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New Delhi Dual Governance Conundrum

Why in News?

Due to the absence of statehood for Delhi, there has been a prolonged confrontation on the relative powers between the elected government of New Delhi and Lieutenant Governor (L-G) (appointed by the Union Government) for the territorial administration of New Delhi.

- The dispute between the two occurred on many occasions including control over agencies, namely the Anti-Corruption Bureau, the Civil Services and the Electricity Board, etc.

- Further, the 2021 amendment to the Government of National Capital Territory of Delhi Act,1991, points out that the possibility of conflict is not over.

What is the Governance Model of New Delhi?

- The status of Delhi being a Union Territory under Schedule 1 of the Constitution but christened the 'National Capital Territory' under Article 239AA, engrafted by the Constitution (69th Amendment) Act.

- The 69th amendment to the Constitution of India inserted Article 239AA, which declared the Union Territory of Delhi to be administered by a L-G who works on aid and advice of the elected legislative assembly.

  o However, the 'aid and advice' clause pertains only to matters on which the elected Assembly has powers under the State and Concurrent Lists With the exception of public order, police, and land.

- Further, the Article 239AA also notes that L-G has to either act on the aid and advice of the Council of Ministers, or he is bound to implement the decision taken by the President on a reference being made by him.

- Also, Article 239AA, empowers the L-G to refer a difference of opinion on 'any matter' with the Council of Ministers to the President.

- Thus, this dual control between L-G and the elected government leads to a power tussle.

What is the Judiciary's Opinion on this matter?

- The Delhi High Court decided in favour of the Central Government relying on the status of Delhi as a Union Territory.

- However, the Supreme Court referred the matter to a Constitution Bench to decide on the substantial questions of law pertaining to the powers of the elected government of Delhi vis-a-vis the Lieutenant Governor (L-G).

- The case referred to the Constitutional bench is known as *NCT vs UOI case, 2018.* The five-judge Bench opened a new jurisprudential chapter in the Administration of NCT.

  o Purposive Construction: The court invoked the rule of purposive construction to say that the objectives behind the Constitution (69th Amendment) Act shall guide the interpretation of Article 239AA.

    • This means the principles of federalism and democracy into Article 239AA, thereby finding a parliamentary intent to accord a sui generis (of its own kind) status in distinction from other Union Territories.

  o L-G to Act on Aid and Advice: The Court declared that the L-G is bound by the "aid and advice" of the Council of Ministers, noting that the Delhi Assembly also has the power to make laws over all subjects that figure in the Concurrent List, and all, except three excluded subjects, in the State List.

    • The L-G ought to act on the "aid and advice" of the Council of Ministers, except when he refers a matter to the President for a final decision.

  o Any Matter is Not Every Matter: Regarding the L-G's power to refer to the President any matter on which there is a difference of opinion between L-G and the Council of Ministers, the Supreme Court ruled that "any matter" cannot be construed to mean "every matter", and such a reference shall arise only in exceptional circumstances.

- o L-G as facilitator: L-G shall act as a facilitator rather than anointing himself as an adversary to the elected Council of Ministers.
- o New Delhi Cannot be Given Statehood: At the same time, the Court ruled that the National Capital Territory of Delhi cannot be granted the status of a State under the constitutional scheme.

Way Forward:

- Working Through Constitutional Trust: The apex court had rightly concluded that the scheme set out in the Constitution and the Government of National Capital Territory of Delhi Act, 1991 envisages a collaborative structure that can be worked only through constitutional trust.

- Ensuring Principle of Subsidiarity: Subsidiarity – the foundational principle of fiscal federalism – necessitates empowered sub-national governments.

  - o Therefore, the central government should move towards allocating greater powers to city governments.

  - o In this context, India should emulate several large megapolis around the globe, from Jakarta and Seoul to London and Paris, which have had strong sub-national governments.

Source: TH

India Semiconductor Mission

Why in News?:

Recently, Ministry of Electronics & Information Technology has inaugurated the first ever Semicon India 2022 Conference under India Semiconductor Mission in Bengaluru.

