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GS 2 : Polity, Governance, International Relations

1. Secrecy of Vote must in any election: SC

The Supreme Court has again held that in any election, be it to Parliament or State legislature, the maintenance of secrecy of voting is “a must”.

What is the Secret Vote?

- The secret vote/ secret ballot is a voting method in which a voter's choices in an election or a referendum are anonymous.
- It aims for forestalling attempts to influence the voter by intimidation, blackmailing, and potential vote-buying.
- The system is one means of achieving the goal of political privacy.

What did the Supreme Court rule?

- Secrecy is a part of the fundamental right of freedom of expression.
- The confidentiality of choice strengthens democracy.
- The principle of secrecy of ballots is an important postulate of constitutional democracy, the court said.
- It is the policy of the law to protect the right of voters to the secrecy of the ballot.
- Even a remote or distinct possibility that a voter can be forced to disclose for whom she has voted would act as a positive constraint and a check on the freedom to exercise of the franchise.

Voter's discretion is allowed

- A voter can also voluntarily waive the privilege of non-disclosure.
- The privilege ends when the voter decides to waive the privilege and instead volunteers to disclose as to whom she had voted.
- No one can prevent a voter from doing. Nor can a complaint be entertained from any, including the person who wants to keep the voter's mouth sealed as to why she disclosed for whom she voted said the court.

2. Empowering nature with biocentric jurisprudence

Context

In a recent ruling, the Supreme Court of India has sought to move away from an anthropocentric basis of law.

Biocentrism Vs. Anthropocentrism

- **Anthropocentrism** argues that of all the species on earth humans are the most significant and that all other resources on earth may be justifiably exploited for the benefit of human beings.
- The philosophy of **biocentrism** holds that the natural environment has its own set of rights which is independent of its ability to be exploited by or to be useful to humans.
- Biocentrism often comes into conflict with anthropocentrism.

Supreme Court of India upholds biocentric principles

- The Great Indian Bustard is a gravely **endangered species**, with hardly about 200 alive in India today.
- The overhead power lines have become a threat to the life of these species as these birds frequently tend to collide with these power lines and get killed.
- Recently, the Supreme Court in **M.K. Ranjitsinh & Others vs Union of India & Others**, said that in all cases where the overhead lines in power projects exist, the governments of Rajasthan and Gujarat shall take steps forthwith to install bird diverters.
- In protecting the birds, the Court has **affirmed and emphasised the biocentric values of eco-preservation**.
- A noteworthy instance of the application of anthropocentrism in the legal world is in that of the “Snail darter” case in the United States.
- The Supreme Court of the United States of America in Tennessee Valley Authority vs Hill, had held that since the “Snail darter” fish was a specifically protected species under the Act, the executive could not proceed with the reservoir project.

Human role in extinction of species

- About 50 years ago, there were 4,50,000 lions in Africa. Today, there are hardly 20,000.
- Indiscriminate monoculture farming in the forests of Borneo and Sumatra is leading to the **extinction of orangutans**.
- Rhinos are hunted for the so-called medicinal value of their horns and are slowly becoming extinct.

- From the time humans populated Madagascar about 2,000 years ago, about 15 to 20 species of Lemurs, which are primates, have become extinct.
- The compilation prepared by the **International Union for Conservation of Nature** lists about **37,400 species that are gravely endangered**; and the list is ever growing.

Evolution of Right of Nature laws in Constitutions

- Pieces of legislation are slowly evolving that fall in the category of the “Right of Nature laws”.
- These seek to travel away from **an anthropocentric basis of law to a biocentric one**.
- The **Constitution of India** is significantly silent on any explicitly stated, binding legal obligations we owe to our fellow species and to the environment that sustains us.
- It is to the credit of the Indian judiciary that it interpreted the enduring **principles of sustainable development** and read them, inter alia, into the precepts of **Article 21 of the Constitution**.
- In September 2008, Ecuador became the first country in the world to recognise “Rights of Nature” in its Constitution.
- Bolivia has also joined the movement by establishing Rights of Nature laws too.
- In November 2010, the city of Pittsburgh, Pennsylvania became the first major municipality in the United States to recognise the Rights of Nature.
- These laws, like the Constitution of the countries that they are part of, are still works in progress.

Conclusion

In times like this the Supreme Court’s judgment in M.K. Ranjithsinh upholding the biocentric principles of coexistence is a shot in the arm for nature conservation. One does hope that the respective governments implement the judgment of the Court.

3. What is National Security Council (NSC)?

The budgetary allocation for the National Security Council Secretariat (NSCS) increased 10 times from ₹33.17 crores in 2016-17 to ₹333.58 crores in 2017-18.

National Security Council (NSC)

- The NSC is an executive government agency tasked with advising the Prime Minister’s Office on matters of national security and strategic interest.

- It was established by the former PM of India Atal Bihari Vajpayee on 19 November 1998, with Brajesh Mishra as the first National Security Advisor.
- Prior to the formation of the NSC, these activities were overseen by the Principal Secretary to the preceding Prime Minister.

