

GS CONNECT

It gives us immense pleasure to present an innovative approach to master current affairs. Current is a passing wind and diverse issues happen at the same time. It is to an extent chaotic. Newspapers, magazines and various other sources report the chaos per se. With our experience of current affairs we have tried to give “the current” a medium to travel. It is the syllabus of the UPSC with their components that are the medium through which the “Current is Passed” to the readers. Ever since the new syllabus of the UPSC came into existence, current has been gaining significance both at prelims as well as mains examination. This book is meant to cover current affairs and related questions arising from those events. We have not only covered the current events for their factual contents but also presented it in such a way that any question asked from that topic gets covered. Moreover, topics are also “peppered” with the relevant facts/key concepts that are related to the theme. We have also given questions for practice both, subjective and objective, so that candidates are oriented to the examination mode. It is a collection covering myriad source yet in a manageable size. To use this book we recommend you to master the components of general studies (GS) syllabus as broken into rows and columns (provided in the beginning after preface). Each cell comprising of the portion of GS becomes the connect for the current and every news subsequently covered guides the reader to the address of the syllabus. It is logical to expect that same issue may be connected to more than one topic of the syllabus. Further, the news also has some additional vistas opened for the readers by adding a box with a title **“PEPPER IT WITH”** where we expect the students to build further around the theme.

We are also trying to reach the remotest part of the country with our spirit and zeal of “Mains Answer Writing”, which has been admired by students, CSE rankholders and other scholars. Continuing in line with the effort, we have started with programs like 7 Question (7Q) Challenge, Shell Points, Stock Points, Content Enrichment Booklet etc.

When it comes to evaluation, we are altogether at a different level. We are also reaching every nook and corner with this expertise for the aspirants of CSE. Now you can write a Mains Answer and get it evaluated from our Expert Team and can get Feedback. [Drop a mail at evaluation@ksgindia.com](mailto:Drop_a_mail_at_evaluation@ksgindia.com) for registering yourself in our race to perfection. Don't wait, it's your golden chance to crack this exam and fulfill your passionate dream.

Team KSG

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GS – I	Culture-Art Forms, Literature and Architecture from ancient to modern times.	Indian history significant events, personalities, issues and the Freedom Struggle	Post independence issues, National boundary and disputes	Indian society features, issues, globalization and diversity	Women - issues and developments	Urbanization – problems and remedies	Distribution of industries and resources – India and world	Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone etc.			
GS – II	Indian constitution- Amendments, acts and bills.	Legislative, executive and judicial processes.	Constitutional, non-constitutional, judicial, quasi-judicial, administrative and other types of bodies.	Federal structure and local bodies. Their powers and functions.	Government policies and various governance issues like transparency, accountability and – governance	Committees and schemes.	Non-government issues, self-help groups and role of civil society	Vulnerable sections of our society and social sector issues and initiatives.	International Relation-India and other countries, various Indian and international agreements, effects of other countries on India and international institutions.		
GS – III	Various measures to boost Indian economy- planning, policies, management.	Government budgeting and issues related to budget.	Agriculture, animal husbandry and transport	Food security- measures to boost food security and food processing. Issues related to land- land reforms	Industries and infrastructure- their growth and investment model	Space and technology, IT space, robotics and computer	Disease, biotechnology and human welfare	Innovations, intellectual property, Awards, POI and other import and aspects of S&T	Environment; government initiatives, various judgment, pollution, degradation and conservation efforts	Disaster & Disaster Management	Challenges to internal security, Various Security forces and agencies and their mandate. Cybersecurity; moneylaundering and its prevention.
GS – IV	Ethical issues related to family society, education, Corruption etc.	Ethics in public and private administration	Issues	Related laws and rules	Governance/e- Governance	Ethics in international issues	Personalities and their teachings	Other important topics			
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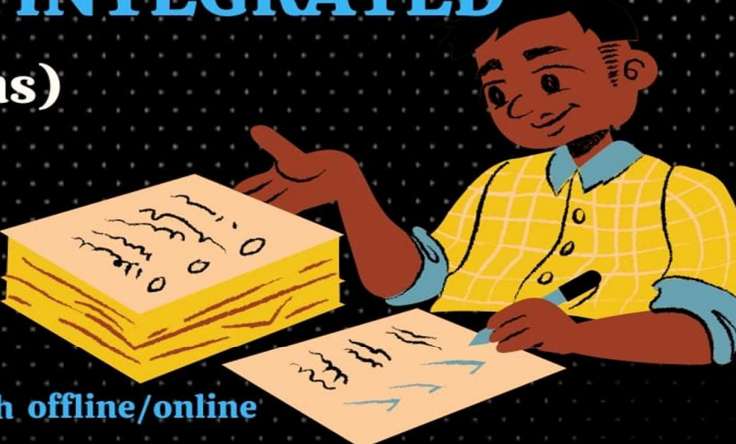
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POLITY

Aadhar-Voter Linkage

NEWS EXCERPT

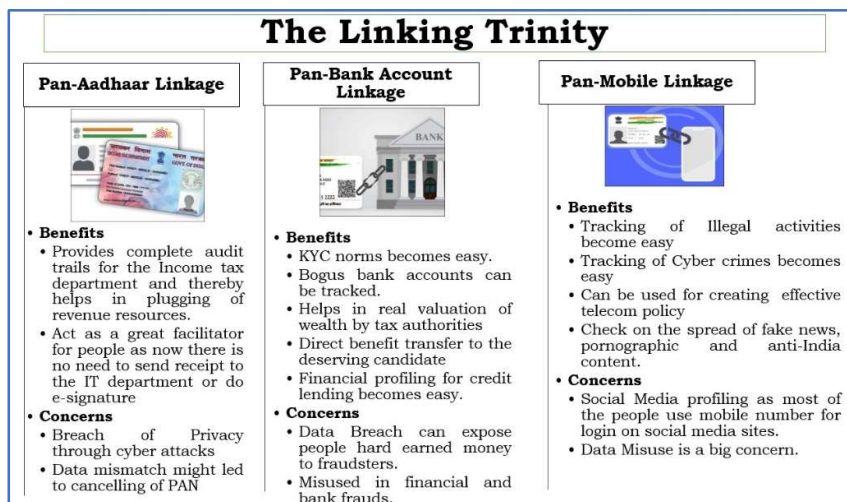
Election commission of India in accordance with Election Laws (Amendment) Act, 2021 had started a drive to link voter-ids with Aadhaar. The idea is to develop a fool proof electoral roll without any duplication or bogus voters. This move, however raised several concerns as people fear that if they didn't link their voter-id with Aadhaar they might not be able to vote.

Pre-Connect

About Aadhaar

- Aadhaar was brought in the backdrop when it was estimated that roughly 400 million people in India did not have an individual identity document and only 17% of India's population had bank accounts.

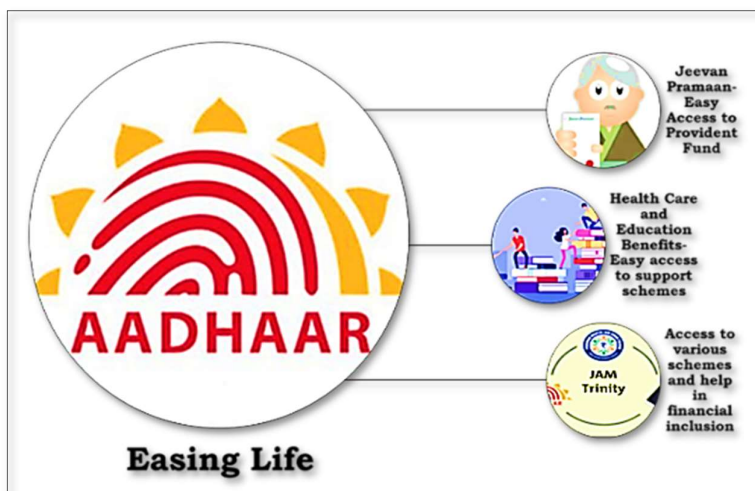
- It was launched in 2009 as a 12-digit unique-identification number as proof of residence. It draws its legal status from Targeted Delivery of Financial and other Subsidies, benefits and services Act, 2016.



- It captured biometric and demographic data, which is to be collected by Unique Identification Authority of India (UIDAI) which is a statutory body under Ministry of Electronics and Information Technology.
- Data of Aadhar is stored in the Central Identities Data Repository of UIDAI.
- NRI are also eligible for Aadhar, they had to provide Passport as Identity document.
- Philosophy of Aadhaar is based on the effective utilisation of resources, which is validated by Digital Dividend Report of World Bank which estimates that India can save 10 billion dollars annually through Aadhaar.

Significance of Aadhaar

- **Transparency and Accountability:** Aadhaar promotes transparency and accountability as it eliminates duplicate or fake identities in various welfare schemes.
- **Build Trust:** It allows governments, civil society, and businesses to trust that the person they are transacting with is truly who they claim to be.



- **Reach to the bottom:** It helps in identifying true beneficiaries who are at the bottom of the pyramid and are in genuine need of government help and helps in bringing socio-economic inclusion.
- **Public Centric Policies:** Aadhaar data can help in forming public centric policies thereby paving way for good governance.
- **Supreme Court on Aadhaar**
- **In 2013**, SC held that nobody should be denied any benefit for want of Aadhaar.
- **In 2015**, SC allowed government to use Aadhaar for Public distribution system, particularly in distribution of food grains and cooking fuels.
- **In 2017**, SC in *Justice K. S. Puttaswamy (Retd.) and Anr. vs Union of India and Ors* case prescribed "necessary and proportionate" test to make Aadhaar compulsory for any service.
- **In 2018**, SC upheld section 7 of the Aadhaar Act and allowed Aadhaar as mandatory for availing of state subsidies, benefits and services. However, it also strikes down use of Aadhaar by private entities.

Aadhaar Voter-ID Linkage

Why Use Aadhaar?

Government reasoning is that it will help in establish the identity of electors and authentication of entries in electoral roll and weed out duplication. They choose Aadhaar as a base because:

- ✓ Near Universal Coverage of Aadhaar as almost **99.7% of Adult Indian population carries Aadhaar**. This exceeds any other officially valid document.
- ✓ Biometric data captured under Aadhaar adds a factor of reliability and **cost-effective for ECI exercise**.

How it will help?

- With integration of Aadhaar and Voter ID database clear identifications can be established. This will help in attaining **One Voter-One Constituency principle**.
- Migration in India will continue to rise as Indian economy expands. Often people shift their base permanently from the place of their birth to place of their job. In such, situation they need to change their address in various identity documents. However, if voter-id is linked with Aadhaar, change of permanent address in

Aadhaar vs Privacy

- ❖ Ever since, Aadhaar was brought out by the government, it always came in conflict with the right to privacy in some way or another. Though SC, hailed Right to Privacy as fundamental right, it also allowed use of Aadhaar in various facets of life and proposed a test proportionality in determining whether the use of Aadhaar is justified or not. The reality however, is the fact that Aadhaar is becoming *sin qua non* for majority of daily activities ranging from school admission to pension access. But Aadhaar is not a fool proof system just like other technological interventions. Privacy apart, reports have pointed towards the fact that Aadhaar has failed in several areas for instance **Aadhaar Payment Bridge System (APBS)** had misdirected payments under **MGNERGA** and denied payment to genuine workers. Further, Data Security is always an issue so much so that even UIDAI asks people not share Aadhaar details everywhere. The **Comptroller and Auditor General (CAG)** of India, has pulled up the **UIDAI** over a range of issues related to the issuance of Aadhaar cards.
- ❖ The need of the hour is to find a balance between Aadhaar and Privacy as they both have to co-exist in democratic India. Two things are necessary in this regard, **firstly**, India needs to bring a comprehensive, democratic and trustworthy legislation on personal data protection. **Secondly**, Cyber Security needs to be strengthened in India. Cyber Swachhta needs much more awareness than it is present today. In addition to this, there must be an appellate mechanism for those whose benefits are lost due to non-availability of Aadhaar.
- ❖ Aadhaar was not construed as an abusive way to control people, it was envisaged to facilitate people's everyday lives, to improve things they can do, to make things easier for them and more convenient and so on. Therefore, mechanism must be developed based on the supreme court guidelines to make sure Aadhaar becomes base that provides ease of living in India.

Aadhaar will automatically update electoral-roll, providing ease of vote. Just like One Nation-One Ration card provides ease to migrant workers.

- It will prevent misuse of voter's ID in illegal and terrorist activities.

Concerns it raised

✚ **New Amendment:** Election Laws (Amendment) Act, 2021 has inserted section 23(4) in the Representation of the People Act, 1950 which allows an electoral registration officer to demand Aadhaar details from the voters to establish their identity.

✚ **Rule 26B and Form 6B dilemma:** Newly notified Rule 26B under the Registration of Electoral Rules, 1960 made submitting Aadhaar to registration officer compulsory. However, Election Commission in a notification declared submission of Aadhaar as voluntary in nature. Then, when form 6B issued under Rule 26B was released it provided only two options one is Aadhaar and other is non-Aadhaar but only when Aadhaar is not available.

✚ **Nature of Aadhaar-** Aadhaar is proof of residence and not citizenship, therefore using it in election process can help in removing duplication but it cannot remove non-citizen who are in electoral rolls.

✚ **Biometric fallacy:** In 2018, UIDAI accepted that there exist at 12% error rate in biometric authentication. This was also the reason why previous such exercise by government of Andhra Pradesh and Telangana failed.

✚ **Surveillance fear:** It will link demographic data with voter ID information which may violate the right to privacy and act as a tool of surveillance by state.

✚ **Public Responsibility:** It will make achievement of universal adult franchise as a responsibility of Public than the government. Those who are not interested in the link have to give justification for their retention on electoral rolls.

✚ **No Safeguards:** There are chances that name of a person might get deleted without any procedural safeguards. However, ECI denies any such things happening in future.

Ethical Conundrum- Surveillance Capitalism

- ❖ Surveillance Capitalism is a market driven process where the commodity for sale is personal data, and the capture and production of this data relies on mass surveillance of the internet by companies that provide us with online services ranging from search engine to social media. It is the unilateral claiming of private human experience as free raw material for translation into behavioural data.
- ❖ There are several reasons for the rise for surveillance capitalism. After 9/11, total information awareness becomes a norm over privacy. The methodologies used are designed to keep people ignorant and develop dependency.
- ❖ This behavioural modification affects the critical thinking ability necessary for a democratic society. Further we know nothing about them and they know everything about us. This knowledge asymmetry introduces wholly new axis of social inequality and injustice. Incidence of Cambridge Analytica shows that human race needs to break this surveillance state to save its intellectual being.

The Problem in Targeting Beneficiaries

Identifying beneficiaries uniquely is considered a powerful tool with high chances of misuse. Political profiling by government can turn welfare into bribe. Political parties can target people selectively and design policies which are inherently discriminatory in nature. This will disrupt the democracy and promote autocratic tendencies in any government.

Way-Forward

- > **White-Paper Route:** Government should release a white paper on the issue and invite public opinion on the same. Discussion within parliamentary committee will also bring out several issues related with the move and will help in resolution of those issues.
- > **Weigh-in all options:** If the primary concern behind the move is only to remove duplication, then other options which can help in doing so must

PEPPER IT WITH

GDPR, Election Commission of India, SVEEP, VVPAT, BAPU, AEPS, JAM-Trinity

be weighed-in. Blind faith on Aadhaar is not necessary as it is an identifier of residents than citizens.

- > **New Legislation:** It is of utmost importance that an error free electoral roll is available for every election. It ensures free and fair elections. One of the ways to bring it is through a new comprehensive legislation that deals exclusively with preparation of electoral roll and defines the various tool and the extent of their use in the preparation of the same.
- > **Data Protection is Public Trust:** A comprehensive data protection law will bring in public trust on the government data collection exercise. Therefore, before any linkage activity of anything with Aadhaar there is need to bring a personal data protection law on the lines of General Data Protection Regulation (GDPR) of European Union.

Soft Policing

NEWS EXCERPT

A young IPS officer from the Maharashtra cadre through "soft policing" successfully cracked down illegal hooch distilleries in Solapur. Tejaswi Satpute, Superintendent of Police, Solapur (Rural), provided country with the Solapur Model against illegal hooch problem.

PRE-CONNECT

Issue of illegal hooch in India

- Hooch is originated in Alaska (USA) and is popular slang for illicit liquor.
- In India, it is made from coarse Jaggery, local Yeast extracted from plants, citrus peels from oranges, sweet lime, etc. However, manufacturers in India add organic waste, dead rodents, lizards and battery acid to make it more potent.
- Wrong measurement results in deadly chemical compounds like methanol that can cause breathlessness, blindness, slow motor responses, and death in some cases.
- Constitutionally, under Article 47, it is the duty of state to bring about prohibition of the consumption, except for medicinal purposes of intoxicating drinks and of drugs which are injurious to health.
- Despite such provisions, WHO's Global Status Report on Alcohol and Health 2018, predicts that India's per capita alcohol consumption will rise to 7.9 litres by 2025.
- National Crime Records Bureau (NCRB) data show that 6,172 people died between 2016 and 2020 due to the consumption of illicit hooch in India.
- Only Bihar, Gujarat, Lakshadweep, Manipur, Mizoram and Nagaland prohibit alcohol in varying degrees.

Idea of Soft Policing

- > It focuses on the non-essential elements of policing such as community engagement, local knowledge, public interaction, moral persuasion to fight social evils etc. The idea behind is to hate crime and not criminals.

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Ethical Dimension of Policing -Seva Bhava

- ❖ For any Police personnel, the driving force should be Seva Bhava (Sense of duty) than ego of power.
- ❖ They are shield of the citizens, true companions and sympathizers.
- ❖ For a Policeman, humanity should be much greater than rank and hence they should always be approachable.
- ❖ They need to develop right attitude towards the service, towards people and towards fellow officers.

- From the ethical perspective it is based on the principles of **corrective justice**. Under this, using emotional intelligence and persuasive skills, Police tries to rehabilitate offender by changing their moral outlook.

Why India Need Soft Policing?

- ✓ Founding father of India had expected that as India gets independence, administrative machinery especially the police will become people-oriented. That is why they added "Service" in the end making it "Indian Police Service" from Imperial Police.
- ✓ Crime data from NCRB shows the rapid rise in various crimes ranging from crime against women and children to trafficking and consumption of drugs. This shows that along with laws there is need of behavioural change in society. This is where soft policing enters.
- ✓ There is also a need to develop soft skills such as vocational training, gentle behaviour, and refined vocabulary among the police personnel. One of the ways to achieve is to increase participation of Women in Police Force, especially in the higher echelons.
- ✓ Through Soft Policing, trust deficit between police and people will reduce, people will know that police are only a part of Criminal Justice System. They will know about the condition, **helplessness**, legal responsibilities, etc. of the police and pressurise the political representatives to bring reforms.
- ✓ It will help in developing a society in which police is respected and supported rather than looks at with distrust and standing against the society.

Operation Parivartan-Solapur Model

- ❖ It is based on four-pronged approach which includes:
 - Counselling, Scientific Crack-Down, Rehabilitation, Skill Development
- ❖ Under these police did scientific crack-down on the hooch by targeting them as the process of formation completes.
- ❖ They counselled people involved, tried to understand their reasons and provided appropriate solutions.
- ❖ Parivartan Udyog was started to provide skill training of sewing to women and helped bringing clients for them.

Janamaithri Suraksha Project

- ❖ It was started in 2008, by Kerala Police to effectively bridge the gap between police and public.
- ❖ It calls for active participation of citizens in matters of crime prevention, intelligence sharing and prioritizing policing areas at the level of police beats.
- ❖ For this, well trained male and female beat officers directly interact with each and every family and citizen in their beat and develop familiarity with the happenings in the locality.
- ❖ Through this project law enforcement was improved and police coming to home became a norm from the taboo.

Conclusion

There is need to understand that behavioural change brings reforms faster than bringing new rules and regulations. When it comes to criminals, sometimes changing situation or giving a moral nudge can bring reform in the person. The whole philosophy behind jail system is to bring reforms in the criminals. However in some cases it can happen even outside the jail. Having said that, Soft Policing is neither an easy task nor a panacea in dealing with crimes. Police need to mix both hard and soft policing to make sure that its objectives of maintaining law and order and serving people both are fulfilled. Under Article 38 of the Indian Constitution, it is the constitutional duty of the state to secure a social order to promote the welfare of the people. Thus, Police must explore all means, including soft and hard policing, to achieve the ultimate goal of achieving social, political, and economic justice for all.

PEPPER IT WITH

Police Reforms in India,
Criminal Justice Reforms
in India

Criminology under NDPS Act

NEWS EXCERPT

Karnataka High Court in its judgment placed Bhang outside the purview of the Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985. This has once again Sparked a debate on whether there should be decriminalization of cannabis in India.

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Pre-Connect

What is Cannabis?

- They are produced from a flowering plant that is used to make hashish (from resin), ganja (leaves) and bhang (leaves and seeds).
- Cannabis has two components
 - THC (Tetra Hydro cannabinoid)- It produces the psychoactive effects such as euphoria, relaxation and heightened sensory experiences.
 - CBD (Cannabinoid): It has a few psychoactive effects and has anti-inflammatory and Neuro Protective effects.

Cannabis in India

- An early mention of cannabis in India is found in the **Sushruta Samhita** which recommends its extract for treating respiratory ailments and diarrhea. The plant also has its origins linked to the famous Samudra-Manthan incident in the Indian mythology.
- Taxation on cannabis was started by British parliament in 1798 to reduce their consumptions.
- Indian Hemp Drugs Commission (IHDC) of 1894 advised against the criminalization of cannabis.
- Post- Independence India enacted Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985, in line with the United Nations Single Convention on Narcotic Drugs, 1961.
- Cultivation of Cannabis is only permitted in Uttarakhand and Jammu & Kashmir through a state license. Further poppy cultivation in India is regulated by the Central Board of Narcotics (CBN) and permitted only in parts of MP, UP & Rajasthan.

