has almost doubled** between the years 2010 and 2019, but many recipients of foreign contribution **have not utilised the same for the purpose** for which they were registered or granted prior permission under the FCRA 2010.
    > Recently, the Union Home Ministry has **suspended licenses of the six (NGOs)** who were alleged to have used foreign contributions for religious conversion.
  - Many persons were **not adhering to statutory compliances** such as submission of annual returns and maintenance of proper accounts.
  - Such a situation could have **adversely affected the internal security** of the country.
  - The new Bill **aims to enhance transparency and accountability** in the receipt and utilisation of foreign contributions and facilitating the genuine non-governmental organisations or associations who are working for the welfare of society.
- **Issues Involved**
  - The Bill would impact the **livelihoods of workers** associated with the small **Non-Governmental Organisations** (NGOs) and lead to the **killing of the entire social sector** as caps on administrative expenses would make it impossible for even the bigger NGOs to perform.
  - It will **severely impact collaborative research** in critical fields in India as organisations receiving foreign funds will no longer be able to transfer them to small **NGOs** working at the grassroots level.
  - The government aims to control the NGOs which engage in dubious activities. However, by **failing to recognise the diversity of NGOs,** which include world-class organisations that are recognised globally, will crush their competitiveness and creativity.
  - It is also **incompatible with international law.**
    - The **United Nations Human Rights** Council resolution on protecting human rights defenders says that **no law should criminalize or delegitimize activities in defence of human rights on account of the origin of funding.**
    - The Bill also fails to comply with **India's international legal obligations** and **constitutional provisions** to respect and protect the rights to freedom of association, expression, and freedom of assembly.
  - The amendments also **assume that NGOs** that are receiving foreign funds **are guilty** unless proven otherwise.

Foreign Contribution (Regulation) Act (FCRA), 2010

- Foreign funding of persons in India is regulated under FCRA act and is implemented by the **Ministry of Home Affairs.**
    - Individuals **are permitted to accept foreign contributions without permission** of MHA. However, the monetary limit for acceptance of such foreign contributions shall be less than **Rs. 25,000.**
- The Act ensures that the recipients of foreign contributions adhere to the stated purpose for which such contribution has been obtained.
- Under the Act, organisations are **required to register themselves every five years.**

Way Forward

- NGOs are helpful in implementing government schemes at the grassroots. They fill the gaps, where the government fails to do their jobs.
- The government must stick to the ancient Indian ethos of Vasudhaiva Kutumbakam as the framework for its global engagement and should not act with vendetta against the NGOs who criticize its working.
- Seamless sharing of ideas and resources across national boundaries is essential to the functioning of a global community, and should not be discouraged unless there is reason to believe the funds are being used to aid illegal activities.

Source: TH

Lok Adalat

Why in News

Recently, a daily wager in Odisha's Kandhamal district has moved the **Lok Adalat** against the Prime Minister of India but the hearing is yet to begin.

He allegedly failed to get an **Aadhaar card** registered in his name despite various attempts due to technical glitches in taking his fingerprint.

Key Points

- **About:**
    - The term 'Lok Adalat' means **'People's Court'** and is based on **Gandhian principles.**
    - As per the **Supreme Court**, it is an old form of adjudicating system **prevailed in ancient India** and its validity has not been taken away even in the modern days too.
    - It is **one of the components of the Alternative Dispute Resolution** (ADR) system and delivers **informal, cheap and expeditious justice** to the common people.
    - The **first Lok Adalat camp** was organised in **Gujarat in 1982** as a **voluntary and conciliatory agency** without any statutory backing for its decisions.
    - In view of its growing popularity over time, it was **given statutory status** under the **Legal Services Authorities Act, 1987.** The Act makes the provisions relating to the organisation and functioning of the Lok Adalats.
- **Organisation:**
    - The **State/District Legal Services Authority** or the **Supreme Court/High Court/Taluk Legal Services Committee** may organise Lok Adalats at such intervals and places and for exercising such jurisdiction and for such areas as it thinks fit.
    - Every Lok Adalat organised for an area shall **consist of such number of serving or retired judicial officers and other persons of the area as may be specified** by the agency organising.
        - Generally, a Lok Adalat consists of a **judicial officer as the chairman** and a **lawyer (advocate) and a social worker as members.**
    - **National Legal Services Authority** (NALSA) along with other Legal Services Institutions **conducts Lok Adalats.**
        - NALSA was constituted under the **Legal Services Authorities Act, 1987** which came into **force on 9th November 1995** to establish a **nationwide uniform network for providing free and competent legal services to the weaker sections** of the society.