Members

- Besides the NSA the Deputy National Security Advisors, the Ministers of Defence, External Affairs, Home, Finance of the Government of India, and the Vice Chairman of the NITI Aayog are members of the National Security Council.
- PM can chair the meeting of NSC (for eg - PM chaired the meeting of NSC Post Pulwama to discuss heightened tension with Pakistan).
- Other members may be invited to attend its monthly meetings, as and when is required.

Organizational structure

- The NSC is the apex body of the three-tiered structure of the national security management system in India.
- The three tiers are the Strategic Policy Group, the National Security Advisory Board, and a secretariat from the Joint Intelligence Committee.

4. Managing Mental Health Issues in Prisoners: NIMHANS Guidelines

Why in News

Acting on the request of the Ministry of Home Affairs, NIMHANS, an Institute of National Importance, issued a set of guidelines on the management of mental health issues of the prisoners and prison staff.

Key Points

- **NIMHANS Guidelines:**
 - **Gatekeeper Model for Identification of Mental Illness:**
 - In this model, **selected inmates, trained to identify prisoners at risk of suicide**, would refer them to treatment or supportive services.
 - It is a step to **prevent suicides triggered by mental health issues** in prisons across the country.
 - There is prevalence of **mental illness and substance use disorder** in about **80% of the prison population**.
 - **For Mental Health Treatment:**

- **Prisoners with mental disorders** had to be **regularly assessed** for severity of suicidal risk and also put on regular and supervised medication.
- To address the **prisoner's mental health needs**, the **correctional facility should have links to** community-based initiatives like the **District Mental Health Programme**.
- **Buddy System for Social Intervention:**
 - It is a type of social support through trained prisoners called **"buddies" or "listeners"**.
 - It was found to have a good impact on the **well-being of suicidal prisoners**. Periodic telephone conversations with friends and family would also foster support.
 - **e-Mulakat** is an **online platform enabling relatives/friends/ advocates of prisoners to book prior appointments** for interviewing prisoners through the National Prisons Information Portal.
- **Need:**
 - Indian prisons face **three long-standing structural constraints:** Overcrowding, Understaffing and underfunding and violent clashes.
 - The **Prison Statistics India 2016**, published by the **National Crime Records Bureau (NCRB)** in 2019 highlights the plight of prisoners in India.
 - **Under-trial Population:** India's under-trial population remains among the highest in the world. At the end of 2016, there were 4,33,033 people in prison, of whom 68% were undertrials.
 - The high proportion of undertrials in the overall prison population **may be the result of unnecessary arrests and ineffective legal aid** during remand hearings.
 - **Covid-19** also led to suspension of trials and delay in court hearings.
 - **People Held Under Preventive Detention:** There is a rise in the number of people held under administrative (or 'prevention') detention laws in Jammu and Kashmir.
 - A 300% increase, with 431 detainees in 2016, compared to 90 in 2015.
 - Administrative, or 'preventive', detention is used by authorities to detain persons without charge or trial and circumvent regular criminal justice procedures.
 - **Unawareness about Section 436A of C.R.P.C.:** There is a gap between the number of prisoners eligible to be released and actually released, under Section 436A of the Code of Criminal Procedure.

- **Section 436A of C.R.P.C** allows undertrials **to be released on a personal bond if they have undergone half of the maximum term** of imprisonment they would have faced if convicted.
- **Unnatural Deaths in Prison:** The number of “unnatural” deaths in prisons has doubled between 2015 and 2016, from 115 to 231.
 - The rate of suicide among prisoners also increased by 28%, from 77 suicides in 2015 to 102 in 2016.
 - The **National Human Rights Commission (NHRC)** in 2014 had stated that on average, a person is one-and-a-half times more likely to commit suicide in prison than outside. This is a possible indicator of the magnitude of mental health concerns within Indian prisons.
- **Lack of Mental Health Professionals:** There was only one mental health professional for every 21,650 prisoners in 2016, with only six States and one Union Territory having psychologists / psychiatrists.
 - Also, the NCRB had said that about 6,013 individuals with mental illness were in jail in 2016.
 - As per the Prison Act, 1894 and Prisoner Act, 1900, there should be a welfare officer and a law officer in each jail but recruitment of these officers is still pending. This state explains the low political and budgetary priority which prisons have received during the preceding century.

Way Forward

- **Preventing suicide in prison or police lock-ups** is not primarily a **medical matter** but needs **cooperation and coordination from various agencies**.
- There is a necessity for all policing staff to take suicidal behavior as a serious but preventable disorder in a custodial setting as in any other circumstances.
- **Screening the individuals before putting them behind bars, identifying the important risk factors** such as drug and alcohol abuse or mental illness and seeking appropriate medical aid in this regard may reduce the number of such incidents in substantial ways.
- Similarly, the **prison or police lock-up environment** itself may increase suicide risk. Therefore, gradual change in environment may help the individual to adapt with the condition and learn to cope with the problems.

GS 3 : Economy, Science and Technology, Environment

5. National Security Council

Why in News

Amid the **Pegasus Controversy**, it was reported that the Union Government's **expenditure on the National Security Council secretariat (NSCS) increased ten fold in 2017-18** to Rs 333 crores from Rs 33 cr. in 2016-17.

