

GOVERNANCE

1. New governance model for AI: In issuing AI advisory, MEITY becomes a deity

What is MEITY's recent AI regulation?

MEITY's recent AI regulation, issued on March 1, 2024, introduces a new governance model for AI that involves licensing AI models. This regulation specifically targets AI models for bias prevention and categorizes them as "under testing" or "unreliable."

What is the controversy around MEITY's advisories?

- **MEITY's advisories lack legal clarity:** They are not well-defined under the principal legislation of the IT Act, causing uncertainty about their legal standing.
- **Reactive to specific events:** Advisories were issued in response to events like the viral deepfake video of Rashmika Mandanna and a controversial AI response about the Prime Minister.
- **Vague requirements:** Terms like "bias prevention" and "unreliable AI" in the advisories are undefined, leading to ambiguity and confusion.
- **Unclear enforcement:** The advisories imply compliance but don't state clear penalties or legal consequences, making them seem more like forced suggestions.

What does this reflect about technology policy in India?

- **Influencer culture influence:** Technology policy in India is increasingly swayed by social media and press coverage rather than thorough, deliberative processes.
- **Expanding scope of IT Rules:** The IT Rules, 2021, originally for user-generated content, now broadly cover digital news and online gaming, leading to legal challenges.
- **Decline in Formal Policy Processes:** The trend of modifying advisories informally on social media indicates a departure from formal legislative procedures.
- **Risks in Criticism:** A new environment where critiquing government policies carries greater risk, indicating a shift towards more authoritarian digital governance.

VALUE ADDITION

What is AI ?

- AI is the ability of a computer, or a robot **controlled by a computer to do tasks that are usually done by humans** because they require human intelligence and discernment.
- Although there is **no AI that can perform the wide variety of tasks an ordinary human can do**, some AI can match humans in specific tasks.

INTERNAL SECURITY

2.Role of the Internet in Drug Trafficking)

Recently, the **International Narcotics Control Board** in its 2023 Annual Report, highlighted that online **Drug Trafficking** has **increased the availability of drugs on the illicit market.**

Drug Trafficking:

Drug trafficking refers to the illegal trade involving the cultivation, manufacture, distribution, and sale of illicit drugs such as cocaine, heroin, methamphetamine, and synthetic drugs . Drug trafficking operates within a complex network of criminal organisations that span across borders, regions, and even continents.

Key Highlights of the Annual Report by the International Narcotics Control Board

- **Regional Drug Supply Trends:**
 - In Afghanistan, illicit **opium poppy cultivation** and heroin production declined dramatically.
 - Drug trafficking organisations continue to expand their operations in the Amazon **Basin into illegal mining**, illegal logging and wildlife trafficking.
 - **South Asia** appears to be increasingly being targeted for the trafficking of **methamphetamine illicitly** manufactured in Afghanistan to Europe and Oceania.
 - Pacific island States have transformed from solely transit sites along drug trafficking routes to destination markets for synthetic drugs.

This is posing significant challenges to communities and their public health systems.

- **Challenges in Online Drug Trafficking:**
 - The increased availability of **illicit drugs on the Internet**, exploitation by criminal groups of online platforms, and the risk of overdose deaths due to the online presence of **synthetic opioids like fentanyl** are significant challenges.
- **Exploitation of Online Platforms:**
 - Criminals are **exploiting legitimate e-commerce platforms**, social media, and other online platforms for drug trafficking.
 - Encryption methods, anonymous browsing on the darknet, and cryptocurrencies are **used to avoid detection**, making it **difficult to prosecute** online trafficking offences.
- **Concerns about Patient Safety:**
 - Patient safety is at risk from illicit Internet pharmacies that sell drugs without a prescription directly to consumers.
 - It is impossible for consumers to know whether the drugs are counterfeit, unapproved or even illegal.
 - The global trade in illicit pharmaceuticals is estimated **to be worth 4.4 billion USD.**

