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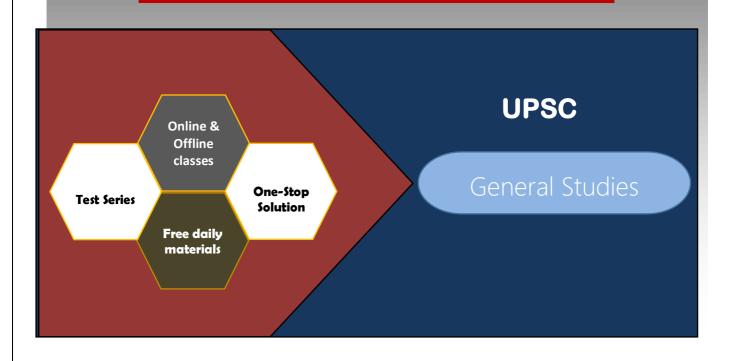# JULY

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THE HINDU

GS 2 : Polity, Governance, International Relations

1. How the Chinese Communist Party endures

The Tiananmen Square protests:

- The Tiananmen Square protests in China were student-led demonstrations held in Tiananmen Square, Beijing in **1989.**
  - The **student-led demonstrations called for democracy, free speech and a free press in China.**
- This was brutally suppressed by the Chinese administration.

Context:

- Celebrations at Tiananmen Square, Beijing to mark the **100th anniversary of the founding of China's ruling Communist Party**.

2. India's 1991 liberalisation leap and lessons for today

Context:

- In light of the historic economic contraction of the Indian economy induced by the COVID-19 pandemic and calls for economic reforms to revive growth, the article discusses the 1991 economic reforms and the road ahead for India.

Background:

Pre-reform era:

- The Indian economy before the 1991 reforms was based on strict regulation and could be characterized as **a controlled system.**
- The public sector accounted for a significant proportion of the economy with the so-called **critical sectors reserved for the public sector despite their lacklustre performance.**
- The private sector was not allowed to participate in a number of so-called critical sectors. In other sectors too, the private sector's participation was highly regulated and dependent on obtaining industrial licences from the administration. This had given rise to a system popularly referred to as the **Licence Raj.**

- Over 860 **items were reserved exclusively for small-scale producers**, including many that had very high export potential. This robbed the economy of potential advantages of production at scale offered by bigger industries.
- **Imports were very strictly controlled** to protect scarce foreign reserves and also to protect the domestic producers from import competition. **Foreign Direct Investment (FDI) was also discouraged.**
- Such a controlled system was not suitable for encouraging enterprise or innovation.

1991 Economic Reforms:

- The 1991 economic reforms marked **significant liberalization of the Indian economy** including measures such as liberalization of industrial licencing, increased privatization and moving to a flexible exchange rate, etc. It **focussed on industrial, trade and financial sector reforms.**
  - The 1991 reforms with their emphasis on privatization aimed to **unleash the energies of the private sector** to accelerate economic growth.
  - Economic liberalization **encouraged enterprise and innovation in the economy.**
  - The emphasis on globalization ensured India was able to **become part of the global supply chains** and gain advantages from it.
- The 1991 economic reforms resulted in significant gains for India.
  - The GDP growth averaged 7% in the 25 years from 1992 to 2017, compared with an average of 5% in the preceding ten years and 4% in the preceding 20 years.
  - The 1991 reforms, though they mainly emphasized economic growth, did ensure an adequate flow of benefits to the poor. **As the economic growth accelerated, poverty declined.**
    - Between 2004-05 and 2011-12, about 140 million people were pulled above the poverty line.

Shortcomings of the 1991 reforms:

- Though the reforms were hugely successful a lot remains to be done.
  - The **reforms envisaged in the financial sector remain an unfinished business** as is evident from the ongoing crisis in the financial system of India, plagued by the NPA crisis.
  - **Social sectors like health and education haven't improved commensurate with the economic growth.**
  - The development strategy has failed to suitably acknowledge and deal with the **environmental impact of economic growth.**

- o **Key factor market reforms in areas of labour and land remain an unfinished business**. This seems to be holding up further investment into the Indian economy. The attempts made to introduce land and labour reforms have faced opposition from several sections.

Concerns:

- The article expresses concerns over several developments in the recent past.

Increasing import tariffs:

- As against the progressive lowering of import tariffs over the years, there has been a reversal of this trend over the past few years.
- While this appears to be in line with rising protectionism globally, it could hamper India's stated ambition to become part of global supply chains and adversely impact India's ability to play a greater role in world trade.

Decision to stay out of RCEP:

- India decided to stay out of the **RCEP [Regional Comprehensive Economic Partnership],** based on the fear of flooding of cheap products from countries like China, a member of RCEP.
- This marks a departure from India's attempt to move from "Look East" to "Act East" and also its attempts to become part of the global supply chains.

Employment concerns:

- The spectre of **jobless growth** has been a matter of great concern in the recent past.
  - o Jobless growth is an economic phenomenon in which a macroeconomy experiences growth while maintaining or decreasing its level of employment.
  - o A jobless growth economy indicates the existence of changes to the fundamental basis of work for everyone. In India, this could be observed in the change from being a predominantly agricultural economy to the services sector playing a significant role.
  - o While some workers will do well, as they have the skills and training that growing industries require, others face long-term unemployment or underemployment and will be unable to find work until they obtain new skills.
- The substantial slowdown in GDP growth after 2016-17 led to employment actually falling from 474 million in 2011-12 to 469 million in 2018-19. **Open unemployment has increased.**

COVID-19 induced economic shock:

- According to provisional National Income estimates, **GDP contracted by 7.3% in 2020-21.** Many analysts say this underestimates the contraction as the adverse impact on the informal sector is not captured.
- This sharp fall in the GDP has led to a **contraction in total employment.** The pandemic has led to severe income and job losses adversely impacting the livelihood opportunities of several families in India.

Recommendations:

- India needs to get back to 7% to 8% growth if we want to make progress on poverty reduction and provide enough jobs for our growing labour force. In this respect, the article makes the following recommendations.