Key Points

- **About:**
 - NSC of India is a **three-tiered organization** that oversees political, economic, energy and security issues of strategic concern.
 - The **National Security Advisor (NSA)** presides over the NSC, and is also the primary advisor to the prime minister. The current National Security Advisor is Ajit Doval.
- **Formation:**
 - It was formed in 1999, where all aspects of national security are deliberated upon.
- **Three tier Structure:**
 - NSC comprises the three tier structure- Strategic Policy Group (SPG), the National Security Advisory Board (NSAB) and the National Security Council Secretariat.
 - The SPG chaired by the Cabinet Secretary is the principal forum for inter-ministerial coordination and integration of the relevant inputs.
 - The NSAB undertakes long-term analysis and provides perspectives on issues of national security.
- **Function:**
 - It operates within the executive office of the prime minister of India, liaising between the government's executive branch and the intelligence services, advising leadership on intelligence and security issues.
- **Members:**
 - The Ministers of Home Affairs, Defence, External Affairs and Finance are its members.

6. Supreme Court Dismisses Plea Against Ban On Firecrackers

Why in News

Recently, the Supreme Court has dismissed appeals challenging the **National Green Tribunal's (NGT) order** which had imposed a complete ban on the sale and use of all firecrackers during the Covid-19 pandemic in NCR and other cities in India.

- The order was given in the context of a poor **Air Quality Index (AQI)**, owing to the burning of crackers.

Key Points

- **Background:**
 - In 2017, the Supreme court had **banned the use and sale of toxic crackers** during the **celebration owing to diwali, Christmas, etc.**, on the basis of a petition filed by two infants.
 - They had said the air pollution caused by various factors, especially firecrackers, had made **Delhi a gas chamber**.
 - They pleaded for their **right to life**.
 - The court **dismissed arguments that bursting crackers was a fundamental right** and an essential practice during religious festivals like Diwali.
 - The court held that the **Right to Freedom of Religion (Article 25) is subject to Right to life (Article 21)**.
 - If a particular religious practice is threatening the health and lives of people, such practice is not entitled to protection under Article 25.
- **NGT Order:**
 - The NGT in its December 2020 order said that only **green crackers** (which use less polluting raw materials) would be permitted for Christmas and New Year, in areas where the ambient air quality was in the moderate or below categories.
 - However, owing to **Covid-19 pandemic**, NGT again prohibited the sale and use of firecrackers.
 - The firecrackers companies argued that the ban was an impediment to their livelihoods.
 - In reply to the argument, the Tribunal had reasoned that the **“right to business is not absolute (Article 19 (1) (g)) and there is no right to violate air quality and noise level norms.**
- **Harmful Effects of Crackers:**

- Firecrackers contain lots of **heavy metals and toxic chemicals** like cadmium, lead, chromium, aluminium, magnesium, nitrates, carbon monoxide, copper, potassium, sodium, zinc oxide, manganese dioxide etc.
- These chemicals, if inhaled or ingested, can cause **severe effects in the health of people** like heart diseases, respiratory or nervous system disorders.
- Further, **noise pollution** causes restlessness, temporary or permanent hearing loss, high blood pressure; sleep disturbance and even poor cognitive development in kids.

7. Empowering nature with biocentric jurisprudence

Context

- Judicial intervention to protect the Great Indian Bustard (GIB).

The Great Indian Bustard

- GIBs are the largest among the four bustard species found in India, the other three being MacQueen's bustard, lesser florican and the Bengal florican.
- They are one of the heaviest birds with flight, preferring grasslands as their habitat.
- In general, birds in grasslands are considered an important indicator of how healthy the ecosystem is. Hence, GIBs are considered the flagship bird species of grasslands.

Decline in numbers

- Being terrestrial birds, they spend most of their time on the ground with occasional flights to go from one part of their habitat to the other.
- It is now nearing extinction due to collision with high voltage power lines.
- These bustards are prone to collision due to their poor frontal vision and inability to see the power lines from a distance.

Supreme Court

- The Court in *M.K. Ranjitsinh & Others vs Union of India & Others* said:
 - The Governments of Gujarat and Rajasthan have to expedite the procedure to convert the overhead cables into underground power lines.
 - The Governments have to install bird diverters where high voltage electricity lines cannot be moved underground.

Anthropocentrism and biocentrism

- Anthropocentric Approach to environment is narrowly aimed at preserving the welfare of humans. It literally means “human-centredness”. It says that nature primarily exists for humans.
 - Anthropocentrism argues that **of all the species on earth humans are the most significant** and that all other resources on earth may be justifiably exploited for the benefit of human beings.
- Biocentric Approach is oriented toward protecting non-human organisms and nature as a whole. It is based on a nature-centric value system.
 - Biocentrism treats environmentalism as a moral imperative independently of its impact on human flourishing.
 - It believes that human species is a mere component of the ecosystem.
- In protecting the birds, the Court has affirmed and emphasised the biocentric values of eco-preservation.

Species in danger

- Lions
 - There are about 20,000 lions in Africa today. Their numbers five decades ago was at 4,50,000.
- Orangutans
 - Threats include loss of habitat through deforestation, palm oil plantations, indiscriminate monoculture farming in the forests of Borneo and Sumatra.
- Rhinos
 - They are killed for the perceived medicinal value of their horns and are slowly becoming extinct.
- Lemurs
 - Deforestation and hunting are the greatest threats to the lemur.