▪ **Recommendations:**

- Despite challenges, there are opportunities to **use online platforms for drug use prevention, awareness campaigns**, and improving access to drug treatment services.
 - Governments **can use social media platforms to conduct drug use prevention** campaigns to prevent substance misuse among young people in particular.
- **Telemedicine and Internet pharmacies** could improve access to healthcare and help reach patients with drug use disorders and deliver drug treatment services to more people.
- Online platforms could also be **used for sharing information about the adverse consequences of drug use** and communicating warnings of adulterated drugs which could save lives.
- Placing certain **amphetamine-type stimulant precursors and fentanyl precursors under international control** to prevent illicit drug manufacturers from substituting controlled chemicals with closely related substitutes.
- Given the global nature of online platforms, **collaborative efforts between governments, international organizations**, regulatory authorities, and the private sector are essential to identify new threats and develop effective responses.
 - INCB encourages voluntary cooperation to tackle the misuse of legitimate e-commerce platforms for drug trafficking.

International Narcotics Control Board

- The International Narcotics Control Board (INCB) is the independent and quasi-judicial monitoring body for the implementation of the United Nations international drug control conventions.
- Its secretariat is located in Vienna, Austria.

India's Narcotics Control Bureau (NCB) cooperates with the INCB.

Narcotics Control Bureau

It was constituted by the Government of India in 1986 under the Narcotic Drugs and Psychotropic Substances Act, 1985.

It is the apex coordinating agency under the Ministry of Home Affairs.

The National Policy on Narcotic Drugs and Psychotropic Substances is based on **Article 47** of the Indian Constitution which directs the State to endeavour to bring about prohibition of the consumption, except for medicinal purposes, of intoxicating drugs injurious to health.

Initiatives Taken by India to Curb the Drug Menace

- **The Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985:** It prohibits a person from **producing, possessing, selling, purchasing, transporting, storing, and/or consuming** any narcotic drug or psychotropic substance.
 - **The National Fund for Control of Drug Abuse** was also created under a provision of the NDPS Act, 1985, to meet the expenditure incurred in the implementation of the Act.
- **National Action Plan for Drug Demand Reduction:** The **Ministry of Social Justice and Empowerment** has prepared a plan for Drug Demand Reduction for 2018-25.
 - This plan **focuses on preventive education, awareness generation, identification, counselling, treatment, and rehabilitation** of drug-dependent persons, as well as **training and capacity building of service providers** through collaborative efforts of government and **Non-governmental Organizations (NGOs)**.
- **Nasha Mukht Bharat Campaign (NMBA):** NMBA was launched in 2020 to tackle the issue of Substance Abuse and a vision to make India drug-free. **It is a three-pronged attack combining:**
 - The supply curb by the **Narcotics Control Bureau**
 - Outreach and Awareness and Demand Reduction efforts by Social Justice and Empowerment
 - Treatment through the Health Department.
- **International Treaties and Conventions to Combat Drug Menace:** India is a signatory of the following international treaties and conventions:
 - **United Nations (UN) Convention on Narcotic Drugs (1961)**
 - **UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988)**
 - **UN Convention on Psychotropic Substances (1971)**
 - **UN Convention against Transnational Organized Crime (UNTOC) 2000**

Conclusion

- Addressing the issue of drug trafficking requires comprehensive strategies that encompass law reduction initiatives.
- By tackling both the supply and demand sides of the illicit drug trade, governments and communities can work together to mitigate its harmful effects and safeguard public health and safety.
- enforcement efforts, international cooperation, border control measures, and robust demand

PRELIM FACTS

1. Nana Jagannath Shankarseth

- The Maharashtra cabinet decided to ask the Ministry of Railways to rename Mumbai Central station after Nana Jagannath Shankarseth. Mumbai Central, located in the heart of the city.

About Nana Jagannath Shankarseth:

- He was a social reformer, educationist, and philanthropist is often described as the “architect” of Mumbai (then Bombay).
- He made extremely valuable contributions in terms of both ideas and money to multiple sectors, to lay a strong foundation for the city.
- He was greatly inspired by the legendary merchant and philanthropist Sir JamsetjeeJeejeebhoy.
- He became the first Indian to be nominated to the Legislative Council of Bombay.

