GOVERNANCE

Operation AAHT

Recently, the Railway Protection Force (RPF) has launched a nationwide operation to curb human trafficking.As part of "Operation AAHT", special teams will be deployed on all long-distance trains/routes with a focus on rescuing victims, particularly women and children, from the clutches of traffickers.

- The National Crime Records Bureau registers about 2,200 cases of Human Trafficking cases on an average each year.

What is Operation AAHT?

- The Indian Railways, which transported over 23 million passengers each day (pre-pandemic), is the largest, fastest and most reliable carrier for suspects who trafficked scores of women and children.
- Under Operation AAHT, the infrastructure and intelligence network of the force could be utilised to collect, collate and analyse clues on victims, source, route, destination, popular trains used by suspects, the identity of carriers/agents, kingpins etc and shared with other law-enforcing agencies.
- Under this, the RPF could act as a bridge cutting across States to assist the local police in the mission to curb the menace.
- Also, cyber cells would start patrolling the web/social media to look for digital footprints of Human Trafficking and the focus would be more on trains originating from districts bordering Nepal, Bangladesh and Myanmar.

What is Human Trafficking?

- Human trafficking, also called trafficking in persons, form of modern-day slavery involving the illegal transport of individuals by force or deception for the purpose of labour, sexual exploitation, or activities in which others benefit financially.Human Trafficking, especially of women and children, for sexual exploitation, forced marriage, domestic servitude, organ transplant, drug peddling, etc is an organised crime and the most abominable violation of human rights.
- There is a popular understanding that trafficking is happening a lot more between countries but a report by UNODC highlights that close to 60% of trafficking happens internally in countries.
- Situation in India: The most affected state presently is West Bengal followed by Chhattisgarh, Jharkhand and Assam.

ECONOMY

India's Dairy and Livestock Sector

Union Budget 2022-23 is expected to boost the dairying and livestock sector with a host of measures to make it sustainable amid the ongoing Covid-19 pandemic.

What is the Current State of the Dairy and Livestock Sector?

- Dairy is the single-largest agricommodity in India. It contributes 5% to the national economy and employs 80 million dairy farmers directly.
- A revival in economic activities, increasing per capita consumption of milk and milk products, changing dietary preferences and rising urbanisation in India, has driven the dairy industry to grow by 9-11% in 2021-22.
- The livestock sector has grown at a Compound Annual Growth Rate (CAGR) of 8.15% over the last five years ending 2020.
- Growth in the liquid milk segment, which accounts for over half of the dairy industry, is likely to remain stable (6-7%).
- The organised dairy segment, which accounts for 26-30% of industry (by value), has seen faster growth, compared to the unorganised segment.

What are the Initiatives taken in the Budget 2022-23 for this Sector?

- **Infrastructure Development under Vibrant Villages Programme:**Border villages in northern India with a sparse population and limited connectivity, have been covered under the 'New Vibrant Villages Programme' in the new budget.
  1. Some 95% of livestock farmers are concentrated in rural India. Hence, infrastructure development under the Vibrant Villages Programme will play a significant role in enhancing market access for these livestock farmers.

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2. New Vibrant Villages Programme announced in the budget aims to improve social and financial infrastructure in remote habitations, primarily along the border with China, and will be an improved version of the existing border area development programme.

- **Reducing Alternate Minimum Tax:**
  1. To provide a level playing field between co-operative societies and companies, alternate minimum tax has been reduced from 18.5% to 15%.
  2. Government has also proposed to reduce the surcharge on co-operative societies to 7% from 12% at present for those having total income of more than Rs. 1 crore and up to Rs. 10 crore.This would help enhance the income of cooperative societies and its members who are mostly from rural and farming communities.

- **Enhanced allocation for Central Sector Schemes:**
  1. Allocation for the Rashtriya Gokul Mission and National Programme for Dairy Development has been increased by 20% in 2022-23.
  2. It is expected to help in increasing the productivity of indigenous cattle and quality milk production.Allocation for the livestock sector has been increased by more than 40% for 2022-23 and the enhanced allocation for central sector schemes by more than 48% shows commitment by the government for the growth of livestock and dairy farmers.