Constitutional Obligation

- Article 48A of the Constitution of India imposes a duty on the government to protect and improve the environment and to safeguard forests and wildlife.
- Article 51-A (g), says that “It shall be duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers and wild life and to have compassion for living creatures.”
- In the context of animal rights, the Supreme Court has brought some animal rights under the ambit of the right to life through an expansive reading in the case of Animal Welfare Board of India v. A. Nagaraja & Ors.

Global Examples:

- In 2008, **Ecuador** became the first country in the world to recognise “Rights of Nature” in its Constitution.
- **Bolivia** has also joined the movement by establishing Rights of Nature laws too.
- In 2010, the city of **Pittsburgh, Pennsylvania** became the first major municipality in the United States to recognise the Rights of Nature.

Conclusion

Therefore the Supreme Court intervention in M.K. Ranjithsinh was a much desired ruling promoting the biocentric approach to Environment.



THE INDIAN EXPRESS

GS 2 : Polity, Governance, International Relations

1. Right to be Forgotten in India

A TV celebrity has approached the Delhi High Court with a plea saying that his videos, photographs, and articles, etc. be removed from the internet citing his "Right to be Forgotten".

What is the plea about?

- The plea mentions that the posts and videos on the internet related to him have caused the petitioner psychological pain for his diminutive acts.
- The plea also states that the petitioner's mistakes in his personal life become and remains in public knowledge for generations to come.
- Consequently, the values enshrined under Article 21 of the Indian Constitution and the emergent jurisprudential concept of the Right to be Forgotten becomes extremely relevant in the present case."

What is the 'Right to be Forgotten' in the Indian context?

- The Right to be Forgotten falls under the purview of an individual's right to privacy, which is governed by the Personal Data Protection Bill that is yet to be passed by Parliament.
- In 2017, the Right to Privacy was declared a fundamental right by the Supreme Court in its landmark verdict.

What does the Personal Data Protection Bill say about this?

- The Personal Data Protection Bill was introduced in Lok Sabha on December 11, 2019, and it aims to set out provisions meant for the protection of the personal data of individuals.
- Clause 20 under Chapter V of this draft bill titled "Rights of Data Principal" mentions the "Right to be Forgotten."

- It states that the “data principal (the person to whom the data is related) shall have the right to restrict or prevent the continuing disclosure of his personal data by a data fiduciary”.
- Therefore, broadly, under the Right to be forgotten, users can de-link, limit, delete or correct the disclosure of their personal information held by data fiduciaries.
- A data fiduciary means any person, including the State, a company, any juristic entity, or any individual who alone or in conjunction with others determines the purpose and means of the processing of personal data.

2. Antimicrobial Resistance

Why in News

Recently, the **Ministry of Health and Family Welfare** highlighted **various measures to address the challenges posed by Antimicrobial Resistance (AMR)** in the country.

Key Points

- **About:**
 - Antimicrobial resistance is the **resistance acquired by any microorganism** (bacteria, viruses, fungi, parasite, etc.) **against antimicrobial drugs** (such as antibiotics, antifungals, antivirals, antimalarials, and anthelmintics) that are used to treat infections.
 - As a result, **standard treatments become ineffective**, infections persist and may spread to others.
 - Microorganisms that develop antimicrobial resistance are sometimes referred to as “**superbugs**”.
- **Reasons for Spread of AMR:**
 - The **misuse of antimicrobials in medicine and inappropriate use in agriculture**.
 - **Contamination around pharmaceutical manufacturing sites** where untreated waste releases large amounts of active antimicrobials into the environment.
- **AMR in India:**
 - India, with its combination of large population, rising incomes that facilitate purchase of antibiotics, **high burden of infectious diseases and easy over-the-counter access to antibiotics**, is an important locus for the generation of resistance genes (such genes help bacteria in surviving on being exposed to antibiotics).

- The multi-drug resistance determinant, **New Delhi Metallo-beta-lactamase-1 (NDM-1)**, emerged from this region to spread globally.
 - Africa, Europe and other parts of Asia have also been affected by multi-drug resistant typhoid originating from South Asia.
- In India, **over 56,000 newborn deaths each year due to sepsis are caused by organisms that are resistant to first line antibiotics.**
- **Measures Taken to Address AMR:**
 - **National Programme on AMR containment:** Launched in 2012. Under this programme, AMR Surveillance Network has been strengthened by establishing labs in State Medical College.
 - **National Action Plan on AMR:** It focuses on **One Health approach and was** launched in April 2017 with the aim of involving various stakeholder ministries/departments.
 - **AMR Surveillance and Research Network (AMRSN):** It was launched in 2013, to generate evidence and capture trends and patterns of drug resistant infections in the country.
 - **AMR Research & International Collaboration: Indian Council of Medical Research (ICMR)** has taken initiatives to develop new drugs /medicines through international collaborations in order to strengthen medical research in AMR.
 - ICMR along with Research Council of Norway (RCN) initiated a joint call for research in antimicrobial resistance in 2017.
 - ICMR along with the Federal Ministry of Education and Research (BMBF), Germany has a joint Indo-German collaboration for research on AMR.
 - **Antibiotic Stewardship Program:** ICMR has initiated antibiotic stewardship program (AMSP) on a pilot project across India to control misuse and overuse of antibiotics in hospital wards and ICUs.
 - DCGI has banned 40 fixed dose combinations (FDCs) which were found inappropriate.
 - **Integrated One Health Surveillance Network for AMR:** To assess the preparedness of Indian Veterinary laboratories to participate in integrated AMR surveillance network.
 - ICMR has also created a veterinary standard operating procedure (Vet-SOPs) for enabling comparison of antimicrobial resistance patterns in animals and humans.
 - **Others:**
 - India has undertaken many activities **like Mission Indradhanush** – to address **low vaccination coverage** – strengthened micro-planning and additional mechanisms to improve monitoring and accountability.