- **Jurisdiction:**
  - A Lok Adalat shall have jurisdiction to determine and to arrive at a compromise or settlement between the parties to a dispute **in respect of:**
    - Any case pending before any court, or
    - Any matter which is falling within the jurisdiction of any court and is not brought before such court.
  - **Any case** pending before the court can be referred to the Lok Adalat for **settlement if:**
    - Parties agree to settle the dispute in the Lok Adalat or one of the parties applies for referral of the case to the Lok Adalat or court is satisfied that the matter can be solved by a Lok Adalat.
    - In the case of a pre-litigation dispute, the matter can be referred to the Lok Adalat on receipt of an application from any one of the parties to the dispute.
  - **Matters** such as matrimonial/family disputes, criminal (compoundable offences) cases, land acquisition cases, labour disputes, workmen's compensation cases, bank recovery cases, etc. are being taken up in Lok Adalats.
  - However, the Lok Adalat shall have **no jurisdiction in respect of any case or matter relating to an offence not compoundable under any law.** In other words, the offences which are non-compoundable under any law fall outside the purview of the Lok Adalat.
- **Powers:**
  - The Lok Adalat shall have the **same powers as are vested in a Civil Court under the Code of Civil Procedure** (1908).
  - Further, a Lok Adalat shall have the **requisite powers to specify its own procedure for the determination of any dispute** coming before it.
  - All proceedings before a Lok Adalat shall be **deemed to be judicial proceedings within the meaning of the Indian Penal Code** (1860) and every Lok Adalat shall be deemed to be a Civil Court for the purpose of the Code of Criminal Procedure (1973).
  - An **award** of a Lok Adalat shall be **deemed to be a decree of a Civil Court or an order of any other court.**
  - Every award made by a Lok Adalat shall be **final and binding on all the parties to the dispute. No appeal shall lie to any court against the award** of the Lok Adalat.

- **Benefits:**
    - There is **no court fee** and if court fee is already paid the **amount will be refunded** if the dispute is settled at Lok Adalat.
    - There is **procedural flexibility and speedy trial** of the disputes. There is **no strict application of procedural laws** while assessing the claim by Lok Adalat.
    - The parties to the dispute can **directly interact with the judge through their counsel which is not possible in regular courts** of law.
    - The **award by the Lok Adalat is binding** on the parties and it has the status of a decree of a civil court and it is **non-appealable,** which **does not cause the delay** in the settlement of disputes finally.

Permanent Lok Adalats

- The **Legal Services Authorities Act, 1987** was **amended in 2002** to provide for the establishment of the Permanent Lok Adalats to **deal with cases pertaining to the public utility services** like transport, postal, telegraph etc.

- **Features:**
    - These have been **set up as permanent bodies.**
    - It shall consist of **a Chairman** who is or has been a district judge or additional district judge or has held judicial office higher in rank than that of the district judge and **two other persons having adequate experience in public utility services.**
    - It **shall not have jurisdiction in respect of any matter relating to an offence not compoundable under any law.** The jurisdiction of the Permanent Lok Adalats is upto Rs. 1 Crore.
    - Before the dispute is brought before any court, any party to the dispute may make an application to the Permanent Lok Adalat for settlement of the dispute. **After an application is made** to the Permanent Lok Adalat, **no party to that application shall invoke jurisdiction of any court** in the same dispute.
    - It shall **formulate the terms of a possible settlement and submit them to the parties for their observations** and in case the parties reach an agreement, the Permanent Lok Adalat shall pass an award in terms thereof. In case parties to the dispute **fail to reach an agreement,** the Permanent Lok Adalat **shall decide the dispute on merits.**
        - A **major drawback of the Lok Adalats** is that if the parties do not arrive at any compromise or settlement, the **case is either returned to the court of law or the parties are advised to seek a remedy in a court of law.** This causes **unnecessary delay** in the dispensation of justice.
    - Every award made by the Permanent Lok Adalat shall be **final and binding** on all the parties thereto and **shall be by a majority of the persons constituting** the Permanent Lok Adalat.

