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ROLE OF AGRITECH IN TRANSFORMING THE INDIA'S AGRICULTURE SECTOR

In News

- The Government of India has been increasingly adapting to the ongoing innovations and changes in the agricultural sector to keep up with the pace at which the sector is developing globally.

About AgriTech

- It is a term used for agricultural technology, which involves the use of technology to improve farming and agriculture across different value chains.

- It includes sophisticated technologies that drive the so-called 'fourth agricultural revolution,' akin to the industrial 4.0 revolution, shaping the future of the sector.

Status In India

- In India, AgriTech has continued to grow with startups using innovation and digital technologies like precision farming, quality management, production, supply- chain/market linkage, and digital traceability to name a few.

- The Agritech industry has experienced a remarkable tenfold growth in the past three years, propelled by four pivotal factors:

  - the expanding digital reach throughout India, supply chain disruptions due to COVID,

  - rising consumer demand for high-quality produce, and

  - growing interest from private equity and venture capital.

- Currently, there are nearly 2800[Startup India Database as on 31st December 2023] AgriTech startups recognised by Startup India.

- The Economic Survey of India 2022-23 highlighted that India's agriculture sector has grown 4.6 per cent over the last six years with over 1000 agri-tech start-ups having emerged in the sector.

Need and Importance

- With over 70% of India's rural population still being dependent on agriculture for their livelihood, the need for innovation in the sector has always remained high.

- Satellite data has given Indian farmer optimal sowing times, weather warnings, and better use of irrigation and pesticide

- The positive impact of AgriTech is not only evident in increased productivity and income for farmers but also in the potential to reshape the entire agricultural landscape of India for the better.

Steps

- **Indian Finance Minister Nirmala Sitharaman**, in her **2023 budget speech**, announced a **703 million rupee ($8.42 million)** accelerator fund to boost agritech startups.

  - In March 2023, the government said the fund was supporting 1,138 such companies.

- The **Digital Agriculture Mission (DAM)** initiative was launched in September 2021 to help agri-tech start-ups by leveraging advances in cloud computing, earth observation, remote sensing, data, and AI/ML models.

- **National Agricultural Market (e-AM) scheme** offers free software as well as financial support of INR75 lakh each to the Agriculture Produce Market Committee (APMC) mandi for associated hardware, such as quality-assuring tools and the establishment of infrastructure for cleaning, grading, sorting, packing, composting, etc

- The government has also **incentivised drones** and **artificial intelligence** for **advanced farming activities**.

- The Indian government, which just relaxed f**oreign investment rules for the space sector,** is leaning heavily into the use of satellite data to solve problems on the ground, with agriculture a key focus.

Challenges

- The lack of an integrated database on crop loss, crop images, food shortages, insufficient formal channels to aggregate advisory recommendations for farmers and incomplete data and inconsistency were highlighted as major bottlenecks in the implementation.

- The average landholding size for farmers in India is just 1.08 hectares.

  - That fragmentation, coupled with poverty and low levels of literacy, pose challenges for tech adoption, industry experts said.

- Agriculture has never been a tech-forward sector and often farmers want to rely on traditional practices, or the wisdom of their forefathers

Conclusion

- AgriTech startups are ushering in a new era for Indian agriculture by integrating agriculture practices with artificial intelligence and machine learning.
  - Through the integration of cutting-edge technologies and innovation, these startups are addressing age-old challenges, empowering farmers, and fostering change.
- India's path to leadership in the new space race lies in utilizing the power of data, and applications within the agricultural sector offer immense potential.
- The digitalisation of agriculture and the launch of an Agriculture Accelerator Fund will usher in new opportunities for businesses and individuals in the country and for the global community at large.
- India offers huge scope for investment in the agri-tech sector, for AgriTech start-ups, digital infrastructure aids, and innovative technologies.

Source: TH

INDIA-US DIALOGUE ON AFRICA

Context

- The second round of the **India-US Dialogue on Africa** is being held in Washington.