- The Ministry of Health & Family Welfare (MoHFW) identified AMR as one of the top 10 priorities for the ministry's collaborative work with the World Health Organisation (WHO).
- **WHO's take on AMR:**
 - The **World Health Organization (WHO)** has identified AMR as one of the top ten threats to global health.
 - WHO recommends that countries must prioritize their national action plans to scale up financing and capacity building efforts, put in place stronger regulatory systems and support awareness programmes for responsible and prudent use of antimicrobials by professionals in humans, animals and plants health.
 - The WHO also suggests a number of steps that can be taken at various levels to reduce the impact and also limit the spread of this resistance.

GS 3 : Economy, Science and Technology, Environment

3. Periodic Labour Force Survey (2019 -2020)

The Periodic Labour Force Survey (PLFS) Annual Report for July, 2019 to June 2020 was recently released by the National Statistical Office (NSO).

Periodic Labour Force Survey

- Considering the importance of the availability of labour force data at more frequent time intervals, National Statistical Office (NSO) launched PLFS in April 2017.
- The objective of PLFS is primarily twofold:
 1. to estimate the key employment and unemployment indicators (viz. Worker Population Ratio, Labour Force Participation Rate, Unemployment Rate) in the short time interval of three months for the urban areas only in the Current Weekly Status (CWS).
 2. to estimate employment and unemployment indicators in both 'Usual Status' and CWS in both rural and urban areas annually.

Various dimensions of the survey

The PLFS gives estimates of Key employment and unemployment Indicators:

- **Labour Force Participation Rate (LFPR):** LFPR is defined as the percentage of persons in the labour force (i.e. working or seeking or available for work) in the population.
- **Worker Population Ratio (WPR):** WPR is defined as the percentage of employed persons in the population.
- **Unemployment Rate (UR):** UR is defined as the percentage of persons unemployed among the persons in the labour force.
- **Activity Status- Usual Status:** The activity status of a person is determined on the basis of the activities pursued by the person during the specified reference period. When the activity status is determined on the basis of the reference period of the last 365 days preceding the date of the survey, it is known as the usual activity status of the person.
- **Activity Status- Current Weekly Status (CWS):** The activity status determined on the basis of a reference period of the last 7 days preceding the date of the survey is known as the CWS of the person.

Highlights of the third report

- The Labour force participation ratio has increased to 40.1% in 2019-20 from 37.5% and 36.9%, respectively, in the last two years.
- Worker population rate improved to 38.2% in 2019-20 compared with 35.3% in 2018-19 and 34.7% in 2017-18.
- The unemployment rate fell to 4.8% in 2019-20. In 2018-19, it stood at 5.8% and 6.1% in 2017-18.

4. India's FAANG moment has arrived

Context

In the US, the Big Tech FAANG five are Facebook, Apple, Amazon, Netflix and Google (now Alphabet). Today, in India, Zomato's stock market debut is a big occasion for India that could pave the path for other online successes.

Significance for economy

- It is the first among a host of domestic unicorns to have taken the IPO road, heralding a watershed moment.
- **Boost for startups:** It is also also a big leap for our country as a whole, which today boasts of the **third largest start-up ecosystem in the world**.
- **Creation of online ecosystem:** The response to Zomato's initial public offer (IPO) gave us interesting insights into the robustness of the **online economy** in a pandemic-stricken world.

- **Help creation of tech-giants:** It could alter the composition as well as perception of markets, giving Indian investors a feel of **new-generation, tech-heavy, assets-light** and agile entrepreneurial growth stories, woven around the **consumer internet ecosystem** in India.
- **Attracting FDI:** With global liquidity at unprecedented levels and tech being the toast of the season, we could be looking at FDI inflows in unforeseen proportion in days to come.
- The ascent of new-age enterprises like Zomato and Paytm on the Stock Market, followed by likes of Oyo, Ola, Swiggy, Byju's and even Flipkart could signal the emergence of India's own FAANG family.

What sets the tech startups apart?

- Their reliance on **big data** and leveraging of ever-evolving technology, while sustaining a **two-way connect with clients** set them apart.
- The 'stickiness' and the 'connect' built over the years through carefully fabricated social layers puts them in the league of giant social media influencers.
- During the last few decades, two distinctive traits that have the potential to push the boundaries of limitations are **creation of a large talent pool and India's prowess in software and data (including AI/ML) technology**, both on a global scale.