What are some of Shankarseth’s most significant contributions?

- Education:
 - Shankarseth was deeply committed to the growth and spread of education in Bombay, and donated land owned by his family for educational institutions.
 - He founded the Native School of Bombay, which was renamed first as the Bombay Native Institution, and then as the Board of Education.
 - Finally, this institution evolved into the prestigious Elphinstone College.
- Museum, Temples:
 - Shankarseth was among the wealthy donors who helped promote Dr BhauDaji Lad Museum in Byculla, which was designed by a famous London-based architect.
 - The Bhawani Shankar Temple near Nana Chowk was Shankarseth’s tribute to his late mother Bhawanibai Murkute.
- Railways:
 - The first train in India ran between Boribunder and Thane on April 16, 1853.
 - The 34-km project undertaken by the Great Indian Peninsular Railway Company.
 - The committee that gave the project impetus included Sir JamsetjeeJeejeebhoy and Nana Shankarseth.

2. ETHANOL 100 Fuel

- Recently, the union Minister for Petroleum & Natural Gas and Housing and Urban Affairs, launched ‘ETHANOL 100, a revolutionary automotive fuel at IndianOil Retail Outlet.

About ETHANOL 100 Fuel:

- It has high-octane rating, typically between 100-105.
- It proves ideal for high-performance engines, ensuring improved efficiency and power output all while minimizing environmental impact.
- Moreover, ETHANOL 100’s versatility shines through, as it can be used in a wide array of vehicles, including flex-fuel vehicles (FFVs) designed to run on gasoline, ethanol, or any blend of the two.
- Its practicality and potential to become a mainstream fuel option with the right infrastructure in place.
- It includes 93-93.5 percent ethanol blended with 5 percent petrol and 1.5 percent co-solvent, which is a binder.
- It stands as a cleaner, greener alternative to gasoline, boasting lower emissions of greenhouse gases and pollutants, thus aiding in combating climate change and enhancing air quality in our communities.

What are flex-fuel vehicles?

- These are designed to run on a variety of fuels.
- These are equipped with an internal combustion engine (ICE) which can run on petrol or ethanol or methanol, giving consumers choice at the point of sale of the fuel.
- Apart from a few modifications, flex fuel vehicles are similar to petrol-only cars.

3. SagarParikrama

- The Union Minister for Fisheries, Animal Husbandry, and Dairying will release a book and video on “SagarParikrama”.

About SagarParikrama:

- It is an outreach program intended to reach out fishermen community across the entire coastal belt of the country through a predetermined sea route.
- The initiative has been launched to understand the issues, experiences, and aspirations of fishermen and also to create awareness of various schemes and programs of the Government available to fishermen in coastal areas.
- Nodal Ministry: Ministry of Fisheries, Animal Husbandry, and Dairying.
- The SagarParikrama Yatra spanned over 12 captivating phases in just 44 days. The Yatra meticulously navigated the diverse coastal tapestry of India, covering an impressive coastal length of 7,986 Kilometres out of 8,118 Kilometres, touching 3,071 fishing villages in 80 coastal districts of all the Coastal States/UTs.
- During the SagarParikrama events, certificates and sanctions related to the Pradhan Mantri Matsya Sampada Yojana (PMMSY) and Kisan Credit Card (KCC) were awarded to progressive fishermen, fish farmers, and young fishery entrepreneurs.
- Literature on various schemes, including PMMSY, KCC, and others, was disseminated through print media, electronic media, videos, and digital campaigns to raise awareness among fishers.

Key Facts about India’s Fisheries Sector:

- India has a coastline of 8,118km, covering nine maritime states and four UTs, and provides livelihood support to 2.8 million coastal fishermen.

- The country contributes 8% of the global share of fish production and is ranked third-largest fish producer in the world.
- The total fish production of India is 162.48 lakh tonnes (2021-22), of which 121.21 lakh tonnes are from inland and 41.27 lakh tonnes from marine, with exports of over Rs 57,586 crore contributing to about 17% of agriculture exports.