About

- This is the first such dialogue on Africa between India and the US **after the inclusion of the African Union as a permanent member of the G20** during India's presidency.
- The two day India-US dialogue aims to share ideas and perspectives and explore ways to develop institutional, technical and bilateral synergies to work together in Africa.
- It also targets identification of developmental projects and programs of cooperation in Africa, leveraging the strengths of India and the US, in accordance with African priorities.

Significance of Africa for India

- **Economic Partnership and Growth Rate:** Indian investments in Africa reached $98 billion in 2023, with trade totalling $100 billion.
  - Forty-two African countries are the second-largest recipients of all credit extended by India.
  - Around 200 developmental projects have been completed in the region.

- Africa's significant growth rate of 3.8 per cent and its young population, with 60 percent under the age of 25, estimated to reach 1.1 billion people by 2040.
- **Influence on Global Forums:** Africa's influence in global forums will be important for India's vision for global governance.
  - Global South houses three-fourths of humanity and over 39 percent of the global GDP.
- **Cooperation in Critical Minerals:** Africa, with 30 percent of the world's mineral reserves, is vital to power the energy transition.
  - Given the geographical concentration of critical minerals, diversifying sources and fostering strategic partnerships with resource-rich nations are imperative for India's growth and national security.
- **Support in UNSC:** India is keen to garner the support from Africa for Permanent Membership of the UNSC.

African Union

- The African Union (AU) was officially launched in **2002** in Durban, South Africa.
- It is made up of **55 Member States** representing all the countries on the African continent.
- The African Union is a key driving force for the continent's political and economic development, its primary purpose being African integration and increased cooperation among African countries, with a view to achieving peace, security, and prosperity for all the people of the continent.

India Africa Relations

- **Long history of partnership:**
  - India has a long history of partnership with Africa, with solidarity and political affinity going back to the early 1920s when both regions were fighting against colonial rule and oppression.
  - After India gained independence, it became a leading voice in support of African decolonization at the United Nations.
- **Diplomatic Relations:** India has diplomatic relations with all African countries. The Forum for India-Africa Cooperation (IAFS) serves as the primary framework for engagement.
  - It was established in **2008** to deepen political and economic cooperation between India and African nations.

- **Trade Relations:** India-Africa trade has grown 18 percent annually since 2003, reaching $103 billion in 2023. This makes India Africa's third largest trading partner after the European Union and China.
  - India is now one of the top five investors in Africa.
- **Global Cooperation:** Together, India and Africa have also made effective contributions to protect the interests of developing countries at international fora, particularly the World Trade Organisation (WTO).
  - They moved joint proposals such as the Agriculture Framework Proposal and more recently, India and South Africa proposed an intellectual property right waiver for COVID-19 vaccines at the WTO.
- **Concerns:**
  - **Competition from Global Players:** Africa has become the playground for major powers like the US, Russia, China and European countries, all vying for political and economic influence in the resource-rich continent.
- **Chinese Presence:** China has been aggressively pursuing its own economic interests in the resource-rich African continent through investments in infrastructure and mining under the Belt and Road Initiative though, it has faced criticism for burdening African countries with debt, much like Sri Lanka.

Way Ahead

- The African Union's inclusion to G20 is seen as a big win for India, which has been championing the cause of Global South.
- In this era of geopolitical competition and realignment, India's multifaceted relationship with African nations is poised for a fundamental transformation.
- As India's aspirations for the Global South take shape, leveraging historical partnerships with African countries remains imperative.

Source: AIR

WORLD TELECOMMUNICATION DAY

Context

- Every year, World Telecommunication Day is **observed on May 17.**

About

- Telecommunication refers to the **exchange of information over significant distances with the help of electronic means**.
- In the year **1865**, the International Telecommunication Union was founded, when the first Indian Telegraph Convention was signed.
- **In 2005,** the World Summit on the Information Society asked the United Nations to declare May 17 as World Telecommunication Day to be observed every year.
- The theme for this year's World Telecommunication Day is - **Digital Innovation for Sustainable Development.**

Telecommunication Sector in India

- India is the **world's second-largest telecommunications market** with a total telephone subscriber base of 1,190.33 million.
- India ranks as the **world's second-largest market in terms of total internet users.**
- India has an overall **tele-density of 85.69%,** of which, the tele-density of the rural market, which is largely untapped, stands at 59.19% while the tele-density of the urban market is 133.72 %.
- The Telecom sector is the **4th largest sector in terms of FDI inflows,** contributing **6% of total FDI inflow**.
- **Reasons for the Growth of Industry:** It is primarily driven by affordable tariffs, wider availability, roll-out of Mobile Number Portability (MNP), expanding 3G and 4G coverage, evolving consumption patterns of subscribers, Government's initiatives towards bolstering India's domestic telecom manufacturing capacity, and a conducive regulatory environment.