Addressing structural issues:

- Indian industry has to deal with **poor infrastructure, poor logistics and time-consuming trade procedures**, which reduce its price competitiveness in the global markets. These have to be addressed at the earliest.

On import duties:

- Given that the raising of import duties will also raise costs in the economy, the administration must desist from doing so.
- The government should engage with Indian industry and other experts to come to an agreement on what the average level of duties should be and how it should be reduced over time.
- India should **move to an average duty rate of about 7%, gradually narrowing the range of variation across products and eliminating duty reversals**.

RCEP membership:

- Instead of avoiding membership of multilateral trade platforms like RCEP over fears of competition, India should focus on **improving the competitiveness of its domestic industries.**
- To tackle unfair competition from China, India should consider imposing **anti-dumping duties** on China.
    - o An anti-dumping duty is a tariff that a domestic government imposes on foreign imports that it believes are priced below fair market value.

Free Trade Agreements:

- Given the increasing tendency of major developed countries to engage in bilateral negotiations over multilateral forums, India too should adapt to this new reality and focus on **expediting its FTAs with the U.S., Europe and the U.K.**
- This can help ensure market access for India amid the growing levels of protectionism being observed.
- India should also consider a **give and take approach during these negotiations** balancing the current and future potential of such FTAs.

3. Google removed 59,350 posts in April

Context:

Google has submitted its **first monthly transparency report** as required under the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021.**

Details:

- Google's transparency report says that it removed 59,350 pieces of content from its social media platforms in April 2021, following over 27,700 complaints received from individual users in India.
- About **96% of the complaints received were related to issues of copyright**, followed by trademark, defamation, legal, counterfeit and circumvention.
- Information Technology Rules, 2021 was enacted by the government in February 2021 and came into force in May.
- The rules **require social media platforms with more than 50 lakh users in India** to **publish a compliance report every month** mentioning the details of complaints received and action taken.

New Information Technology Rules

The new Rules have been passed under Sections 69A(2), 79(2)(c) and 87 of the Information Technology Act, 2000. These new rules supersede the previously enacted Information Technology (Intermediary Guidelines) Rules 2011.

- The Rules aim to provide a robust complaint mechanism for the users of social media and over-the-top (OTT) platforms to address their grievances.
- They place special emphasis on the protection of women and children from sexual offences on social media.
- The rules stress the point that online content publishers and social media intermediaries should follow the Constitution of the country and subject themselves to domestic laws.

- With these rules, India joins other international regimes that have provisions for digital media regulation and provides a comprehensive mechanism for the protection of digital media consumers.

IT Rules Background

In 2018, the Supreme Court had observed that the Indian Government may frame necessary guidelines to eradicate child pornography, rape and gangrape imageries, videos and sites in content hosting platforms and other applications.

- In 2020, an Ad-hoc committee of the Rajya Sabha submitted its report on the issue of social media pornography and its effect on children and society as a whole. The report recommended tracing the originator of such content.
- In 2020, the GOI also brought OTT platforms under the ambit of the Information and Broadcasting Ministry.

Details:

- The Information Technology (Guidelines for Intermediaries and Digital Media Ethics Code) Rules, 2021 also mandate that social media and messaging platforms will have to adhere to new requirements in assisting investigative agencies of the government.
- The Electronics and Information Technology Minister called it a soft-touch oversight mechanism to deal with issues such as the persistent spread of fake news and other misinformation.

Broadly, what do the new rules require digital platforms to do?

- The broad themes of the guidelines revolve around grievance redressal, compliance with the law, and adherence to the media code.
- Social media platforms will have to appoint a grievance officer to deal with users' complaints.
- The platforms whose registered users in India are above the threshold notified by the government must appoint a 'Chief Compliance Officer', who will have to ensure that the rules are followed.
    - The officer shall be liable in any proceedings relating to any relevant third-party information, data or communication link made available or hosted by that intermediary.
    - The intermediaries will also have to appoint a nodal contact person for 24×7 coordination with law enforcement agencies.
- A social media intermediary would have to enable the identification of the first originator of the information on its computer resource as may be required by a judicial order.

- For digital publishers of news and current affairs as well as video streaming services, an identical three-tier structure for grievance redressal has been mandated.
  - This structure will look into grievances in relation to a Code of Ethics, which is listed in the appendix to the rules.
  - Among other things, the Code of Ethics includes the 'Norms of Journalistic Conduct' as prescribed by the Press Council of India, as also content that shall not be published and the Programme Code under the Cable Television Networks (Regulation) Act, 1995.
  - The guidelines also require streaming services to classify content based on its nature and type.

4. Small doses

Context:

- Recently announced **financial stimulus package** to tackle the disruptions caused by the second wave of the COVID-19 pandemic.

Significance:

- The package will help **ease the pressure on sectors hit hard by the pandemic like the MSME sector and tourism** by extending **loan guarantees and concessional credit**. Enhancing loan guarantees will perhaps give risk-averse lenders more confidence in extending loans when the credit:deposit ratio has hit a multi-year low.
- Additional spending of ₹15,000 crore to ramp up paediatric healthcare, with guarantees for **₹50,000 crore low-interest loans for health projects** in the hinterland, is critical to cope with future pandemic waves as they will allow the **ramping up of available healthcare capacities.**

Concerns:

- The article argues that the relief package for the second COVID-19 wave falls short of expectations.
  - **The direct expenditure from the government is minimal**. Of the total ₹29 lakh crore, nearly ₹2.68 lakh crore of this is in the form of credit guarantees.
  - As the **direct stimulus to demand is abysmal,** the package will do little to help raise demand for goods and services in the economy which is a necessity for economic revival under current circumstances.
    - Weak demand is a bigger concern for the industry this year as **high inflation and an uncertain job market** have led to reluctance among the consumers to spend.

o The provision of free visas is unlikely to gain traction till India has a firmer grip on the pandemic by providing vaccines for all, including for those under 18.