Source: TH

Data Sonification: NASA

Why in News

The **National Aeronautics and Space Administration's (NASA)** Chandra X-Ray Center (CXC) has unveiled a new **'sonification' project that transforms data from astronomical images into audio.**

Key Points

- **Data Sonification:**
  - It refers to the use of **sound values to represent real data.**
  - It is the auditory version of data visualisation.
  - In NASA's **Chandra (sonification) project,** for instance, data is represented using a number of **musical notes.**
  - The birth of a star, a cloud of dust or even a black hole can be 'heard' as a high- or low-pitched sound.
- **Process of images into sound translation:**
  - Telescopes in space collect digital data, in the form of **ones and zeroes (binary),** before converting them into images.
  - The images are **visual representations of light and radiation of different wavelengths** in space, that can't be seen by the human eye.
  - The Chandra project has created a celestial concert by translating the same data into sound. **Pitch and volume** are used to denote the **brightness and position** of a celestial object or phenomenon.
    - **Pitch** is related to frequency of sound waves. Changing the number of vibrations per second changes the pitch.
    - **Volume,** or loudness, is related to the strength, intensity, pressure, or power of the sound. Bigger/amplified vibrations result in bigger/louder sounds.
  - The data has been collected by NASA's Chandra X-Ray Observatory, Hubble Space Telescope and **Spitzer Space Telescope.**
  - Thus far, Project Chandra has released three examples - the Galactic Centre, Cassiopeia A, and Pillars of Creation Nebula.
  - **The Galactic Centre**
    - It is the rotational centre of the **Milky Way galaxy.**
    - It comprises a collection of celestial objects —
      - Neutron and **white dwarf stars**,
      - Clouds of dust and gas,
      - A supermassive black hole called **Sagittarius A***(weighs four million times the mass of the sun).
  - **Cassiopeia A**
    - Located around **11,000 light years away from Earth** in the **northern Cassiopeia constellation.**
    - Cassiopeia A is a well-known **remnant** of a once-massive star that was destroyed by a supernova explosion around 325 years ago.
  - **The Pillars of Creation**
    The iconic Pillars of Creation is located in the **centre of the Eagle Nebula** (it is a constellation of stars), which is also known as **Messier 16.**

- **Significance of Data Sonification:**
  - The sonification project was led by the Chandra X-ray Center in collaboration with NASA's **Universe of Learning Program (UoL),** which aims to "incorporate NASA science content into the **learning environment effectively and efficiently** for learners **of all ages".**
  - Over the years, NASA has been working towards making data about space accessible for a larger audience.
  - Sonification projects like this allow audiences - including **visually-impaired communities -** to experience space through data.

Chandra X-ray Project

- The Chandra X-ray Observatory was launched by Space Shuttle Columbia in 1999.
- The Chandra X-ray Observatory is **part of NASA's fleet of "Great Observatories"** along with the Hubble Space Telescope, the Spitzer Space Telescope.
- The "X-ray universe" refers to the universe as observed with telescopes designed to detect X-rays. X-rays are produced in the cosmos when matter is heated to millions of degrees. Such temperatures occur where high magnetic fields, or extreme gravity, or explosive forces exist in space.
- The telescope is **named after the Nobel Prize-winning Indian astrophysicist Subrahmanyan Chandrasekhar.**
  - Subrahmanyan Chandrasekhar 's work implied that stars more massive than the so-called Chandrasekhar limit would eventually collapse to become objects so dense that not even light could escape it.
    - **Chandrasekhar limit** is the theoretical maximum mass a white dwarf star can have and still remain a white dwarf.
  - Although this finding was received with some skepticism at the time, it went on to form the foundation of the theory of black holes, eventually earning him a Nobel Prize in physics for **1983.**

The Hubble Space Telescope

- It is one of the largest and most versatile telescopes in service.
- It is a space telescope that was launched into **low Earth orbit** (540km above Earth) in 1990.
- Hubble's four main instruments observe in the near ultraviolet, visible, and near infrared spectra.

Black Holes

- The term **'black hole'** was coined in the mid-1960s by American Physicist John Archibald Wheeler.

- It refers to a point in space where the matter is so compressed as to create a gravity field from which even light cannot escape.
- Black-holes were **theorized by Albert Einstein in 1915.**

Supernova

- A supernova is the **explosion of a star.** It is the largest explosion that takes place in space.
- A supernova happens where there is a change in the core, or centre, of a star.

Neutron stars

- Neutron stars comprise one of the possible evolutionary end-points of high mass stars.
- Once the core of the star has completely burned to iron, energy production stops and the core rapidly collapses, squeezing electrons and protons together to form neutrons and neutrinos.
- A star supported by neutron degeneracy pressure is known as a 'neutron star', which may be seen as a pulsar if its magnetic field is favourably aligned with its spin axis.