Challenges Faced by the Sector

- **Regulatory Framework:** Changes in regulations, spectrum pricing, licensing requirements, and government policies impact the operations and investments of telecom companies.
- **Infrastructure Development:** Despite significant progress in recent years, there are still gaps in telecommunications infrastructure, particularly in rural and remote areas.
  - Extending network coverage to these areas remains a challenge due to factors like difficult terrain, lack of electricity, and insufficient infrastructure.

- **Competition and Pricing:** Intense competition among telecom operators has led to price wars and margin pressures.
    - While this benefits consumers with lower tariffs, it puts strain on the financial health of telecom companies.
- **Quality of Service:** Maintaining consistent quality of service, especially in densely populated urban areas, is a challenge for telecom operators.
    - Issues such as call drops, network congestion, and slow internet speeds lead to customer dissatisfaction.
- **Cybersecurity:** With the increasing digitization of services, cybersecurity has become a critical concern for telecom companies.
    - They must protect their networks, customer data, and infrastructure from cyber threats and attacks.
- **Technological Advancements:** Keeping pace with rapid technological advancements, such as 5G deployment, requires substantial investments in infrastructure and upgrades.
    - Telecom companies need to balance these investments with revenue generation and profitability

Government of India's Initiatives to promote Telecommunication Sector

- **Digital India Programme:** Launched in 2015, Digital India aims to transform India into a digitally empowered society and knowledge economy.
    - It includes initiatives to provide broadband connectivity to all villages, promote e-governance, and improve digital literacy.
- **BharatNet:** It is the world's largest rural broadband connectivity program and plays a crucial role in bridging the digital divide between urban and rural areas.
- **Infrastructure Development:** The government is investing in the development of telecom infrastructure, including optical fiber networks, mobile towers, and rural broadband connectivity, to support the growth of the sector and improve service quality.
- **Atmanirbhar Bharat (Self-reliant India) Initiative:** The government has emphasized promoting domestic manufacturing of telecom equipment and components to reduce dependence on imports and boost the growth of the domestic telecom industry.

- **Incentives for Research and Development (R&D):** Various incentives, such as tax breaks and grants, are provided to encourage research and development activities in the telecom sector, including the development of indigenous technologies and innovations.
- **Ease of Doing Business Reforms:** The government has implemented several reforms to improve the ease of doing business in India, including streamlining regulatory processes, reducing paperwork, and digitizing services, to attract investment and foster growth in the telecom sector.

Way Ahead

- These initiatives demonstrate the government's commitment to promoting the growth and development of the telecommunications sector in India, fostering digital inclusion, and leveraging technology for socioeconomic progress.

Source: TH

WORLD WILDLIFE CRIME REPORT 2024

Context

- The United Nations Office on Drugs and Crime has released the World Wildlife Crime Report 2024.

Key Findings

- The market for **rhino horn (29 percent)** constituted the biggest chunk among animal species.
- It was followed by the market for **pangolin scales at 28 percent**, followed by the market for **elephant ivory at 15 percent.**
- **Other animal species** most affected by the global illegal animal trade included eels (5 percent), crocodilians (5 percent), parrots and cockatoos (2 percent), carnivores (2 percent), turtles and tortoises (2 percent), snakes (2 percent), seahorses (2 percent) and others (8 percent).
- **The rhino and the cedar** were the animal and plant species most affected by global illegal wildlife trade during 2015-2021.

Factors driving wildlife crime

- **Demand for Wildlife Products:** Demand for products derived from wildlife, such as ivory, rhino horn, tiger parts, etc. often fueled by cultural

beliefs, traditional medicine practices, fashion trends, and status symbols leads to wildlife crime.