NDPS Act 1985

- ✓ **Section 8** of the NDPS Act prohibits the cultivation of any cannabis plant for reasons other than medical and scientific purposes.
- ✓ **Section 20 (b)** of the NDPS Act prescribes the punishment for use of cannabis. It is based on the quantity of the cannabis seized. Minimum quantity for any punishment under the section is 100gm.
- ✓ **Section 64** provides immunity from prosecution to addicts volunteering for treatment.

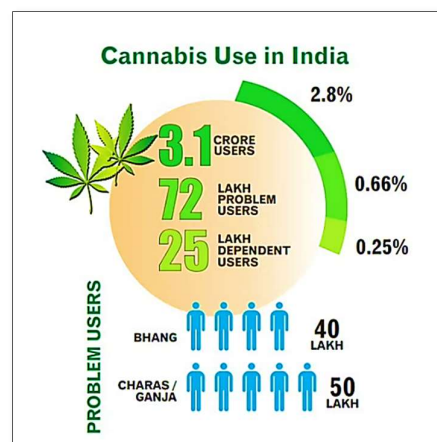
Should India Decriminalise Cannabis?

Court Observations

- In *Aditya Barthakur vs. Department of Family health and welfare (2015)*, Bombay High Court denied to decriminalize cannabis using its writ power under Article 226. It opined that court is not expert in the field.
- In *Prashant Sharma vs. Ministry of Health and Family Welfare and Ors*, Delhi High Court again dismissed the petition to decriminalize cannabis in India.
- A plea filed by the Great Legalization Movement India Trust before the Delhi High Court remains pending since 2019. It asserted that Sections of the NDPS Act as being violative of Articles 14, 19, 21, 25 and 29 of the Constitution.

A Case for Decriminalization:

- ✚ **Massive use in India:** According to Ministry of Social Justice and Empowerment about 3.1 crore people have used cannabis in year 2018. Data also points



towards the fact that an additional 16 million Indians use illegal cannabis products every year.

- ✚ **Marginal Groups are more impacted:** Study by Vidhi Center for legal policy has pointed towards the fact that nearly every person arrested and convicted for cannabis consumption from Mumbai was a daily wage worker and a slum/street dweller.
- ✚ **WHO Stand:** WHO has asserted that cannabis have a therapeutic effect and provides relief from nausea and vomiting in the advanced stages of illnesses such as cancer and AIDS. They are also including in the treatment of asthma and glaucoma, as an antidepressant, appetite stimulant, anticonvulsant and anti-spasmodic.
- ✚ **Commission on Narcotic Drugs:** India in 2020 at the United Nations Commission on Narcotic Drugs voted to remove cannabis from the Schedule IV of the 1961 Single Convention that initially prompted its criminalization in India.
- ✚ **Lessons from Portugal:** It became the first country to decriminalize the possession and consumption of all illicit substances for personal use. As a result, the country witnessed decline in use of other drugs, HIV cases and overdose death.

All these reasons shows that it is important to view cannabis use through a regulatory lens rather than a punitive one.

Why Decriminalization may create problems in India:

- > **Socio-Economic Issues in India:** Drug abuse is one of the biggest social as well as legal issue in India. **National Crime Records Bureau (NCRB)** data shows that there is significant rise of death due to drug abuse and alcoholism. Hence, decriminalizing cannabis might open a Pandora's Box in India.
- > **The Gateway Drug:** The WHO report on drug dependency states that usually cannabis precedes other drugs, overtime the person develops tolerance of the drug and therefore moves forward to other drugs which give them more ecstasy.
- > **Different circumstances:** Comparing India with US or Portugal won't be a step in right direction. A serious percentage of the US population has been addicted to cocaine, heroin leading to high number of deaths and abuse. So, for them, it is about shifting their population away from hardcore drugs to little harmful cannabis but in India, we might push our people on path of drug abuse by legalizing cannabis.

Initiatives to Control Drug Addiction in India

- ✚ **NCORD:** Narco-Coordination Centre (2016), was established to provide financial assistance to states for controlling narco-menace.
- ✚ An online database of offenders was created known as Seizure Information Management System.
- ✚ Ministry of Health and Family welfare started **Project Sunrise in 2016** to tackle growing HIV cases in north-east due to drug abuse.
- ✚ Ministry of Social Justice and Empowerment had started-
 - National Drug Abuse Survey which measures trends of drug abuse in India. In this it is supported by AIIMS.
 - Nasha Mukta Bharat Abhiyan

Conclusion

Before moving in any direction with reference to cannabis, it is important that government conducts a detailed addiction study in India. Cannabis in India like Bhang is frequently consumed during some festivals, thereby adding cultural values. In such situation enforcing provisions of NDPS Act becomes difficult. At the same time, no business can be conducted at the cost of millions of addicts. Therefore, a thorough parliamentary debate with public opinion and scientific study should be our way forward on the issue of cannabis.

PEPPER IT WITH

Narcotics Control Bureau, Central Bureau of Narcotics, Commission on Narcotics Drugs, United Nations Single Convention on Narcotic Drugs, 1961

Centre-State Dispute

NEWS EXCERPT

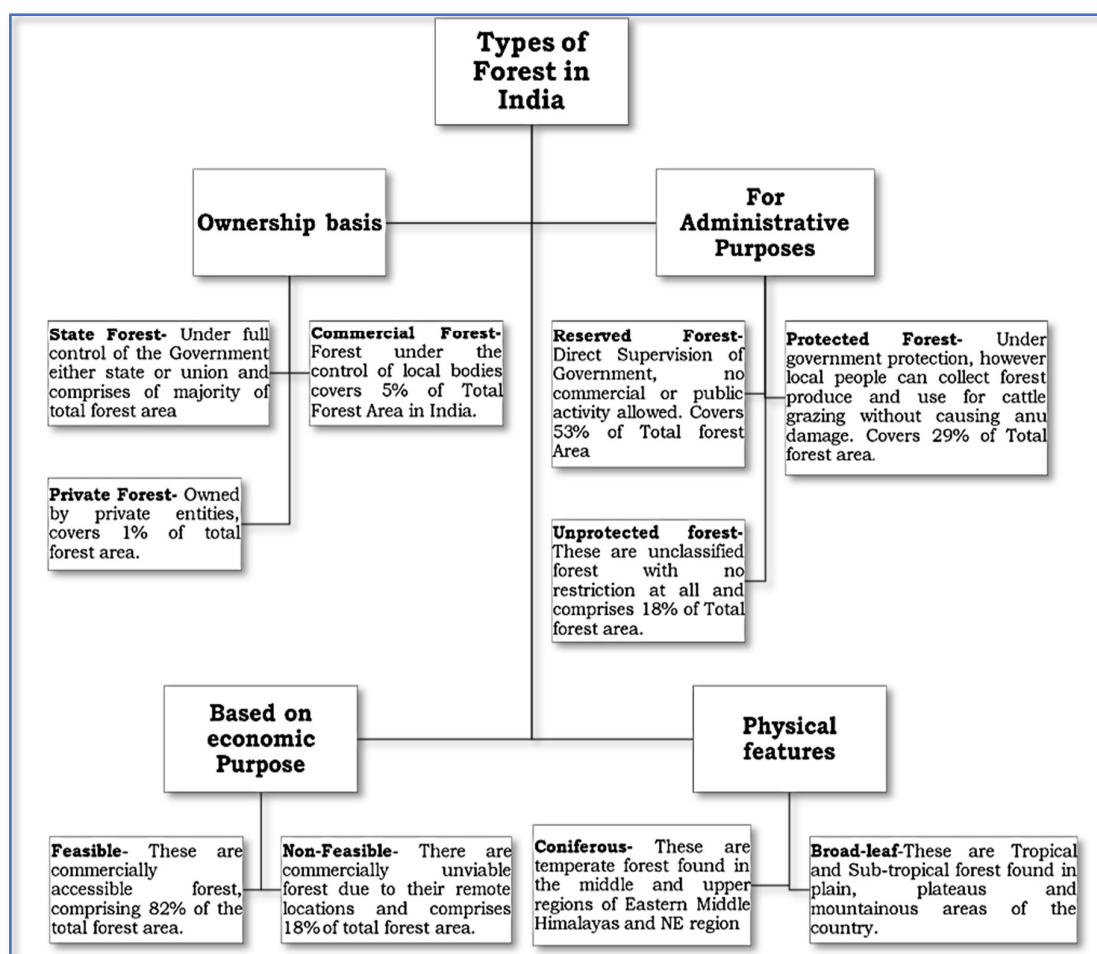
Recently, the decision of Chhattisgarh government of transferring land from forest department to revenue department was flagged by Ministry of Environment, Forest and Climate Change for the want of the violation of due process. Ministry is of the opinion that the transfer of land violates Forest Conservation Act, 1980 and multiple Supreme Court order.

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Pre-Connect

Forest in India

- In India, Forest is not defined by a unified definition rather it varies from state to state.
- However, Supreme Court in *T.N. Godavarman Thirumulkpad vs the Union of India (1996)* held that the definition of forest must be taken according to its dictionary meaning, therefore it covered all statutorily recognized forests, irrespective of the status of the land it stands on.
- Under Constitution of India forest are mentioned in:



- **Article 48 A**- Directive Principles of State Policy- It calls on the state to protect and improve the environment and also safeguard the forests and wild life of the country.
- **Article 51 A(g)**- Fundamental Duty- It is the fundamental duty of every citizen to protect and improve the natural environment including forests and Wildlife.
- 42nd Constitutional Amendment had made Forests and Protection of Wild Animals and Birds as a concurrent subject under seventh schedule.

- States under Indian Forest Act 1927 were given rights for Reserve Forest (No activities allowed unless permitted otherwise) and Protected Forest (EVERY activity is permitted unless prohibited otherwise). Further village forest was given to revenue department of the state.

Article 131

- Under the Constitution, laws made by Parliament are presumed to be constitutional until a court holds otherwise. However, due to India's quasi-federal structure, inter-governmental disputes are a common sight.
- The framers of the Constitution expected such differences, and added the exclusive original jurisdiction of the Supreme Court for their resolution under **Article 131**.
- In **State of Karnataka v Union of India**, SC held that it's the responsibility of States to prove that the dispute involves a legal question and cannot be used to settle political differences between state and central governments.
- Centre doesn't sue states under Article 131 as it has others power to do so, for instance, if states do not comply with the directions, the Centre can move the court seeking a permanent injunction against the states to force them to comply with the law.

About Issue

Orange Areas

- Under the British administration, the region was under Zamindari System. Under this villagers used local malguzari (livelihood concession) forests for collection of wood and grazing of their animals.
- In post-independence India, as Zamindari got abolished, malguzari forests came under the Revenue Department. Later, the undivided Madhya Pradesh (MP) government classified it as Protected Forest under the Forest department of state.
- MP government then decided to distribute this forest between Revenue and Forest department through land survey. Later in 1965, government started de-notifying this protected forest. Some areas whoever were left demarcated and marked on the map as orange areas.
- **Till 1976**, Revenue department controlled these Protected Forest but as encroachment increased, government decided to give this land back to forest department. However, it got entangled in legal quagmire as **Forest Act 1980** made central clearance for diversion of forest land to non-forest use compulsory. **In 2020**, Task force setup by MP government recommended to give land to the people with permission of central government to those who settled in the area till 1976.

Ethics of Federalism

- ❖ It provides for tiered responsibilities and authorities.
- ❖ It helps in maintenance of harmony and proper intercourse among the states.
- ❖ It allows for devolution of power, where possible, provides an avenue to empowering minority sub populations
- ❖ It secures distributive justice for all the constituents.

Chhattisgarh Issue

- ✓ Government of Chhattisgarh is of the opinion that it is not required to take Union permission in the present case as the area was always a non-forest land that was earlier given to the Forest Department by mistake. It is of the opinion that these are orange areas which state inherited from MP and are now being returned to Revenue Department.
- ✓ However, Government of India maintains that the land in question is undemarcated protected forests, which cannot be used for non-forest purposes without clearance under the Forest Conservation (FC) Act, 1980. Further, even it was brought mistakenly then also the area gets the status of forest land as per the 1996 SC order, and hence comes under the FC Act, 1980.

PEPPER IT WITH

Cooperative Federalism, Centre-State Relations- Administrative, Legislative and Financial, Inter-State Council, Zonal Council, Sarkaria and Punchhi Commission, PARIVESH PORTAL

Forest Clearance Procedure in India

- Forest Conservation Act, 1980 requires statutory clearance irrespective of the department which holds the forest area, if they wish to use forest area for non-forest purpose such as industry, construction mining etc.
- Clearance for non-forest use of forestland under the FC Act requires giving back twice the area for compensatory afforestation (CA) from Revenue to Forest.
- Environment Clearance: It involves procedure of Environment impact assessment which is mandatory for projects beyond a certain size. In, some cases it even involves public hearings involving local population.

Special Marriage Act

NEWS EXCERPT

Recently, Supreme Court of India dismissed a writ petition challenging provisions of the Special Marriage Act (SMA), 1954. It was regarding demanding the removal of 30 days' notice given in advance.

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Pre-Connect

About Special Marriage Act 1954 (SMA, 1954)

- In India, marriages are registered under personal laws like Hindu Marriage Act 1955, Muslim Marriage Act 1954 etc.
- SMA, 1954 allows for the civil marriage for the citizen as well as Indian nationals in foreign countries, irrespective of religion or faith followed by either party.
- SMA lays down the procedure for both solemnization and registration of marriage.
- Under SMA the couples have to serve a notice with the relevant documents to the Marriage Officer 30 days before the intended date of the marriage. One copy of the notice is posted on the notice board of the office and a copy of the notice is sent by registered post to both parties as per the given address.
- Registration is done 30 days after the date of notice after deciding any objection that may have been received during that period by the Sub-Divisional Magistrate. After the period ends, couple will have to visit the marriage officer for the solemnization of marriage.

The Caste Complex of India

- In India, caste-based discrimination is a ubiquitous phenomenon present in every religion in some form or another.
- Despite 75 years of independence caste related pride and prejudice have not been eliminated from Indian society. It is evident from the fact that people still place caste stickers on their vehicles, despite law against the same.
- Education has also not been able to eliminate false caste pride, which is evident from the fact that in 2021, a Dalit-engineer in Silicon Valley faced caste faced discrimination from his fellow Indian colleagues.
- Ironically, in India even within Scheduled caste or Other backward caste one can see intra-caste discrimination based on sub-caste identity. In other words, those are being oppressed from other repeat the same with those below them in caste hierarchy.
- Its oxymoronic, even to imagine that in a country whose constitution prescribe against discrimination based on caste, some of its citizen still holds on to the false caste prides.
- Caste related violence in a democratic India is a sad reality which needs to be change. Dr BR Ambedkar was of opinion that Indian Constitution enforces equality on a society which is inherently unequal. Time has come as India celebrates Azadi ka Amrit Mahotsav that Indian society shed its caste-based identity and emerge as Indians.

Problem with SMA 1954

- Petitioner asserted that the provision of submitting 30-days' notice violates
 - Article 21**- As couples have to face objections from other people on their Right of Marriage defined as fundamental right by Supreme Court in **Shafin Jahan v Ashok KM (2018) case**.
 - Article 14**- On grounds of prohibition of discrimination on grounds of religion, race, caste and sex.

- **Article 15-** On grounds of right to equality as these requirements are absent in personal laws.
- Section-6 of SMA 1954- Marriage officer had to maintain a Marriage Notice Book. This book can be inspected by any person. This creates serious problems for the couples. Their number are circulated on social media platform and sometimes it threatens their life. Often people are placed under confinement subjected to torture.
- **Different State-Different Rule-** Various government have laid down different guidelines making it difficult for couples such as-
 - Compulsion to issue a notice in a newspaper and that such notices be sent to couples' parents.
 - Seeking a no-objection certificate from their parents.
 - Sharing of details of couple on government websites.

Honour Killing Issue in India

- ✓ Also, known as Shame Killing, generally this happens when people do marriage outside their caste or religion against the wish of their families. The killing is done to restore the honour and respect which the family which they perceive was lost due the marriage.
- ✓ Due to the complex socio-cultural problems the crime of honour killing is divulging at the high rate.
- ✓ Legally, Section 299 and 301 of the Indian Penal Code punishes culpable homicide amounting to murder. It also violates **Article 14, Article 15, Article 19 and Article 21** of the constitution of India.

PEPPER IT WITH

Caste based violence in India, Concept of Social Justice- John Rawls and Present in Preamble of Indian constitution

Conclusion

The idea behind the 30 days period was to prevent any fraud in marriage under SMA. However, it is being misused heavily to create problems for the couples. As India, celebrates Azadi ka Amrit Mahotsav, it cannot allow its youth to fear for their lives, on the issue of marriage. Parliament should review the law by involving public opinion so that sanctity of law is maintained along with protection to couples who have right to marry according to constitution of India.

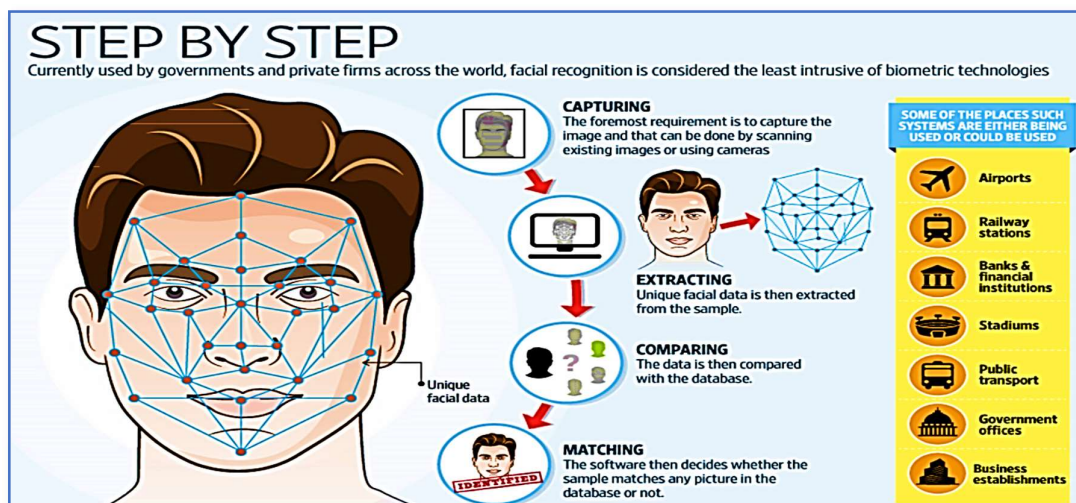
Facial Recognition Technology and Right Issues

NEWS EXCERPT:

Internet Freedom foundation in an RTI response from Delhi Police has found out that the positive result for Delhi Police in establishment of a criminal identity is minimum 80% match. This raised serious concerns as Facial Recognition Technology is relatively a nascent technology in criminal identification in India.

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Pre-Connect



About Facial Recognition Technology (FRT)

- FRT used distinctive facial features to create a biometric identity of an individual. Using algorithms, FRT creates a digital map of the face.
- It is an ever-evolving technology with recent developments including 3D contours of a face to recognize skin patterns.
- FRT database contains features of a face which then can be integrated with any software based on the application such as banking service, security service etc.
- Whenever a face is captured in any CCTV network the software compares it with the existing database and use Artificial Intelligence technology, for pattern-finding and matching.

Uses

- **1:1 Verification:** To match a person photograph with the existing one on the database and authenticate identity accordingly. For example, face unlock on phones.
- **1: n identification:** Facial map is obtained from a photograph or video and then matched against the entire database to identify the person in the photograph or video. For example, analysis of CCTV footage by law enforcement agencies. It provides a list of possible matches, which are generated on the basis of their likelihood to be the correct match with corresponding match scores

Need of FRT in India

- ✓ Ease of identification and authentication for the law enforcement agencies, especially when India suffers from poor Police to Public ration.
- ✓ With minimum training it can become operational in majority of the country. Hence can act as a game changer in policing as well as investigation. India is already infamous for its "Danda Investigation" and low conviction rate arising out of it.

Legal Sanction for the use of FRT

- In *SadharHaldar vs NCT of Delhi* case Delhi High Court allowed use of FRT to find missing children.
- Since, then Delhi Police has winded of the scope of a system from its original purpose.
- It is using Section 3 and 4 of the Identification of Prisoners Act, 1920, (replaced by the Criminal Procedure (Identification) Act, 2022) for matching the photographs/videos against photographs collected.

Why FRT is a cause of concern?

- ✚ Inaccuracy in the technology might lead to misidentification which can cause unnecessary problem for common men. A false positive can create bias based on race and gender.
- ✚ In case of false negative a person is not verified as themselves. This will restrict their access to essential schemes which might use FRT as a base.

National Automated Fingerprint Identification System (NAFIS)

- ❖ It's a central government scheme under which work stations were set up in every state for identification through fingerprint and palm print database and matching system.
- ❖ It aims to establish a robust online searchable national database of fingerprints from all states and UTs.
- ❖ NAFIS solution is implemented and managed by the Central Fingerprint Bureau (CFPB) of National Crime Records Bureau.
- ❖ It assigns a unique 10-digit National Fingerprint Number for each criminal, based on biometrics. This identity remains linked to criminal and used in all the FIRs registered against him. The first two digits of the ID will be the state code of the state where the criminal is registered, followed by a sequence number.
- ❖ It will enable law enforcement agencies to upload, trace and retrieve information from the database 24x7 in real-time. For this it provides standards-based, interoperable, fast and accurate biometric enrolment and search services at the national and state level.
- ❖ The system would have configurable virtual partitions which can be accessed by each state or UT and central agencies.