4. Human Development Index

- India has moved up a rank on the global Human Development Index (HDI), according to the United Nations Development Programme (UNDP) report 'Breaking the gridlock: Reimagining cooperation in a polarised world' released on March 13.

About Human Development Index:

- It is a summary composite measure of a country's average achievements in three basic aspects of human development: health, knowledge and standard of living.
- It is a measure of a country's average achievements in three dimensions of human development:
 - a long and healthy life, as measured by life expectancy at birth;
 - knowledge, as measured by mean years of schooling and expected years of schooling; and
 - a decent standard of living, as measured by GNI per capita in PPP terms in US\$.
- The HDI sets a minimum and a maximum for each dimension, called "goalposts", then shows where each country stands in relation to these goalposts.
- This is expressed as a value between 0 and 1. The higher a country's human development, the higher its HDI value.
- The HDI is the geometric mean of normalized indices for each of the three dimensions.
- The HDI also embodies Amartya Sen's "capabilities" approach to understand human well-being, which emphasizes the importance of ends (like a decent standard of living) over means (like income per capita).
- Since 1990, the United Nations Development Programme (UNDP) has been publishing the Human Development Report every year.

Highlights of the recent report:

- The report stated that while India ranked 135 in 2021, it had moved up to 134 in 2022.
- A total of 193 countries were ranked in 2022 and 191 countries in 2021.
- In 2022, India saw improvements across all HDI indicators – life expectancy, education and Gross National Income (GNI) per capita.
- Life expectancy rose from 67.2 to 67.7 years, expected years of schooling reached 12.6, mean years of schooling increased to 6.57 and GNI per capita saw an increase from \$6,542 to \$6,951.
- While the country has moved up in 2022, it is still behind its South Asian neighbours, such as Bangladesh (129th), Bhutan (125th), Sri Lanka (78th) and China (75th).

5. SIMA

- Google DeepMind revealed its latest AI gaming agent called SIMA which can follow natural language instructions to perform tasks across video game environments.

About SIMA:

- Scalable Instructable Multiworld Agent (SIMA) as an AI Agent which can process data and take action themselves.
- It can be called a generalist AI Agent that is capable of doing different kinds of tasks.
- Features
 - It is like a virtual buddy who can understand and follow instructions in all sorts of virtual environments – from exploring mysterious dungeons to building lavish castles.
 - It can accomplish tasks or solve challenges assigned to it.
 - It "understands" your commands as it has been trained to process human language.
 - So when you ask it to build a castle or find the treasure chest, it understands exactly what these commands mean.
 - One distinct feature of this AI Agent is that it is capable of learning and adapting.
 - SIMA does this through the interactions it has with the user. The more you interact with SIMA, the smarter it gets by learning from its experiences and improves over time. This makes it better at understanding and fulfilling user requests.
- However, SIMA goes beyond that and can follow instructions in a variety of game settings. This could potentially introduce more helpful AI agents for other environments.
- Google has partnered with game developers to train SIMA on a variety of video games.
- These research marks the first time an agent has demonstrated it can understand a broad range of gaming worlds and follow natural-language instructions to carry out tasks within them, as a human might."

ANSWER WRITING

1. Faster economic growth requires increased share of the manufacturing sector in GDP, particularly of MSMEs. Comment on the present policies of the Government in this regard.

According to 2023 manufacturing industry outlook, The manufacturing sector is an important part of India's GDP, accounting for around 17% in 2022. The MSMEs, contribute around 40% to manufacturing and are responsible

for economic growth, jobs and growing exports. Given this, the government has initiated various programmes and benefits to support these sectors.