- **Economic Incentives:** Wildlife crimes are highly lucrative, offering significant financial gains for poachers, traffickers, and organized crime syndicates.

- **Weak Law Enforcement:** Inadequate enforcement of wildlife protection laws, corruption within law enforcement agencies, and limited resources allocated to combat wildlife crime contribute to its persistence.

- **Poverty and Lack of Livelihood Alternatives:** Poverty and lack of employment options drives people to engage in poaching or trafficking activities.

- **Globalization:** The globalization of trade and transportation networks has facilitated the illegal movement of wildlife and wildlife products across borders.

Impacts of wildlife crime

- Wildlife crime leads to **population declines and even extinction** of endangered species. The loss of biodiversity can disrupt entire ecosystems, affecting their resilience and ability to provide essential services.

- The illegal trade **deprives governments of revenue** from legitimate wildlife-based industries such as ecotourism and sustainable harvesting.

- The **overexploitation of top predators increases in prey species**, which in turn negatively impact vegetation and other wildlife populations further down the food chain, causing a cascade effect.

- Illegal wildlife trade involves the smuggling of live animals or animal products, which **carries diseases that pose risks to human health**.

- Many indigenous communities rely on wildlife for their c**ultural and spiritual practices**. The loss of key species erodes traditional knowledge and cultural identities, leading to a loss of **cultural diversity.**

International Conventions to tackle wildlife crimes

- **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES):** Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten the survival of the species.

- **International Union for Conservation of Nature and Natural Resources (IUCN):** It is an international organization working in the field of nature conservation and sustainable use of natural resources.

- **Convention on the Conservation of Migratory Species of Wild Animals (CMS):** It is an international agreement that aims to conserve migratory species throughout their ranges.

Steps taken by Government to Protect Wildlife

- **The Wild Life (Protection) Act, 1972** provides for stringent punishment for violation of its provisions.

- **The Wild Life Crime Control Bureau (WCCB)** coordinates with State/UTs and other enforcement agencies to gather intelligence about poaching and unlawful trade in wild animals and animal articles.

- **Recovery of Endangered Specie**s has been included in **Integrated Development of Wildlife Habitats** which is a centrally sponsored scheme.

- The enactment of the **National Biological Diversity Act (NBA), 2002** was done in order to ensure the protection of threatened species and their habitats.

Constitutional Provisions

- **Article 48A**: The State shall endeavor to protect and improve the environment and to safeguard the forests and wildlife of the country.

- **Article 51A(g):** To protect and improve the natural environment including forests, lakes, rivers and wildlife, and to have compassion for living creatures;

Way Ahead

- Addressing wildlife crime requires a comprehensive approach including strengthening law enforcement, addressing poverty, promoting sustainable livelihoods, raising awareness, and engaging local communities in conservation efforts.

- Governments need to provide training and organize capacity-building programs for law enforcement officials, wildlife managers, and local communities to enhance their skills in wildlife protection, monitoring, and conservation.

Source: DTE

50 YEARS OF POKHRAN-I

Context

- On **May 18, 1974,** India conducted its first successful nuclear test, code-named "Smiling Buddha," at the Pokhran test range in Rajasthan.

About

- With Smiling Buddha, India became the first nation to conduct a nuclear test apart from the five permanent members of the **United Nations Security Council.**

- Its code name came from the test's date being on the same day as Buddha Jayanti, the **birth date of Gautam Buddha.**

Criticism faced by India

- After the nuclear test, there were criticisms that it was an attempt to divert people's attention from the economic crisis the country was facing in the 1970s.

- In **1978,** the US President signed the Nuclear Non-Proliferation Act, following which the US ceased exporting nuclear assistance to India.

- **Nuclear Suppliers Group (NSG):** It is a group of nuclear supplier countries established in **1974** that seeks to contribute to the non-proliferation of nuclear weapons.

  - It would go on to implement agreed rules for exporting nuclear equipment, with a view to controlling the spread of nuclear weapons and where members would be admitted only by consensus.

What is the Pokhran-II test?

- In 1998, under the leadership of Prime Minister Atal Bihari Vajpayee, India conducted a series of nuclear tests in Pokhran once again, code-named Operation Shakti.