- Semicon India - 2022 has been organized to take forward the vision of the Prime Minister to make India a leader in the electronics manufacturing, semiconductor design, manufacturing & innovation.

- Theme of the Conference: Catalyzing India's Semiconductor Ecosystem.

What are Semiconductors?

- Any of a class of crystalline solids intermediate in electrical conductivity between a conductor and an insulator.

- Semiconductors are employed in the manufacture of various kinds of electronic devices, including diodes, transistors, and integrated circuits. Such devices have found wide application because of their compactness, reliability, power efficiency, and low cost.

- As discrete components, they have found use in power devices, optical sensors, and light emitters, including solid-state lasers.

What is the India Semiconductor Mission?

- **About:**

  o The ISM was launched in 2021 with a total financial outlay of Rs76,000 crore under the aegis of the Ministry of Electronics and IT (MeitY).

  o It is part of the comprehensive program for the development of sustainable semiconductor and display ecosystem in the country.

  o The programme aims to provide financial support to companies investing in semiconductors, display manufacturing and design ecosystem.

  o Envisioned to be led by global experts in the Semiconductor and Display industry, ISM will serve as the nodal agency for efficient, coherent and smooth implementation of the schemes.

- **Components:**

  o **Scheme for setting up of Semiconductor Fabs in India:**

    • It provides fiscal support to eligible applicants for setting up of Semiconductor Fabs which is aimed at attracting large investments for setting up semiconductor wafer fabrication facilities in the country.

  o **Scheme for setting up of Display Fabs in India:**

    • It provides fiscal support to eligible applicants for setting up of Display Fabs which is aimed at attracting large investments for setting up TFT LCD / AMOLED based display fabrication facilities in the country.

  o **Scheme for setting up of Compound Semiconductors / Silicon Photonics / Sensors Fab and Semiconductor Assembly, Testing, Marking and Packaging (ATMP) / OSAT facilities in India:**

    • The Scheme provides a fiscal support of 30% of the Capital Expenditure to the eligible applicants for setting up of Compound

Semiconductors / Silicon Photonics (SiPh) / Sensors (including MEMS) Fab and Semiconductor ATMP / OSAT(Outsourced Semiconductor Assembly and Test) facilities in India.

- o **Design Linked Incentive (DLI) Scheme:**
    - It offers financial incentives, design infrastructure support across various stages of development and deployment of semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design.

- **Vision:**
    - o To build a vibrant semiconductor and display design and innovation ecosystem to enable India's emergence as a global hub for electronics manufacturing and design.

- **Significance:**
    - o ISM is of paramount importance to organize efforts for promoting semiconductors and display industry in a more structured, focused, and comprehensive manner.

    - o It will formulate a comprehensive long-term strategy for developing semiconductors & display manufacturing facilities and semiconductor design ecosystem in the country.

    - o It will facilitate the adoption of trusted electronics through secure semiconductors and display supply chains, including raw materials, specialty chemicals, gasses, and manufacturing equipment.

    - o It will enable a multi-fold growth of Indian semiconductor design industry by providing requisite support in the form of Electronic Design Automation (EDA) tools, foundry services and other suitable mechanisms for early-stage startups.

    - o It will also promote and facilitate indigenous **Intellectual Property (IP)** generation and encourage, enable and incentivize Transfer of Technologies (ToT).

    - o ISM will enable collaborations and partnership programs with national and international agencies, industries and institutions for catalyzing collaborative research, commercialization and skill development.

Why is the need of Promoting Semiconductor Industry So Much?

- Semiconductor is the heart of modern economics.

- In today's world of technology, when almost everything revolves around electronic gadgets, one cannot overstate the importance these microchips hold. Also known as Integrated Circuits (ICs), these chips are primarily made out of silicon and germanium.

- Without these chips, there would be no smartphones, radios, TVs, laptops, computers or even advanced medical equipment.