Recommendations:

- The administration should consider providing some form of **income support for the vulnerable sections in rural and urban areas.** This will not only help ease the pressure off such families and prevent them from falling into poverty but will also help generate demand in the economy for the revival of growth.
- The article also suggests that the government must **take adequate measures to bring down the high fuel prices**. Such a move will help dampen inflation, empower RBI to lend greater support to growth and leave a little more money in people's hands to spend.

5. Two arrested in Dwarka honour killing incident

Honour Killing:

- **Honour killing** is defined as the killing of a relative, especially a woman, who is **perceived to have brought dishonour on the family.**
- A crime in the name of 'honour' is one of a range of violent or abusive acts. This includes **emotional, physical and sexual abuse and other coercive acts.**
- Those instrumental in committing these killings are **families of the couple**. Either they **kill the couple themselves or in association with other persons from the same caste or khap or community-based panchayats.**

Existing Laws

Existing Penalties under Indian Penal Code:

- Sections 299-304: Penalises any person guilty of murder and culpable homicide not amounting to murder. The punishment for murder is life sentence or death and fine. The punishment for culpable homicide not amounting to murder is life imprisonment or imprisonment for upto 10 years and fine.
- Section 307: Penalises attempt to murder with imprisonment for upto 10 years and a fine. If a person is hurt, the penalty can extend to life imprisonment.
- Section 308: Penalises attempt to commit culpable homicide by imprisonment for upto 3 years or with fine or with both. If it causes hurt, the person shall be imprisoned for upto 7 years or fined or both.
- Section 120A and B: Penalises any person who is a party to a criminal conspiracy.

- Sections 107-116: Penalises persons for abetment of offences including murder and culpable homicide.
- Section 34 and 35: Penalises criminal acts done by several persons in furtherance of common intention.

Supreme Court Judgements

The Supreme Court, which has been intervening repeatedly to preserve the freedom of marital choice of individuals, once remarked that **there is no 'honour' in 'honour killing'**. Various judgments have highlighted the need to come down on such crimes, as well as the social structures that keep such a communal outlook alive.

- Supreme Court ruling in **Lata Singh v. State of U.P. (2006)** ordering "stern action" against all those threatening or carrying out threats against couples. The Supreme Court reiterated the fact that **inter-caste marriages are not banned as per Hindu Marriage Act** and is in national interest. It is illegal to stop them in any way.
- In fact, the apex court, in **Bhagwan Dass v. Delhi in May 2011**, deemed honor killings in the "**rarest of rare**" category of crimes that deserve the death penalty.
- In **Armugam Servai vs. State of Tamil Nadu**, Supreme Court said that Khaps are illegal and must be rooted / stamped out.
- Chief Justice of India Dipak Misra, speaking against honour killings has said "Two adults are free to marry and no third party has a right to harass or cause harm to them"

What is the role of Khap Panchayats?

- The purpose of these panchayats or associations is to **terrorise people and prevent associations, including marriage, on the basis of choice.**
- They justify their actions in various ways, but commonly on the **basis of custom and tradition.** These acts show a **violation of fundamental rights, including the right to life and liberty.**
- **Khaps exercise their authority in various ways**: they demand payment from couples, impose social or economic sanctions on them, order that they or their families be boycotted, divest the couple of any land or property that belongs to them, and harass, intimidate, or murder them.

6.Kalbeliya Dance

Why in News

Recently, due to **Covid-19-Pandemic** an app called **chendavia** is gaining popularity among the students of kalbeliya dance.

Key Points

- **About:**
    - Kalbeliya dances are an expression of the Kalbelia community's traditional way of life.
        - It is associated with a **Rajasthani tribe of the same name.**
    - It was included in the **United Nations Educational, Scientific and Cultural Organizations (UNESCO)** list of **Intangible Cultural Heritage (ICH) in 2010.**
        - **UNESCO's List of Intangible Cultural Heritage** is made up of those **intangible heritage elements** that help **demonstrate diversity of cultural heritage** and raise awareness about its importance.
        - It was **established in 2008** when the **Convention for Safeguarding** of the Intangible Cultural Heritage came into effect.
    - The dance form consists of **swirling; graceful movements that make this dance a treat to behold.**
        - The movements associated with the Kalbelia also make it **one of the most sensuous forms of folk dance in India.**
    - It is generally performed for any joyous celebration and is considered to be an **integral part of the Kalbeliya culture.**
    - Another unique aspect of the Kalbelia dance is that **it is only performed by women while the men play the instruments and provide the music.**
- **Instruments & Dress:**
    - Women in flowing **black skirts dance and swirl, replicating the movements of a serpent,** while men accompany them on the **"khanjari"** instrument and the "poongi", a woodwind instrument traditionally played to capture snakes.
    - The **dancers wear traditional tattoo designs, jewellery and garments** richly embroidered with small mirrors and silver thread.
- **Kalbeliya Songs:**
    - They **disseminate mythological knowledge through stories.**
    - They also **demonstrate the poetic acumen of the Kalbeliya,** who are reputed to compose lyrics spontaneously and improvise songs during performances.
    - Transmitted from generation to generation, the **songs and dances form part of an oral tradition** for which no texts or training manuals exist.
- **Kalbeliya Tribe:**
    - Kalbeliya tribe people **were once professional snake handlers,** today they **evoke their former occupation in music and dance** that is evolving in new and creative ways.

- o They **live a nomadic life and belong to the scheduled tribes.**
  - o The largest number of the population of Kalbeliyas is in **Pali district, then Ajmer, Chittorgarh and Udaipur district (Rajasthan).**
- **Other Traditional Folk Dances of Rajasthan:** Gair, Kachchhi Ghodi, Ghoomar, Bhavai, etc.

GS 3 : Economy, Science and Technology,Environment

7. Core sector output rose 16.8% in May

What's in News?

Output from India's eight core industries grew 16.8% in May 2021.