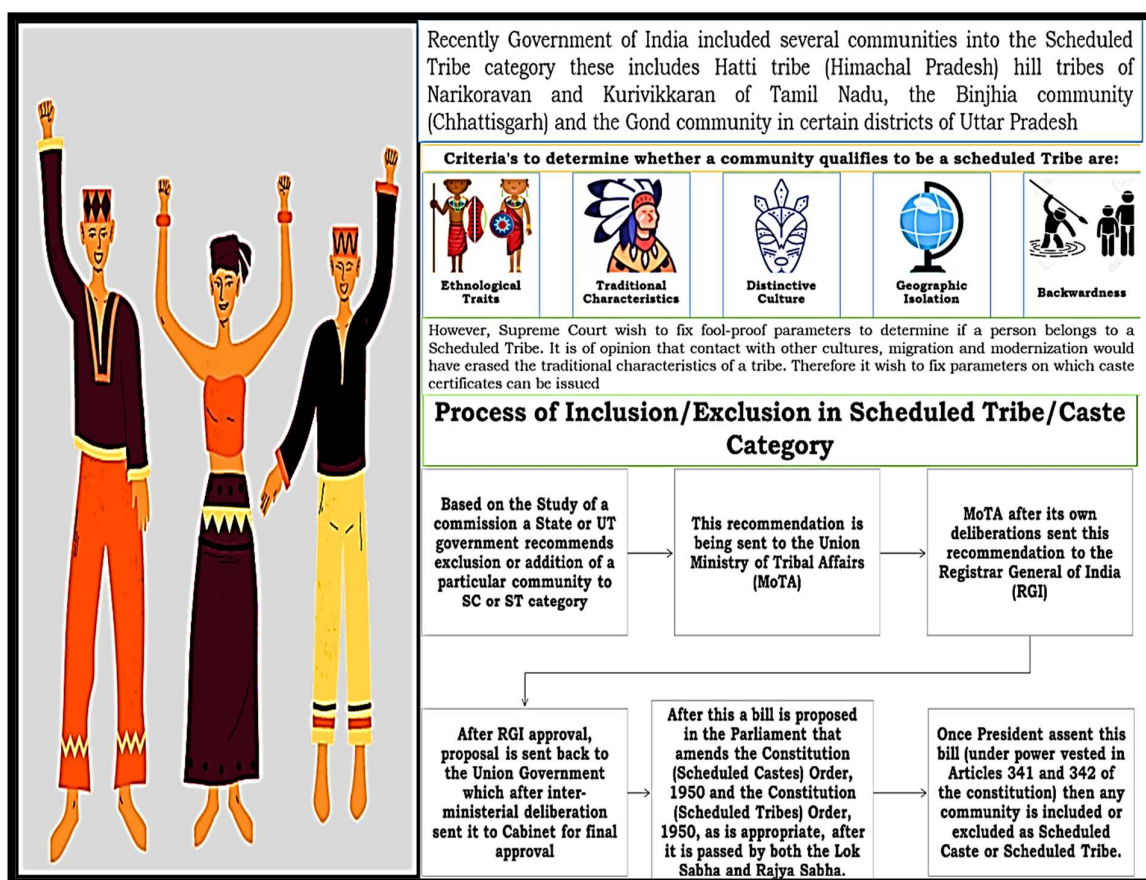
- ✚ In the grab of creation of data base, it can be used for mass surveillance. This is in direct contravention with data privacy which government promised to its citizens. Without an efficient Data Protection law, storage of FRT data is also a major cause of concern.
- ✚ Further, setting any threshold instead of solving the problems of investigation might raise the problems for common man.
- ✚ There is no clear guideline whether such data is admissible in court or not.
- ✚ Facial parameters are susceptible to change, for instance some-one can grow a beard or ages then escaping from the technology becomes easy.

PEPPER IT WITH

Internet Freedom Foundation,
Digital Rights, CCTNS, DigiYatra,
NCRB

Way Forward

- > FRT implementation must be backed by proper safeguards such as strong data protection regime that will prevent misuse of the data. Further this process must not be a single time occurrence, rather should be done as technology changes.
- > FRT has been misused to create a surveillance state in many countries including China. Given the state of diversity in India, safeguards should be taken to ensure no such things happen in India.
- > Technological reforms in criminal justice system cannot exist in silos, it should be done in tandem with larger police reforms so that chances of misuse of technology gets reduced.



SOCIAL ISSUES

Women and STEM

NEWS EXCERPT:

Coinciding with the celebrations of 75 years of Independence, the government has chosen to appoint a woman to the topmost post in the Council of Scientific and Industrial Research (CSIR).

Pre- connect:

Council of Scientific and Industrial Research (CSIR), underlined a significant trend — official data show the participation of women in science research has been generally increasing over the past two decades in the country.

Status of women participation in STEM in India:

- More than a quarter — 28% — of participants in R&D projects in 2018-19 were women, up from 13% in 2000-01 due to various initiatives taken by successive governments.
- The number of **women principal investigators** in R&D had risen more than four times from 232 in 2000-01 to 941 in 2016-17.
- The percentage of women among researchers went from 13.9% in 2015 to 18.7% in 2018.
- There were fewer women researchers in engineering and technology (14.5%) compared with the natural sciences and agriculture (22.5% each), and health sciences (24.5%).
- The percentage of women researchers in the social sciences and humanities is, however, much higher at 36.4%.
- Results of the All-India Survey on Higher Education (AISHE) 2019 showed a 53% and 55% participation of women in science education at the Bachelor's and Master's levels respectively, numbers that are comparable with many developed countries. But at doctoral level, women graduates (44%) lagged behind men (56%).

What leads to low participation of women in STEM?

- Women in STEM face a lot of challenges including lack of role models, pressures to conform to societal norms and trappings of domesticity.
- Stresses related to marriage, childbirth etc., an inordinate amount of responsibility related to running of households and elder care, physical safety during the commute to work, sexual and other types of harassment in workplaces, and a whole host of other issues affects women participation in STEM.
- Along with it, the patriarchal attitudes in awarding grants, fellowships and hiring practices as well as pressures to conform to societal norms are also hindering the presence of women in STEM field.
- An ORF report said: "The paucity of women in STEM is not merely due to skill inadequacy, **but also a result of assigned stereotypical gender roles**. Women are likely to face 'dual role' syndrome, wherein professional decisions are largely affected by their domestic responsibilities.
- A 2016-17 NITI Aayog report, designed "to understand the reasons for the loss of trained female scientists from scientific manpower in India", found that more women scientists want age relaxation in eligibility criteria, an extension of institutional provision of non-academic

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What is STEM?

STEM is a common abbreviation for four closely connected areas of study: Science, Technology, Engineering and Mathematics. The fields are often associated due to the similarities they share both in theory and practice.

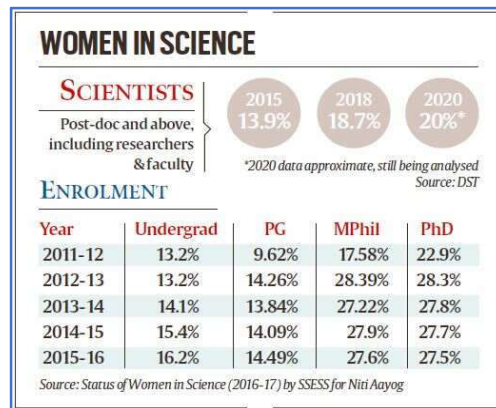
Global status of women and STEM:

- ❖ World Bank data showed that in 107 of 114 economies, there are fewer female than male STEM graduates.
- ❖ **Globally, 18% of girls in tertiary education are pursuing STEM studies compared to 35% of boys.**
- ❖ Even within the STEM fields, women prefer to study life sciences and are less represented in majors like computer science and mechanical and electrical engineering.
- ❖ **Worldwide, only 33% of researchers are women.** Women account for just **22% of professionals working** in artificial intelligence and **28% of engineering graduates.**

infrastructure like housing, transport and medical help, and flexibility in employment contracts allowing for choice regarding time commitment.

What can be done?

- ✓ **Address gender biases in learning materials.** For example, biographies of women who have succeeded in so far male-dominated fields can alter the career aspirations of girls from traditional to nontraditional careers.
- ✓ **Engage parents.** Engaging parents of girls in STEM can contribute to reshaping parental attitudes towards the participation of girls in engineering.
- ✓ **Encourage participation in extracurricular activities.** Museum visits, competitions, extracurricular clubs, robotics and coding camps offer promise in fostering interest in STEM among both boys and girls.
- ✓ **Feature female role models.** Role models provide examples of the kind of success that one may achieve and often also supply a template of the behaviors that may be needed to achieve success.
- ✓ **Promote partnerships with the private sector.** The private sector can play a role, by bringing financial support to non-profit STEM initiatives, facilitating exposure to female role models and internship opportunities targeting secondary school girls.



Steps taken by Government so far:

- **Gender Advancement for Transforming Institutions (GATI):** an innovative pilot project was announced to develop a comprehensive charter and a framework for assessing gender equality in STEM.
- GATI is working in close cooperation with **Knowledge Involvement Research Advancement through Nurturing (KIRAN)**. One of the programmes under the KIRAN scheme provides job opportunities to unemployed women scientists and technologists, especially those who had to take a break in their careers.
- **Vigyan Jyoti Scheme:** launched by the Department of Science & Technology (DST) to create a level-playing field for the meritorious girls in high school to pursue STEM in their higher education. It offers exposure to rural girl students to chart their course from school to a job of their choice in the field of science.
- **Consolidation of University Research for Innovation and Excellence (CURIE) initiative:** launched by DST provides support to women universities in improving their Research & Development (R&D) facilities.
- Besides national initiatives, much is also being done at the international level that has boosted women's participation in scientific research. A good example is the **DST's "Indo-U.S. Fellowship for Women in STEM"** launched in collaboration with the Indo-US Science and Technology Forum (IUSSTF) in the United States (US). The fellowship provides opportunities to women scientists, engineers, and technologists to undertake research in premier institutions in the US in order to enhance their research capacities and capabilities.

PEPPER IT WITH

National Education Policy, SDG, India@100, Fundamental Duties, Mission Shakti

Conclusion:

Encouraging women's participation in STEM would not only help women pursue their dreams but science itself would gain from their representation. **Strong STEM education creates critical thinkers, problem-solvers, and next-generation innovators.** The future is bright with the participation of women in STEM. India is one of the countries to produce the highest number of scientists and engineers. The growth in field of STEM had picked up considerably over the last few years.





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Normalcy in Sex Ratio at Birth (SRB)

NEWS EXCERPT:

The latest study by Pew Research Center has pointed out that “son bias” is on a decline in India and the average annual number of baby girls “missing” in India fell from about 480,000 (4.8 lakh) in 2010 to 410,000 (4.1 lakh) in 2019.

Pre-connect:

- World over, boys modestly outnumber girls at birth, at a ratio of approximately **105 male babies for every 100 female babies**. That was the ratio in India in the 1950s and 1960s, before prenatal sex tests became available across the country.
- India legalized abortion in 1971 but the trend of sex selection started picking up in the 1980s due to the introduction of ultrasound technology. **In the 1970s**, India's sex ratio **was at par with the global average of 105-100**, but this widened to 108 boys per 100 girls in the early 1980s, and reached 110 boys per 100 girls in the 1990s.
- From a large imbalance of about 111 boys per 100 girls in India's 2011 census, the sex ratio at birth appears to have normalised slightly over the last decade, narrowing to about 109 in the 2015-16 wave of the National Family Health Survey and to 108 boys in the latest wave of the NFHS, conducted from 2019-21.

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‘Missing women’

The concept of “missing women” given by Amartya Sen, refers to the terrible deficit of women in substantial parts of Asia and north Africa, which arises from sex bias in relative care.

Sex ratio at Birth

The sex ratio at birth refers to the number of boys born alive per 100 girls born alive.

Highlights of the Pew Research Centre report:

- It points out that between 2000-2019, **nine crore female births went “missing”** because of female-selective abortions.
- The report has also analyzed religion-wise sex selection, pointing out that the gap was the highest for Sikhs.
- In the 2001 census, Sikhs had a sex ratio at birth of 130 males per 100 females, far exceeding that year's national average of 110. By the 2011 census, the Sikh ratio had narrowed to 121 boys per 100 girls. It now hovers around 110, about the same as the ratio of males to females at birth among the country's Hindu majority (109), according to the latest NFHS.
- Both Christians (105 boys to 100 girls) and Muslims (106 boys to 100 girls) have sex ratios close to the natural norm, and this trend is holding.

National Family Health Survey (NFHS)

- ❖ The National Family Health Survey (NFHS) is a large-scale, multi-round survey conducted in a representative sample of households throughout India.
- ❖ The NFHS provides estimates on key indicators related to population, family planning, child and maternal health, nutrition, adult health, and domestic violence, among others.
- ❖ The National Family Health Survey 2019-21 (NFHS-5), the fifth in the NFHS series, provides information on population, health, and nutrition for India and each state/union territory (UT).

Religion wise analysis of number of ‘missing girls’:

- Sikhs make up less than 2% of the Indian population, they accounted for an estimated 5%, or approximately 440,000 (4.4 lakh), of the nine crore baby girls who went “missing” in India between 2000 and 2019.
- The share of “missing” girls among Hindus is also above their respective population share. “Hindus make up 80% of India's population but accounted for an estimated 87%, or approximately eight crores of the females “missing” due to sex-selective abortions.
- Muslims, who make up about 14% of India's population, accounted for 7%, or approximately 5.9 lakh, of the country's “missing” girls.
- Christians, who make up 2.3% of the population, have had an estimated 0.6%, or about 53,000 (0.5 lakh), of the total number of sex-selective abortions.

Reasons for imbalance in Sex Ratio at Birth in India:

- The imbalance in sex ratios stems from **strong son preference** combined with declining fertility.
- **Availability of and access to sonographic scanning** during pregnancy resulting into sex selective abortions.
- The practice of gender biased sex selection continues even though India has enacted laws banning the use of pre-natal diagnostic techniques for sex detection indicating the **poor enforcement** of such laws.
- The instances of gender biased sex selection are obviously not recorded but the numbers of cases can be estimated indirectly based on the deviation of the observed Sex Ratio at Birth from the natural level.

Status of overall Sex Ratio in India vis-à-vis Sex ratio at Birth:

- India's overall sex ratio — women per thousand men — is now at a level seen in developed countries. For every 1,000 men, India has 1,020 women.
- If that's a reason to celebrate, there is a cause for concern, too, since the sex ratio at birth continues to be lower than what is naturally expected.
- The fifth National Family Health Survey (NFHS), from where this data comes, has also found that **the sex ratio is better in rural areas compared to urban centers.**

Steps taken by Government to improve Sex ratio in India:

- **Prohibition of sex selection Act:** After abortion was legalised in India in 1971, and technologies to diagnose the sex of the fetus became widely available, the practice of sex selective abortions became widespread. The Indian government finally responded to this problem by passing the **Pre-Conception and Pre-Natal Diagnostics Techniques (PNDT)**

- (Prohibition of Sex Selection) Act in 1994.** The PNMT Act prohibited the use of diagnostic methods to diagnose the sex of an unborn child.
- **Beti Bachao Beti Padhao** (BBBP) ensures protection, survival and education of girl child.
 - **Mission Saksham Anganwadi and Poshan 2.0** aims to address the challenges of malnutrition in children, adolescent girls, pregnant women and lactating mothers through a strategic shift in nutrition content and delivery and by creation of a convergent eco-system to develop and promote practices that nurture health, wellness and immunity.
 - **Pradhan Mantri Matru Vandana Yojna** (PMMVY) provides partial compensation for the wage loss and seeks to improve health seeking behaviour among the pregnant women and lactating mothers. The revamped PMMVY under Mission Shakti also aims to promote positive behavioural change towards girl child by providing additional cash incentives for the second child, if that is a girl child.
 - Rollout of Comprehensive Primary Health Care including health promotion through **Ayushman Bharat-Health & Wellness Centers** (AB-HWC).
 - **Janani Shishu Suraksha Karyakram** (JSSK) to eliminate out-of-pocket expenses for pregnant women delivering in public health institutions and sick infants accessing public health institutions for treatment.
 - **Janani Suraksha Yojana** (JSY) to provide financial assistance to pregnant women for encouraging institutional delivery.

Conclusion:

- The analysis shows that in spite of efforts made by enactment of laws and campaigns by the government and civil society organisations, sex selection has continued. Though some change has been seen in many states, the Sex Ratio at Birth is yet to return to the natural level in such states.
- It must also be recognised that a large number of girls are 'missing' due to post-natal discrimination, reflected in higher childhood mortality among females than among males. While the matter of gender biased sex selection has been receiving media and policy attention in India, and rightly so, **post-natal discrimination rarely figures in public discussions**. It is imperative that civil society and policymakers accord due attention to this concern as well and adopt appropriate measures to address it.

PEPPER IT WITH

Son meta-preference,
Labour Force participation
rate,

Global healthcare facilities

NEWS EXCERPT:

Half of the world's healthcare facilities lack basic hygiene services, putting 3.85 billion people at an increased risk of infections, according to the joint monitoring programme report by the World Health Organization (WHO) and United Nations Children's Fund (UNICEF).

Coverage of water, sanitation and hygiene (WASH) facilities is still uneven across different regions and income groupings:

- Around 3.85 billion people rely on these facilities and 688 million receive care at facilities with no hygiene services at all.
- Only 51 per cent of healthcare facilities met the requirements for basic hygiene services.
- Facilities in sub-Saharan Africa are lagging on **hygiene** services. While three-quarters (73%) of health care facilities in the region overall have alcohol-based hand rub or water and soap at points of care, only one-third (37%) have handwashing facilities with water and soap at toilets. The vast majority (87%) of hospitals have hand hygiene facilities at points of care, compared to 68% of other healthcare facilities.

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Global response towards WASH facilities:

- ❖ In, 2019 World Health Assembly made commitment to strengthen water, sanitation and hygiene (WASH) services in health care facilities.
- ❖ The U.N. General Assembly recognizes the global health crisis created by this lack of WASH infrastructure and services in healthcare facilities and has called for basic WASH services in all healthcare facilities by 2030 under Sustainable Development Goals.

- In the Least Developed Countries, only 53% of health care facilities have access on-premises to a protected **water source**. Globally, around 3% of health care facilities in urban areas and 11% in rural areas had no water service.
- Of the countries with available data, 1 in 10 health care facilities globally had no sanitation service. **In the Least Developed Countries, just 1 in 5 (21%) had basic sanitation services in health care facilities.**
- The data further reveals that many health care facilities lack basic environmental cleaning and safe segregation and disposal of health care waste.

Importance of hygiene in Health-care:

- Hygiene facilities and practices in health care settings are non-negotiable. Their improvement is essential to pandemic recovery, prevention and preparedness.
- Hygiene in healthcare facilities cannot be secured without increasing investments in basic measures, which include safe water, clean toilets and safely managed healthcare waste.
- Hospitals and clinics without safe water and basic hygiene and sanitation services are a potential death trap for pregnant mothers, newborns and children, she added.
- Every year, a whopping 670,000 newborns lose their lives to sepsis. Sepsis is a potentially life-threatening condition that occurs when the body's response to an infection damages its own tissues.
- Unhygienic hands and environment significantly influence disease transmission in healthcare facilities and the emergence of antibiotic resistance.
- Promoting access to handwashing with water and soap and cleaning is essential for providing high-quality health care, especially for safe deliveries.

WASH Advancements in India

Water, sanitation and hygiene (WASH) is a public issue in India. Launched in 2014, the Swachh Bharat Mission (SMB) of India has seen great success in recent years in improving the health and sanitation of India's people.

- ✓ **Urban Centers Bear the Brunt.** Nationally, 910 million citizens do not have access to proper sanitation. With the rapid increase in population density in cities, there is an increasing strain on water and sanitation services. Despite urban centers housing the majority of India's population, urban sanitation is underfunded.
- ✓ **Swachh Bharat's Toilet Access:** Swachh Bharat Mission's primary objective is to reduce open defecation in India. Between 2018 and 2019, 93% of households had access to toilets, a noticeable jump from 77% in the previous year.
- ✓ **Water in Rural Communities.** Between 2017 and 2018, India's national water mission expanded to become the National Rural Drinking Water Mission (NRDWM). While other programs and departments address sanitation in urban centers, NRDWM cares for the rural regions of India. One goal is the institution of piped water supplies to rural households. As of 2019, "18% of rural households had been provided with Piped Water Supply (PWS) household connections."
- ✓ **iJal Safe Water Stations.** The Safe Water Network, a nonprofit organization created by Paul Newman, has reached communities through its **iJal water stations**. The locally owned stations provide access to clean, quality water in communities where water security is scarce.
- ✓ **Better Community Toilets.** Improper sewer networks and poorly maintained public toilets lead to open defecation. The lack of safe public toilets is especially burdening on women. To address this concern, the WASH Institute leads the Sunidhi Toilet project. The project sees the construction of easily installable, self-cleaning public toilets.
- ✓ **WASH Allies.** USAID and UNICEF work in cooperation with the Government of India. As of September 2020, USAID reported recent achievements, including greater access to safe drinking water, more household toilets and a decrease in public defecation.

PEPPER IT WITH

Malnutrition in India, Jal Jeevan Mission, SBM, Water contamination in India

What needs to be done?

The report includes four recommendations to all countries and partners, particularly health and community leaders to accelerate investments and improvements in WASH services in health care facilities. These are:

- Implement costed national roadmaps with appropriate financing.
- Monitor and regularly review progress in improving WASH services, practices and the enabling environment.
- Develop capacities of the health workforce to sustain WASH services and promote and practice good hygiene.
- Integrate WASH into regular health sector planning, budgeting and programming to deliver quality services, including COVID-19 response and recovery efforts.

Conclusion:

Recent years have seen several WASH advancements in India. The Indian government, large and small businesses as well as nonprofit organizations, are all playing an important part in ensuring access to safe water and sanitation. Education and creative solutions are made possible thanks to hard work and global cooperation.

Operation “Gear Box”

NEWS EXCERPT:

The Directorate of Revenue Intelligence along with the Gujarat Anti-Terror Squad seized 72 packets containing 39.5 kg of heroin from a container at Kolkata port. It had originated in Dubai and contained metal scrap like gear boxes inside which the heroin was hidden.

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What is Operation ‘Gearbox’?

- Operation ‘Gear Box’ was launched to thwart heroin smuggling and seized 39.5 kg of the contraband substance from a container at Kolkata port.
- The drug syndicate had used a unique method to conceal the heroin. The gears from the used gearboxes were removed after opening them, the plastic packets containing the narcotic substances were placed in the cavity, and the gearboxes were then refitted to avoid detection.