- **Enhancement in allocation for Livestock Health and Disease Control:**An almost 60% enhancement in allocation for livestock health and disease control for 2022-23 over the previous year will ensure healthier livestock.

- **Incentivising Digital Banking:**
  1. Incentivising digital banking, digital payments and fintech innovations will create a ripple effect in the livestock sector through greater transparency by streamlining payments during milk procurement.
  2. A completely paperless, e-bill system will be launched by ministries for procurement.

What are the Current issues with the Sector?
- Dairy analogues, plant-based products and adulteration pose a major challenge and threat to the dairy industry.
- Shortage of fodder resources and ineffective control of animal diseases.
- Absence of field oriented conservation strategy for indigenous breeds.
- Lack of skills and quality services to farmers for improving productivity and improper infrastructure to support the sector.

What are the related Schemes for the Sector?
1. Animal Husbandry Infrastructure Development Fund (AHIDF)
2. National Animal Disease Control Programme
3. Rashtriya Gokul Mission
4. National Artificial Insemination Programme
5. National Livestock Mission

Way Forward
- There is a need to increase the productivity of animals, also ensuring better health care and breeding facilities and management of dairy animals. This can reduce the cost of milk production.
- Awareness on clean milk production and various schemes by the Department of Animal Husbandry and Dairying and the new Ministry of Cooperatives will help dairy farmers evolve in the future.

SOCIAL ISSUE

Pradhan Mantri Mudra Yojana

Recently, the Union Minister of State for Finance provided information about the Pradhan Mantri Mudra Yojana (PMMY) in the Rajya Sabha.The national-level targets under the scheme have been consistently met since its inception, except for FY 2020-21 due to the Covid-19 pandemic.

What is PMMY?
- The government launched it in 2015 for providing loans up to Rs.10 lakh to the non-corporate, non-farm small/micro-enterprises.
- It provides funding to the non-corporate small business sector through various last-mile financial institutions like Banks, Non-Banking Financial Companies (NBFCs) and Micro Finance Institutions (MFIs).

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- MUDRA, which stands for Micro Units Development & Refinance Agency Ltd., is a government's financial institution. It does not lend directly to micro-entrepreneurs/individuals.
- MUDRA has created three products, i.e. 'Shishu', 'Kishore' and 'Tarun', as per the growth and funding needs of the beneficiary micro-units.
  1. **Shishu:** Covering loans up to Rs. 50,000.
  2. **Kishore**: Covering loans above Rs. 50,000 and up to Rs. 5 lakh.
  3. **Tarun:** Covering loans above Rs. 5 lakh and up to Rs. 10 lakh.

What are the achievements of the scheme?
- Over 32.53 crore loans involving a sanctioned amount of Rs. 17.32 lakh crore have been extended under PMMY since its inception in April 2015.
- Loans have been given to disadvantaged sections of society such as women entrepreneurs, SC/ST/OBC borrowers, Minority community borrowers, etc. The focus has also been on new entrepreneurs.
- As per a survey conducted by the Ministry of Labour and Employment, PMMY helped in generating 1.12 crore net additional employment from 2015 to 2018.Out of the 1.12 crore of estimated increase in employment, women accounted for 69 lakh (62%).

What are the steps taken for the improvement of the Scheme?
- Provision for online applications through psbloansin59minutes and udyamimitra portal.
- Some Public Sector Banks (PSBs) have put end-to-end digital lending for automated sanctions under PMMY.
- Intensive publicity campaigns by PSBs and Mudra Ltd. for increased visibility of the scheme amongst the stakeholders.
- Nomination of Mudra Nodal Officers in PSBs.
- Periodic monitoring of the performance of PSBs concerning PMMY etc

ENVIRONMENT

Volatile Organic Molecules & EVs

Recently, a study conducted by Indian Institute of Science Education and Research revealed that India can slash emissions of Volatile Organic Molecules (VOC) by 76% in the next eight years by swapping all two- and three-wheelers with electric vehicles and all diesel-fuelled ones with Compressed Natural Gas (CNG).Gases escaping out of a vehicle's exhaust account for 65-80% of an automobile's emissions.