- The nuclear test of **1974 was a peaceful nuclear explosion,** on the other hand, the nuclear tests of May 1998, were undertaken as part of the **nuclear weaponization process.**

- And with Operation Shakti, India declared itself a **full-fledged nuclear state.**

What is India's Nuclear Doctrine?

- Building and maintaining a **credible minimum deterrence;**

- A posture of "**No First Use"** nuclear weapons will only be used in retaliation against a nuclear attack on Indian territory or on Indian forces anywhere;

- Nuclear retaliatory attacks can only be authorized by the civilian political leadership through the **Nuclear Command Authority.**

- **Non-use of nuclear weapons** against non-nuclear weapon states;

- However, in the event of a major attack against India, or Indian forces anywhere, by biological or chemical weapons, India will retain the option of retaliating with nuclear weapons.

Way Ahead

- After the nuclear test the international reaction was critical, but over the years India has projected itself as a "responsible" owner of these weapons, allowing acceptance among countries and into groups like the NSG.

- **No First Use:** India has a "no first use" policy, meaning it pledges not to use nuclear weapons first in a conflict but reserves the right to retaliate if attacked with nuclear weapons.

Treaties Related to Nuclear Disarmament

- **Nuclear Nonproliferation Treaty (NPT):**To maintain the peace between nations, after world war II, a treaty was signed in **1968**, called the Nuclear Nonproliferation Treaty (NPT).

  - **Nuclear-weapon States parties are defined** as those that manufactured and exploded a nuclear weapon or other nuclear explosive devices before January 1, 1967, effectively meaning the P-5 countries.

  - Its signatories agreed not to transfer either nuclear weapons or nuclear weapons technology to any other state.

  - Also the non-nuclear states agreed that they would not receive, develop or otherwise acquire nuclear weapons.

  - All of the signatories agreed to submit to the safeguards against proliferation established by the **International Atomic Energy Agency (IAEA).**

  - **India objected** to NPT on the grounds that it was discriminatory to countries except the P-5.

- **Treaty on the Prohibition of Nuclear Weapons (TPNW):** Adopted by the United Nations in 2017 and opened for signature in 2018, the TPNW aims to prohibit the development, testing, production, stockpiling, stationing, transfer, use, and threat of use of nuclear weapons.

    - It represents a significant step towards nuclear disarmament, although it has not been signed by nuclear-armed states.

- **Comprehensive Nuclear-Test-Ban Treaty (CTBT):** Opened for signature in 1996, the CTBT aims to ban all nuclear explosions for both civilian and military purposes.

    - While the treaty has been signed by 185 countries and ratified by 170, it has not entered into force as nuclear-armed states must ratify it to become operational.

- **Outer Space Treaty:** This multilateral agreement entered into force in 1967 and bans the siting of weapons of mass destruction in space.

    - All nine states believed to have nuclear weapons are parties to this treaty.

Source: TH

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NOR'WESTERS (*AKA* KALBAISAKHI)

Context:

- India aims to launch its first research testbed dedicated to studying Nor'westers (aka Kalbaisakhi).

About the Testbed and Its Capabilities

- The **proposed research testbed facility**, jointly developed by the India Meteorological Department (IMD), Indian Institute of Tropical Meteorology (Pune), and National Centre for Medium-Range Weather Forecasting (Delhi).

- It aims **to cover a large area adjoining West Bengal, Odisha, and Jharkhand,** with the **control centre** at **Chandbali** in the Bhadrak district of **Odisha**.

- The facility will be **equipped with drones, mobile vans, and high-end instruments.**

- The large data generated from the facility are expected to make timely t**hunderstorm**

predictions, issue nowcast warnings (an event in less than three hours), and ultimately save lives.

Nor'westers (aka Kalbaisakhi)

- Norwesters are severe thunderstorms that originate over **Eastern and north Eastern parts of India**, southern **Nepal,** adjoining **Bhutan and Bangladesh** during the **pre-monsoon season**.

- They travel preferentially in a general **northwest to southeast direction** and sometimes in southwest to northeast direction.