- They are used to fabricate electronic devices. Also, with the emergence of e-vehicles, the demand for semiconductors is expected to see a big boom.

- The Covid-19 pandemic has shown that the demand for electronic gadgets will only go uphill from here.

- In all this, the industry seems to be an attractive place to make early inroads into.

  o India's own consumption of semiconductors is expected to cross USD 80 billion by 2026 and to USD 110 billion by 2030.

- There are not many countries in the world that manufacture these chips.

  o The industry is dominated by the United States of America, Taiwan, South Korea, Japan and the Netherlands.

  o Germany is also an emerging producer of ICs.

- In all this, it might actually be a good idea for India to get on the bus early.

What are the Initiatives related to Semiconductors?

- **Semi-conductor Laboratory (SCL):**

  o MeitY will take requisite steps for modernization and commercialization of Semi-conductor Laboratory (SCL).

- **For Compound Semiconductors:**

  o Government will support fiscal support of 30% of capital expenditure to approved Compound Semiconductors units.

- **Production Linked Incentives:**

- Incentive support to the tune of Rs.55,392 crore (7.5 billion USD) have been approved under **Product Linked Incentive (PLI)** for Largest Scale Electronics Manufacturing, PLI for IT Hardware, SPECS Scheme and Modified **Electronics Manufacturing Clusters** (EMC 2.0) Scheme.

Way Forward:

- Semiconductors and displays are the foundation of modern electronics driving the next phase of digital transformation under **Industry 4.0.**

- India's PSEs such as Bharat Electronics Ltd or Hindustan Aeronautics Ltd can be used to set up a semiconductor fab foundry with the help of a global major.

- India needs to drop the dream of swadeshi semiconductors. Instead, it should aim to become a key player in a trusted, plurilateral semiconductor ecosystem that keeps key adversaries out.

  - Favourable trade policies are critical for building a plurilateral semiconductor ecosystem.

Source: PIB

Mandate Document for National Curriculum Framework

Why in News?

Recently, the Ministry of Education has released the "mandate document" for a National Curriculum Framework under the new National Education Policy (NEP), 2020.

- The mandate document is envisaged to bring about a paradigm shift with focus on holistic development of children, emphasis on skilling, vital role of teachers, learning in mother tongue, cultural rootedness.

- It is also a step towards decolonization of the Indian education system.

What is the National Curriculum Framework?

- Central to the implementation of the transformative National Education Policy 2020 is the new National Curriculum Framework (NCF) which will empower

and enable outstanding teaching and learning in the country, by converting the vision of the NEP 2020 into reality in our schools and classrooms.

- The development of the NCF is being guided by the **National Steering Committee** (NSC), chaired by Dr K Kasturirangan, supported by the Mandate Group, along with the **National Council for Education Research and Training** (NCERT).

- **The NCF will include:**

  o The National Curriculum Framework for School Education (NCFSE),

  o The National Curriculum Framework for Early Childhood Care & Education (NCFECCE),

  o The National Curriculum Framework for Teacher Education (NCFTE),

  o The National Curriculum Framework for Adult Education (NCFAE).

- The government held that the NEP is the philosophy, National Curriculum Framework is the pathway and the mandate document released today is the constitution to champion the changing demands of the 21st century and positively impact the future.

- The mandate group has set 28th February 2023 as the deadline for the revision of syllabi based on the new NCF.

What are the Highlights of the Mandate Document?

- Consultative Process: It sets the mechanisms for the development of a coherent and comprehensive NCF, fully leveraging the widespread consultations already under way.

- Multi-Disciplinary Education: The process designed ensures the seamless integration imagined - vertically (across Stages) and horizontally in the NEP 2020 – to ensure holistic, integrated, and multi-disciplinary education.

- Conducive Environment for Teaching: It enables the critical linkage between the curriculum of schools with the curriculum of Teacher Education as an integral part of the transformative reforms envisioned by the NEP 2020.

  o Thus, enabling rigorous preparation, continuous professional development, and a positive working environment for all our teachers

- Life-long Learning: It informs the creation of opportunities for life-long learning for all citizens in the country.