- The eight core sectors of the Indian economy are **electricity, steel, refinery products, crude oil, coal, cement, natural gas, fertilisers.**
- These industries have a **major impact on the general economic activities** and also **industrial activities.**

Core Sectors of the Indian Economy

The **eight-core sectors** of the Indian economy are:

1. Electricity
2. Steel
3. Refinery products
4. Crude oil
5. Coal
6. Cement
7. Natural gas
8. Fertilizers

These industries have a major impact on general economic activities and also industrial activities. They significantly impact most other industries as well. The core sector represents the capital base of the economy.

These eight industries have a combined share of above 40% in the Index of Industrial Production (IIP).

The IIP gives the growth rates of different industry groups of the economy over a specified period.

Read more on the IIP at the linked article.

Weight of Core Industries in IIP

The weight of the different core sectors in the Index of Industrial Production is given in the table below.

Industry	Weight
Coal	10.33
Electricity	19.85
Crude oil	8.98
Cement	5.37
Natural gas	6.88
Steel	17.92
Refinery products	28.04
Fertilizers	2.63
Total	**100**

Also, read about CPI and WPI from th links provided below:

1. Consumer Price Index (CPI)
2. Wholesale Price Index (WPI)

Index of Eight Core Industries (ICI)

The ICI is a production volume index prepared and released by the Office of the Economic Adviser (OEA), Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry, GOI.

- It is released 12 days before the IIP is released.
- The objective of the Index of Eight Core Industries is to give an advance indication on the production performance of the industries which are of 'core' nature before the release of the IIP.
- The ICI measures the individual and collective performances of the production in these eight core industries.
- The ICI is used by policymakers including the Ministry of Finance, other Ministries, and Departments.
- It is also used by banks for financing infrastructure projects and the Reserve Bank of India (RBI).
- To calculate the ICI, the components covered under the eight core sectors are mentioned in the table below:
  - **Coal** – Coal Production excluding Coking coal.

- o **Electricity** – Actual Electricity Generation of Thermal, Nuclear, Hydro, imports from Bhutan.
  - o **Crude Oil** – Total Crude Oil Production.
  - o **Cement** – Production of Large Plants and Mini Plants.
  - o **Natural Gas** – Total Natural Gas Production.
  - o **Steel** – Production of Alloy and Non-Alloy Steel only.
  - o **Refinery Products** – Total Refinery Production (in terms of Crude Throughput).
  - o **Fertilizer** – Urea, Ammonium Sulphate (A/S), Calcium Ammonium Nitrate (CAN), Ammonium chloride (A/C), Diammonium Phosphate (DAP), Complex Grade Fertilizer and Single superphosphate (SSP).
- The ICI is released every month. The index is calculated by using the Laspeyres formula of the weighted arithmetic mean of quantity relatives.

8. 'Centre's digital agri proposals raise concern'

Background:

The Centre had published a consultation paper on an **India Digital Ecosystem of Agriculture (IDEA)** in June 2021, and sought public feedback.

Details:

- IDEA aims to build a National Digital Agriculture Ecosystem to elevate the Indian agriculture sector to higher levels of efficiency and productivity, and to improve the welfare and income of farmers.
- The Agriculture Ministry aspires that the IDEA initiative would place the farmer in the centre of the agriculture ecosystem **leveraging open digital technologies.**
  - o **Precision agriculture** would become a reality with access to the right information at the right time.
  - o The farmer can take **informed decisions** and implement best practices to maximize the yield.
  - o The **agriculture supply chain** players can plan their **production and logistics on precise and timely information.**

Source: Consultation paper on India Digital Ecosystem of Agriculture (IDEA)

Objectives of IDEA:

- To enable **higher income and better profitability to farmers** through access to the right information at the right time.
- To enable **better planning and execution** of policies, programs, and schemes.
- To **enhance efficiencies in the usage of resources**.

- To give a **fillip to R&D and Innovations** in agriculture through access to high-quality data.
- To formulate and **leverage PPP frameworks** for **realizing the 'power of the digital'.**

Concerns:

- The task force which brought out the proposals or the governance framework of IDEA **does not include farmer representation.**
- The **Centre's digital agriculture proposals** have raised concerns of:
  - exploitation of farmers
  - data protection and consent
  - mismanaged land records
  - exclusion of landless cultivators
  - the corporatisation of agriculture
- The Centre has been demanded to **stop implementation of the pilot** projects being rolled out in partnership with tech and retail giants including Microsoft, Amazon and Patanjali.
- Groups that sent feedback are against such **digital infrastructure being owned by private corporates and** have demanded that **the ownership be with the government.**

Conclusion:

Digital technologies and especially emerging technologies like Artificial Intelligence/Machine Learning, Internet of Things **open immense opportunities, with the right architecture and an enabling environment.**

9. Cabinet clears viability gap funds for BharatNet

Context:

The Union Cabinet has approved a **viability gap funding** support of up to ₹19,041 crore for the **implementation of the BharatNet project through the Public-Private Partnership (PPP) model** in 16 States.

Details:

- The project will be **extended to all inhabited villages beyond the gram panchayats in 16 States —** Kerala, Karnataka, Rajasthan, Himachal Pradesh, Punjab, Haryana, Uttar Pradesh, Madhya Pradesh, West Bengal, Assam, Meghalaya, Manipur, Mizoram, Tripura, Nagaland and Arunachal Pradesh.

- The private sector partner is expected to bring an **equity investment**, **raise resources towards capital expenditure** and **for operation and maintenance of the network.**
- It is expected to enable **better access to e-services** offered by the government, online education, telemedicine, skill development, e-commerce and other applications of broadband.

Benefits:

- Proliferation of broadband in rural areas will bridge the rural-urban divide of digital access and accelerate the achievement of Digital India.
- The penetration and proliferation of broadband is also expected to increase direct and indirect employment and income generation.
- The States where the PPP Model is envisaged will facilitate free Right of Way.
- The Private Sector Partner is also expected to bring an equity investment and raise resources towards capital expenditure and for operation and maintenance of the network.