Essentiality of increase share of the manufacturing sector in GDP for Faster economic growth due to following reasons

- **Rural Development:** Manufacturing plays a pivotal role in rural development. Initiatives like the establishment of Agro-based industries and Rural Self Employment Training Institutes (RSETIs) foster rural entrepreneurship, empowering rural areas economically.
- **Economic Resilience:** In economic downturns, diverse manufacturing sector, can offer economic resilience. Eg: during the COVID-19 pandemic, many small enterprises quickly adapted to produce essential items like masks and sanitizers.
- **Employment Generation:** In India, for instance, according to a report by the Ministry of MSMEs, the sector has created around 11 crore jobs
- **Innovation:** MSMEs have been the cradle for many innovations. Companies like Flipkart and Zoho initiated as small enterprises.
- **Exports:** MSMEs contribute markedly to the export earnings; in India, it accounts for about 48% of total exports, showcasing products like jewelry, handloom, and spices etc
- **Reduce dependence on other countries:** It will reduce import from other countries and support to balancing the fiscal deficit.

Present Policies of the Government and Their Contributions

- **Make in India (2014) :** It aimed at promoting India as a global manufacturing hub. Eg: the mobile manufacturing saw remarkable growth with companies like Samsung setting up its largest mobile factory in the Noida boosting manufacturing sector and creating numerous jobs.
- **MSME Samadhaan:** This platform has provided a space for MSMEs to file their delayed payment grievances directly.
- **Udyam Registration:** Initiated to simplify the registration process for MSMEs, it has eased the entry of numerous new ventures into the formal sector
- **GST:** The inception of GST streamlined tax structures.

Startup India: Since its launch, it has fostered a nurturing environment for startups, , encouraging entrepreneurship. Zomato, a food delivery service, is a notable success story that blossomed under this initiative.

- **Cluster Development Program:** It has boosted competitiveness and promote synergy through cluster development, offering infrastructural facilities. Eg: Leather clusters in Kanpur have seen significant improvements in terms of technology adoption and infrastructural development.
- **Government e-Marketplace (GeM):** This initiative has enabled many MSMEs to reach out to government buyers, expanding their market reach and fostering a transparent procurement process, thus giving a considerable boost to MSME sector growth.
- **Digital MSME Scheme:** Implemented to encourage digital literacy and facilitate the adoption of digital technologies in MSME operations. For instance, businesses have been able to automate inventory management, thus saving time and reducing errors.

Issues Faced by These Policies

- **Bureaucratic Hurdles:** While the Make in India initiative aimed to streamline processes, many businesses still report cumbersome bureaucracy. For instance, Tesla faced challenges in setting up its operations due to rigid land acquisition policies.
- **Delayed Payments:** Even with MSME Samadhaan in place, many MSMEs still grapple with payment delays.
- **GST Complications:** The GST, though a unified tax regime, brought with it complexities. Many MSMEs found the initial transition to the GST system taxing, given the technological challenges and understanding tax slabs.
- **Mismatch in Skill Training:** While Skill India has trained many, there's a notable mismatch between industry requirements and the skills provided. Eg: the textile industry often reports a lack of workers trained in modern machinery despite numerous training programs.
- **Limited Scope in Startup India:** The Startup India initiative, though fruitful, has been criticized for being too tech-centric, leaving out traditional businesses that also require support and incentives.
- **Inadequate Infrastructure in Clusters:** The Cluster Development Program shows promise, but many clusters still lack essential infrastructure.
- **Limited Outreach of GeM:** The Government e-Marketplace is a powerful platform, but many MSMEs are unaware of its benefits or find it challenging to list their products due to complex processes and requirements.

Way Ahead

- **Smart Regulation:** The government should introduce smart regulations that promote ease of doing business.
- **Simplified Documentation:** The government could simplify the documentation process for Udyam Registration further, by allowing self-certification and reducing paperwork to encourage more MSMEs to register.
- **Prompt Payment Mechanism:** The government needs to strengthen the MSME Samadhaan scheme by introducing a strict timeline for payment clearance and an online monitoring system to track payment delays transparently.
- **Community Microfinance Institutions:** To overcome the credit accessibility issue, encouraging community microfinance institutions could be a practical solution. These institutions could collaborate with local bodies to identify potential MSMEs in remote areas.

• **GST Facilitation Centres:** Establishing GST facilitation centers across districts can be a viable solution. These centres would assist MSMEs in understanding and adapting to the GST framework, with trained personnel providing necessary assistance.