    - They are **locally known as Kalbaisakhis.**

- In the early summer months, the daytime **landmass heating** over these regions **triggers convection** over some areas of **Bihar, Jharkhand, Chhattisgarh, Odisha, and sub-Himalayan West Bengal.**

Impact and Effects

- The Norwesters produce heavy showers, lightning, thunder, hailstorms, dust storms, squalls, downbursts and sometimes even tornadoes.

- These are **useful for Kharif crops** like tea, jute and rice cultivation.

    - In Assam, these storms are known as **'Bardoli Chheerha'.**

Some Famous Local Storms of Hot Weather Season

- **Mango Shower:** It is a pre-monsoon shower towards the end of summer, which is common in **Kerala and coastal areas of Karnataka**.

    - Locally, they are known as mango showers since they help in the early ripening of mangoes.

- **Blossom Shower:** With this shower, **coffee flowers blossom in Kerala** and nearby areas.

- **Loo:** Hot, dry and oppressing winds blowing in the Northern plains from Punjab to Bihar with higher intensity between Delhi and Patna.

Source: IE

OPEN NETWORK FOR DIGITAL COMMERCE (ONDC)

Context

- Recently, the **Department for Promotion of Industry and Internal Trade (DPIIT)** organised

the 'ONDC Startup Mahotsav' in collaboration with the Open Network for Digital Commerce (ONDC) and Startup India.

About ONDC

- It is a **network based on open protocol** that enables local commerce across various segments such as mobility, grocery, food order and delivery, hotel booking, and travel, among others.

  - It allows these services to be discovered and engaged by any network-enabled application.

- It aims to **democratise and revolutionise the e-commerce landscape** in the country.

- It recognises the unique opportunity to increase e-retail penetration from the **existing 4.3%** to its maximum potential.

- It facilitates the rapid adoption of e-commerce, alongwith the boosts and **strengthens the growth of startups in India.**

Key Pillars of ONDC

- **Buyer-Side Apps:** The demand side of any transaction where the transaction originates.

- **Seller-Side Apps:** The supply side of any transaction. Publish sellers' catalogue of goods and services and fulfil buyer orders.

- **Adaptor Interfaces:** Adaptor interfaces are the open APIs developed based on the open-source interoperable specification of Beck protocol.

- **Gateway:** Application that will ensure discoverability of all sellers in the network by multicasting the search request received from the buyer application.

- **Open Registries:** Application(s) that maintains the list of participants who join ONDC, list of network policies, etc.

Impact

- ONDC provides opportunities to accelerate growth for all entities engaged in e-commerce.

- It has already made a significant impact with over 4.27 lakh sellers/service providers and 10 domains live on the network.

- It has also facilitated the rapid adoption of products and services and achieving scale in go-to-market efforts.

Source: PIB

IBERIAN LYNX

Context

- The number of endangered Iberian lynx in the wild in Spain and Portugal has nearly doubled since 2020 to surpass 2,000 last year.

About

- **Scientific Designation:** Lynx pardinus

- **Characteristics:** The Iberian lynx is a medium-sized nocturnal cat with a short tail, a short body, long legs, tufted ears, and a relatively small head.

  - It has bright yellowish to tawny coloured spotted fur.

- **Distribution:** Once distributed throughout the Iberian Peninsula, the species is now sparsely distributed in Spain and Portugal.

- **Threats:** It is threatened by habitat loss, road accidents, and illegal hunting. In 2007, several individuals died of **feline leukemia.**

Conservation Status

- **IUCN status:** Endangered

- It is protected under **appendix II** of the **Convention on International Trade in Endangered Species (CITES).**

Source: TH

SOUTH ASIAN ASSOCIATION FOR REGIONAL COOPERATION (SAARC)

Context

- The secretary general of SAARC, has met senior Indian officials to discuss the status of regional cooperation and assess the working of institutions under the grouping.

South Asian Association for Regional Cooperation (SAARC)

- **SAARC was established** in 1985.
- **Secretariat:** It was set up in **Kathmandu, Nepal,** in 1987.
- **It aims** to accelerate the process of economic and social development in its member states through increased intra-regional cooperation.
- **SAARC has eight member countries:** Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri-Lanka.