- Focus on Cutting-edge Research: Anchored and informed by sound theory and cutting-edge research yet using simple language with real-life illustrations from classrooms and schools in a variety of contexts.

- Addressing Huge Learning Loss: The states and the Centre "must act urgently" to address the "huge learning loss" among students due to the interruptions in regular teaching and learning caused by the pandemic over the last two years.

What is meant by Decolonization of Indian education system?

- Industrialization and its consequential imperialism and colonialism have impacted this world for three centuries.

- India has been a colony of the British Empire for two centuries.

- These eventful two centuries of Indian history did see the influence of not only the political and economic might of Britain but its influence on every milieu of Indian life.

- India's indigenous education system was gradually displaced, and the colonial model of education pervaded under the patronage from the colonial-state.

- The language, pedagogy, evaluation and knowledge of the colonizer became *naturalis obligato* (Natural Obligation) for the population of the colony.

- Although India got independence in 1947, still Indian education system is heavily dominated by western world.

- Hence, there is a need to decolonize Indian education System immediately.

What is NCERT?

- NCERT is an autonomous organization of the Government of India which was established in 1961 as a literary, scientific and charitable Society under the Societies Registration Act, 1860.

- It aims at reforming the school education system through research, training, policy formulation and curriculum development.

- Headquarters: New Delhi

Source: IE

Jute Industry

Why in News?

West Bengal is experiencing a crisis that has led to the closure of several Jute Mills.

What is the Issue?

- **High Rate of Procurement by Mills:**

  o Mills are procuring raw jute at prices higher than what they are selling them at after processing.

  o **Mills do not acquire their raw material directly from the farmers because:**

    • Farmers are far-off from the mills locations:

      • Mills would have to go to multiple farmers to acquire the requisite quantity as no single farmer produces enough to fulfil the requirements of the entire mill.

    • **Procurement Process is Cumbersome:**

      • The procurement now flows through middlemen or traders.

      • As a standard practice, the middlemen charge mills for their services, which involves procuring jute from farmers, grading, bailing and then bringing the bales to the mills.

- **Hoarding:**

  o The government has a fixed Minimum Support Price (MSP) for raw jute procurement from farmers, which is Rs. 4,750 per quintal for the 2022-23 season.

  o However, this reaches the mill at Rs. 7,200 per quintal, that is, Rs. 700 more than the Rs. 6,500 per quintal cap for the final product.

- **Impact of Cyclone:**

  o The situation particularly has become worrisome recently with the occurrence of **Cyclone Amphan** in May 2020 and the subsequent rains in major jute producing States.

    • These events led to lower acreage, which in turn led to lower production and yield compared to previous years.

- Also, this led to production of a lower quality of jute fibre in 2020-21 as water-logging in large fields resulted in farmers harvesting the crop prematurely.

What are the Related Concerns?

- As the jute sector provides direct employment to 3.70 lakh workers in the country and supports the livelihood of around 40 lakh farm families, closure of the mills is a direct blow to workers and indirectly, to the farmers whose production is used in the mills.

  - West Bengal, Bihar and Assam account for almost 99% of India's total production.

What are the Related Initiatives for the Jute Sector?

- Golden Fibre Revolution and Technology Mission on Jute and Mesta are two of the government initiatives to boost jute production in India.

  - Due to its high cost, it is losing market to synthetic fibres and packing materials, particularly nylon.

- **Jute Packaging Materials Act, 1987:**

  - Through the **Jute Packaging Materials** (JPM) Act, the Government is protecting the interests of about 4 lakh workers and 40 lakh farm families.

    - The Act provides for the compulsory use of jute packaging material in the supply and distribution of certain commodities in the interests of production of raw jute and jute packaging material, and of persons engaged in the production thereof, and for matters connected therewith.