Advantages offered by the BharatNet PPP Model:

- Use of innovative technology by the Private Sector Provider for the consumers
- High quality of service and service level to consumers
- Faster deployment of network and quick connectivity to consumers
- Competitive tariffs for services
- Variety of services on high-speed broadband including Over the top (OTT) services and multi-media services as part of packages offered to consumers
- Access to all online services

THE INDIAN EXPRESS

GS 2 : Polity, Governance, International Relations

1.How police can serve citizens better

Cost of inefficient criminal justice system

- However, there is a reluctance to implement the Supreme Court-mandated police reforms of 2006.
- The economic cost of the failed criminal justice system is reflected in the **reluctance of foreign companies to set up manufacturing and commercial ventures in India** for want of quick settlement of criminal, labour and civil disputes.
- The social implications can be gauged from the report, "Crime in India 2019", published by the National Crime Records Bureau.
- Investigation and prosecution need improvement and all criminal trials must be completed within a year.
- **Technology-driven service delivery mechanisms** can help achieve this.

Need to ensure time-bound delivery of services

- Along with prevention and detection of crime and maintenance of law and order, police stations in India undertake numerous daily tasks.
- These tasks include **providing verifications and no objection certificates** of different kinds to citizens.
- In criminal and non-cognisable cases, police stations provide copies of FIRs, complaints and final reports.
- Police stations also verify domestic help/employees of central and state governments/public sector undertakings/students going abroad for studies.
- The Bureau of Police Research & Development (BPR&D) had identified **45 such tasks in 2017**.
- Ease of business means police stations dispose of these requests in a transparent and time-bound manner.
- The procedures are non-transparent and timelines are often blurred which encourage corrupt practice.
- Even as police reforms are pursued by the Supreme Court, a **definite attempt can be made to ensure time-bound delivery of the above-mentioned services to citizens.**

Use of technology for service delivery

- These e-portals of various state police seek to provide citizen-centric services such as requests for issue/renewal of various NOCs, verification requests for servants, employment, passport, senior citizen registrations etc.
- The India Justice Report (IJR) 2020 supported by Tata Trusts has studied the e-portals of various state police organisations.
- The report mentions that "despite the push for digitisation, no state offered the complete bouquet of services…
- The report also mentions that users face numerous problems of accessibility to these services.
- The IJR 2020 audit confirms that states need **to invest more resources to upgrade their e-portals** for providing the 45 identified basic services to the citizens

Way forward

- This highlights that technology for service delivery to citizens has not been prioritised by the police leadership.
- . This is a task that police leadership can concentrate on without any political interference.
- **The Bureau of Police Research** had worked out the timeline for each service and the hierarchy/levels involved.
- The recommendations have been shared with the state police organisations.
- Adhering to a defined process with a timeline and clear delineation of the levels of police officers involved can ensure transparent and non-corrupt service delivery.
- It will reduce the number of fruitless visits a citizen makes to a police station chasing different officers.
- Along with ease of use, the language of e-portals needs attention too.
- Citizens seeking clearances may not be very educated.
- The Ministry of Home Affairs (MHA) earmarked about Rs 20,000 crore for **the modernisation of police (2017-2020),** for schemes such as **crime and criminal tracing networks and system (CCTNS)**, police wireless and e-prisons.
- States can take up this crucial service delivery mechanism.

Conclusion

Life for Indians would be transformed if government departments, including the police, provide maximum information and services through their portals respecting the defined processes and timelines

Why in News

Recently, **India has ranked tenth (10th) in Global Cybersecurity Index (GCI)** 2020 by **ITU (International Telecommunication Union)** by moving up 37 places.

- The affirmation came just ahead of the sixth anniversary of **Digital India on 1st July.**

Key Points

- **Top Ranking:**
  - The **US topped (1st),** followed by the UK (United Kingdom) and Saudi Arabia tied on the **second position together.**
  - Estonia was **ranked third (3rd)** in the index.
- **Results for India:**
  - India **scored a total of 97.5 points from a possible maximum of 100 points,** to make it to the **tenth position worldwide** in the GCI 2020.
  - India **secured the fourth position in the Asia Pacific region.**
  - India is **emerging as a global IT superpower,** asserting its digital sovereignty with firm measures to safeguard data privacy and online rights of citizens.
  - The result shows **substantial overall improvement and strengthening under all parameters of the cybersecurity domain.**
- **Basis of Assessment:**
  - On the basis of performance on **five parameters of cybersecurity,** which are,
    - Legal measures, technical measures, organisational measures, capacity development, and cooperation.
  - The performance is then **aggregated into an overall score.**
- **International Telecommunication Union:**
  - It is the **United Nations specialized agency** for information and communication technologies – ICTs.
  - **Founded in 1865** to facilitate international connectivity in communications networks. It is **Headquartered in Geneva, Switzerland.**
  - It **allocates global radio spectrum and satellite orbits,** develops the technical standards that ensure networks and technologies seamlessly interconnect, and strives to improve access to ICTs to underserved communities worldwide.

- o Recently, **India got elected as a member of ITU Council for another 4-year term -** from 2019 to 2022. India has remained a regular member since 1952.
- **Challenges to Cyber Security in India:**
  - o Deploying multiple cybersecurity tools **reinforces a fragmented and complex security environment** that is prone to risks arising from human error.
  - o Cybersecurity challenges **companies face as they shift the majority of their employees to a remote working** arrangement in a really short period of time.
  - o India **lacks indigenization in hardware as well as software cybersecurity** tools. This makes India's cyberspace vulnerable to cyberattacks motivated by state and non-state actors.
    - India doesn't have an 'active cyber defense' like the EU's **General Data Protection Regulation (GDPR)** or the US' Clarifying Lawful Overseas Use of Data (CLOUD) Act.
- **Efforts to Improve Cyber Security in India:**
  - o **National Cyber Security Strategy 2020:** It is being formulated to improve cyber awareness and cybersecurity through more stringent audits.
  - o **Draft Personal Data Protection Bill, 2018** (based on the recommendation of Justice BN Srikrishna Committee) to secure citizens' data.
  - o The scheme to set up **I4C (Indian Cyber Crime Coordination Centre)** was approved in October 2018, to deal with all types of cybercrimes in a comprehensive and coordinated manner.
  - o **National Computer Emergency Response Team** (CERT-In) functions as the nodal agency for coordination of all cyber security efforts, emergency responses, and crisis management.
  - o Protection and resilience of critical information infrastructure with the set up of **National Critical Information Infrastructure Protection Centre** (NCIIPC).
- **International Mechanisms:**
  - o **Budapest Convention on Cybercrime:** It is an international treaty that seeks to address Internet and computer crime by harmonizing national laws, improving investigative techniques, and increasing cooperation among nations. It came into force on 1st July 2004. **India is not a signatory to this convention.**
  - o **Internet Governance Forum (IGF):** It brings together all stakeholders i.e. government, private sector and civil society on the Internet governance debate.