Conclusion

As we celebrate 30 years of economic reforms, today's debut, at least for the markets and the economy, may well be called India's re-tryst with destiny.

5. Challenging China

Context

The Chinese are about to extend their geographical advantage by building a new high-speed rail from Chengdu, running close by and parallel to the Arunachal border, up to Lhasa.

Manpower and Defence Budget: Comparison with China

- The Indian army, according to diverse sources, numbers between **12,50,000 and 14,00,000 officers and men**.
- Chinese PLA actually has only 9,75,000 officers and men.
- They have **downsized their army**.
- China is an aspiring world power that spends **\$252 billion** on its defence budget, as compared to **\$72.9 billion that India spends**.

- Both countries limit their budget to around **2 per cent of their GDP**, which in China's case is five times our size.

Why does India need to reduce manpower in defence?

- **Expensive:** As the years pass, manpower is going to get increasingly expensive/
- Also, our strategic options get constrained because the **army gets 61 per cent of the defence budget.**
- **A major portion of the budget is spent on manpower: 81 per cent of the army budget** goes into manpower and maintenance.
- We need to downsize the army by 2,00,000 men over five years through retirement and reduced recruitment.
- The reduction in manpower will save approximately Rs 30,000 crore, which can be equally divided between the three services.

Way forward: Bigger role to navy and air force

- We can achieve better **conventional deterrence** against China by giving bigger roles to the navy and air force.
- The first step is to accept that we are an asymmetric power and leverage the **RMA (Revolution in Military Affairs)** so that numerical inferiority is of no consequence.
- They are invulnerable on land, and their only strategic weakness is their reliance on the Indian Ocean **SLOCs** (sea lines of communications) for **70 per cent of their imported oil.**
- The only guarantee of Chinese non-aggression and good behaviour is a **well-crafted threat to their oil tankers** and a complete naval mastery of the escalation that is bound to follow.
- India can also leverage the QUAD resources in various ways such as information.
- What would be greatly beneficial, and to make the **operation tri-service**, is to build up the Car Nicobar airfield into a full-fledged airbase.
- We could negotiate with Oman for the use of the old RAF airbase at Masirah to dominate the Gulf of Hormuz and threaten the **Chinese base at Djibouti.**

Conclusion

China cannot be countered by throwing expensive manpower at the problem, but only by shifting the battle space to advantageous geography, by a united navy and air force effort, while a technically advanced army holds the Himalayan border.

6. What is Gross Environment Product?

The Uttarakhand government recently announced it will initiate valuation of its natural resources in the form of 'Gross Environment Product' (GEP), said to be along the lines of Gross Domestic Product (GDP).

Why such a move?

- The idea of the valuation of the components of the environment is not new.
- But it got impetus following rapid degradation of ecosystems, which led to adverse impacts on more than 60 percent of services we get from the ecosystems.

What is Gross Environment Product (GEP)?

- GEP is the measure of ecosystem services of any area.
- It reflects the aggregated annual value of goods and services provided by ecosystems (forests, water bodies, oceans, etc.) to people in a given region, such as at district levels, state, and country.
- It entails the establishment of a natural capital accounting framework by integrating ecological benefits into common measures of economic growth such as GDP.
- It summarizes the value of ecosystem services in a single monetary metric.

Evolution of GEP

- Several attempts were made to find ways to address environmental issues.
- The term "ecosystem services" was coined in 1981 to attract academics towards this aspect.
- Ecosystem services represent the benefits humans get: Forests, lakes, and grasslands; timber and dyed; carbon sequestration and nutrient cycling; soil formation and productivity; and tourism.
- The definition is still in the process of evolution. The concept received attention and now is part of global knowledge.

Advantages offered

- GEP can be applied as a scientific basis for Eco-Compensation and public financial transfers.
- For example, Finance Commission's revenue-sharing formula between the Union and the states including forest cover as a determining factor in a state's share.
- GEP can be applied to measure the status of ecosystem services, which is an important indicator of sustainable development.

- It is also a critical indicator for measuring the progress of Eco-civilization.
- Its implementation can help assess the impact of anthropological pressure on our ecosystem and natural resources- air, water, soil, forests.

The Himalayan context

- The Himalayas contribute substantially to the sustainability of the Gangetic Plains where 500 million people live.
- The Union government incorporated the value of ecosystem services of its states in national accounting.
- According to the recommendation of the 12th and 13th Finance Commissions, grants were transferred to forest-rich states in amounts corresponding to their forest covers.
- However, considering only the forest cover in transferring funds to states is inadequate.

7. Special Economic Zones

Why in News

Special Economic Zones (SEZ) have touched **new heights in terms of performance in Exports, Investment and Employment** in the last three years.