- **Jute Geo-Textiles (JGT):**

  - The **Cabinet Committee on Economic Affairs** (CCEA) has approved a Technical Textiles Mission which includes Jute Geo-Textiles.

  - JGT is one of the most important diversified jute products. It can be applied in many fields like civil engineering, soil erosion control, road pavement construction and protection of river banks.

- **Jute SMART:**

  - It is an e-government initiative which was launched in December 2016 to promote transparency in the jute sector.

o It provides an integrated platform for procurement of sacking by Government agencies.

What are the key Highlights about Jute?

▪ Temperature: Between 25-35°C

▪ Rainfall: Around 150-250 cm

▪ Soil Type: Well drained alluvial soil.

▪ **Production:**

   o India is the largest producer of jute followed by Bangladesh and China.

      • However, in terms of acreage and trade, Bangladesh takes the lead accounting for three-fourth of the global jute exports in comparison to India's 7%.

   o It is mainly concentrated in eastern India because of the rich alluvial soil of Ganga-Brahmaputra delta.

   o Major jute producing states include West Bengal, Bihar, Odisha, Assam, Andhra Pradesh, Meghalaya and Tripura.

▪ **Uses:**

   o It is known as the golden fibre. It is used in making gunny bags, mats, ropes, yarn, carpets and other artefacts.

Source: TH

Meeting of Project Elephant

Why in News?

At the 16th Steering Committee meeting of Project Elephant, the Ministry of Environment, Forest and Climate Change launched a field manual named-Field Manual for Managing **Human-Elephant Conflicts** (HEC) in India-to guide forest staffers dealing with HEC in major elephant range states.

▪ The manual has been prepared by the ministry, along with the Wildlife Institute of India (WWI) and World Wide Fund for Nature (WWF India).

▪ It contains the detailed best practices of minimizing human-elephant conflict. It is drafted with the aim of providing forest officials/ departments and other

stakeholders with guidance towards interventions to help mitigate Human Elephant Conflict, both in emergencies and when conflict poses a recurring challenge.

What are the Key Points Related to Elephants?

- **Current Data on Elephants in India:**

  o India is home to approximately around 27,000 Asian Elephants, which is the world's largest population of the species.

  o As per Elephant Census (2017), Karnataka has the highest number of elephants (6,049), followed by Assam (5,719) and Kerala (3,054).

- **Asian Elephants:**

  o **About:**

    • There are three subspecies of Asian elephant which are the Indian, Sumatran and Sri Lankan.

    • The Indian subspecies has the widest range and accounts for most of the remaining elephants on the continent.

      • The elephant herd is led by the oldest and largest female member (known as the matriarch). This herd includes the daughters of the matriarch and their offspring.

      • Elephants have the longest-known gestational (pregnancy) period of all mammals, lasting up to 680 days (22 months).

      • Females between 14 - 45 years may give birth to calves approximately every four years with the mean interbirth intervals increasing to five years by age 52 and six years by age 60.

    • Global Population: Estimated 20,000 to 40,000.

  o **Protection Status:**

    • **IUCN Red List:** Endangered.

    • **Wildlife (Protection) Act, 1972:** Schedule I.

    • **CITES:** Appendix I

- **African Elephants:**

- o **About:**
  - There are two subspecies of African elephants, the Savanna (or bush) elephant and the Forest elephant.
  - Global Population: Around 4,00,000.
  - Earlier in July 2020, Botswana (Africa) witnessed the death of hundreds of elephants.
- o **Protection Status:**
  - **IUCN Red List Status:**
    - African Savanna Elephant: Endangered.
    - African Forest Elephant: Critically Endangered
  - **CITES:** Appendix II
- **Threats:**
  - o Escalation of poaching.
  - o Habitat loss.
  - o Human-elephant conflict.
  - o Mistreatment in captivity.
  - o Abuse due to elephant tourism.
  - o Rampant mining, Corridor destruction.

What are the Steps Taken for Conservation?