3.Gender self-identification and related issues

The Spanish government has approved the first draft of a bill that would allow anyone over the age of 14 to legally change gender without a medical diagnosis or hormone therapy.

What is gender self-identification?

- Self-identification, or 'self-id', is the concept that a person should be allowed to legally identify with the gender of their choice by simply declaring so, and without facing any medical tests.
- This has been a long-held demand of trans-right groups around the world, including in India, as prejudice against trans people remains rampant.

European scenario

- In Europe, this issue has remained divisive not only on liberal-conservative lines but also within the LGBT community.
- The current processes for declaring one's desired gender are lengthy, expensive and degrading.

Related issues

- Some feminist and gay-rights groups insist that such a law could endanger women and cause more gay teenagers to be told that they might be trans and thus encouraged towards hormones and surgery.
- Feminist forums believe that sex is not something that can be chosen.
- They insist that allowing self-identification could put at risk all laws that specifically prevent discrimination against women.
- They have instead asked lawmakers to look at concerns that they say are more pressing, such as the gender pay gap.

What is the process for declaring one's desired sex in India?

- In India, the rights of transgender persons are governed by the Transgender Persons (Protection of Rights) Act, 2019 and the Transgender Persons (Protection of Rights) Rules, 2020.
- Under the Rules, an application to declare gender is to be made to the District Magistrate.
- Parents can also make an application on behalf of their child.
- A much-criticized previous draft of regulations required transgender persons to go through a medical examination for declaring their desired sex.
- This requirement was omitted in the Final Rules.

- As per the Rules, state governments have also been directed to constitute welfare boards for transgender persons to protect their rights and interests, and facilitate access to schemes and welfare measures framed by the Centre.

GS 3 : Economy, Science and Technology,Environment

4. What is the Human Genome Project?

Since the release of the draft human genome sequence in 2001, sections were left unsequenced, and some sequence information was incorrect. Now, two decades later, we have a much more complete version.

What is the human genome sequence?

- The human genome sequence is contained in our DNA and is made up of long chains of "base pairs" that form our 23 chromosomes.
- Along our chromosomes are the base pair sequences that form our 30,000 genes.
- All humans share a great degree of similarity in their genome sequences – the same genes are ordered in the same manner across the same chromosomes.
- Each of us is unique (except for identical twins) in terms of the exact base pair sequence that makes up our genes and thus our DNA/chromosomes.
- It is this similarity that, in a genetic sense, defines us as "human" and the specific variation that defines us as individuals.

The Human Genome Project

- As early as the 1980s, momentum was gathering behind activities that supported, and would eventually define, the Human Genome Project.
- Conversations had turned into workshops that likened characterization of the human genome to characterization of the human anatomy that had centuries earlier revolutionized the practice of medicine.
- In 1990, with continued support from the US and widespread international collaboration and cooperation, the $3 billion dollar Human Genome Project was launched.
- The project aimed to determine the sequence of the human genome within 15 years.
- By 2000 (well ahead of schedule) a working draft of the human genome was announced.
- This was followed by regular updates and refinements and today we all have access to a human "reference genome sequence".

Why did it take 20 years?

- Much of the newly sequenced material is the "heterochromatic" part of the genome.
- This is more "tightly packed" than the euchromatic genome and contains many highly repetitive sequences that are very challenging to read accurately.
- These regions were once thought not to contain any important genetic information but they are now known to contain genes that are involved in fundamentally important processes such as the formation of organs during embryonic development.
- Among the 200 million newly sequenced base pairs are an estimated 115 genes predicted to be involved in producing proteins.

Two key factors made the completion of the human genome possible:

1. Choosing a very special cell type

- The new sequence was created using human cells derived from a very rare type of tissue called a complete hydatidiform mole, which occurs when a fertilized egg loses all the genetic material contributed to it by the mother.
- Most cells contain two copies of each chromosome, one from each parent and each parent's chromosome contributing a different DNA sequence.
- A cell from a complete hydatidiform mole has two copies of the father's chromosomes only, and the genetic sequence of each pair of chromosomes is identical.
- This makes the full genome sequence much easier to piece together.

2. Advances in sequencing technology

- A new method called "shotgun sequencing", involved breaking the genome into very small fragments of about 200 base pairs, cloning them inside bacteria, deciphering their sequences, and then piecing them back together like a giant jigsaw.
- This was the main reason the original draft covered only the euchromatic regions of the genome — only these regions could be reliably sequenced using this method.
- The latest sequence was deduced using two complementary new DNA-sequencing technologies.

Is the genome now completely sequenced?

- Well, no. An obvious omission is the Y chromosome, because the complete hydatidiform mole cells used to compile this sequence contained two identical copies of the X chromosome.

- However, this work is underway and the researchers anticipate their method can also accurately sequence the Y chromosome, despite it having highly repetitive sequences.
- Even though sequencing the (almost) complete genome of a human cell is an extremely impressive landmark, it is just one of several crucial steps towards fully understanding humans' genetic diversity.

What's next?