Source IE

NASA's Artemis Program

Why in News

The **National Aeronautics and Space Administration's (NASA)** published the outline for its Artemis program, which plans to send the **next man and first woman** to the lunar surface by the **year 2024.**

> The last time NASA sent humans to the **Moon was in 1972, during the Apollo lunar mission.**

Key Points

- **The Artemis program:**
  - With **the Artemis program**, NASA wishes to demonstrate new technologies, capabilities and **business approaches** that will ultimately be needed for the future exploration of Mars.
  - It stands for **Acceleration, Reconnection, Turbulence, and Electrodynamics of the Moon's Interaction with the Sun.**
  - The program is divided into **three parts:**
    - **Artemis I** is most likely to be launched 2021 and involves an uncrewed flight to test the **Space Launch System (SLS) and Orion spacecraft.**
    - **Artemis II** will be the first crewed flight test and is targeted for 2023.
    - **Artemis III** will land astronauts on the Moon's South Pole in 2024.
- **Systems Developed:**
    For NASA, going to the moon involves various elements such as:
    - The exploration ground systems (the structures on the ground that are required to support the launch),
    - The Space Launch System (SLS) and **Orion** (the spacecraft for lunar missions).
        NASA's new rocket called SLS will send astronauts aboard the Orion spacecraft.
    - **Gateway** (the lunar outpost around the Moon),
    - **Lunar landers** (modern human landing systems),
    - Once the astronauts dock Orion at **the Gateway** — which is a small spaceship in orbit around the moon — they will be able to live and work around the Moon, and from the spaceship, will take expeditions to the surface of the Moon.
    - The astronauts going for the Artemis program will wear newly designed spacesuits, called **Exploration Extravehicular Mobility Unit, or xEMU.**
        These spacesuits feature advanced mobility and communications and interchangeable parts that can be configured for spacewalks in microgravity or on a planetary surface.
- **NASA and the Moon**
  - The US began trying to put people in space as early as **1961.** Eight years later, on 20th July, **1969, Neil Armstrong** along with Edwin "Buzz" Aldrin became the first human to step on the Moon as part of the **Apollo 11 mission.**
  - Apart from the purpose of **space exploration,** NASA's endeavour to send Americans to the Moon again is to demonstrate American **leadership in space** and to establish a strategic presence on the Moon, while expanding the US global economic impact.

- **Moon Exploration**
  - In **1959,** the **Soviet Union's uncrewed Luna 1 and 2** became the first rover to visit the Moon.
  - Before the USA sent the Apollo 11 mission to the Moon, it sent three classes of robotic missions between 1961 and 1968.
  - After July 1969, 12 American astronauts walked on the surface of the Moon until 1972.
  - In the 1990s, the USA resumed **lunar exploration** with robotic missions **Clementine** and **Lunar Prospector.**
  - In 2009, it began a new series of robotic lunar missions with the launch of the **Lunar Reconnaissance Orbiter (LRO)** and the **Lunar Crater Observation and Sensing Satellite (LCROSS).**
  - In 2011, NASA began the **ARTEMIS.**
  - In 2012, the **Gravity Recovery and Interior Laboratory (GRAIL)** spacecraft studied the Moon's gravity.
  - Apart from the USA, the European Space Agency, Japan, **China**, and India have sent missions to explore the Moon. China landed two rovers on the surface, which includes the first-ever landing on the Moon's far side in 2019.
- **ISRO's Moon Exploration:**
  - **Chandrayaan 1:**
    - The **Chandrayaan project** began in 2007 with an agreement between India's space agency ISRO and Russia's ROSCOSMOS for mutual cooperation.
    - However, the mission was postponed in January 2013 and rescheduled to 2016 as Russia was unable to develop the lander on time.
    - **Findings:** Confirmed presence of **lunar water.**
      - Evidence of lunar caves formed by an ancient lunar lava flow.
      - Past tectonic activity was found on the lunar surface.
      - The faults and fractures discovered could be features of past interior tectonic activity coupled with meteorite impacts.
  - **Chandrayaan-2** is India's second mission to the moon and comprises a fully indigenous Orbiter, **Lander (Vikram) and Rover (Pragyan).**
    The Rover Pragyan is housed inside Vikram lander.
  - The Indian Space Research Organisation (ISRO) recently announced India's third lunar mission **Chandrayaan-3,** which will comprise a lander and a rover.

Source IE

Pusa Decomposer to Curb Stubble Burning

Why in News

Recently, the scientists have developed a **bio-decomposer technique** called **'PUSA Decomposers'** for converting crop **stubble into compost.**

Delhi and many other North Indian States are covered with smoke during winters due to **stubble burning** in the neighbouring States by the farmers.