- Plans and programmes to arrest their poachers and killers.
- Declaration and establishment of various elephant reserves across the states. For example, Mysuru and Dandeli elephant reserves in Karnataka.
- Cleaning areas from lantana and eupatorium **(invasive species)** as they prevent the growth of grass for elephants to feed on.
- Barricades to prevent man-elephant conflicts.
- Measures for establishment of a cell to study **forest fire** prevention.
- Gaj Yatra which is a nationwide awareness campaign to celebrate elephants and highlights the necessity of securing elephant corridors.

- The **Monitoring the Illegal Killing of Elephants (MIKE) programme**, launched in 2003, is an international collaboration that tracks trends in information related to the illegal killing of elephants from across Africa and Asia, to monitor effectiveness of field conservation efforts.

- Project Elephant: It is a centrally sponsored scheme and was launched in February 1992 for the protection of elephants, their habitats and corridors.

  o The Ministry of Environment, Forest and Climate Change provides financial and technical support to major elephant range states in the country through the project.

- Even *mahouts* (people who work with, ride and tend to elephants) and their families play an important part in the welfare of elephants.

- Recently, the Supreme Court (SC) upheld the 2011 order of the Madras High Court (HC) on the Nilgiris elephant corridor, affirming the right of passage of the animals and the closure of resorts in the area.

Source: DTE

Sloth Bear

Why in the News?

Recently, two sloth bears were rescued by forest officials from a village in Jharkhand by the People for Animals group.

- The People for Animals (PFA) is an animal welfare organization founded by Maneka Gandhi.

- The PFA was informed by Madaris. Madaris is a nomadic community that earns a living by performing street acts with animals.

What is a Sloth bear?

▪ About: Sloth bears are found in Sri Lanka, India, Bhutan and Nepal, predominantly in lowland areas.

  o Sloth bears primarily eat termites and ants, and unlike other bear species, they routinely carry their cubs on their backs.

  o They are also very fond of honey, hence their alternative name of "honey bear".

  o Sloth bears do not hibernate.

▪ Scientific Name: Melursus ursinus

▪ Habitat: It is a forest-dwelling member of the family Ursidae (comprises 8 species of bears) that inhabits tropical or subtropical regions of India and Sri Lanka.

▪ **Protection Status:**

  o **IUCN Red List:** Vulnerable'

  o **CITES** listing: Appendix I

  o **Indian Wildlife Protection Act, 1972**: Schedule I

- Threats: Habitat loss, poaching for body parts and are sometimes captured for use in performances or hunted because of their aggressive behavior and destruction of crops.

Species	Current Status
Great Indian Bustard	Critically Endangered
Musk Deer	Endangered
Red Panda	Endangered
Asiatic Wild Ass	Near Threatened
Kashmir Stag	Least Concern
Cheetal	Least Concern
Blue Bull	Least Concern
Snow Leopard	Vulnerable
Rhesus Monkey	Least Concern
Saras (Crane)	Vulnerable
Lion Tailed Macaque	Endangered
Hanuman Langur	Least Concern

Source: IE

Atal New India Challenge 2.0

Why in News?

Atal Innovation Mission launched the phase 1 of the 2nd edition of the Atal New India Challenge (ANIC 2.0).

- ANIC 1.0 was launched in 2018 for the clarion call to bring innovations and technologies relevant to the people.

What is Atal New India Challenge?

- **About:**

- o Atal New India Challenge is a flagship program of Atal Innovation Mission, NITI Aayog.

- o The program aims to seek, select, support and nurture technology-based innovations that solve sectoral challenges of national importance and societal relevance.

- o ANIC solicits innovations in the prototype stage and supports the selected start-ups through to the commercialization stage over a course of 12 – 18 months.

- **Vision:**

  - o Help create products from existing technologies that solve problems of national importance and societal relevance (productization)

  - o Help new solutions find markets and early customers (commercialization) in the context of India.