- India is home to 14 out of the top 20 most polluted cities globally. Around 1.67 million deaths were linked to air pollution in 2019. The country lost 1.36% of its gross domestic product the same year.
- Therefore, adopting electric vehicles can help India achieve a cleaner future.

What are Volatile Organic Molecules?
- VOCs are carbon-containing chemicals released by petrol and diesel vehicles. They impact air quality and human health.
  1. However, VOCs can have a natural origin, too.
  2. Plants emit these chemicals to attract pollinators, defend themselves from pests and predators and adapt to environmental stress.
- **Effect of VOCs on Health:** VOCs can irritate the eyes, nose and throat, damage body organs and cause cancer.
  1. Long-term exposure to VOCs is not good because the majority of the VOCs are carcinogenic (cancer-causing).
  2. It is also linked to medical conditions such as asthma and heart disease.
  3. Black carbon is linked to health problems such as respiratory and cardiovascular disease, cancer and congenital disabilities. It also contributes to climate change.
- **Positive Feedback Loop:** VOCs can drive the formation of other dangerous pollutants.
  1. For instance, they react with sunlight and nitrogen dioxide to form ground-level ozone.
  2. VOCs also trigger the formation of Particulate Matter (PM2.5), a pollutant that reaches deep into the lungs, affecting their normal functioning.
  3. They react in the air to produce secondary organic aerosols, minute particles suspended in the air.

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- **Issues Related to VOCs:** Human-made VOCs are a cause for concern, yet they don't draw enough attention.
  1. Benzene, a chemical that induces cancer, is the only VOC included in the National ambient air-quality standards.
  2. The other pollutants under ambient air-quality standards considered are PM10, PM2.5, nitrogen dioxide, sulphur dioxide, carbon monoxide, ozone, ammonia, lead, nickel and benzo(a)pyrene.

What are Electric Vehicles?

- An EV operates on an electric motor instead of an internal combustion engine and has a battery instead of a fuel tank.
- In general, EVs have low running costs as they have fewer moving parts and are also environmentally friendly.
- In India, the fuel cost for an EV is approximately 80 paisa per kilometre. Contrast this with the cost of petrol which is today more than Rs 100 per litre in Indian cities, or Rs 7-8 per kilometre to operate a petrol-based vehicle.

What are Associated Challenges with EVs?

- **Lack of a Stable Policy For EV Production**: EV production is a capital intensive sector requiring long term planning to break even and profit realisation, uncertainty in government policies related to EV production discourages investment in the industry.
- **Technological Challenges:** India is technologically deficient in the production of electronics that form the backbone of the EV industry, such as batteries, semiconductors, controllers, etc.India does not have any known reserves of lithium and cobalt which are required for battery production.
- **Lack of Associated Infrastructural Support**: The lack of clarity over AC versus DC charging stations, grid stability and range anxiety (fear that batteries will soon run out of power) are other factors that hinder the growth of the EV industry.
- **Lack of skilled workers:** EVs have higher servicing costs and higher levels of skills is needed for servicing. India lacks dedicated training courses for such skill development.

What are Central Government Initiatives on EVs?

- Government has set a target of EV making up 30% of new sales of cars and two-wheelers by 2030.
- To build a sustainable EV ecosystem, initiatives like National Electric Mobility Mission Plan (NEMMP) and Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) have been launched.
  1. NEMMP was launched in 2013 with an aim to achieve national fuel security by promoting hybrid and EVs in the country. There is an ambitious target to achieve 6-7 million sales of hybrid and EVs year on year from 2020 onwards.
  2. FAME India was launched in 2015 with the objective to support hybrid/EV market development and manufacturing ecosystem. The scheme has 4 focus areas viz. technology development, demand creation, pilot projects and charging infrastructure.
- Organisations like Bureau of Indian Standards (BIS), Department of Heavy Industry, Automotive Research Association of India are devising design and manufacturing standards of EVs, Electric Vehicle Supply Equipment (EVSEs) and charging infrastructure to smoothen the advent of in-house production of EVs.

What Should be the Way Forward for EVs Adoption in India?