Key Points

- **PUSA Decomposers:**
  The decomposers are in the **form of capsules** made by extracting **fungi strains** that help the paddy straw to **decompose at a much faster rate** than usual.
    The fungi helps to produce the **essential enzymes** for the degradation process.
- **Decomposer Mixture:**
  It involves making a **liquid formulation** using decomposer capsules and fermenting it over 8-10 days and then spraying the mixture on fields with crop stubble to ensure speedy bio-decomposition of the stubble.
    The farmers can prepare 25 litre of liquid mixture with 4 capsules, jaggery and chickpea flour. The mixture is sufficient to cover 1 hectare of land.
- **Time to Decompose:**
  It takes around 20 days for the degradation process to be completed.
    - Under usual circumstances, shredded and watered paddy straw, which is mixed with soil, takes at least 45 days to decompose.
    - It does **not give enough time for farmers** to prepare fields for the wheat crop on time.
- **Benefits:**
  - The decomposer **improves the fertility** and **productivity of the soil** as the stubble works as manure and compost for the crops and **lesser fertiliser consumption** is required in the future.
      The soil loses its richness due to stubble burning and it also destroys the useful bacteria and fungi in the soil, apart from causing harm to the environment.
  - It is an **efficient and effective, cheaper, doable and practical technique** to stop stubble burning.
  - It is an **eco-friendly and environmentally** useful technology and will contribute to achieve **Swachh Bharat Mission.**

Source: TH

Mega Virtual Summit on Artificial Intelligence

Why in News

The Ministry of Electronics and Information Technology (MeitY) and **NITI Aayog** will organize a Mega Virtual Summit on **Artificial Intelligence** (AI), **RAISE 2020- 'Responsible AI for Social Empowerment 2020,'** from October 5-9, 2020.

Key Points

- RAISE 2020 is a first of its kind, global meeting of minds on Artificial Intelligence to drive India's vision and roadmap for **social transformation, inclusion and empowerment** through **responsible AI.**
- This includes using AI in areas like **Health, Agriculture, Education, Skilling, Mobility, Fintech, Research, Inclusive AI, Future of Work,** among others.
- The event will witness participation from **global industry leaders, key opinion makers, Government representatives and academia.**
- It will also feature some startups working in AI-related fields.
- **India in AI:**
  - Industry analysts predict that AI could add up to 957 billion USD to India's economy by 2035.
  - India can leverage AI for inclusive development, representing the country's **'AI for All'** strategy.
    India has launched **National AI Strategy** and National AI Portal and has also started leveraging AI across various sectors such as education, agriculture, healthcare, e-commerce, finance, telecommunications, etc.
  - Recently, India 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).

Artificial Intelligence

- It describes the action of machines accomplishing tasks that have historically required human intelligence.
- It includes technologies like machine learning, pattern recognition, big data, neural networks, self algorithms etc.
- **Example:** Facebook's list of suggested friends for its users, self-driving cars, etc.

- **Concerns:**
  - AI automates processes and reduces human error but the principal limitation of AI is that it learns from the data. This means any **inaccuracies** in the data will be reflected in the results.
  - It is important to make AI responsible as it can be misused for various purposes like **Deep Fakes**, **Cybercrimes**, Social Manipulation etc.

Source: PIB

Jnanpith Award

Why in News

Renowned **Malayalam poet Akkitham Achuthan Namboothiri** was conferred the **55th edition of the Jnanpith Award.**

Key Points

- **About the Award:**
  - It has achieved the recognition of the **highest literary award of the country.**
  - **English along with other Indian languages** is considered for the Award.
  - The Award is **open for only Indian citizens** and is **given annually.**
  - The prize carries a cash award of Rs. 11 lakhs, a citation, and a bronze replica of Vagdevi (Saraswati), the goddess of learning.
  - It is **sponsored by** the cultural organization **Bharatiya Jnanpith.**
  - In 2019, author **Amitav Ghosh was felicitated with 54th Jnanpith Award.** He became the **first English language writer** to become a Jnanpith laureate.

- **About Poet Akkitham:**
    - Akkitham is the **sixth writer** to bag the Jnanpith Award for **Malayalam literature.** In 1965, famous **Malayalam writer G Sankara Kurup** became the **first winner** of the Jnanpith Award.
    - He is instrumental in heralding **modernism in Malayalam poetry.**
    - He is the only living poet being called **Mahakavi (great poet)** in Malayalam.
    - He has contributed seminal works such as *Pathalathinte Muzhakkam*, **Irupatham Noottandinte Ithihasam**, and *Balidarshanam.*
    - His work *Balidarshanam* won the **State and Central Sahitya Akademi Awards** in 1972-73.
    - He was awarded **Padmashri** in **2017.**
    - He has also been bestowed with **Ezhuthachan Award** (the highest literary honour of the Kerala government), **Odakkuzhal Award** (given to literary works in Malayalam), and several other honours.

Source: TH