- **Objectives:**

  - o To incentivize innovations in areas critical to India's development and growth – Education, Health, Water and Sanitation Agriculture, Food Processing, Housing, Energy, Mobility, Space Application etc.

  - o To address the Commercialization Valley of Death (Gap between the research and commercialization) - supporting innovators scale over the risks associated with access to resources for testing, piloting and market creation.

- **ANIC 1.0:**

  - o ANIC 1.0 followed an open innovation challenge format where challenge statements were put out in the public domain and a call for application was made.

  - o The winning start-ups / individual innovators are supported through a tranche-based grant-in-aid of up to Rs.1 crore and through AIM's innovation network.

- **ANIC 2.0:**

  - o The 1st phase of ANIC 2.0 will see 18 challenges being thrown open from 7 sectors, which are, E-mobility, Road Transportation, Space Technology and Application, Sanitation Technology, Medical Devices and Equipment, Waste Management, Agriculture.

What is Atal Innovation Mission?

- AIM is Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country.

- Its objective is to develop new programmes and policies for fostering innovation in different sectors of the economy, provide platform and collaboration opportunities for different stakeholders, create awareness and create an umbrella structure to oversee the innovation ecosystem of the country.

- **Major Initiatives:**

  o **Atal Tinkering Labs:** These are creating problem solving mindset across schools in India.

  o **Atal Incubation Centers:** Fostering world class startups and adding a new dimension to the incubator model.

  o **Atal New India Challenges:** Fostering product innovations and aligning them to the needs of various sectors/ministries.

  o Mentor India Campaign: A national mentor network in collaboration with the public sector, corporates and institutions, to support all the initiatives of the mission.

  o **Atal Community Innovation Center:** To stimulate community centric innovation and ideas in the unserved/underserved regions of the country including Tier 2 and Tier 3 cities.

  o **Atal Research and Innovation for Small Enterprises (ARISE):** To stimulate innovation and research in the MSME industry.

Source: PIB

Anabolic Steroids

Why in News?

Two of India's track-and-field Tokyo Olympians failed dope tests for using banned anabolic steroids.

What are Anabolic Steroids?

- **About:**

  o Anabolic steroids are usually used by bodybuilders.

  o They are essentially lab-made versions of the male hormone testosterone and have a similar effect of increasing muscle mass as the natural hormone does.

o It also increases male characteristics in a person, such as facial hair and a deeper voice.

- **Different from Corticosteroids:**

  o Anabolic steroids, however, very different from the steroids that are prescribed by doctors for inflammations, several autoimmune diseases, or to suppress the body's immune system during a Covid-19 infection.

  o These medicines/steroids are called corticosteroids and are lab-made molecules that mimic the action of the hormone called cortisol that controls the body's stress response, metabolism, and inflammation.

  o Unlike corticosteroids, anabolic steroids have limited medical use.

What are they prescribed for?

- The anabolic steroids have a very limited medical role and are mainly used by doctors to help patients gain weight after a severe illness or injury.

- It could also be prescribed in small doses to the elderly to build muscle mass and in some cases also helps to treat anemia.

- Doctors may also prescribe the medicine to men who have low levels of natural testosterone.

- Some doctors use it for the treatment of osteoarthritis (a condition where bones wear down over time).

How are anabolic steroids misused?

- The anabolic steroids are misused mainly by those who want to bulk up as it helps increase one's muscle mass.

- A 2019 study from Bhubaneshwar of anabolic steroid users showed that only one of the 74 participants was a professional bodybuilder, with 18.9 % being students, indicating that it is used by people other than professional athletes.

- Although no concrete estimate exists of the number of people using the drug across India, a 2018 study from Jammu and Kashmir found that 7.1 % of athletes used it.

What are the health impacts?

- Use of anabolic steroids in the short-term can cause acne and hairfall.

- Extended misuse of the substance can also lead to gynaecomastia (growth of breasts in men) and erectile dysfunction.
- In women, it can lead to growth of facial hair. It may also cause extreme anger, paranoia, and impaired judgment.

Source: IE