- **Increasing R&D in EVs:** The Indian market needs encouragement for indigenous technologies that are suited for India from both strategic and economic standpoint.
  1. Since investment in local research and development is necessary to bring prices down, it makes sense to leverage local universities and existing industrial hubs.
  2. India should work with countries like the UK and synergise EV development.
- **Sensitising Public**: Breaking away the old norms and establishing a new consumer behaviour is always a challenge. Thus, a lot of sensitisation and education is needed, in order to bust several myths and promote EVs within the Indian market.
- **Viable Electricity Pricing**: Given current electricity prices, home charging may also be an issue if the generation is from thermal power plants run on coal.

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1. Thus, a shift in the electricity generation landscape as a whole is what is required to facilitate the growth of electric cars.
2. In this context, India is on track to become one of the largest solar and energy storage markets by 2025.
3. A combination of solar-powered grid solutions that are organised with a general improvement in grid resilience will ensure adequate charging infrastructure for EV's being a green option.

- **Creating the Closed-Loop Mobility Ecosystem**: Subsidising manufacturing for an electric supplychain will certainly improve EV development in India.
  1. Along with charging infrastructure, the establishment of a robust supply chain will also be needed.
  2. Further, recycling stations for batteries will need to recover the metals from batteries used in electrification to create the closed-loop required for the shift to electric cars to be an environmentally-sound decision.

PRELIMS FACT

Vigyan Jyoti Programme

Recently, the Vigyan Jyoti programme was extended to 100 districts in its 2nd phase. Vigyan Jyoti Programme was launched by the Department of Science & Technology (DST), Ministry of Science and Technology.Further, DST is working proactively to bring gender parity in Science & Technology (S&T) domain through various women-centric programmes.

What are Highlights of the Vigyan Jyoti Programme?

- It aims to address the underrepresentation of women in different fields of Science Technology Engineering and Mathematics (STEM) in the country..
- As a first step, the "Vigyan Jyoti" has been introduced in the year 2019-20 at the school level wherein meritorious girl students of Class 9-12 are being encouraged to pursue higher education and career in STEM field.
- The Vigyan Jyoti envisaged hand-holding and interventions right from the school level i.e., Class IX and which will continue till the PhD level to encourage girls to pursue a career in underrepresented areas of STEM.
- The Navodaya Vidyalaya Samiti (NVS), an autonomous organization of the Ministry of Education, is the implementation partner of Vigyan Jyoti. NVS has a network of Jawahar Navodaya Vidyalayas (JNVs) in more than 600 districts of India.

What are Other Related Government Initiatives?

- **Women Scientists Scheme**: To help women with career-breaks.
- **Indo-US Fellowship for Women in STEMM (WISTEMM) program**: Women scientists can work in research labs in the US.
- **Consolidation of University Research for Innovation and Excellence in Women Universities (CURIE) programme**: Improving R&D infrastructure and establishing state-of-the-art research facilities in order to create excellence in S&T in women universities.
- **Gender Advancement for Transforming Institutions (GATI) program**: To develop a comprehensive Charter and a framework for assessing Gender Equality in STEM.
- The New Education Policy and the Science, Technology and Innovation Policy could make use of the demographic dividend to progress long in short time to help increase the number of women in science.
- Further, DST has also additionally established Artificial Intelligence (AI) labs in women universities with the goal to foster AI innovations and to prepare skilled manpower for AI-based jobs in future.

DAILY ANSWER WRITING PRACTICE

Qns. Highlighting the objectives of health data retention plan discuss the risk associated with it regarding right to privacy. 250 words

Introduction

Data retention is the practice of storing and managing personal health data and records for a designated period and typically, the policies pertain to data type, format, duration, deletion mechanism, ownership, and procedure for violation or breach of the policy.

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In a welcome development, the National Health Authority (NHA) which is the body responsible for administering the Ayushman Bharat Digital Mission (ABDM), has initiated a consultation process on the retention of health data by health-care providers in India. The consultation paper asks for feedback on what data is to be retained, and for how long.