The issue of increasing Drug menace in India:

- India is one of the major hubs of illicit drug trade ranging from age-old cannabis to newer prescription drugs like tramadol, and designer drugs like methamphetamine.
- The latest report released by United Nations Office of Drugs and Crime (UNODC) says that while the global trend of purchasing drugs over the internet, particularly on darknet trading platforms using cryptocurrencies has already spread across South Asia, it is particularly rampant in India.

Factors responsible for rising Drug and Narcotic problem in India:

- ✓ Proximity to the largest producers of heroin and hashish-the Golden Triangle and Golden Crescent (Afghanistan-Pakistan-Iran) -has made India's border vulnerable to drug trafficking.
- ✓ Indigenous production of low-grade heroin as well as various psychotropic and prescription drugs and their growing demand in the neighboring countries and international market have added a new dimension to the problem of drug trafficking.
- ✓ Trends and patterns of drug trafficking in the country demonstrate that there is a gradual shift from traditional/natural drugs towards synthetic drugs that are being trafficked.
- ✓ Trafficking of drugs takes place overwhelmingly through land borders followed by sea and air routes.
- ✓ India's seaports have become porous for drug smuggling from countries like Afghanistan and Iran, mainly after the Indian seaports were privatized.
- ✓ Evolving nature of trafficking of drugs eg- Through internet, Darknet etc.

Steps taken by government:

- In India, drug consumption or possession is a criminal offence. The Narcotic Drugs and Psychotropic Substances (NDPS) Act of 1985 is the main legislation dealing with drugs and their trafficking.

- The 'Nasha Mukht Bharat Abhiyaan' or a 'Drugs-Free India Campaign' was flagged off on 15th August 2020 across 272 districts of the country found to be most vulnerable based on the data available from various sources.
- **National Action Plan for Drug Demand Reduction (NAPDDR) for 2018-2025** which aims at reduction of adverse consequences of drug abuse through a multi-pronged strategy involving education, de-addiction and rehabilitation of affected individuals and their families.
- The measures taken by the Government to prevent drug trafficking include intensive preventive and interdiction efforts along known drug routes and strict surveillance and enforcement at import and export points.
- Training programmes are being conducted for various law enforcement officials to combat drug menace.
- Amongst border guarding agencies, **Border Security Force (BSF)**, **Sashastra Seema Bal (SSB)** and Coast Guard have been empowered to take action under the Narcotic Drugs & Psychotropic Substances (NDPS) Act.
- Financial assistance has been provided to eligible States for strengthening their anti-narcotic units.
- **Narco Co-ordination Centre (NCORD)** has been constituted under Director General, Narcotics Control Bureau to provide a common platform for concerted actions by all the Drug law enforcement agencies and other stake holders.

The Directorate of Revenue Intelligence

- ❖ It is the apex anti-smuggling agency of India, working under the Central Board of Indirect Taxes & Customs, Ministry of Finance.
- ❖ It is tasked with detecting and curbing smuggling of contraband, including drug trafficking and illicit international trade in wildlife and environmentally sensitive items, as well as combating commercial frauds related to international trade and evasion of Customs duty.

Co-operation with neighbouring countries:

Joint efforts made with neighbouring countries to check drug trafficking include:

- Increased international cooperation for exchange of information and investigative assistance.
- Sharing real time information and coordination operation with Nodal agencies of neighbouring countries.
- India has signed MOUs / Bilateral Agreements on drug related matters with Pakistan, Nepal, Myanmar, Bhutan, Bangladesh, Sri Lanka, China and Afghanistan.
- Agency level talks are held regularly between the nodal Drug Law Enforcement agencies of neighbouring countries like Bangladesh, Afghanistan, Myanmar and Sri Lanka.
- **Field Level Officers (FLO)** meetings between Myanmar and India are held periodically to discuss drug related matters.
- Training programmes are being conducted for law enforcement officials from neighbouring countries including Myanmar, for upgrading their skills to combat drug menace, especially on the border.

PEPPER IT WITH

Insurgency across Indian Borders, Border haat, SDG 3.5, International Drug Day, UN Conventions

Conclusion:

Due to the pandemic and subsequent lockdown, the intensity of the illicit drug trade in India is expected to rise and the recent developments in instability in Afghanistan where Drugs are a major source of income for militants, would make the situation even worse. The government needs to implement the existing laws strictly to prevent drug trafficking and its resultant drug abuse.

The menace of drugs need to be addressed with a three-pronged strategy of reduction in the supply of narcotic substances, illicit drugs, dependence on drug management; treatment and rehabilitation of drug addicts; drug abuse prevention/demand reduction.

Human Development Report 2021-22

NEWS EXCERPT:

India's rank on the Human Development Index has slipped from 130 in 2020 to 132 in 2021, in line with a global fall in HDI scores in the wake of the Covid-19 pandemic, shows the Human Development Report 2021-22.

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Pre- Connect:

- According to the report, released by the United Nations Development Programme (UNDP), India's HDI value stood at 0.633 during 2021, which was lower than the world average of 0.732. In 2020, too, India recorded a decline in its HDI value (0.642) in comparison to the pre-Covid level of 2019 (0.645).
- This year's HDR is quite different because for the first time in its history — the HDR has been compiled since 1990 — the global HDI value has declined two years in a row, erasing the gains of the preceding five years.
- A large contributor to the Human Development Index's recent decline is a global drop in life expectancy, down from 72.8 years in 2019 to 71.4 years in 2021.
- The last two years have had a devastating impact on billions of people worldwide when crises like Covid-19 and the war in Ukraine hit back-to-back and interacted with sweeping social and economic shifts and dangerous planetary changes.

About HDI

- The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and have a decent standard of living.
- Pakistani economist Mahbub ul Haq created HDI in 1990 which was further used to measure the country's development by the United Nations Development Program (UNDP) using 3 dimensions of human development.
- The health dimension** is assessed by life expectancy at birth.
- The education dimension** is measured by mean of years of schooling for adults aged 25 years and more and expected years of schooling for children of school entering age.
- The standard of living dimension** is measured by gross national income per capita.

Factors responsible for decline in India's performance in HDI:

- Decline in Purchasing power parity:** India's per capita income in terms of purchasing power parity has gone down by 5 per cent compared to a 2 per cent increase for the developing countries during 2019 and 2021-22. This is in conformity with the national data, as the country had recorded a sharp fall of 7 per cent in real terms in GDP in 2020 and could not fully recover the following year.
- Decline in life expectancy:** The decline in life expectancy is sharper for India than for developing countries. The life expectancy criterion is, of course, influenced much by what happened during the Covid pandemic. The HDI figure, being based on UNDESA (2022) data, is likely to be influenced by the very high reporting of Covid deaths in India by the WHO in 2020.
- Decline in expected years of schooling:** The sharp fall in the expected years of schooling, drawn from estimates and modelling of research studies, is also likely to be questioned by government sources – their argument would be based on the various initiatives launched during the Covid period.

PEPPER IT WITH

Inequality-adjusted HDI, Gender Development Index, Gender Inequality Index, MPI, Planetary pressures-adjusted HDI

Analysis:

- A genuine reason for concern for India, however, is the high inequality in different dimensions of development. UNDP brings out inequality-adjusted HDI figures which reduces the value based on inequality within the country. By this measure, India sinks from the 132nd to 134th position as its inequality is higher than the average figures for the countries.
- India, belonging to the medium HDI category, shows dimensional inequalities similar to or slightly below the average figures in the category, except in the case of education where it is high and closer to the low HDI countries.
- The inequalities in health and education are more than twice that of the very high and high HDI categories. **Happily, there has been a decline in health inequality from 31 per cent to 17 per cent during 2010-21.**

- ✓ Access to quality education must, therefore, be critical for determining the focus of the country's development strategy as it moves towards a \$10 trillion economy.

Conclusion:

- India has lifted a staggering 271 million out of multidimensional poverty. India has also boosted access to social protection for vulnerable sections of society, especially during and after the pandemic, with a **9.8 percent increase in the budgetary allocation to the Social Services sector in 2021-22 over 2020-21**.
- Policies that focus on the 3Is- **investment**: from renewable energy to preparedness for pandemics; **insurance**: including social protection, to prepare societies for the ups and downs of an uncertain world; and **innovation**: in its many forms — technological, economic, cultural will enable people to thrive in the face of uncertainty.
- India is already a frontrunner in these areas, with its push towards renewable energy, boosting social security for the most vulnerable and driving the world's largest vaccination drive through Co-WIN, supported by the UNDP.

Manual Scavenging in India

NEWS EXCERPT:

Any person engaged to clean a sewer or a septic tank would have to be provided a list of 44 items of protective gear and safety devices by his employer, according to the Tamil Nadu Prohibition of Employment as Manual Scavengers and their Rehabilitation Rules, 2022 notified by the State government recently.

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Pre-connect:

The survey of manual scavengers in 2018 was conducted by the National Safai Karamcharis Finance and Development Corporation (NSKFD) which found 87,913 manual scavengers in India, was only conducted in the statutory towns of 14 Indian states.

What does the Manual Scavengers and their Rehabilitation Rules, 2022 say about manual scavenging?

- Employment of any person for manual scavenging is completely banned under the Act. Manual cleaning of sewers and septic tanks with safety precautions including protective gear and devices can be undertaken under exceptional cases only, with the permission of the local authority.
- All those engaged to clean sewer or septic tank must be provided 44 safety devices, including air compressor, airline breathing apparatus, airline respirator with manually operated air blower, breath mask, breathing apparatus, Chlorine mask, full body wader suit and searchlight.
- All protective gear and safety devices should be checked every six months and necessary repairs or replacements should be made by the employer.
- There should be a minimum of three employees present at all time, one of whom should be a supervisor.
- The atmosphere within the confined space should be tested for oxygen deficiency and toxic and combustible gases including, but not limited to, poisonous gases like Hydrogen Sulphide, Carbon Monoxide, Methane, and gasoline vapours through detection tests.
- Regular vaccination against respiratory and skin diseases and other occupational diseases should be administered to the workers.
- The cleaning of a sewer or septic tank should be done only in daylight and for a duration of not exceeding 90 minutes at a stretch. A mandatory interval of 30 minutes between two stretches should be given.

What is manual scavenging?

- ❖ Manual scavenging is the practice of physically removing human excreta by hand from sewers or septic tanks.
- ❖ The work is mostly undertaken by members of the Dalit caste, which is at the bottom of India's archaic caste system.
- ❖ Women are also employed in large numbers in this practice, particularly in rural areas.

- Operating and rescue procedures should be displayed at the entry site.
- At least one person trained in first aid and cardiopulmonary resuscitation should be immediately available during any confined space job.
- A State level and district level survey committees should be constituted.
- The local authority should constitute a committee under its executive authority with at least two members from the community of sanitary workers, one of whom should be a woman, and at least one member from the civil society groups.

Why manual scavenging is still prevalent in India?

- The first big issue is the identification & estimation. A nationwide survey covering all the states & districts is a must to identify and come up with a foolproof database of manual scavengers & related households
- Untouchability and social isolation are intrinsically related to manual scavenging. Manual scavenging has historically been linked to caste in the Indian subcontinent.
- Furthermore, patriarchy compounds the problem, making women in the community more vulnerable.
- There have been hardly any successful rehabilitation initiatives for the people leaving the job of scavenging.
- Weak legal protection and lack of enforcement of the laws, as well as the poor financial status of sanitation workers, contributes to the practice still prevailing.
- Many who refuse to work as scavengers face coercion and threats from dominant castes, according to a Human Rights Watch report published in 2014.
- Some states including Delhi have launched the use of sewage cleaning machines for this purpose. However, they are not widely used across the country. Moreover, narrow lanes prevent access for larger machines while poorly designed septic tanks make it difficult for machines to function. Thus, have to be cleaned manually.

Analytica

- ✓ There have been hundreds of deaths all across the country because of manual scavenging. The government has been inconsistent on the number of reported deaths due to scavenging. In July 2021, Government said, "No deaths have been reported due to engaging in manual scavenging." However, according to various news reports, 321 people have died due to accidents while undertaking hazardous cleaning of sewers and septic tanks during the last five years.

Legislative and constitutional framework to eradicate manual scavenging:

- ❖ **The Civil Rights Act of 1955** under right to equality given by constitution, protects anyone from being forced to engage in manual scavenging.
- ❖ **The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act of 1993**, criminalized the employment of manual scavengers to clean dry latrines. Under this Act, the National Commission for Safai Karamcharis (NCSK) was constituted in 1994 to investigate the conditions of Safai Karamcharis in the country.
- ❖ **The Prohibition of Employment as Manual Scavengers and Their Rehabilitation Act, 2013** was also passed with the objective to end manual scavenging. The 2013 Act also focused on the rehabilitation of manual scavengers and the introduction of mechanization to prevent manual scavenging.
- ❖ **The Building and Maintenance of Insanitary Latrines Act of 2013** outlaws construction or maintenance of unsanitary toilets, and the hiring of anybody for their manual scavenging, as well as of hazardous cleaning of sewers and septic tanks.
- ❖ **Swachh Bharat Abhiyaan (Clean India initiative)**-announced by government to end the discriminatory and hazardous practice of manual scavenging by August 2021.
- ❖ Further, on March 27, 2014, the **Supreme Court** ruled that India's Constitution requires the government to intervene to prohibit manual scavenging and to "rehabilitate" all those involved.

PEPPER IT WITH

Article 14, 19, 21,
Mahatama Gandhi,
Unplanned Urbanization,
DPSP

- ✓ India is a signatory to the **2030 agenda for Sustainable Development**. Yet the prevalence of manual scavenging in the country undermines the achievement of Sustainable Development Goals (SDGs) related to clean water and sanitation (Goal 6), decent work and economic growth (Goal 8), reduced inequalities (Goal 10), and peace, justice and strong institutions (Goal 10).

Conclusion:

The government must work to modify society's attitudes and behavior toward the marginalised and the manual scavengers. The state and society need to take active interest in the issue and look into all possible options to accurately assess and subsequently eradicate this practice. Prime Minister's push to provide toilets to every household across the country sought to reduce defecation in the open. Many NGOs are also working to educate and train workers for other vocations, so that they are not forced to work as manual scavengers. Organizations and the government have to come together in solving the problem, with zeal and sincerity.

Community Forest Resource Rights

NEWS EXCERPT:

Residents of the four villages in the Achanakmar Tiger Reserve in Chhattisgarh's Mungeli district received Community Forest Resource Rights (CFRR). Along with residents from 15 other villages in the core zone of the protected forest, they fought tooth-and-nail for the forest rights for three years.

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Pre-connect:

The Chhattisgarh government recognized, for the first time, the community forest resource (CFR) rights of a village located inside a national park. Chhattisgarh is only the second state to have recognised CFR rights inside a national park after Orissa which recognized CFR rights in Simlipal National Park.

Community forest rights and Forests Rights Act:

- The Community Forest Resource rights under Section 3(1)(i) of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act (commonly referred to as the Forest Rights Act or the FRA) provide for recognition of the right to "protect, regenerate or conserve or manage" the community forest resource.
- These rights allow the community to formulate rules for forest use by itself and others and thereby discharge its responsibilities under Section 5 of the FRA.
- CFR rights, along with Community Rights (CRs), which include nistar rights and rights over non-timber forest products, ensure sustainable livelihoods of the community.
- These rights give the authority to the Gram Sabha to adopt local traditional practices of forest conservation and management within the community forest resource boundary.

About community forest resource

- ❖ The community forest resource area is the common forest land that has been traditionally protected and conserved for sustainable use by a particular community.
- ❖ The community uses it to access resources available within the traditional and customary boundary of the village; and for seasonal use of landscape in case of pastoralist communities.
- ❖ Each CFR area has a customary boundary with identifiable landmarks recognized by the community and its neighboring villages.
- ❖ It may include forest of any category – revenue forest, classified & unclassified forest, deemed forest, reserve forest, protected forest, sanctuary and national parks etc.

Importance of recognition of CFR rights:

- Aimed at undoing the "historic injustice" meted out to forest-dependent communities due to curtailment of their customary rights over forests, the FRA came into force in 2008.

- It is important as it recognizes the community's right to use, manage and conserve forest resources, and to legally hold forest land that these communities have used for cultivation and residence.
- It also underlines the integral role that forest dwellers play in sustainability of forests and in conservation of biodiversity.
- It is of greater significance inside protected forests like national parks, sanctuaries and tiger reserves as traditional dwellers then become a part of management of the protected forests using their traditional wisdom.

Scheduled Tribes And Other Traditional Forest Dwellers (Recognition Of Forest Rights) Act, 2006

- ❖ The Forest Rights Act (FRA), 2006 recognizes the rights of the forest dwelling tribal communities and other traditional forest dwellers to forest resources, on which these communities were dependent for a variety of needs, including livelihood, habitation and other socio-cultural needs.
- ❖ The Act encompasses Rights of Self-cultivation and Habitation which are usually regarded as Individual rights.
- ❖ It also provides rights to allocation of forest land for developmental purposes to fulfill basic infrastructural needs of the community.
- ❖ In conjunction with the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Settlement Act, 2013 FRA protects the tribal population from eviction without rehabilitation and settlement.
- ❖ The Gram Sabha is also a highly empowered body under the Act, enabling the tribal population to have a decisive say in the determination of local policies and schemes impacting them.
- ❖ Thus, the Act empowers the forest dwellers to access and use the forest resources.

Conclusion:

While CFR rights are an important empowerment tool, getting a consensus amongst various villages about their traditional boundaries often proves a challenge. However, providing people with their deserving community's forests rights to protect them from unnecessary interference from the forest department has strengthened their fight for sustainable utilization and conservation of forest resources.

PEPPER IT WITH

National Forest Policy, State of Forest Report, Core Zone of Protected Area Network, Ecologically Sensitive Zones



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India's COVID Management: World Bank Report

NEWS EXCERPT:

India managed to get many things right during COVID, says World Bank report. The report titled '**India Covid-19 Procurement: Challenges, Innovations, and Lessons**' largely recognized and appreciated government of India's handling of the Covid-19 outbreak.

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Pre- connect:

The World Bank has a way of assessing expenditure of funds at regular intervals and this report is based on their assessment of how well India managed to utilize the amount it was provided to manage the pandemic. The health systems of most countries, including those rated high on the Global Health Security Index, faced new challenges in responding to the pandemic.

Highlights of the report:

- To address severe global supply chain constraints of essential COVID commodities and unprecedented demand for lifesaving equipment concern, the government of India took over the responsibility for **centralized procurement to support the states**.
- Flexible conditions were permitted under the existing legal frameworks and budgets to **undertake fast-track procurement**, while empowered groups helped to accelerate decision making.
- Initially, this enabled accelerated imports, and over time, the development of local markets, based on a whole-of-government approach.
- This led to the development of specific standards, sourcing appropriate raw material, ensuring availability of workforce, and maintaining efficient supply chains to deliver finished products in a timely manner to state governments, depending on assessed need.
- Handholding the industry**; accelerated tendering; and pre dispatch inspections by competent agencies, including testing of random samples, helped to ensure quality of products.
- In addition to enhanced access, this initiative also helped to steeply bring down the prices of essential COVID supplies.
- A unique feature seen in India was the **active role played by the private sector** in testing, contributing to nearly 50 percent of laboratories and in the raising of additional resources by venture capital firms to support domestic manufacturing of COVID commodities.
- The COVID-19 Emergency Response and Health Systems Strengthening Project** - jointly financed by the World Bank and Asian Infrastructure Investment Bank (AIIB) supported these initiatives through hands-on procurement support and capacity-building.

World Bank

- ❖ It is an international development organization owned by 187 countries.
- ❖ Its role is to reduce poverty by lending money to the governments of its poorer members to improve their economies and to improve the standard of living of their people.
- ❖ The World Bank was established in 1944 to help rebuild Europe and Japan after World War II. Its official name was the International Bank for Reconstruction and Development (IBRD).

World Bank Group consists of:

- ❖ **IBRD** lends to low- and middle-income countries;
- ❖ **International Development Association (IDA)** lends to low-income countries;
- ❖ **International Finance Corporation (IFC)** lends to the private sector;
- ❖ **Multilateral Investment Guarantee Agency (MIGA)** encourages private companies to invest in foreign countries;
- ❖ **International Centre for Settlement of Investment Disputes (ICSID)** helps private investors and foreign countries work out differences when they don't agree.

Asian Infrastructure Investment Bank (AIIB)

- ❖ It is a multilateral development bank headquartered in Beijing.
- ❖ Like other development banks, its mission is to improve social and economic outcomes in its region, Asia, and beyond.
- ❖ The bank opened in January 2016 and now has 105 approved members worldwide.

- Flexibility in emergency procurement using country procedures during the peak ensured timely availability of COVID commodities.

Conclusion:

COVID-19 created unprecedented shortages of essential medical supplies and equipment due to the sudden surge in demand. Severe global supply chain constraints of essential COVID commodities and unprecedented demand for lifesaving equipment led to an entirely supplier-driven market and huge variation in prices.

But concerted efforts made by Indian government in collaboration with states, various departments and civil society handled the situation quite well. The active role played by the private sector also cushioned the impact of the pandemic on health infrastructure as well as Indian economy.

PEPPER IT WITH

One Health Approach, National Health Policy, Medical Ethics, Vaccine Development, Public Health

The National Medical Commission: Ban on conversion therapy:

NEWS EXCERPT:

The National Medical Commission (NMC), the apex regulatory body of medical professionals in India, has written to all State Medical Councils, **banning conversion therapy** and calling it a "professional misconduct".

In a letter dated August 25, it also empowered the State bodies to take disciplinary action against medical professionals who breach the guideline.

What is conversion therapy?

- Conversion therapy - sometimes called "reparative therapy" or "gay cure therapy" - tries to change someone's sexual orientation or gender identity.
- In practice, it means trying to stop or suppress someone from being gay, or from living as a different gender to their sex recorded at birth.
- It can include talking therapies and prayer, but more extreme forms can include exorcism, physical violence and food deprivation.

About LGBTQIA+

LGBTQIA+ is an abbreviation for **lesbian, gay, bisexual, transgender, queer or questioning, intersex, asexual, and more**. These terms are used to describe a person's sexual orientation or gender identity.