Key Points

- **About:**
 - An SEZ is **a territory within a country that is typically duty-free (Fiscal Concession)** and has different business and commercial laws chiefly **to encourage investment and create employment.**
 - SEZs are created also to better administer these areas, thereby **increasing the ease of doing business.**
- **SEZs in India:**
 - Asia's **first EPZ (Export Processing Zones)** was established **in 1965 at Kandla, Gujarat.**
 - While **these EPZs had a similar structure to SEZs**, the government began to establish **SEZs in 2000** under the **Foreign Trade Policy** to redress the infrastructural and bureaucratic challenges that were seen to have limited the success of EPZs.
 - The **Special Economic Zones Act was passed in 2005.** The Act came into force along with the **SEZ Rules in 2006.**
 - However, SEZs were **operational in India from 2000 to 2006** (under the Foreign Trade Policy).
 - India's SEZs were **structured closely with China's successful model.**

- Presently, **379 SEZs are notified**, out of which 265 are operational. About 64% of the SEZs are located in five states - Tamil Nadu, Telangana, Karnataka, Andhra Pradesh and Maharashtra.
- The **Board of Approval is the apex body** and is headed by the Secretary, Department of Commerce (**Ministry of Commerce and Industry**).
- The **Baba Kalyani led committee** was constituted by the Ministry of Commerce and Industry to study the existing SEZ policy of India and had submitted its recommendations in November 2018.
 - It was set up with a broad objective to evaluate the SEZ policy towards making it **WTO (World Trade Organisation)** - compatible and to bring in global best practices to maximise capacity utilisation and to maximise potential output of the SEZs.
- **Objectives of the SEZ Act:**
 - To **create additional economic activity**.
 - To **boost the export** of goods and services.
 - To **generate employment**.
 - To **boost domestic and foreign investments**.
 - To develop **infrastructure facilities**.
- **Major Incentives and Facilities Available to SEZ:**
 - **Duty free import/domestic procurement** of goods for development, operation and maintenance of SEZ units.
 - **Exemption from various taxes** like Income Tax, minimum alternate tax, etc.
 - **External commercial borrowing** by SEZ units upto US \$ 500 million in a year without any maturity restriction through recognized banking channels.
 - **Single window clearance** for Central and State level approvals.
- **Performance so far:**
 - **Exports:** Exports of Rs. 22,840 Crore (2005-06) has **increased to Rs. 7,59,524 Crore** (2020-21).
 - **Investment:** Investment of Rs. 4,035.51 Crore (2005-06) has **increased to Rs. 6,17,499 Crore** (2020-21).
 - **Employment:** Employment from 1,34,704 persons (2005-06) has **increased to 23,58,136 persons** (2020-21).
- **Challenges:**
 - **Unutilized Land in SEZs:**
 - Due to lack of demand for SEZ space and disruptions caused by the pandemic.
 - **Existence of Multiple Models:**
 - There are multiple models of economic zones such as **SEZ, coastal economic zone, Delhi-Mumbai Industrial Corridor, National Investment and Manufacturing Zone, food park and**

textile park which pose challenges in integrating the various models.

- **Competition from ASEAN Countries:**
 - In the past few years, many of the **ASEAN countries** have tweaked their policies to attract global players to invest into their SEZs and have also worked on a developmental set of their skilling initiatives.
 - Consequently, **Indian SEZs have lost some of their competitive advantages globally** and hence need to have fresher policies.

Way Forward

- **Promotion of MSME investments in SEZs** by linking with MSME schemes and allowing alternate sectors to invest in sector-specific SEZs is among the recommendations by the Baba Kalyani Committee on SEZs.
- It had also batted for **additional enablers and procedural relaxations as well as granting SEZs infrastructure status** to improve their access to finance and enable long-term borrowings.

Prelims Practice Questions

1) Bhartiya Prakritik Krishi Padhati (BPKP) is a sub scheme of which of the following?

- a. Paramparagat Krishi Vikas Yojana
- b. Pradhan Mantri Kisan Samman Nidhi
- c. Pradhan Mantri Bhartiya Janaushadhi Pariyojana
- d. Pradhan Mantri Annadata Aay Sanraks Han Abhiyan

Answer : a

- Government is implementing Bhartiya Prakritik Krishi Padhati (BPKP) as a sub scheme of Paramparagat Krishi Vikas Yojana (PKVY) since 2020-21.
- It aims for the promotion of traditional indigenous practices.
- The scheme mainly emphasizes on exclusion of all synthetic chemical inputs and promotes on-farm biomass recycling with major stress on:
 1. biomass mulching
 2. use of cow dung-urine formulations
 3. plant-based preparations
 4. time to time working of soil for aeration
- Under BPKP, financial assistance of Rs 12200/ha for 3 years is provided for cluster formation, capacity building and continuous handholding by trained personnel, certification and residue analysis.

2. 'Right to strike', in the Indian context, is

- A Legal Right
- B Moral Right
- C Fundamental right.
- D Human Right

Answer :A

Explanation

- **Right to strike is recognized globally. Article 19(1) the Constitution of India** guarantees the protection of certain freedoms as fundamental rights such as:
 - Freedom of speech and expression.
 - Assemble peaceably and without arms.
 - Form associations or unions.
 - Move freely throughout the territory of India.

- Reside and settle in any part of the territory of India.
- Practise any profession, or to carry on any occupation, trade or business.
- However, **strike is not expressly recognized in the Constitution of India.**
- The Supreme Court settled the case of **Kameshwar Prasad v. The State of Bihar 1958** by stating that strike is **not a fundamental right.**
 - Government employees have no legal or moral rights to go on strikes.
- India recognized **strike as a statutory right under the Industrial Disputes Act, 1947. Hence, option A is correct.**

3) Researchers at IIT Madras have recently developed an AI tool called NB Driver (Neighbourhood Driver) for use in the analysis of?