Body
Objectives and benefits of data retention
- The aim of data retention is described in terms of benefits to the individual and the public at large.
- Individuals benefit through greater convenience and choice, created through portability of health records.
- The broader public benefits through research and innovation, driven by the availability of more and better data to analyse.
- The purpose of formulation and implementation of a Health Data Retention Guideline/Policy for India is to ensure uniformity in a manner, which ensures that every healthcare facility implements record retention and compliance with all applicable regulations / guidelines / laws in India.
- The proposed Health Data Retention Guideline/Policy has been envisioned to minimize risks associated with personal health data and to maximize benefits from usage of this data by ensuring that data retention guidelines are in sync with all applicable legal and regulatory compliances.
- Several lines of evidence show that nations, which have developed strong health data governance systems, have safely and securely used health data for strengthening healthcare and public health delivery systems

Risk to privacy due to data retention
- **Risk of over-collection:** A simple classification system, as suggested in the consultation paper, exposes individuals to harms arising from over-collection and retention of unnecessary data.
- At the same time, this kind of one-size-fits-all system can also lead to the under-retention of data that is genuinely required for research or public policy needs. Instead, we should seek to classify data based on its use.
- The Supreme Court of India has clarified that privacy is a fundamental right, and any interference into the right must pass a four-part test: legality; legitimate aim; proportionality, and appropriate safeguards.
  1. Storing sensitive data say heart problems etc violates the above principles.
  2. This data may also be misused to increase insurance premiums or even deny coverage to pre-existing diseases.
- The mandatory retention of health data is one such form of interference with the right to privacy.

Way forward
- **Clear and specific case for retention**: The test for retaining data should be that a clear and specific case has been identified for such retention, following a rigorous process run by suitable authorities.
- **Anonymise data**: A second safeguard would be to anonymise data that is being retained for research purposes, again, unless a specific case is made for keeping personally identifiable information. If neither of these is true, the data should be deleted.
- **Express and informed consent**: An alternate basis for retaining data can be the express and informed consent of the individual in question.
- **User-based classification process**: Health-care service providers and everyone else will have to comply with the data protection law, once it is adopted by Parliament.

Conclusion
A privacy-centric process is needed to determine what data to retain and for how long. The need for guidelines on data retention for personally identifiable information (PII), or personal health information (PHI) stems from the emerging landscape and thinking and on the need for protection of sensitive data while ensuring effective usage of such information in clinical decision-making by healthcare professionals. This leads to improvement in overall quality of healthcare delivery and which is possible

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only if longer retention periods are mandated for certain types of health data while ensuring privacy and anonymity where possible.

DAILY QUIZ

Q1. Consider the following statements about PM Ayushman Bharat Health Infrastructure Mission:
1. It was announced in the Budget 2020-21.
2. It aims at strengthening healthcare infrastructure across the country.

Which of the statements given above is/are correct?
- a. 1 only
- **b. 2 only**
- c. Both 1 and 2
- d. Neither 1 nor 2

Q2. Sir Creek is tidal estuary in the uninhabited marshlands of the:
- a. Ganga River Delta
- **b. Indus River Delta**
- c. Brahmaputra River Delta
- **d. None of the above**

Q3. What is Xenotransplantation, sometimes mentioned in the news?
- a. a range of enzymes used in genome editing
- b. the description of the mechanism of gene expression
- c. a mechanism of genetic mutations taking place in cells
- **d. the process of transplanting organs between members of different species**

Q4. As per the India State of Forest Report (ISFR) 2021, in terms of area-wise, which of the following state has the largest forest cover in India?
- a. Arunachal Pradesh
- b. Arunachal Pradesh
- c. Maharashtra
- **d. Madhya Pradesh**

Q5. With reference to the provisions made under the National Food Security Act, 2013, consider the following statements:
1. The families coming under the category of 'below poverty line (BPL)' only are eligible to receive subsidies food grains.
2. The eldest woman in a household, of age 18 years or above, shall be the head of the household for the purpose of issuance of a ration card.
3. Pregnant women and lactating mothers are entitled to a 'take-home ration' of 1600 calories per day during pregnancy and for six months thereafter

Which of the statement given above is/are correct?
- a. 1 and 2 only
- **b. 2 only**
- c. 1 and 3 only
- **d. 2 and 3 only**