Impacts of Reparative Therapy, Harms Caused by Societal Prejudice:

- It is unlikely that individuals will be able to reduce same-sex attractions or increase other-sex sexual attractions through sexual orientation change efforts (SOCEs).
- There is clear evidence that conversion therapy does not work, and some significant evidence that it is also harmful to LGBTQ people.
- In contrast, there is ample evidence that societal prejudice causes significant medical, psychological and other harms to LGBTQ people.

Have other countries banned conversion therapy?

- ✓ Approximately 16 countries have introduced a full or partial ban, including Brazil, Canada and Germany.
- ✓ About 20 US states have banned the practice for minors, although many of these do not include religious counsellors and organisations.

About National Medical Commission:

It has been constituted by an act of Parliament known as National Medical Commission Act, 2019.

Mission and Vision

- ❖ improve access to quality and affordable medical education,
- ❖ ensure availability of adequate and high quality medical professionals in all parts of the country;
- ❖ promote equitable and universal healthcare
- ❖ encourages medical professionals to adopt latest medical research in their work and to contribute to research;
- ❖ assess medical institutions periodically in a transparent manner;
- ❖ enforce high ethical standards in all aspects of medical services

- ✓ Some other countries, including Ireland, Denmark and Israel, are currently introducing measures to ban conversion therapy or launching consultations.

Conclusion:

Confusion about sexual orientation is not unusual during adolescence. Counseling may be helpful for young people who are uncertain about their sexual orientation or for those who are uncertain about how to express their sexuality and might profit from an attempt at clarification through a counseling or psychotherapeutic initiative. Therapy directed specifically at changing sexual orientation is contraindicated, since it can provoke guilt and anxiety while having little or no potential for achieving changes in orientation.

PEPPER IT WITH

Fundamental Rights, Gender Parity, Naz Foundation v. The Government of NCT of Delhi (2009), NAVTEJ SINGH JOHAR VS. UNION OF INDIA

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ECONOMY

RBI's Fraud Registry

NEWS EXCERPT

The Reserve Bank of India (RBI) is considering setting up a fraud registry as part of its efforts to strengthen customer protection and check digital frauds.

Pre-Connect

Data:

- As per the Reserve Bank of India's (RBI) Annual Report 2021–22, the volume of frauds reported by financial institutions (FIs) using cards and internet banking was 34% higher at 3,596 in 2021–22 as against 2,677 frauds in 2019–20.
- The value of fraudulent transactions in 2021–22 was INR 1.55 billion – 20% more than that in 2019–20 (INR 1.29 billion).

Factors attributed to the fraudulent activities:

- Digitalization of businesses in India and its diversified entry points, increases the scope of opportunities for fraudsters to attack.
- Vulnerabilities in the new payment technologies.
- Lack of awareness among consumers about the new and advanced payment technologies.
- With the new work atmosphere in the pandemic era, and with the unsecured remote access systems, made organizations become more susceptible to cyber-attacks.

RBI's fraud Registry

- ✓ With the intent of improving consumer protection amid cases of digital frauds, the Reserve Bank of India (RBI) is planning to set up a fraud registry to create a database of fraudulent websites, phones and various methods used by fraudsters.

How will it help?

- The fraud registry mechanism would entail identifying and collecting the IP addresses, email IDs and mobile numbers that are routinely used to commit online frauds and blacklist them so as to ensure that the perpetrators are not able to open bank accounts in multiple banks to park the ill-gotten money.
- Key stakeholders in the payment system will get access to this registry for near-real time information on frauds. The aggregated data will be published to enhance customer awareness.

Why is it needed?

- ✚ Protection of customer and business data has always been a crucial enabler to the smooth functioning of the online ecosystem. This is especially true in light of the evolving trends in cybercrime.
- ✚ As we accelerate towards a digital economy, data breaches have also increased manifold, especially since the onset of Covid-19. Hence,

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Government Initiatives to counter Digital Frauds

- ❖ Government launched an Inter-Ministerial Committee on Phone Frauds composed of members of stakeholder organisations such as the Ministry of Electronics and Information Technology (MeitY), the Department of Financial Services, Department of Telecommunication, Reserve Bank of India and law enforcement agencies.
- ❖ National Cyber Crime Reporting Portal, was launched by the central government to enable complainants against all types of cybercrimes, including net and online frauds.

Google Awareness

- ❖ Google launched a New Multilingual campaign against digital fraud in which it is collaborating with MeitY and Digital India to create a pan-India, multilingual user awareness campaign.
- ❖ Google is providing grant support to local non-profits to launch outreach programs for these users belonging to vulnerable communities like Senior citizens, LGBTQ+ communities, in the local languages.

PEPPER IT WITH

RBI payment vision, 2025, Customers of the core investment company (CIC). Reserve Bank – Integrated Ombudsman Scheme (RB-IOS).

a robust data protection framework is critical in promoting integrity and fostering user confidence.

Way forward

- > The development of digital banking and payment systems fosters economic development and supports financial inclusion. To achieve inclusion and development objectives fully, we must ensure safe, secure, reliable, accessible, affordable and efficient payment methods and practices. It is the need of the hour amid the digital fraud era.

Aqua Bazar

NEWS EXCERPT

Union Ministry for Fisheries, Animal Husbandry and Dairying, launched the Online Market Place feature "Aqua Bazar" in the "MatsyaSetu" mobile app.

Pre-Connect

- The app was developed by the ICAR-Central Institute of Freshwater Aquaculture (ICAR-CIFA), Bhubaneswar, with the funding support of the National Fisheries Development Board (NFDB), Hyderabad.
- Funding has been provided under Pradhan Mantri Matsya Sampada Yojana (PMMSY).

Fisheries sector of India

- India is the 2nd largest producer of fish in the world and about 68% of India's fish comes from the aquaculture sector.
- In terms of employment, the sector supports the livelihood of over 28 mn people in India especially the marginalized and vulnerable communities.
- Export earnings from the fisheries sector was \$6 bn during 2020-21.
- Andhra Pradesh has recorded the highest production of inland fish (34.50 lakh tones) whereas Gujarat is the leading state in Marine fish production (2019-20).

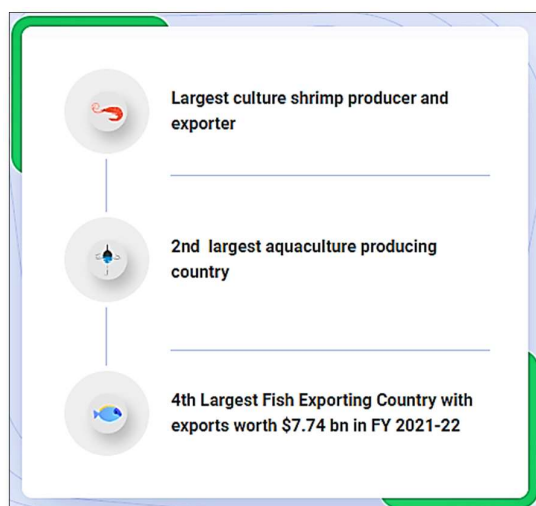
Importance of online marketplace

- ✓ The online marketplace will help the fish farmers and stakeholders to source the inputs such as fish seeds, feed, medicines, etc., and services required for fish culture.
- ✓ Farmers can also list their table-size fish for sale.
- ✓ The marketplace aims to connect all stakeholders in the aquaculture sector.
- ✓ Through this platform, any registered vendor can list their input materials along with details like price, available quantity, supply area etc. The listed items will be displayed in the marketplace based on geographical proximity to the app user.
- ✓ It will increase awareness about the market situation and better price realization of farmers' produce.

Pradhan Mantri Matsya Sampada Yojana (PMMSY)

- The aim of the scheme is to bring about Blue Revolution through the sustainable development of the fisheries sector over a period of five years (2020-2025.)
- PMMSY was announced in the union budget 2019-20.
- It has both Central Sector scheme (Price paid by Union Government) and centrally sponsored scheme component (Price shared between Union and state).
- It aims to increase fish production; Improving aquaculture productivity; Enhancing domestic fish consumption; Increasing contribution of the fisheries sector to the Agriculture GVA to 9% by 2024-25; Reducing post-harvest losses and direct and indirect employment opportunities across the value chain.

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India: World's fifth-largest economy

NEWS EXCERPT

India has become the world's fifth-largest economy after it overtook the United Kingdom in end-March 2022, according to the latest calculations by Bloomberg. In terms of Purchasing Power Parity (PPP), India is 3rd largest economy after China and United States.

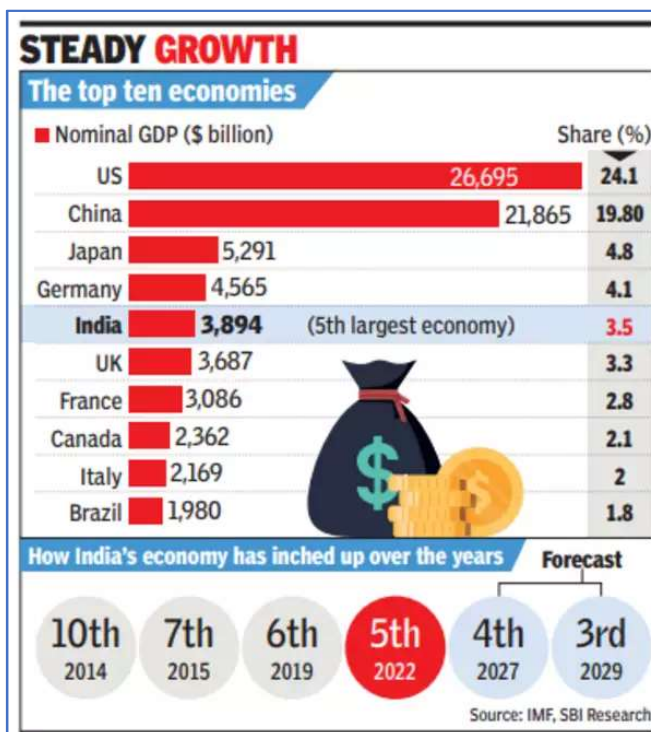
Indian Economy and comparison with United Kingdom

- **Population size** - This is one of the most fundamental differences between the two countries. As of 2022, India has a population of 1.41 billion while the UK's population is 68.5 million. In other words, India's population is 20 times that of the UK's. And this gap is unlikely to be bridged in a hurry.
- **GDP per capita** - Since there is such a stark difference between the population of the two countries, GDP per capita provides a more realistic comparison of income levels because it divides a country's GDP by the population of that country. As per 2020 figures according to ourworldindata.org, India's GDP per capita is \$6,166 GDP per capita while for UK the figure is \$42,676.
- **Poverty levels** - Low per capita incomes often point to high levels of poverty. It is noteworthy that at the start of the 19th century, the UK's share in extreme poverty was considerably higher than India's. However, as things stand today, the relative positions have reversed even though India has made giant strides in curbing poverty.
- **Human Development Index:** While UK is at 18th place in 2022 HDI index, India finds itself at 132nd place.
- **Universal Healthcare Coverage:** According to UHC Service Coverage Index (2019) published by the World Bank, India has score of 61 while UK is among the leaders with score of 88.

Issues with Indian Economy

- **Low level of national income and per capita income**
- **Vast inequalities in income and wealth:** According to oxfam, India was described as a 'very unequal,' country, as the top 10 people in India holds 57 per cent of the wealth. On the other hand, the share of the bottom half is 13 per cent.
- **Predominance of agriculture:** In 2019, 42.6 percent of the workforce in India were employed in agriculture. Though agriculture occupies a predominant position in India, it still has very low productivity.
- **Massive unemployment:** In June 2022, CMIE data showed that the unemployment rate had spiked to 7.80 per cent, up from 7.12 per cent in May 2022. From 404 million jobs in May 2022, only 390 million jobs were available in June 2022, putting about 14 million people out of employment.
- **Rising Inflation:** There has been continuous rise in inflation about 6% for seven straight months. The Indian economy faces headwinds from higher energy and commodity prices that are likely to weigh on consumer demand and companies' investment plans.

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Bright Spots of Indian Economy

- ✓ India has almost eradicated extreme poverty and brought down consumption inequality to its lowest levels in 40 years through state-provided food handouts, according to a new working paper published by the International Monetary Fund (IMF).
- ✓ India currently has the fifth largest holdings of forex reserve in the world (March 2022). China has the largest followed by Japan.
- ✓ Since 1990, the HDI value of India has increased to 0.633 from 0.429, registering an increase of over 50%.

One Nation One Fertiliser**NEWS EXCERPT**

The Ministry of Chemicals and Fertilisers announced that it has been decided to implement One Nation One Fertiliser by introducing a “Single Brand for Fertilisers and Logo” under the fertiliser subsidy scheme named **“Pradhanmantri Bhartiya Janurvarak Pariyojna” (PMBJP).**

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Pre-Connect

- Under the new “One Nation One Fertiliser” scheme, companies are allowed to display their name, brand, logo and other relevant product information only on one-third space of their bags. On the remaining two-thirds space, the “Bharat” brand and Pradhanmantri Bharatiya Jan Urvarak Pariyojana logo will have to be shown.
- Following the order, all fertiliser bags, whether containing urea or di-ammonium phosphate (DAP) or muriate of potash (MOP) or NPK will sport the brand name as ‘Bharat Urea’, ‘Bharat DAP’, ‘Bharat MOP’ and ‘Bharat NPK’ irrespective of the company that manufactures it, whether in the public or the private sector.

Reasons for move

- **Taking Credit for low price of fertilizers:** Government is spending vast sums of money on fertiliser subsidies (the bill is likely to cross Rs 200,000 crore in 2022-23), plus deciding where and at what price companies can sell. Experts are of the view that because of this Government want to convey to farmer that low priced fertilizer they get is because of the Government intervention.
- **Aiming to reduce cost of transporting fertilizers:** The government also pays manufacturers freight subsidies- or the cost of ferrying their products to the end-user. Brand-wise demand for fertilisers in specific areas means that manufacturers sell their brand even in far away areas, adding to freight cost. Selling fertilizers under single brand may disincentivise this movement.
- **Easy decision making for farmers:** After the introduction of the ‘Bharat’ brand under One Nation One Fertilizer, farmers would not be confused to choose the brand.

Key Concerns

- ✓ **No incentive to improve product and brand:** It will disincentivise fertiliser companies from undertaking marketing and brand promotion activities. They will now be reduced to contract manufacturers and importers for the government. Any company’s strength ultimately is its brands and farmer trust built over decades.
- ✓ **Lack of accountability for quality issues:** Currently, in case of any bag or batch of fertilisers not meeting the required standards, the blame is put on the company. But now, that may be passed on fully to the government.
- ✓ **Over-regulation of fertilizer sector:** Another argument is that a government brand will add another layer of regulation to the fertiliser

ABSORBING THE PRICE IMPACT

Fertiliser subsidy over the years; Figures in ₹ crore

Year	P&K fertiliser	Urea	Total subsidy
2019-20	26,368	57,109	83,477
2020-21	38,990	99,537	1,38,527
2021-22	57,202	1,04,982	1,62,184
2022-23	60,940*	67,187*	1,28,127*

*Estimates likely to go up as urea prices have also gone up

manufacturing sector where almost every aspect- from product pricing to cost structure to geographical distribution and sale- is controlled by the government.

Fertilizer subsidy

- ✚ In the case of urea, the Centre fixes the maximum retail prices and reimburses the difference between the maximum retail price and production cost in the form of subsidy.
- ✚ Urea is not covered under Nutrient Based Subsidy (NBS) Scheme.
- ✚ As far as Phosphatic and Potassic (P&K) fertilizers are concerned, Government is implementing Nutrient Based Subsidy (NBS) Scheme w.e.f 1.4.2010.
 - Under the scheme, a fixed amount of subsidy (irrespective of the market price) decided on annual basis, is provided on each grade of subsidized Phosphatic and Potassic (P&K) fertilizers depending upon its nutrient content.
 - This subsidy is given by Government of India to the P&K fertilizer companies which are therefore able to provide P&K fertilizers to the farmers at a subsidized MRP, which is lower than it would have been. Accordingly, farmers across the country who are procuring fertilizers at MRP, is availing the benefit of subsidy.
- ✚ Since Urea is not covered under Nutrient Based Subsidy Scheme, and its price is controlled by the Government, it is available at cheaper price to farmers.
 - This incentivizes farmers to use more Urea irrespective of nutrient deficiency in soil. This leads to falling fertility level of soil and increasing Urea subsidy burden for the Government.
 - From March 2018, a new direct benefit transfer (DBT) system was introduced, wherein subsidy payment to the companies would happen only after actual sales to farmers by retailers.

PEPPER IT WITH

e-Urvarak DBT portal, Kisan Credit Card, zero-budget farming, Diammonium Phosphate (DAP), New Urea Policy 2015, Neem coated urea

Issues with Monetary Policy

NEWS EXCERPT

There are early but discernible signs of a divergence of views between the government and the central bank on the latter's monetary action to check inflation versus the former's imperative to rekindle growth.

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Pre-Connect

- Monetary policy is the macroeconomic policy laid down by the central bank. It involves the management of money supply and interest rate and is the demand side economic policy used by the government of a country to achieve macroeconomic objectives like inflation, consumption, growth and liquidity.
- Under the Reserve Bank of India, Act, 1934 (RBI Act, 1934) (as amended in 2016), RBI is entrusted with the responsibility of conducting monetary policy in India with the primary objective of maintaining price stability while keeping in mind the objective of growth.
- In India, the monetary policy of the Reserve Bank of India is aimed at managing the quantity of money in order to meet the requirements of different sectors of the economy and to increase the pace of economic growth.
- Under Section 45ZB of the amended RBI Act, 1934, the central government is empowered to constitute a six-member Monetary Policy Committee (MPC) to determine the policy interest rate required to achieve the inflation target.
- MPC shall consist of 6 members (3 Ex-officio RBI members and 3 appointed by the Government)-
 - The RBI Governor as its ex officio chairperson,
 - The Deputy Governor in charge of monetary policy,
 - An officer of the Bank to be nominated by the Central Board,
 - Three persons to be appointed by the central government.
 - These three Members of MPC will be experts in the field of economics or banking or

finance or Monetary policy and will be appointed for a period of 4 years and shall not be eligible for re-appointment.

- The government nominees to the MPC will be selected by a search-cum-selection Committee under Cabinet Secretary with RBI Governor, Economic Affairs Secretary and three experts in the field of economics / banking / finance / monetary policy as its members.
- Each member shall have one vote and in case of tie, the Governor shall have a second or casting vote

Bone of contention

In any economy, there are two overwhelming concerns for policymakers: promoting fast economic growth, and maintaining price stability. Both are important. If fast economic growth comes with a very high level of inflation then it undermines future growth in two broad ways.

- One, high inflation changes consumer behaviour: if prices are rising fast, it makes sense to buy things today rather than wait for tomorrow. But when everyone — or at least a large number of people — starts behaving like this, it only stokes inflation further.
- Two, high inflation also changes producer behaviour. If the price of inputs rise fast, it can eat into the producer's profitability. If the producer passes on the higher prices to consumers — and not every producer is in a position to do that — it can bring down the demand for the product, and they can lose crucial market share that took years, even decades to build.
- As such, maintaining price stability is critical to sustaining long term fast economic growth.

What is the actual situation in India right now?

- ✓ Normally high inflation and high growth moves together.
- ✓ But in India, the inflation becomes high at a time when economic growth is faltering.
- ✓ This is one of the worst scenarios for policymakers. That's because measures to contain inflation — such as raising interest rates — now risk running the economy aground.
- ✓ India's GDP growth rate had been decelerating sharply over the three years leading up to the Covid-19 pandemic. It decelerated from more than 8% in 2016-17 to less than 4% in 2019-20.

RBI's main legal mandate is to maintain price stability. It must, by law, keep inflation at 4% with a leeway of two percentage points either side in any particular month.

Why is there a divergence between RBI and the government?

- Because of high level of Inflation, the RBI started raising the interest rate from May 2022 onwards to contain inflation, lest it would undermine India's economic recovery
- But then, these actions by the RBI — and more rate hikes are in store — will drag down economic growth by reducing money supply in the economy.
- And that is where the government is concerned.

PEPPER IT WITH

Open market operations, Bank rate policy, Repo rate, CRR, SLR

Windfall Tax

NEWS EXCERPT

Finance Ministry defended the windfall tax imposed by the Centre on domestic crude oil producers, saying that it was not an ad hoc move but was done after full consultation with the industry.

Pre-Connect

- A windfall tax is a tax levied by governments against certain industries when economic conditions allow those industries to experience above-average profits.
- Windfall taxes are primarily levied on companies in the targeted industry that have benefited the most from the economic windfall, most often commodity-based businesses.
- The purpose is to redistribute excess profits in one area for the greater social good; however, this can be a contentious ideal.

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- India announced a windfall tax on domestic crude oil producers who it believed were reaping the benefits of the high oil prices.
- Some individual taxes, such as inheritance tax or taxes on lottery or game show winnings, can also be construed as a windfall tax.

Need for the windfall tax

- Global crude prices had risen and domestic crude producers were making windfall gains. Private oil marketing companies were exporting petrol and diesel to foreign countries like Australia for better realisation.
- Starting June, fuel pumps across the country have been reporting fuel shortage, leading to their closure.
- One of the reasons for the imposition of windfall tax was to incentivize the selling of domestic crude in India or to disincentivize export at a higher price.

What are the arguments against a windfall tax?

- ✓ **Uncertainty** - Although a windfall tax may appear economically efficient in theory, in practice it may not be. The imposition of the tax may create uncertainty about the future tax regime and, by so doing, reduce future investment spending by oil companies.
- ✓ **Asymmetric and judgemental** - If oil prices were to collapse, oil company profits would do so too. Oil companies suffering a one-off tax now might then call for a one-off subsidy. In addition, there is the question of how to determine whether some particular level of profit is 'normal' and some higher level of profit is 'excessive'.
- ✓ **Effect on shareholders** - A higher tax on company profits would mean, among other things, a lower dividend paid out by the company and potentially a lower share price than otherwise. This would lower the incomes (or wealth) of shareholders.

IMF guidelines on windfall tax

The International Monetary Fund (IMF) has published a note (report) on Taxing Windfall Profits in the Energy Sector, including recommended guidelines for countries to follow when considering the introduction of a windfall profits tax.