• **Awareness Campaigns for GeM:** The government could undertake massive awareness campaigns to educate MSMEs about the benefits of Government e-Marketplace

These innovative suggestions could potentially accelerate the growth of the manufacturing sector and MSMEs, thereby contributing positively to the country's GDP. It is pivotal to create a nurturing environment where policies are not just well-framed but are also effectively implemented to foster growth and development.

MCQs

- Consider the following statements.
1. The revision of the electoral roll is conducted by the Election Commission of India annually.
2. The amended election laws in India allow four qualifying dates every year to get included in the electoral rolls.
Which of the above statements is/are correct?
(a) 1 only (b) 2 only
(c) **Both 1 and 2** (d) Neither 1 nor 2
- Consider the following statements regarding the Geological Survey of India (GSI).
The Geological Survey of India (GSI) declares geo-heritage sites/ national geological monuments for protection and maintenance.
1. The Geological Survey of India (GSI) functions under the Ministry of Culture.
2. The GSI has the power to acquire geo-relics for its preservation and maintenance.
How many of the above statements is/are correct?
(a) Only one (b) **Only two**
(c) All three (d) None
- Pandavula Gutta, a geological marvel older than the Himalayan hills, has been officially recognised as the sole Geo-heritage site recently, is located in which of the following states?
(a) Tamil Nadu (b) Kerala
(c) **Telangana** (d) Karnataka
- Consider the following statements:
1. It is a narrow waterway separating North and South America.
2. It is a man-made canal connecting the Atlantic and Pacific Oceans.
3. It is a desert region located in Central America.
Which one of the above statements about the Darien Gap is true?
(a) Only 1 (b) Only 2
(c) Only 3 (d) **None of the above**
- Consider the following statements.
1. Carbon sinks are natural systems that suck up and store carbon dioxide from the atmosphere.
2. A forest is considered a carbon sink if it absorbs more carbon than it releases.
3. The Earth's land and oceans absorb about half of all carbon dioxide emissions from human activities.
4. Continental forests store at least ten times more carbon than Mangroves, seagrass beds and salt marshes.
How many of the above statements is/are correct?
(a) Only one (b) Only two
(c) **Only three** (d) All four
- Consider the following statements regarding Green Status of Species.
1. It is a new Global Standard to measure how close a species is being fully ecologically functional across its range.
2. It was launched by UNFCCC.
3. It measures how much the species has recovered due to conservation efforts.
How many of the above statements is/are correct?
(a) Only one (b) **Only two**
(c) All three (d) None
- Consider the following statements regarding Liquefied natural gas (LNG).
1. LNG is a natural gas reduced to a liquid state (liquefaction) through intense heating.
2. It is constituted almost wholly of methane.
One of the main drawbacks of LNG is that it cannot be easily transported around the world by ships.
How many of the above statements is/are correct?
(a) **Only one** (b) Only two
(c) All three (d) None
- Consider the following statements.
1. Carbon sequestration is the process of capturing and storing atmospheric carbon dioxide.
2. Forests and other land vegetation absorbing carbon dioxide during photosynthesis is one of the ways of Carbon sequestration.
An area which absorbs more carbon than releases it, is considered as carbon sink.
How many of the above statements is/are correct?
(a) Only one (b) Only two
(c) **All three** (d) None
- Consider the following statements regarding Extended Credit Facility of IMF.
1. The Extended Credit Facility (ECF) provides financial assistance to countries with very short-term balance of payments problems.
2. The ECF was created under the Poverty Reduction and Growth Trust (PRGT) to make IMF's financial support more flexible and better tailored to the diverse needs of low-income countries (LICs).
Which of the above statements is/are incorrect?
(a) **1 only** (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
- Countries that are included in the FATF Grey list may face which of the following?
1. Economic sanctions from World Bank
2. International boycott.
3. Problem in getting loans from other countries.
How many of the above statements is/are correct?
(a) Only one (b) Only two
(c) **All three** (d) None