- The next job will be to study the genomes of diverse populations (the complete hydatidiform mole cells were European).
- Once the new technology has matured it will be better positioned to make a more significant impact on our understanding of human history, biology and health.
- Both care and technological development are needed to ensure this research is conducted with a full understanding of the diversity of the human genome to prevent health disparities.

5. Four years of GST Regime

The Prime Minister has lauded Goods and Services Taxes (GST) on its completion of 4 years and said it has been a milestone in the economic landscape of India.

What is GST?

- GST is an indirect tax that has replaced many indirect taxes in India such as excise duty, VAT, services tax, etc.
- The Goods and Service Tax Act was passed in Parliament on 29th March 2017 and came into effect on 1st July 2017. It is a single domestic indirect tax law for the entire country.
- It is a comprehensive, multi-stage, destination-based tax that is levied on every value addition.
- Under the GST regime, the tax is levied at every point of sale. In the case of intra-state sales, Central GST and State GST are charged. All the inter-state sales are chargeable to the Integrated GST.

What are the components of GST?

There are three taxes applicable under this system:

1. **CGST:** It is the tax collected by the Central Government on an intra-state sale (e.g., a transaction happening within Maharashtra)

2. **SGST:** It is the tax collected by the state government on an intra-state sale (e.g., a transaction happening within Maharashtra)
3. **IGST:** It is a tax collected by the Central Government for an inter-state sale (e.g., Maharashtra to Tamil Nadu)

Advantages Of GST

- GST has mainly removed the cascading effect on the sale of goods and services.
- Removal of the cascading effect has impacted the cost of goods.
- Since the GST regime eliminates the tax on tax, the cost of goods decreases.
- Also, GST is mainly technologically driven.
- All the activities like registration, return filing, application for refund and response to notice needs to be done online on the GST portal, which accelerates the processes.

Issues with GST

- High operational cost
- GST has given rise to complexity for many business owners across the nation.
- GST has received criticism for being called a 'Disability Tax' as it now taxes articles such as braille paper, wheelchairs, hearing aid etc.
- Petrol is not under GST, which goes against the ideals of the unification of commodities.

6. What are Gamma Ray Burst (GRB) Explosion?

The emission from the most notable Gamma Ray Burst (GRB) explosion away from 4.5 billion light-years has been traced by Indian researchers.

What are GRB Explosions?

- GRBs are immensely energetic explosions that have been observed in distant galaxies.
- They are the brightest and most energetic electromagnetic events known to occur in the universe.
- Bursts can last from ten milliseconds to several hours.
- After an initial flash of gamma rays, a longer-lived "afterglow" is usually emitted at longer wavelengths (X-ray, ultraviolet, optical, infrared, microwave and radio).
- The intense radiation of most observed GRBs is thought to be released during a supernova or superluminous supernova as a high-mass star implodes to form a neutron star or a black hole.

What makes GRB special?

- The explosions are both extremely energetic (a typical burst releases as much energy in a few seconds as the Sun will in its entire 10-billion-year lifetime) and extremely rare.
- All observed GRBs have originated from outside the Milky Way galaxy, although a related class of phenomena, soft gamma repeater flares, are associated with magnetars within the Milky Way.
- It has been hypothesized that a gamma-ray burst in the Milky Way, pointing directly towards the Earth, could cause a mass extinction event.

7. Can India avoid a telecom duopoly?

India's telecom sector: From monopoly to hyper-competition

- India's telecom market has seen monopoly as well as hyper-competition.
- Twenty-five years ago, the government alone could provide services.
- Ten years later, there were nearly a dozen competing operators. Most service areas now have four players.
- However, the possible exit of the financially-stressed Vodafone Idea would leave only two dominant players-Airtel and Jio in the telecom sector.
- A looming duopoly, or the exit of a global telecommunications major, are both worrying.
- They deserve a **careful and creative response.**

Why it matters

- Competition has delivered relatively l**ow prices, advanced technologies, and an acceptable quality of services.**
- There is **a long way to go in expanding access as well as network capacity.**
- For example, India is ranked second globally—after China—in the number of people connected to the internet.
- However, it is also **first in the number of people unconnected.**
- Over **50% of Indians are not connected to the internet**, despite giant strides in network reach and capacity. India tops aggregate mobile data usage.
- However, its **per capita or device data usage is low.**
- It has an impressive 4G mobile network, however, its fixed network— **wireline or optical fibre—is sparse and often poor.**
- 5G deployment has yet to start and will be expensive.
- Filling the **gaps in infrastructure and access will require large investments and competition**.
- The exit of the Vodafone-Idea will hurt both objectives.

- The closure of Vodafone Idea is an arguably greater concern than the fading role of BSNL and MTNL.
- The government companies are yet to deploy 4G and have become progressively less competitive.
- Vodafone Idea, on the other hand, **still accounts for about a quarter of subscriptions and revenues** and can boast of a quality network.

Way out

1) Strategic partnership with BSNL-MTNL

- A possible way out could be to combine the resources of the MTNL and BSNL and Vodafone Idea through **a strategic partnership.**
- Creative government action can save Vodafone Idea as well as improve the competitiveness of BSNL and MTNL.
- It could help secure government dues, investments, and jobs.

2) Develop resale market

- Global experience suggests that well-entrenched incumbents have massive advantages.
- New players are daunted by the large investments.
- However, regulators and policymakers have other options to expand choice for telecom consumers.
- Their counterparts in mature regulatory regimes—e.g., in the European Union—have helped develop **extensive markets for resale.**
- Recognising the limited influence of smaller players, regulators mandate that the incumbent offer wholesale prices to resellers who then expand choice for end-users.
- A key barrier to resale is India's **licence fee regime** which requires licence-holders to share a proportion of their revenues with the government.

Conclusion

It would be tragic if India's telecom-access market was to be reduced to only two competing operators, as we have a long way to go. The government needs to consider the implications of the situation arising due to the exit of one of the major players in the sector.