- Introduce a permanent tax on windfall profits from fossil fuel extraction, if an adequate fiscal instrument is not already in place. The tax should be imposed on a share of economic rents (that is, excess profits) because rent-targeting taxes raise revenue without reducing investment or increasing inflation.
- Use caution when it comes to temporary taxes on windfall profits: These tend to increase investor risk, may be more distortionary (especially if poorly designed or timed), and do not provide revenue benefits above those of a permanent tax on economic rents. Investors prefer a stable, predictable tax regime over the risk of future temporary taxes when prices rise.
- Encourage the switch to renewable energy, given the need for decarbonization in energy generation. It is counterintuitive to introduce exceptional taxes on renewable energy-based electricity generation, especially if these are poorly designed. Such taxes may deter future investment by increasing investor perception of risk.
- Still, apply the following design principles if political pressure makes it necessary to tax windfall profits from electricity generation:
 - The tax should apply to a clear measure of excess profit (for example, profit above a specified return on capital) that avoids arbitrary references to specific price levels or time periods.
 - The tax should not apply to revenue (as this can be inflationary and is more likely to reduce investment).
 - The tax should allow for carrying forward of losses to ensure symmetrical treatment of losses and profits. The tax can be permanent if excess profits are expected to be persistent.
- Consider future reforms to market mechanisms that may unnecessarily result in windfall profits for electricity generators and fossil fuel refiners. For example, electricity generators may earn windfall profits because of the design of electricity tariffs or because market access is restricted.

PEPPER IT WITH

Russia-Ukraine conflict, Countries Levying Windfall Taxes, GST, Tax terrorism, Vodafone case

INTERNATIONAL RELATIONS

Multi Alignment Policy

NEWS EXCERPT:

As a question was raised on India's purchase of Russian Oil, India made it clear that government has a moral duty to provide the best deal for the country's citizens. India has asserted that it is a part of its multi-Alignment policy, to engage with all based on its interest.

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Pre-Connect

Non-Alignment Movement

- As the colonial system collapsed and a new nation-state emerged, they faced a world divided into two ideological blocs viz Capitalist Bloc led by the USA and Communist bloc led by USSR.
- Against this backdrop, the then Prime Minister of India, Jawahar Lal Nehru promoted the concept of 'non-alignment' as a bloc of countries who are at equidistance from both ideological blocs. They supported self-determination, national independence and the sovereignty and territorial integrity of States, non-adherence to multilateral military pacts.
- Through Bandung conference of 1955, principles of the non-Alignment movement were adopted and in 1961, the Movement of Non-Aligned Countries was founded on a wider geographical basis at the First Summit Conference of Belgrade. Founding members were Yugoslavia, India, Ghana and Egypt. By 2018 group comprised 120 members with 53 countries from Africa, 39 from Asia, 26 from Latin America and the Caribbean and 2 from Europe.

Walking on Two Sticks

- ❖ Famous policy analyst Sanjay Baru proposed multi-alignment policy for India known as Walking on Two Sticks.
- ❖ It asserted that firstly, India should promote liberal and outward oriented economic policy. Secondly, India should focus on regional integration through BIMSTEC, IORA, SAARC etc.

India's Non-Alignment

- India being a non-communist country cannot enter the Soviet bloc and since it considered, capitalism as neo-colonialism, joining the US bloc was out of the question.
- Further, India didn't want to compromise its sovereignty space by becoming a member of any bloc, rather through NAM it wished to develop a new international forum that will enhance the bargaining capacity of the global south vis-a-vis the global north.
- India's non-alignment idea was based on the ancient Indian philosophy of looking at reality from a different prism. NAM carries values of Rationality, Co-existence and Tolerance.
- It provided India, with a degree of autonomy and a sense that it has to stand on its own through its own hard work.
- Henry Kissinger in his book "World Order" asserted that if India has accepted to link with any of the bloc, it would have become a secondary ally, rather NAM enabled India to elevate a bargaining tactic into a principle of ethics. It allowed India to access military aid from USSR and development aid from the USA.
- NAM allowed India more global influence than it could have achieved had it chosen to be part of the Cold War cosmos.

Subtle Shift Towards Multi-Alignment

- ✓ After the fall of the Soviet bloc, India navigated the unipolar world with deft in its diplomacy and as the 21st century dawned, India asserted its global power ambitions.
- ✓ However, after the global financial crisis of 2008, the world saw the rise of an assertive and aggressive China. As a result, a unipolar world becomes multi-polar within a few years.
- ✓ As multipolarity enhances, the world is witnessing tremendous uncertainty in which there is competition over various geopolitical ideas and political models in the world.
- ✓ Against this backdrop, India shifted towards multi-alignment which allows for a series of parallel relationships that strengthen multilateral partnerships with a common approach towards key issues such as security, economic equity and global terrorism.

- ✓ Through multi-alignment, India is actively seeking out allies who may otherwise be at loggerheads with each other and working with them to pursue its interests and ideas.
- ✓ India's multi-alignment strategy offers it crucial leverage against China as it compensates for India's weaker capacities relative to China without overtly relying on alternative power.

PEPPER IT WITH

Rising Power vs Middle Power, Neighbourhood First Policy, 4D of India's new foreign policy, Personal Diplomacy

India-Bangladesh Relations

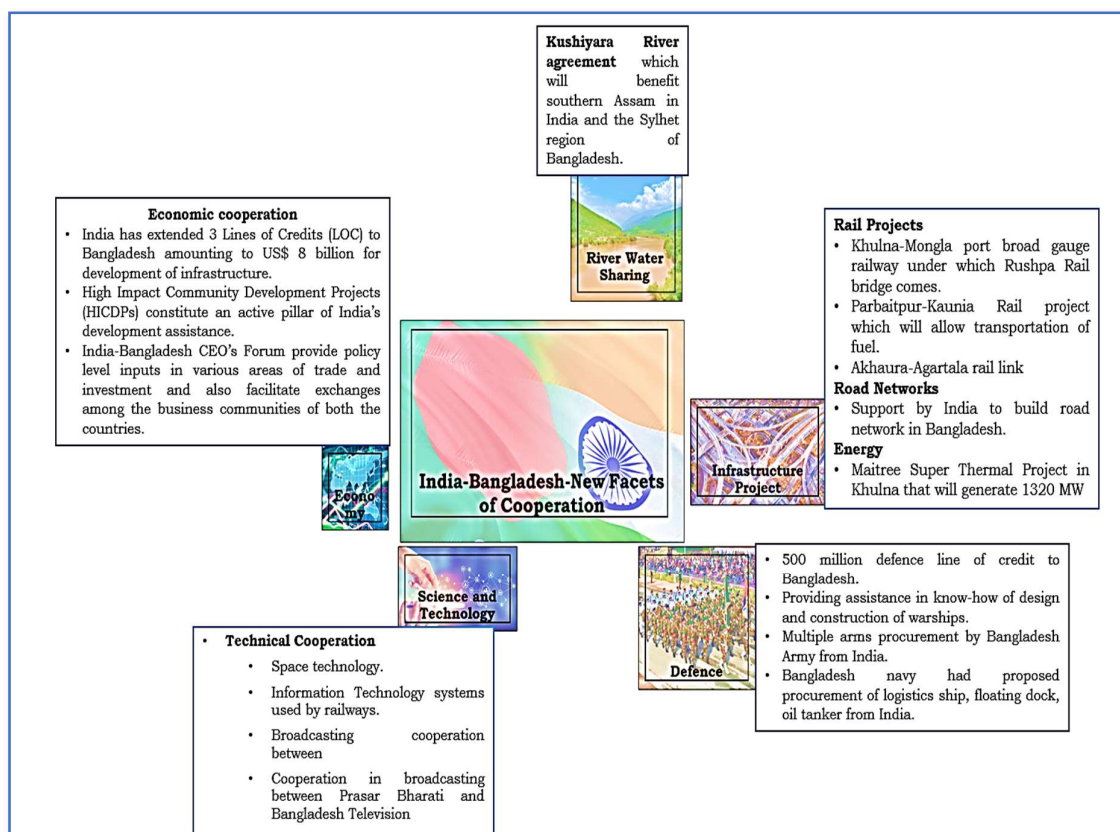
NEWS EXCERPT:

With the visit of the Prime Minister of Bangladesh, India and Bangladesh signed seven agreements ranging from river water sharing to energy and technology. With this visit ties between both nations are strengthened. The signing of the river water sharing agreement is significant as it is the second agreement, after the first Indo-Bangladesh water treaty known as Ganga Water Treaty which was signed in 1996.

Pre-Connect:

- India and Bangladesh share bonds of history, language, culture, and a multitude of other commonalities.
- India fought for the liberation of Bangladesh and since then, Bangladesh remains one of the trusted allies of India in the sub-continent.
- India shares near about 4096 km length of the border with Bangladesh.
- India and Bangladesh share 54 rivers.
- Bangladesh is the largest trade partner for India in South Asia and is the fourth largest export market for India worldwide.

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About Koshiyara River Agreement

Koshiyara River

- It is a distributary (a river branch flowing away from the mainstream) of the Barak River (which flows through the Manipur, Nagaland, Mizoram and Assam states) which flows from India to Bangladesh.
- It forms the India-Bangladesh border as Barak separates into Koshiyara and Surma.
- It re-joins Surma at Bhairab Bazar in Bangladesh and is known as Kalni.
- Kalni along with Dhanu (a branch of Surma) forms Meghna.

Why did Agreement need?

- ✓ Change in the pattern of the flow of the Barak River has increased the water flow in Koshiyara.
- ✓ This has created a double whammy for Bangladesh as on one hand, it causes flood during the monsoon while in the winter it gets dried up during the crop sowing season in Sylhet.
- ✓ Through the agreement, Bangladesh will be able to withdraw water in winter to support the Boro rice cultivation in the region of Sylhet.
- ✓ For the transfer of water, Bangladesh will use Rahimpur Canal as India withdrew its security related objection to the canal.

India-Bangladesh CEPA

Both India and Bangladesh stand to gain from signing the CEPA. The agreement enables the countries to retain and secure all benefits in their trade ties, even after Bangladesh's transition to a developing country.

Major Rivers Between India and Bangladesh

Ganges, Teesta, Manu, Muhuri, Khowai, Gumti, Dharla, Dudhkumar, and Koshiyara.

China Factor in India-Bangladesh Relations

- Bangladesh is a party to BRI (Belt and Road Initiative). In recent times it has drawn close to China.
- However, Bangladesh maintains a neutral stand, it has asserted that its foreign policy is a **"friendship to all, malice to none" doctrine**.
- However, Chinese inroads in Bangladesh is a cause of concern for India due to its sensitive north-eastern region proximity to Bangladesh.
- Further, China's debt trap policy has spelt disaster for both Sri Lanka and Pakistan, adding one more pole of instability in the neighbourhood is not in favour of India, especially the one where the Border remains largely peaceful.

India-Bangladesh and Indo-Pacific

- ✚ As the Chinese involvement in the Indian ocean increases, strong ties with Bangladesh will provide India with a pivot from the west to the eastern shores of the Bay of Bengal.
- ✚ With Bangladesh on its side, India can reimagine its strategic periphery by making the Bay of Bengal the maritime link space between India and the Pacific Ocean.

The Issue of Teesta

- ❖ Teesta is a tributary of the Brahmaputra. It originates in the Teesta Kangse glacier and flows through the state of Sikkim and West Bengal before entering Bangladesh.
- ❖ Conflict on Teesta began since 1947 when catchment area of the river was allotted to the India.
- ❖ After the formation of Bangladesh, **India established, Joint River Commission in 1972**. In 1983 an ad hoc arrangement was agreed upon by both countries.
- ❖ In 2011, India agreed to share 37.5 percent of Teesta waters while retaining 42.5 percent of the waters during the lean season. However, the deal never went through due to opposition from West Bengal.
- ❖ From Bangladesh perspective, Teesta supports million of life and as multiple dams being built in the state of Sikkim flow of river has declined.
- ❖ While India is unable to act on the issue, Bangladesh is planning to take help of China. It will dredge and embank large portions of the Teesta River so that it formed a single manageable channel. This is alarming as it will bring Chinese near the sensitive Chicken Neck.
- ❖ Resolving Teesta will allow India to cement its position as an all-weather friend of Bangladesh in the neighbourhood and in due course of time, it will be able to further develop a robust economic and strategic partnership without worrying about who holds the guards in the country.

- ✚ It will further boost its claims of link with east and Southeast Asia as India remains organically connected to the region because of the civilisational links of the past and the trade and strategic ties of the present.
- ✚ Due to these reasons, Indian policymakers have shifted their focus from SAARC to BIMSTEC. However, much more can be done on the BIMSTEC front as the initiative is devoid of any India-Pakistan differences.
- ✚ Strong India-Bangladesh ties also allow for the vibrant Northeastern region as well as a serene and peaceful Bay of Bengal periphery.

Conclusion

The present relations between India and Bangladesh can be rightful, defined as a 'Sonali Adhyay' (golden chapter) in bilateral relations. The rapport between the two Prime ministers is the driving force behind this transition. Barring a few irritants like the National Registrar of Citizens (NRC), the Rohingya Issue and Teesta water sharing ties are set to improve further in the future. India on its part support should be willing to go extra mile to ensure that Bangladesh achieves its true potential. It should also leverage the values of openness, mutual trust, cooperation, and mutual respect it shares with Bangladesh to protect its interest in the region.

PEPPER IT WITH

BBIN, Land Boundary Agreement, 2014, Mitali express, Feni River, Maitri Setu

Eastern Economic Forum

NEWS EXCERPT:

Prime Minister of India addressed the 7th edition of the Eastern Economic Forum (EEF), organised by Russia in Vladivostok. The forum calls for the development of Russia's Far East (RFE).

Pre-Connect:

- The RFE is twice as size of India and roughly half of the population of the Delhi/NCR region.
- RFE region is extended between Lake Baikal (world's largest freshwater lake and deepest lake) and the Pacific Ocean. RFE is geographically placed at a strategic location and acts as a gateway into Asia.
- The Russian government has strategically developed the region with the aim of connecting Russia to the Asian trading routes.

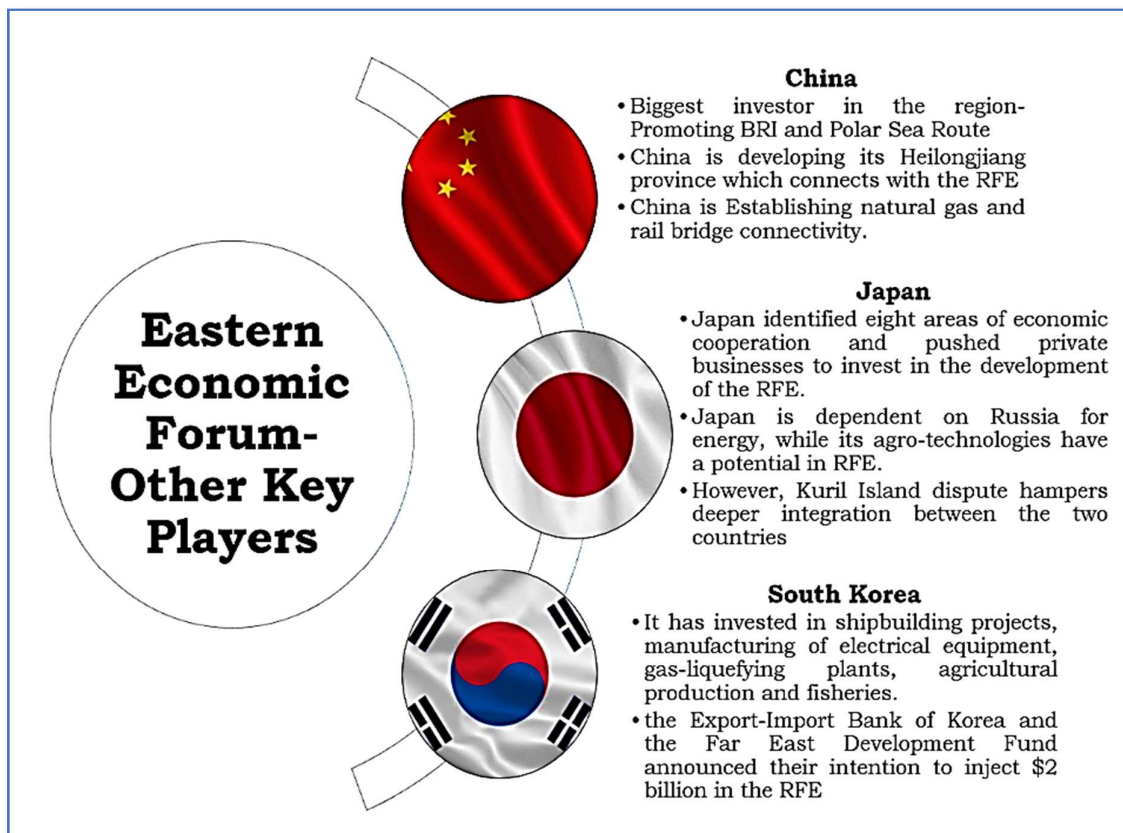
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Balancing between EEF and IPEF

- ❖ While EEF is headed by Russia and IPEF by USA, India is following its multi-alignment by balancing its involvement.
 - ❖ India is investing in the EEF despite the current international conditions and continuous pressure India receive on Russian issue.
 - ❖ IPEF also presents an ideal opportunity for India to act in the region, without being part of China-led RCEP and any multilateral grouping.
 - ❖ IPEF India's will help in disengaging from supply chains that are dependent on China and will also make it a part of the global supply chain network.
 - ❖ EEF on the other hand will help India become a major player in the Arctic region.
- Realising, its geo-strategic significance, India opened a consulate in Vladivostok in 1992. India was the first country to have a resident consulate in Vladivostok.
 - Russian Far East is a resource rich region in a hostile climate. It is rich in oil, natural gas, timber, gold and diamond among other resources. India requires all of them.
 - The EEF was set up in 2015 with the mandate of economic development of Russia's Far East and to expand Russia's international cooperation in the Asia-Pacific region.
 - Since then, it has focused on attracting investment from China, Japan, South Korea, ASEAN and India for the RFE.
 - India too has in recent years shown interest in expanding its presence here for achieving the twin goals of improving bilateral economic ties and pursuing strategic interests with an eye on China and the broader Indo-Pacific.

- While the Indian energy companies have had their presence in the region for some time now, a systematic engagement with the EEF began in 2017 with ministerial representation at Vladivostok.

Why Russia Needs India in the Far East?



- Russia also wants to make sure that China does not become a hegemon in the Eurasian region and is hence deepening cooperation with countries like India, Vietnam and Indonesia. Here, the Far East has the potential to become an anchor in deepening India-Russia cooperation.
- A lack of manpower is one of the main problems faced by the Far East and Indian professionals like doctors, engineers and teachers can help in the region's development. The presence of Indian manpower will also help in balancing Russian concerns over Chinese migration into the region.
- Further, India, one of the largest importers of timber, can find ample resources in the region. Japan and South Korea have also been investing and India may explore areas of joint collaboration.
- India in 2019, offered a \$1 billion line of credit to develop infrastructure in the region. India aims to establish a strong inter-state interaction with Russia. Business representatives of Gujarat and the Republic of Sakha have launched agreements in the diamond and pharmaceuticals industry.

Russia-India and EEF

- ✓ Russia is in dire need to increase investment in Eastern Economic Forum as it faces the heat of economic sanctions due to the Ukraine crisis.
- ✓ China is already taking advantage of the situation and investing heavily in the region and it's time for India to act. The proposed Chennai-Vladivostok Sea Link needs a push. Further, India should engage with Russia in para-diplomacy.

PEPPER IT WITH

Chennai-Vladivostok Link,
CAATSA, EAEU, INSTC, BRICS,
Asia-Africa Growth Corridor,
ASEAN

- ✓ Indian states have immense potential, it will help its mid-sized and small businesses and they should be assisted to overcome language and cultural barriers so that they successfully adopt local business practices.
- ✓ With the Ice melting in the Arctic at a faster pace than predicted, the region will open to resource scramble and players who are present on the spot will have the say. Therefore, India needs to up its game in the region and stay relevant for the future.

Conclusion

In the present Global scenario, the Great power rivalry is back in international politics and is giving rise to unpredictability. It makes sense for India and Russia to increase their areas of cooperation and trade in order to hedge against disruptive forces and make their ties sustainable.

Indo-Pacific Economic Framework (IPEF)

NEWS EXCERPT:

Ministry of Commerce and Industry in the ministerial meeting of IPEF decided to maintain its distance from one out of the four pillars of the framework. While India agreed to sign an agreement on three pillars (Supply Chain, Tax and Anti-Corruption, and clean energy), it decided not to sign an agreement on Fair and resilient trade.