Source: HT

JAXA'S LUPEX MISSION

Context

- As per the Japan Aerospace Exploration Agency (JAXA) The India-Japan partnership for their joint moon mission, **Lunar Polar Exploration Mission (LUPEX),** is likely to take flight in a few years.

About

- LUPEX marks JAXA's first attempt to send a large rover to the moon.
- The mission's primary objective is to **explore the lunar surface and search for subsurface water.**
    - It will also investigate its **quantity, distribution on the lunar surface and below ground, and form,** such as the level of mixing with dry regolith, the layer of loose unconsolidated rock and dust that sits atop a layer of bedrock.
- The Japanese space agency is responsible for the **lunar rover**, the Indian Space Research Organisation (ISRO) is handling the lander that will carry the rover.
- The mission will also carry observation instruments from US' National Aeronautics and Space Administration (NASA) and the European Space Agency (ESA), further enhancing its scientific capabilities.

Source: TP

ARTICLE 22 OF THE CONSTITUTION

Context

- The Supreme Court ordered the release of Newsclick founder-editor as Delhi Police failed to **inform him of the grounds of his arrest before taking him into custody.**

About

- It is significant because it emphasises that proper procedure and due process are the guardrails against arbitrary action, even in stringent terror cases.
- Article 22 of the Constitution of India primarily deals with the **protection against arrest and detention in certain cases.**
    - Article 22 (1) states that a person who is arrested must be **informed of the grounds of arrest**, and they have the right to consult and be defended by a legal practitioner of their choice.
    - Article 22 (2) ensures that a person who is arrested and detained in custody must be **produced before the nearest magistrate within a period of 24 hours,** excluding the time necessary for the journey from the place of arrest to the court of the magistrate.
    - Article 22 (3) safeguards against preventive detention laws.

Source: IE

SEA OTTERS

In News

- Sea Otters have learned to use tools to help them eat.

About Sea otters(Enhydra lutris)

- The Sea Otter is the smallest marine mammal
- It is a very social animal, and floats in single-sex groups known as 'rafts

- **Habitat and Diet:** Sea Otters live in coastal areas with shallow water. They find their food on the ocean floor, and carry out all other activities, such as eating and grooming, at the surface.

- **Geographical range:** Canada; Japan; Mexico; Russian Federation; United States.

- **Importance of Sea Otters:** Sea otters are key players in the health of the kelp forests they inhabit. They prey on animals that graze on kelp stalks, such as sea urchins, and so prevent them from becoming so abundant that they completely destroy the habitat.

- **Threats** : Pollution is a major contributor to Sea Otter deaths, with oil spills affecting their ability to insulate themselves, and run-off from the land that contains chemicals and disease-causing organisms.

- **IUCN Red List status : Endangered**

Source:TH

12TH INDIA-MONGOLIA JOINT WORKING GROUP MEETING

In News

12th India-Mongolia Joint Working Group meeting to bolster bilateral defence ties held in Ulaanbaatar

Key Points

- Both sides reviewed the progress on various bilateral defence cooperation initiatives and identified means to further enhance cooperation in the areas. They also exchanged views on the current geopolitical situation

Do you know ?

- Mongolia is a landlocked country in Northern Asia, strategically located between China and Russia.

- the capital city Ulaanbaatar.

- The terrain is one of mountains and rolling plateaus, with a high degree of relief.

- Khuvsgul is the largest freshwater lake in Mongolia by volume.

India and Mongolia

- **Historical:** India enjoys age-old historical, cultural and civilisation ties with Mongolia. Both countries regard each other as 'Spiritual Neighbours'

- **Establishment of Diplomatic Relations**: Diplomatic relations between India and Mongolia were established on 24 December 1955. India was the first country outside the Socialist bloc to establish diplomatic relations with Mongolia.

   - India supported Mongolia in having UN and NAM memberships

- **Cultural Relations** : The India-Mongolian Cultural Agreement signed in 1961 has governed the Cultural Exchange Programme (CEP) between the two countries.

- **Nomadic Elephant**' is an annual training exercise which is conducted alternatively in Mongolia and India.

Source:PIB

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