<mark>**Prelims Practice Questions**</mark>

1. Consider the following statements with respective to Cotton Cultivation

1. In India, both Asian Cotton and American upland cotton species are cultivated.
2. China is the highest cotton producing country globally and Bangladesh is largest consumer of cotton in the world.

Which of the statement(s) given above is/are incorrect?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : b

Cotton Cultivation

- Cotton is a Kharif crop and grows well in black soil due to its high water retention capacity of Deccan plateau.
- Ideal annual temperature requirement is 20-28 degree Celsius and rainfall of 55-110 cm is required for cotton cultivation and requires minimum of 180 frost freed days
- India is the highest cotton producing country globally and India is the largest consumer of cotton in the world.
- India grows all four species of cultivated cotton

1. Gossypiumarboreum and herbaceum (Asian Cotton),
2. G.barbadense (Egyptian cotton)
3. G.Hirsutum (American upland cotton)

2.Consider the following statements regarding the distribution of subsidised ration:

1. Annavitaran portal maintains a record of inter-state transactions.
2. Integrated Management of Public Distribution System (IM-PDS) portal records the intra-state transactions.

Which of the above statements is/are INCORRECT?

a. Only 1
b. Only 2
c. Both
d. None

Answer: c

- One Nation One Ration Card scheme is based on technology that involves details of the beneficiary's ration card, Aadhaar number, and electronic Points of Sale (ePoS).
- The system identifies a beneficiary through biometric authentication on ePoS devices at fair price shops.
- The system runs with the support of two portals — Integrated Management of Public Distribution System (IM-PDS) and Annavitaran, which host all the relevant data.
- Annavitaran Portal – maintains a record of intra-state transactions — inter-district and intra-district.
- Integrated Management of Public Distribution System (IM-PDS) – records the inter-state transactions.

3. Consider the following statements regarding 'Pyrostria laljii' species?

1. **It is a new species of the coffee family recently discovered from the Andaman Islands.**
2. **It has been assessed as 'Critically Endangered' based on the IUCN Red List criteria.**

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

Answer : C

- Recently, **Pyrostria laljii**, a new species which belongs to the **genus of the coffee family** has recently been **discovered from the Andaman Islands. Hence, statement 1 is correct.**
    - A new species of pokeweed named Rivina andamanensis was also discovered.
- It is the first record of the genus Pyrostria in India. It is a 15-meter-tall tree.
    - Plants belonging to genus Pyrostria are usually found in Madagascar but the recently discovered species is new to science.

- While the genus Pyrostria is not found in India, there are several genera from the family Rubiaceae that are common in India.
- These plants, including cinchona, coffee, adina, hamelia, ixora, gallium, gardenia, mussaenda, rubia, morinda, have high potential for economic value.
  - Named Pyrostria laljii after Lal Ji Singh, Joint Director, Andaman and Nicobar Regional Centre, Botanical Survey of India.
  - It has been assessed as **'Critically Endangered'** based on the **International Union for Conservation of Nature's (IUCN) Red** List criteria. **Hence, statement 2 is correct.**

4. In the Parliament of India, the purpose of an adjournment motion is (2012)

- a. to allow a discussion on a definite matter of urgent public importance
- b. to let opposition members collect information from the ministers
- c. to allow a reduction of specific amount in demand for grant
- d. to postpone the proceedings to check the inappropriate or violent behaviour on the part of some members

Answer: a

- Adjournment motion is the procedure for adjournment of the business of the House to draw the attention of Lok Sabha to a recent matter of urgent public importance having serious consequences and in regard to which a motion or a resolution with proper notice will be too late.
- The purpose of the Adjournment Motion is to allow discussion on a definite matter of urgent public importance.
- It is followed only in the Lok Sabha.

5. Consider the following statements with respect to NATRAX, which was launched recently:

1. **It is Asia's longest and world's fifth longest High Speed Track (HST) for automobiles in India.**
2. **It was launched by the Ministry of Heavy Industries & Public Enterprises.**

Which of the statement(s) given above is/are correct?

- a. 1 only
- b. 2 only
- c. Both 1 and 2
- d. Neither 1 nor 2

Answer : c

- Minister of Heavy Industries and Public Enterprises Shri Prakash Javadekar has recently inaugurated NATRAX- the High Speed Track (HST) in Indore.
- It is the Asia's longest and world's fifth longest High Speed Track for automobiles.
- NATRAX, developed in an area of 1000 acres of land, is a one stop solution for all sorts of high speed performance tests for widest categories of vehicles from 2 wheelers to heavy tractor trailers.
- At present, foreign OEMs go to their respective high speed track abroad for high speed test requirements.

6. Barnadi Wildlife Sanctuary (BWS) is located in which of the following North Eastern states?

- a. Sikkim
- b. Arunachal Pradesh
- c. Mizoram
- d. Assam

Answer : d

Barnadi Wildlife Sanctuary (BWS)

- It is one of the smallest WS (Wildlife Sanctuary) of Assam and covers an area of 26.22 sq. km.
- Barnadi Wildlife Sanctuary (BWS) is located in northern Assam's Baksa and Udalguri districts bordering Bhutan.
- Barnadi was established specifically to protect the Pygmy Hog (Sus salvanius) and Hispid Hare (Caprolagus hispidus).

Recently, the World Wide Fund for Nature-India (WWF) found a few tigers inhabiting the Barnadi Wildlife Sanctuary in Assam.

Mains Practice Questions

1Q. Examine the reasons for rising incidents of forest fires in India and steps that can be taken to contain them. (150 words)

Approach

- Give facts regarding rising incidents of forest fires.
- Describe and analyze the reasons behind increasing fire incidences.
- Suggest measures to contain the forest fires.

2Q. India does not have a deficit of laws and rules, in fact we have too much of them. Critically examine. (250 words)

Approach

- Explain the problems with large number of legislations in India.
- Explain with examples, the significance of removing the obsolete laws.
- Mention the steps taken by the government in this direction.
- Conclude by balancing the challenges of having a large number of laws with their relevance in India.