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Pre-Connect:

Understanding Indo-Pacific Geopolitical Construct

- With the dawn of the 21st century, the fulcrum of global economic development shifted towards the eastern region of the globe, which some scholars defined as Easternisation.
- In this background, the idea of Indo-Pacific as a geopolitical construct was conceived in 2006-07 for a more constructive geopolitical amalgamation of the Indian Ocean and the western Pacific regions.
- In 2007, the Ex-PM of Japan also called for bringing a dynamic coupling of the Pacific and Indian ocean as seas of freedom and of prosperity in the Indian Parliament.
- In 2008, As the Global Financial Crisis set in, the world witnessed the rise of an assertive China and the receding US as a global superpower. As a result, in 2010, the Indo-Pacific idea gained currency, among policymakers.
- As China's hegemonic intents become clear and more visible, especially in the South China Sea. Policymakers started reacting to it. In 2017, Japan was the first country to use the phrase 'Free and Open Indo-Pacific' in its official discourse. US in 2018, renamed its Asia-Pacific Command as Indo-Pacific Command, signalling a change in its stance.
- India on other hand, through its Act East Policy and initiative such as SAGAR (Security and Growth for All in the Region) signalled its Indo-Pacific. India doesn't perceive Indo-Pacific as a China-centric or a club of limited members. Further in 2018, At the Shangri-La dialogue, India outlined its vision for Indo-Pacific which included seven principles which are:
 - Free, Open and Inclusive Indo-Pacific Region
 - Centrality of ASEAN
 - Common Rule-Based Order
 - Equal Access and Right to Use Common Spaces
 - Benefit from Globalisation
 - Connectivity is crucial for the development
 - Say No to Great Power Rivalry in the region

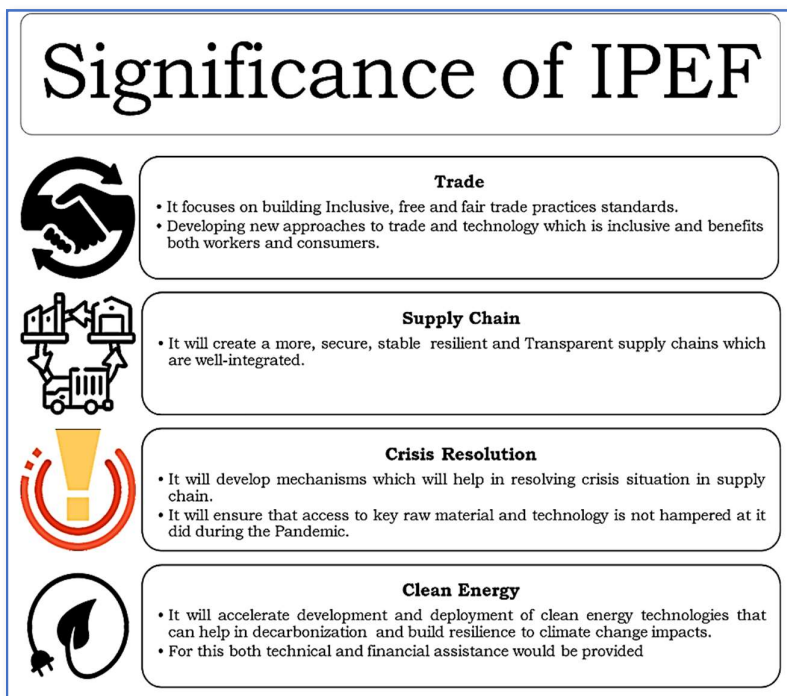
About IPEF

- IPEF is a US-led initiative involving other partner countries of the Indo-Pacific region.
- It seeks to strengthen economic engagement among partner countries with the goal of advancing growth, peace and prosperity in the region. It wishes to make Indo-Pacific an engine for global growth.
- IPEF partner countries together represent about 40% of the world GDP.

- The framework is based on four pillars
 - **Trade**
 - **Supply Chains**
 - **Clean Economy**
 - **Fair Economy**

What makes IPEF unique?

- ✓ IPEF is not like a Free Trade Agreement or any other trade pact, rather it contains multiple pillars, from which participants are allowed to choose which they wish to join.
- ✓ Hence, it allows for the scope of alignment of similar interests while at the same time divergence based on individual interests. There is no take it all or leave it to approach in the IPEF.



India and IPEF

- Presently, India's strategy is to wait and watch the reactions of other countries in the group on various aspects such as the environment before reacting to it. India didn't wish IPEF to become another pillar of discrimination against developing countries.
- There is also a change in India's view such as:
 - India is focusing on bilateral trade agreements as their implementation through early harvest schemes, not only starts trading early but also provides feedback for future negotiations.
 - India wishes to integrate itself into the global supply chain of rare earth and pharmaceutical ingredients.
 - India is restricting its exposure to multilateral agreements such as tackling black money or cryptocurrency rules.
- Several areas such as Data Protection and Data localisation are already sensitive issues in India. In the absence, of the Personal Data protection bill, India wouldn't like to engage on such a platform and risk the data privacy of its citizens.
- Since IPEF offers flexibility, it would be easy for India to participate as per the demand of the situation.

PEPPER IT WITH

RECP, QUAD, Trans-Pacific-Partnership, Types of Trade Agreement

Sri-Lanka Economic Crisis

NEWS EXCERPT:

To pull Sri Lanka out of an unprecedented economic and political crisis, International Monetary Fund (IMF) has announced a \$2.9 billion package. It came as Sri Lanka's International creditor as well as bilateral creditor agreed to restructure its debt.

Pre-Connect

Sri Lanka's Economic background:

- One of the major constraints Sri-Lanka faced in its economic journey as an independent nation was its 26-year-long civil war.

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- The country faced a double whammy when the end of its civil war in 2009 coincided with the global financial crisis of 2008 and depleted forex reserves. As a result, it took loan from the IMF of \$ 2.6 billion dollars.
- Despite IMF advice to tight its economic spending, Successive government continued on the path of economic mismanagement leading to the twin challenges of budget shortfall and Balance of Payments (BOP) deficits.
- In 2016, Sri-Lanka again approached IMF for another USD1.5 billion loan. This time, however the conditionalities of the IMF deteriorated Sri Lanka's economic health.
- Sri Lankan GDP witnessed a downfall from 8.1 per cent in 2010 to -3.56 in 2020 even before the pandemic hit the shores of the island.

Impact on India

There are three primary reasons why this crisis affects India:

Factors Behind Sri-Lanka Economic Crisis	
	Autocratic Leadership <ul style="list-style-type: none"> • The autocratic political decision during the civil war and the consequent political instability or lack of political consensus amassing the country refrained the incumbent government from mandating corrective policy reforms. • The Rajapaksa ruled Sri Lanka by forcefully controlling different facets of Sri Lankan people life. They weaponize nationalism to achieve the regime's political objectives.
	Unprecedented Tax Cuts <ul style="list-style-type: none"> • Rajapaksa family used populist policies measures to win elections and a result announced ill-conceived tax cut measures which caused a loss of 2 percent of GDP. • These wide-ranging tax cuts enacted months before the COVID-19 pandemic hit deepened the crisis and further derailed the Sri Lankan economy.
	The Organic Factor <ul style="list-style-type: none"> • To prevent the outflow of foreign exchange reserves in May 2021, the Sri Lankan government completely banned fertilizer imports and declared Sri Lanka a 100-percent organic farming nation. • As an immediate and complete shift to organic farming was not feasible, this move led to a substantial decline in agricultural produce, especially rice and tea and caused food inflation to soar.
	Unmindful Development and Chinese Debt Trap <ul style="list-style-type: none"> • Sri Lanka amassed huge foreign debts that it secured for developmental infrastructure projects. However these projects heavily weighed down the economy and Sri Lanka walked right into Chinese Debt Trap. • The Chinese investments in Sri Lanka are largely driven by strategic interests with Sri Lankan debt constituting about 10.8 percent of its total debt. • Heavy reliance on soft loans from the Chinese government proved counterproductive as these commercial loans contracted at inflated costs have put an additional burden on the exchequer.
	Tourism and Terrorism <ul style="list-style-type: none"> • Easter Bombing of 2019 and Covid-19 pandemic broke the spine of Sri Lankan economy which is its Tourism sector. • Tourism with its share of more than 10 percent of GDP and remittance accounting for about 8 percent of GDP are the two biggest sources of foreign exchange for Sri Lanka. The fall in the revenue from these two sources has resulted in an unprecedented rise in Sri Lanka's foreign debt
	Tragedy of Errors <ul style="list-style-type: none"> • Sri Lanka depreciated its currency in the hope that it will boost its export growth, however, Sri Lanka being a consumption-led growth economy had little to offer for exports. Moreover, a drastic fall in the value of the Sri Lankan rupee has made imports of essentials like food, fuel etc., much costlier. • Sri Lankan government's hasty move to seek frequent International Monetary Fund (IMF) assistance time and again without adopting appropriate and prudent macroeconomic policies have exacerbated the crisis. • Money was spent on unproductive projects such as Mattala Rajapaksa International Airport (the world's emptiest international airport) and the Lotus Tower, made Sri Lanka a twin deficit economy

- China Factor- Neglect in fostering closer trade and developmental ties with Sri Lanka led to China's rise as the dominant foreign player in the island nation. The nature of Chinese investment is carrying a modus operandi in which its investment failed to generate any kind

of local employment or revenue expected of them to justify the debt, compelling the other party to default and thereby surrender assets. For example, the Hambantota port incident. For India, these are not just land that Sri Lanka surrendered in lieu of loans, these are strategically located areas which are in proximity to some of the busiest shipping routes in South Asia, infringing India's 'sphere of influence'.

- Trade Factor: Colombo port is significant for India as it handles over 30 percent of India's container traffic and 60 percent of its trans-shipment. In the event of a worsening of the economic crisis, there would be major implications for Indian exporters as India exports over US\$4 billion annual worth of merchandise. Further, India has a substantial investment in the island-nation in several key areas all of which stand to be adversely impacted by the crisis.
- Political Instability: Over 2000, Economic refugees arrived in India as Sri Lankan crisis evolved. Any significant spike in the number of refugees could trigger the apprehensions of the state around issues of public safety and refugee resettlement and stoke conflict with the local population over the use of common resources. Additionally, there would be fears of a possible return of the Tamil-Sinhalese conflict and its potential spill over into India.

Countering China Factor in Indo-Sri Lanka Relations

- To counter China factor in India- Sri Lanka relations, India has adopted a two-point strategies.
- Firstly, it is focusing on direct strategic investment and secondly, it has adopted Two plus One Development Model, in which it partners with third country to offer developmental support. For example, with Japan it developed East Container Terminal building in Colombo.
- Since Sri Lanka is strategically located in the heart of Indo-Pacific, India understands that China will engage with Sri Lanka aggressively.
- One thing India should discuss with Sri Lanka and mention its reservation over Chinese investment which act as a threat to its national security. It should also try to identify the orange zones of cooperation.

How Should India Respond?

- ✓ Give relief- India ranks as the third largest debtor to Sri Lanka and therefore it must consider granting a moratorium on debt repayment. This will not only help Sri Lanka to better allocate its limited revenues toward meeting the immediate needs of the people but also go a long way in building some much-needed goodwill amongst its leadership.
- ✓ Focus on Neighbourhood First Policy- Apart from already given assistance such as 270,000 metric tonnes of diesel and petrol, 40,000 tonnes of rice and a \$1 billion credit facility. India needs must stand ready to provide any assistance required by the island nation.
- ✓ Reduce China's dependence- India should try to reduce the dependence of Sri Lanka on China, for this, it should contribute to closer integration of the island nation to the world economy. One of the starters can be, helping Sri Lanka in increasing its presence in forums like G20.
- ✓ Enhance Free Trade Agreement- The India-Sri Lanka Free Trade Agreement (ISFTA) is seeing a decline in both export and imports and therefore India need to address this situation.
- ✓ Prevent any Chinese misadventure: Chinese propaganda attempting to tarnish India's image both globally and before the Sri Lankan masses needs to be proactively guarded against, and India's humanitarian efforts must be publicised both in Sri Lanka and internationally.

PEPPER IT WITH

String of Pearls, Indo-Pacific Strategy, Trincomalee Port Project, Neighbourhood First Policy

Conclusion

India must continue to provide the much-needed assistance to Sri Lanka, albeit with due caution, to preserve its strategic interests as prolonged instability in Sri Lanka may have a spill-over effect on India. Any kind of instability in Sri Lanka, be it political, social, economic or security, is not in India's strategic interests. Due to its geographical proximity, India would be the first one in the South Asian region to feel the ramifications and repercussions of the Sri Lankan crisis if it goes uncontrolled.

NPT Treaty

NEWS EXCERPT:

The Tenth Review Conference of the Parties to the Treaty on the Non-Proliferation of nuclear weapons (NPT), which was originally planned for its 50th anniversary but was delayed due to Covid-19. Despite debate and deliberations, delegates failed to agree on a final document.

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Pre-Connect:

- NPT was negotiated during the 1960s to reconcile three competing objectives — controlling the further spread of nuclear weapons beyond the P-5 countries (the U.S., the U.S.S.R., the U.K, France and China) that had already tested.
- The Nuclear Non-Proliferation Treaty (NPT) came into force on 5 March 1970.
- It has been historically described as the turning point in the global march towards disarmament.
- The objective of the NPT is
 - To prevent the spread of nuclear weapons and weapons technology
 - To promote cooperation in the peaceful uses of nuclear energy
 - To further the goal of achieving nuclear disarmament and general and complete disarmament
- The NPT has 190 signatories, including five nuclear weapons states, and was extended indefinitely in 1995.
- Since the signing of the treaty, parties come together every five years to review the implementation of the NPT at the 'NPT Review Conferences.'
- The conferences were designed for the envisioning and implementation of recommendations to further the process of global disarmament and assess substantive outcomes as a result of the NPT. However most of the time these conferences often end without a conclusion.
- The treaty has attained a near-universal status with just four hold-outs — India, Pakistan, Israel and North Korea.

Shortcoming of NPT

- No Tangible disarmament Timeline- NPT is considered a cold war instrument devoid of any credible disarmament process. It has no reference to the test ban or to the freezing of production of either fissile materials or nuclear weapons.
- It is limited to the containment of Horizontal proliferation i.e., between nation-states, while it remained silent on Vertical proliferation i.e., on the advancement or modernization of a nation-state's nuclear arsenal. This means there is no explicit obligation on part of Nuclear Weapon States to reduce their arsenal.
- Non-Nuclear weapon states (NNWS) often also feel that the restrictions on Peaceful Nuclear Explosion (PNE) technology are one-sided.
- Under International Atomic Energy Agency (IAEA) protocols of nuclear safety, While the NWS (Nuclear Weapon States) was allowed to maintain voluntary safeguards but the NNWS were subjected to comprehensive safeguards.
- While it was unable to solve the divergences over Iran, Israel, and West Asia, or between the nuclear haves and nuclear have-nots, it had created a new divergence of West vs Russia over the Ukraine crisis, thereby making it tougher to have any meaning full dialogue.
- The emergence of non-state actors with declared intent to access weapons of mass destruction and the detection of a global nuclear black market has raised concerns about the limitations of the treaty to address the challenges thrown up by the new strategic milieu.

Peaceful Nuclear Explosion (PNE)

- ❖ Use of Nuclear explosion for non-military purposes is known as (PNE).
- ❖ US prohibited PNE rights in 1970 and offered technology assistance on commercial lines.
- ❖ India termed it as atomic apartheid and commercial super monopoly and against it conducted PNE in 1974.

Technology Challenge to NPT

- ✓ Countries are developing and deploying more usable low-yield nuclear weapons.

- ✓ They develop hypersonic delivery systems that evade missile defences as well as larger missiles that do not need to travel over a large distance to target the adversary.
- ✓ Developments in space and cyber domains are blurring the line between conventional and nuclear weapons, leading to nuclear entanglement and rendering command and control systems vulnerable.

Why does India Oppose NPT?

- India is of opinion that the Treaty's effect by design and default was to generate a dichotomous double-tiered structure of nuclear "haves" and "have-nots."
- It views regional nuclear-free zones as a piecemeal approach to nuclear disarmament and contingent upon the specific regional context.
- Security concerns stemming from Pakistan and China also contribute to the complexity of India's nuclear calculus.
- The Indian position on nuclear disarmament has been that it has to be comprehensive, verifiable, and universal. Indian nuclear doctrine remains unique in explicitly linking its nuclear-force posture to nuclear disarmament

PEPPER IT WITH

The Comprehensive Test Ban Treaty, Anti-Ballistic Missile (ABM) Treaty Intermediate-Range Nuclear Forces (INF) Treaty, IAEA

Conclusion

The success of the NPT in the future rests upon a number of considerations including a neutral and indiscriminate mechanism and a systemic shift, making the acquisition of nuclear weapons unattractive to all state actors. As the global energy demand rises, simultaneously with the drastic impact of Climate change. Countries will shift towards nuclear energy to ensure a sustainable and dependable domestic energy supply. This calls for a balance in the intrusive IAEA approach of being a nuclear watchdog. While NNWS are welcoming New START initiatives, they are demanding more steps from NWS that show their commitment towards disarmament. It's important to remember that the target is not simply to avoid a nuclear nightmare but to build a safer world for all.

India Iran Agreement

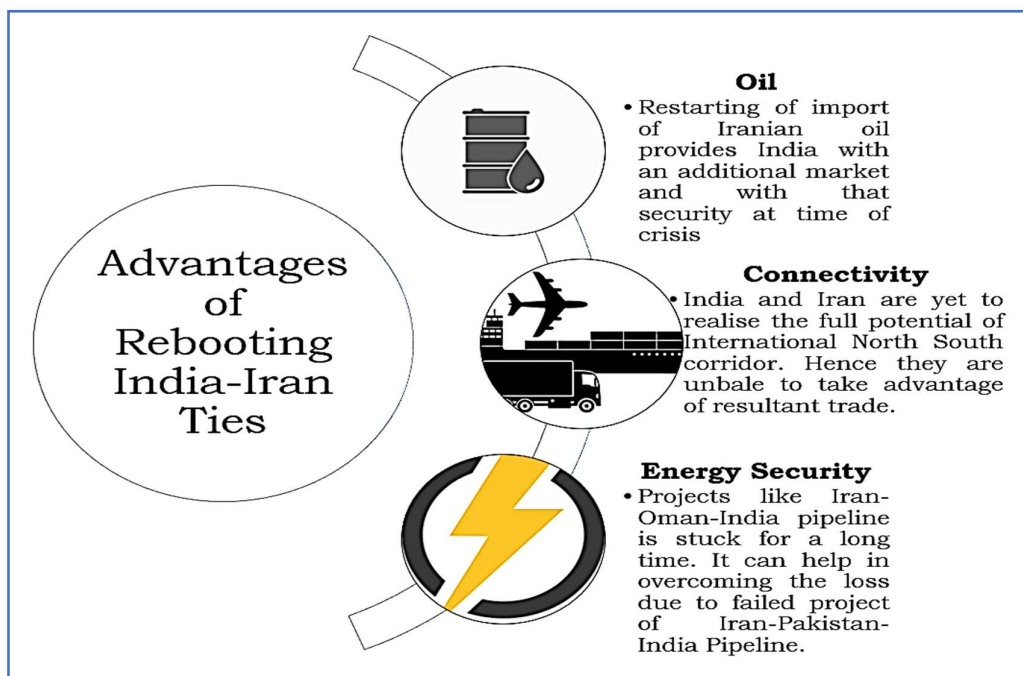
NEWS EXCERPT:

To smoothen the movement of seafarers, India and Iran signed a Memorandum of Understanding (MoU) on recognition of Certificates of Competency in Unlimited Voyages to help seafarers from both countries as per the provisions of the International Convention on Standards of Training, Certification and Watch Keeping for Seafarers (1978).

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Pre-Connect:

- Broadly, India and Iran's relations are based on four core policy factors which are
 - Civilizational Bond
 - Historical Connection
 - Supply of Energy
 - Regional Security
- Iran and India are civilizational friends with ties going back to the times of the Persian empire and Indian ruling dispensation. Shah of Iran always maintained diplomatic relations with all Indian states irrespective of their religion. Before Partition India and Iran shared a border.
- Relation between both countries is based on equitable, pluralistic and cooperative international order which was enlisted in the Tehran Declaration. The vision of a strategic partnership between the two countries is listed in The New Delhi Declaration.
- India-Iran relation is based on principles of tolerance, pluralism and respect for diversity.
- Iran provides India access to both Persian Gulf and the Caspian Sea, leading to the foundation of the International North-South Corridor (INSTC).
- Iran as a depository of Oil and Natural Gas becomes a key component of India's energy security.



India-Iran Port Diplomacy:

- Chabahar Port (CP) is Iran's only oceanic port and is part of India's regional economic strategy since the end of the Cold War.
- The idea of CP was first introduced when in 2003 when the Iranian President visited India.
- CP provide India with to overcome the hostile regional geography as Pakistan deny India overland transit access to Central Asia and Afghanistan. It allows India to bypass the geographical limitation imposed by Pakistan.
- CP also act as a counter-balance to the Chinese, CPEC and BRI Port of Gwadar.
- The challenge to the CP had emerged from the US withdrawal from JCPOA (As it resulted in imposition of sanctions on Iran). This has made an investment in the development of the port difficult as global trade suffers from Dollar hegemony.
- Despite these challenges, a part of CP became operational in 2018.
- In recent times, India Ports Global Private Limited (IPGPL) assumed the operations of Shahid Beheshti Port, it has handled over 4.8 million tonnes of bulk cargo. It will act as a catalyst to unlock the huge trade potential in the region.
- In 2020, India supplied 75,000 tonnes of wheat to Afghanistan as part of humanitarian assistance programme as well as provided 40,000 litres of Malathion 96% ULV pesticides to Iran via Chabahar port in a concerted effort to mitigate locust threat to agriculture and enhance food security in the region

China Factor in Indo-Iran Ties

- ❖ Historically Iran and China relations dates back to Parthians and Sassanid Empires. They both share commonality of a civilizational past as well as a sense of humiliation in their past for which they seek revenge today.
- ❖ In modern times, China is the biggest buyer of energy from Iran and its true also for other West Asian countries. This because Shale made US self-sufficient in oil and gas.
- ❖ China and Iran have deep security and intelligence sharing relationship as well. It is reflected in the Iranian policy of Naq Sharq, Naq Gharb (Neither West nor East).
- ❖ Iran has signed a 25-year strategic partnership with China. However, it is mostly signalling by Iran to USA that it also carries support of major global power.

India's view of Iran

- ✓ India doesn't view Iran from the prism of US rivalry rather, pragmatically it tries to stay away from the US-Iran crossfire.


- ✓ It understands that the Iran policy meta-framework lies in its adversarial relationship with the USA. While India has much higher stakes in its ties with the US which cannot be ignored in dealing with Iran.
- ✓ India reacts maturely to the loss of a few projects in Iran as it understands that in international politics there always exists a risk of doing business.
- ✓ Though Iran wants India to use its proximity with the US to break the sanction regime, India decided to wait till there is geopolitical clarity.
- ✓ India realised that the time Iran remains a tough place for its foreign policy objectives, so it is prudent to engage with UAE, Egypt and Saudi Arabia.
- ✓ Further, when it comes to the Chinese question in the Arab World it's better to present an alternative and let Arab World decide.