- a. Public Driverless Cars
- b. Cancer causing Mutations
- c. Usage of forged documents
- d. Inflation and Unemployment

Answer : b

- *Researchers at IIT Madras have recently developed an AI tool called NB Driver (neighbourhood driver) for use in analysing cancer-causing mutations in cells.*
- By looking at the neighbourhood, or context, of a mutation in the genome, it can look at harmful “driver” mutations and distinguish them from neutral “passenger” mutations.
- This technique of looking at the genomic neighbourhood to make out the nature of the mutation is a novel and largely unexplored one.
- The major challenge faced by cancer researchers involves the differentiation between driver and Passenger mutations.

Driver & Passenger Mutations

- Driver mutations are relatively in smaller number than passenger mutations.
- Driver Mutations enable the cancer cells to grow but Passenger Mutations does not have any effect on the progression of the disease.
- This AI tool explains that the nature of mutation depends on the neighbourhood and there is a line between driver and passenger mutations.

4. With reference to World Heritage Site, consider the following statements:

1. The list of World Heritage Sites is maintained by the international World Heritage Programme.
2. Once the site is included in the World Heritage List, it cannot be delisted.

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 : A

Explanation

- A **World Heritage Site** is a place that is listed by UNESCO for its special cultural or physical significance. The list of World Heritage Sites is maintained by the **international 'World Heritage Programme', administered by the UNESCO World Heritage Committee. Hence, statement 1 is correct.**
 - It seeks to encourage the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity.
- The sites can be delisted from the World Heritage List. **Hence, statement 2 is not correct.**
 - **Eg. Recently**, the city of Liverpool, England has been removed from UNESCO's (United Nations Educational, Scientific and Cultural Organization) list of world heritage sites.
 - **Reasons for Delisting:** The new buildings including a football stadium undermine the attractiveness of its Victorian docks and were destroying the heritage value of its waterfront.
 - The over development would irreversibly damage the heritage of the historic port.
 - **Other Delisted Sites:**
 - Wildlife sanctuary in Oman in 2007.
 - Reason: poaching and habitat loss.
 - Dresden Elbe valley in Germany in 2009.
 - Reason: A four-lane motorway bridge was built over the river.

5. The 'Nord Stream 2 Pipeline (NS2P)' recently seen in the news connects which of the following two countries?

- A Germany-Russia
- B U.S-Mexico
- C Germany-France
- D Denmark-Sweden

Answer : A

Explanation

- Recently, the US has approved the **Germany-Russia Nord Stream 2 Pipeline (NS2P)** project - which significantly increases Europe's energy dependence on Russia.
 - The US had previously imposed sanctions to prevent the completion of this **gas pipeline between Russia and Germany. Hence, option A is correct.**
 - This is a 1,200-km pipeline that runs from Ust-Luga in Russia to Greifswald in Germany through the Baltic Sea. It will carry 55 billion cubic metres of gas per year.
- Nord stream 1 system is already completed and together with NS2P, it will supply 110 billion cubic metre of gas a year to Germany.

6. Consider the following statements:

1. The mangroves grow only in the intertidal regions of the tropical coastlines.
2. The mangroves cover in India has declined in the last five years.
3. West Bengal has the largest share of mangroves cover in India.

Which of the statements given above is/are correct?

- A 1 and 2 only
- B 1 only
- C 3 only
- D 1, 2 and 3

Answer : C

Explanation

- **Mangroves** can be found in over 118 countries and territories in the **tropical and subtropical regions of the world. Hence, statement 1 is not correct.**
- According to the **State of Forest Report 2019**, mangrove cover in the country is 4,975 sq km, which is 0.15% of the country's total geographical area.
 - **Mangrove cover in the country has increased** by 54 sq km (1.10%) as compared to the previous assessment (2017). **Hence, statement 2 is not correct.**
- The deltas of the Ganges, Mahanadi, Krishna, Godavari, and the Cauvery rivers contain mangrove forests.
 - The backwaters in Kerala have a high density of mangrove forest.
 - The Sundarbans in West Bengal is the largest mangrove region in the world and a UNESCO World Heritage Site.

- The Bhitarkanika mangrove system in Odisha is India's second largest mangrove forest.
- Pichavaram in Tamil Nadu has a vast expanse of water covered with mangrove forests. It is home to many aquatic bird species.
- **West Bengal has 42.45% of India's mangrove cover, followed by Gujarat 23.66% and A & N Islands 12.39%. Hence, statement 3 is correct.**



Mains Practice Questions

1Q. Examine the major differences between peasant movements of the 19th and 20th century and their impact on society. (250 words)

Approach

- Give the introduction of conditions causing Peasant Movements.
- Describe the characteristics of 19th century Peasant Movements.
- Show the contrast in nature of 20th century Peasant Movements.
- Give a conclusion.

2Q. Revolt of 1857, especially in the fields of the provincial administration, local bodies and public services? (150 words)

Approach

- First provide a brief background which necessitated the changes post 1857 revolt.
- Then discuss the changes made in the administration of India with special emphasis on provincial administration; local bodies and public services.