PEPPER IT WITH

INSTC, FARZAD-B, CAATSA
India-Iran Joint Commission,
IRGC

Conclusion

Iran knows very well that despite all American sanctions, one country that has delivered results is India. Even with all the hyperventilation associated with friction in the ties between both countries, Iran is sensitive to India's contribution and both will continue to engage in future. JCPOA is not Halley's Comet, as understanding between Iran and US improves, India will be the first to help in the development of Iran.



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ENVIRONMENT

La-Nina and Indian Monsoon

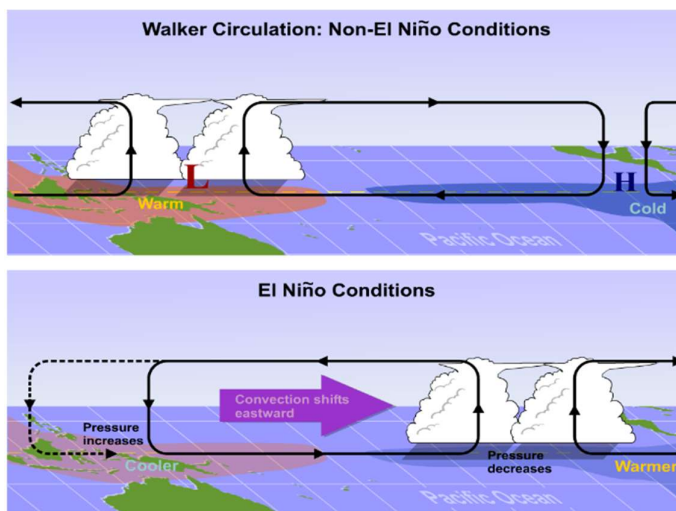
NEWS EXCERPT

Australian Bureau of Meteorology has stated that for a third consecutive year there will be la Nina influence, it is often cited as 'triple dip'. The current La Niña phase has been prevailing since September 2020.

Pre-Connect

- World Meteorological Organisation (WMO) predicted that the current La Nina, would continue for six months, with a 70 per cent chance of lasting till September-November 2022, and 55 per cent chance of lasting till December-February 2022-2023.
- Weather events like La Niña and El Niño involve fluctuating surface ocean temperatures in the central and eastern equatorial Pacific throughout the year.
- A La Niña occurs when the central and eastern tropical Pacific Ocean, experiences colder than average surface ocean temperatures. It has the opposite impact from El Niño, which occurs with warmer surface ocean temperatures. Both events influence weather patterns, ocean conditions and marine life. s
- Generally, El Niño and La Niña occur in roughly every two to seven years but they don't happen on a regular schedule. Typically, El Niño happens more often than La Niña.

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Geographical Factors

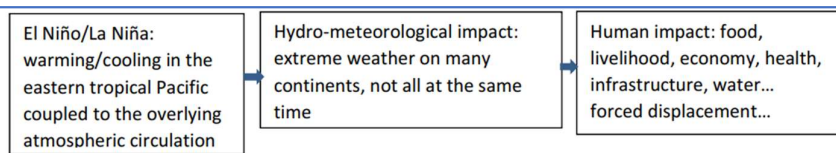
- During normal conditions in the Pacific Ocean, trade winds blow east to west along the equator, pushing warm surface water from South America towards Asia. To replace that warm water, cold water rises from the depths — a process known as upwelling.
- During La Niña events, trade winds are even stronger than usual, pushing more warm water toward Asia. Off the west coast of the America as a result upwelling increases, bringing colder, nutrient-rich water to the surface.
- Such conditions support more marine life and attracts more cold-water species. The cooler surface water over the eastern Pacific has an impact on the weather.
- El Niño happens when the trade winds along the equator weaken, pushing warmer waters over the eastern Pacific. Upwelling weakens or stops altogether. And without the nutrients from the deep, there are fewer phytoplankton off the coast. Fish either die or migrate into areas where they'll find more to eat.

	El Niño		La Niña	
	Jun-Aug	Dec-Feb	Jun-Aug	Dec-Feb
Wetter	Central Pacific, central Chile, western US	South America (Ecuador, northwestern Peru, southern Brazil, central Argentina, Uruguay), equatorial East Africa, northern Mexico/southern US	India, Malaysia, Indonesia, Central America, Sahel, southern Australia	Indonesia, Malaysia, Australia, northern South America, southern Africa
Drier	India, Indonesia, Malaysia, eastern Australia, Sahel, southern Africa, northern South America, Central America	Australia, Indonesia, the Philippines, northern South America, southern Africa	Central Pacific, Uruguay, eastern Argentina, central Chile	Central Pacific, Ecuador, East Africa, southern India
Warmer	West coast of South America, southern Brazil, Central America	South East Asia, southern Africa, Japan, southern Alaska and western/central	Papua New Guinea, eastern Indonesia	Southern US
		Canada, southeastern Brazil and southeastern Australia		
Colder	Southern Pacific, New Zealand	Gulf coast of US	West Africa, southeast Asia, western South America	West Africa, Japan, eastern Brazil, southern Alaska and western/central Canada

- It is exceptional to have three consecutive years with a la Niña event. Its cooling influence is temporarily slowing the rise in global temperatures.
- Human-induced activities amplifies the impacts of naturally-occurring events like La Nina and is increasingly influencing our weather patterns.

La Nina and India

- ✓ **Monsoon:** The continuing La Niña is a good sign for the Indian monsoon, While El Niño is known to suppress monsoon rainfall. La nina facilitates early onset of rainy season.
- ✓ **Agriculture:** The continued spell of La Nina may contribute to the increase food production and farmers' Income to some extent, Moreover, in the light of Russia Ukraine War food shortage at global level can also be compensated by India with suitable policy intervention.
- ✓ **Risk:** In post-Monsson months, La Niña years are notorious for recurrent and powerful cyclones in the Bay of Bengal.
 - High relative moisture and relatively low wind shear over the Bay of Bengal pose threat to coastal community, because such prevailing conditions may give rise to 'Super Cyclone'. In November such instances are likely to be occurred.
- ✓ **Seasonal Disturbance:** The increased amount of moisture could lead to excess snowfall and rainfall, resulting in a winter cooler and wetter than normal.
 - A cooler-than-normal winter reduces warming of the Indian subcontinent, which is crucial for the onset of the southwest monsoon season



next year, if the winter La Nina event is followed by an El Nino event, the rainfall may go down substantially.

- ✓ **Economy:** Agriculture is base of Indian economy; favourable monsoon often reflects in GDP growth during post harvesting season.

La Nina and Indian Ocean Dipole

- The Indian Ocean Dipole (IOD) is defined by the difference in sea surface temperatures between the eastern and western tropical Indian Ocean.
- La Nina conditions will support normal rains if countered with the development of negative IOD conditions over the Indian Ocean.
- IOD has a link with El-Nino events through an extension of the Walker Circulation to the west and associated Indonesian throughflow (the flow of warm tropical ocean water from the Pacific into the Indian Ocean).
- Positive IOD events are often associated with El Niño and negative events with La Niña. When the IOD and ENSO are in phase the impacts of El Niño and La Niña events are often most extreme over Australia, while when they are out of phase the impacts of El Niño and La Niña events can be diminished.

La Nina and Global weather Patterns

- ✚ The La Nina has affected global temperature and worsened droughts, flooding, temperatures and rainfall patterns.
- ✚ The ongoing drought situation in the Horn of Africa and the southern part of South America are testimony to the ongoing La Nina effect.
- ✚ The above average rainfall in South East Asia and Australia and the predictions for an above average Atlantic hurricane season are also hallmarks of the La Nina effect.

Way Forward

In order to minimise the impacts of abnormal weather caused by El-Nino and La-Nina, it is essential to-

- Strengthening on-time information and analysis on the foreseen impacts of El-Nino and La-Nina episodes.
- Strengthened coordination that enables partners to implement early action in a timely way.
- Improved early action and preparedness planning at country level. More systematic and earlier leveraging of financing mechanisms.

PEPPER IT WITH

Sudden stratospheric warming, Atlantic meridional overturning circulation, Hadley cell, Ferrel cell and Polar cell

Zombie Ice and Global Warming

NEWS EXCERPT:

A study was published in the journal Nature Climate Change, Scientists calculated minimum ice loss in Greenland which will inevitably raise global sea levels by 10 inches. The 'zombie ice' is cited as a reason.

About

- Zombie ice, also known as doomed ice, is the one that continues to be a segment of the parent ice sheet but does not accumulate fresh snow. This type of ice is prone to melting and raising sea levels.
- It is because of the warming that has affected the climate already. The study focuses on an equipoise condition where snowfall from the northerly extremes of the Greenland ice cap melts down to the recharge edges of the snow glaciers and hardens them.
- The study reveals that over the past several decades there has been less replenishment and more melting.
- Study has concluded that Greenland's rapidly melting ice sheet will eventually raise global sea level by at least 10.6 inches (27 centimeters).

Impacts

- Scientists have estimated that 3.3% of Greenland's total ice volume will melt, and this will happen even if the global temperature is stabilized at the current level.
- Considering that global warming is anticipated to worsen, the melting and its direct impact on the rising sea level could get worse as well.

Sea level rise and its impacts

- ✓ The projected rise in mean sea level is a concern for management of the coastal zone in the longer term. The potential impacts of sea level rise over time include:
 - Higher projected storm surge and inundation levels.
 - Landward erosion of sandy shorelines affects coastal community.
 - Salt water intrusion and landward advance of tidal limits within estuaries. This may have significant implications in the medium to long term for freshwater and salt water ecosystems and development margins.
 - Existing coastal gravity drainage, stormwater infrastructure and sewerage systems may become compromised over time as mean sea level rises.
 - Sea level rise will influence the entrance opening regimes for intermittently closed and open lakes and lagoons and alter catchment flood behaviour over time.
 - The level of protection provided by seawalls and other hard engineering structures will decrease over time due to increasing threat from larger storm surges and inundation at higher projected water levels.

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PEPPER IT WITH

Permafrost Melting, Albedo of Ice, arctic amplification, thawing permafrost, Glacier erosional landforms



Europe's Great Drought

NEWS EXCERPT

With intense and record-breaking summer heat, 2022 dried rivers early and rivers have been reduced to shallow streams which resulted in the worst drought year in Europe in 500 years.

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Pre-Connect

- As per WHO, drought is a prolonged dry period in the natural climate cycle. It is a slow-onset disaster characterized by the lack of precipitation, resulting in a water shortage.
- Drought can have a serious impact on health, agriculture, economies, energy and the environment.
- The climatological community has defined four types of droughts:

Type of Drought	Description
Meteorological drought	It happens when dry weather patterns dominate an area.
Hydrological drought	It occurs when low water supply becomes evident, especially in streams, reservoirs, and groundwater levels, usually after many months of meteorological drought.
Agricultural drought	It happens when crops become affected. And socioeconomic drought relates the supply and demand of various commodities to drought.
Socioeconomic drought	It occurs when the demand for an economic good exceeds supply as a result of a weather-related deficit in water supply.
Ecological drought	It is an "episodic deficit in water availability that drives ecosystems beyond thresholds of vulnerability, impacts ecosystem services, and triggers feedback in natural and/or human systems".

State of drought in Europe

- With hot and dry conditions in Europe fuelling wildfires, shrinking water levels in some of Europe's biggest rivers like the Rhine, Po, Loire, Danube, reducing crop yields and affecting power generation.
- A report by the European Drought Observatory, which is overseen by the European Commission (EC), revealed that 47 percent of the continent is under warning conditions and witnessing a clear deficit of soil moisture.
- Another 17 percent of the continent is in a state of alert, meaning vegetation "shows signs of stress."

**Reasons for drought in Europe**

The severe drought affecting many regions of Europe since the beginning of the year has been further expanding and worsening as of early August. Witnessing the impact of climate change.

- ✓ **Dry conditions:** They are related to a wide and persistent lack of precipitation combined with a sequence of heat waves from May onwards. The severe precipitation

Global Assessment risk report on drought 2021

- ❖ The GAR Special Report on Drought 2021 comes at a pivotal moment as the world reflects on how it should deal with the threats various risks pose to sustainable development.
- ❖ The GAR is published biennially by the UN Office for Disaster Risk Reduction (UNDRR)
- ❖ This report explores the current understanding of drought risk, its drivers and the ways in which people, economies and ecosystems are exposed and vulnerable.
- ❖ It highlights that climate change is increasing the frequency, severity and duration of droughts in many regions across the world.
- ❖ It calls attention to the level of un-readiness across the world to respond effectively to the significant risks posed by drought.

deficit has affected river discharges widely across Europe.

- ✓ **Shortfall in Water:** Reduced stored water volume has had severe impacts on the energy sector for both hydropower generation and cooling systems of other power plants.
- ✓ **Heat stresses:** They have substantially reduced summer crops' yields. The most affected crops are grain maize, soybeans, and sunflowers.
- ✓ **Warm and dry conditions:** Warmer and drier than usual conditions are likely to occur in the western Euro-Mediterranean region in the coming months till November 2022.
- ✓ **Azores High:** Expansion of the "Azores high" - a high pressure system in the north Atlantic is driving "unprecedented" changes in western Europe's climate.

Implications

- **Energy poverty:** Hydropower is an important source of energy and relies on the supposedly inexhaustible supply of water. But low water levels in reservoirs can reduce the energy output of hydroelectric dams. This is expected to be the case in Portugal and the population and industry may be deprived of power.
- **Irrigation hampered:** Italy's fertile Po valley, which is facing the worst drought since 1952, produces 40 per cent of the country's food. The region drained by the Po river is known for its wheat harvests. Thus, due to lack of water and the heat the crop has wilted.
- **Supply chain disruption:** Germany's most important waterway, the river Rhine, a critical for regional trade, reached alarmingly low levels last week choking trade and holding up supply chains.
- **Tourism:** Water shortage in Italy had prompted authorities in the Vatican to shut off its iconic fountains. The country is known to draw tourists but in the wake of its water crisis, summer tourism was expected to see a dent.

Heat waves in North America

- ❖ As per the United States environmental protection agency, heat waves are occurring more often than they used to in major cities across the United States.
- ❖ In recent years, the average heat wave in major U.S. urban areas has been about four days long.
- ❖ Heat waves have become more intense over time.
- ❖ Longer-term records show that heat waves in the 1930s remain the most severe in recorded U.S. history.

Hunger stones in Europe

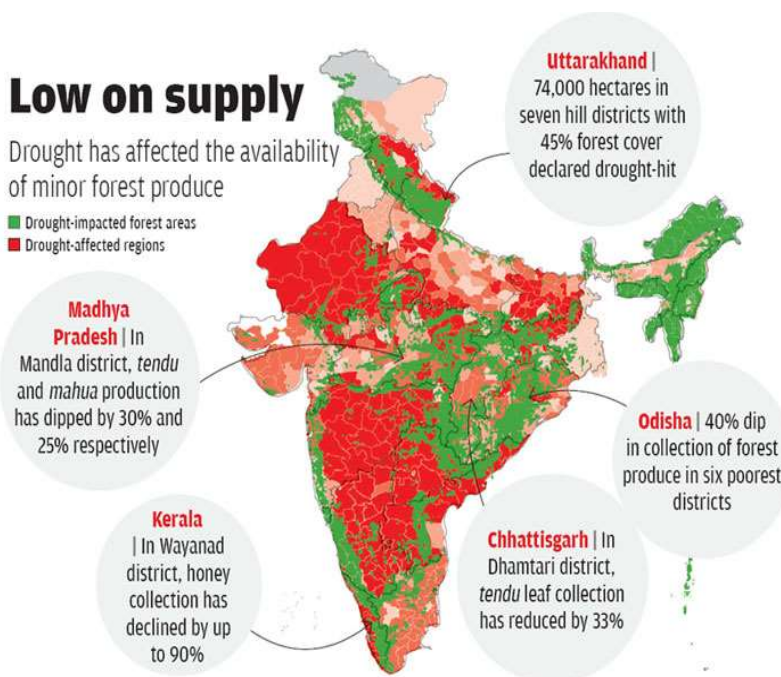
- ❖ As rivers run dry in central Europe, they reveal a type of low water mark particular to that part of the world, the so-called Hungersteine, or "hunger stones."

The India Meteorological Department (IMD) defines drought in any area when the rainfall deficiency in that area is $\geq 26\%$ of its long term normal. It is further classified into moderate and severe drought depending upon whether the deficiency is between 26 to 50% and more than 50% respectively.

Low on supply

Drought has affected the availability of minor forest produce

■ Drought-impacted forest areas
■ Drought-affected regions



- **Seasonal Changes:** Climate change has offered a feeble silver lining for certain industries but this will be short-lived. Salt farmers in France had a bumper production due to drying rivers. Salt farmers in North west France had record yields due to greater sea water evaporation induced by high temperature and drier winds.

Way forward

To overcome the challenges of drought the need of the hour is to restore the degraded lands. However, beyond restoration there is need for a paradigm shift from 'reactive' and 'crisis-based approaches to 'proactive' and 'risk-based drought management approaches like-

- Equip people worldwide with tools to assess their current or potential future exposure to drought risk.
- Share proven, innovative international solutions to drought.
- Create public opportunities to participate in action.
- Celebrate progress and inspire action.
- Sustainable and efficient agricultural management techniques that grow more food on less land and with less water.
- Changes in our relationships with food, fodder and fiber, moving toward plant-based diets and reducing or stopping the consumption of animals.
- Concerted policy and partnerships at all levels.
- Development and implementation of integrated drought action plans.
- Set up effective early-warning systems that work across boundaries.

PEPPER IT WITH

Mediterranean climate, Flash flood, Riverine floods

Forever Chemicals

NEWS EXCERPT

A recent study published in Environment Science and Technology has found that rainwater from many places across the globe is contaminated with "per- and polyfluoroalkyl substances," (PFAS), which are called "forever chemicals" because they tend to remain in the environment for a longer period of time.

Pre-Connect

- According to the US Centre for Disease Control and Prevention (CDC), PFAs are man-made chemicals used in many products that resist grease, water and oil.
- PFAs can migrate to the soil, water and air during their production and use.
- Since most PFAs do not break down, they remain in the environment for long periods.
- Some of these PFAs can build up in people and animals if they are repeatedly exposed to the chemicals.

Concerns related to PFAS

Human Health Risk

- PFAS may cause decreased fertility rate, as it interferes with the reproductive system and the development of the fetus.
- Developmental effects and birth defects in children.
- Interference with body hormones (so they are called endocrine disruptors).
- Increased cholesterol levels and increased risk of some cancers (e.g.-kidney and testicular cancer).
- Recent research has also revealed that long-term low-level exposure to certain PFAS can make it difficult for humans to build antibodies after being vaccinated against various diseases.



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Environmental Risk

- ✓ **Affecting soil:** PFAS in soil degrades the soil quality and properties and its direct contact poses a risk to wildlife and humans.
- ✓ **Ground water contamination:** PFAS in the soil contaminates the groundwater and surface water.
- ✓ **Air:** PFAS can be emitted into the air as vapours or fine particles. PFAS then travels in the atmosphere through adhesion to particulate matter.
- ✓ **Bio-magnification:** PFAS is known to accumulate in exposed animals. Thus, it follows through the food chain transferring chemicals from lower trophic level to higher trophic level.
- ✓ **Oceans:** Toxic PFAS in the ocean are transported from seawater. Thus, affecting the marine ecosystem and marine life.

Regulation of PFAS

Globally:

- The Stockholm Convention on Persistent Organic Pollutants is an international treaty aiming to eliminate or restrict the production and use of the most toxic chemicals of global concern.
- Currently, two sub-group of PFAS are listed in the convention: PFOS and related substances since 2009 for global restriction and PFOA and related substances since 2019 for global elimination.

The Stockholm Convention on Persistent Organic Pollutants

- ❖ It was adopted by the Conference of Plenipotentiaries on 22 May 2001 in Stockholm, Sweden. The Convention entered into force on 17 May 2004.
- ❖ It is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods become widely distributed geographically, accumulate in the fatty tissue of humans and wildlife, and have harmful impacts on human health or on the environment.
- ❖ It regulates **29 POPs**, requires parties to adopt a range of control measures to reduce and, where feasible, eliminate the release of POPs.
- ❖ The Stockholm Convention also requires parties to restrict trade in such substances.
- ❖ It aims to ensure the sound management of stockpiles and wastes that contain POPs.

In India:

- ✚ No PFAS substances are regulated in the country.
- ✚ India became a Party to the Stockholm Convention in 2006 and the treaty added PFOS to its global restriction list in 2009.
- ✚ However, India has not accepted the amendment listing this substance and it is unregulated, along with other PFAS.

Way Forward

- > PFAS monitoring should be conducted to identify hotspots near industrial areas.
- > A comprehensive inventory of PFAS use should be conducted. In India there is hardly any information available on the use of the chemical in various sectors and this data is needed for the control of use and waste management
- > To prevent PFAS pollution and subsequent costly remediation, India should make an inventory of firefighting foam stocks promptly and replace PFAS-containing foams with fluorine-free foams as early as possible.

PFAS pollutant in India

- ❖ **Breast milk is contaminated with PFAS substances :** A 2008 study found significant PFAS levels for PFOS, PFOA, PFHXS, and PFBS in women from Chidambaram, Kolkata, and Chennai.
- ❖ **PFAS In India travels outside the border :** A 2019 study found that the contribution of the Indian Monsoon to PFAS in snow in western China was approximately 70%. India is also the likely source of PFOA measured on Mt Zuoqiupu in Tibet and the source of PFBA which dominated the snow pack of Lake Namco.

PEPPER IT WITH

Hydrocarbons, Benzene
pollution, persistent
pollutants

- > Export and import data should show sectoral use and help Customs identify trade flows.
- > Specific regulations are needed to prohibit PFAS production, use, import, and export. To avoid costly mistakes, PFAS should be banned as a class
- > There is a need of more scientific study on the presence and health impacts of PFAS in air, food and water.

Battery Waste Management Rules, 2022

NEWS EXCERPT

Ministry of Environment, Forest and Climate Change, Government of India published the Battery Waste Management Rules, 2022, to ensure environmentally sound management of waste batteries.

Pre-Connect

- Extended producer responsibility (EPR) is a policy mechanism (introduced under Plastic Waste Management Rules, 2016) that helps to advance the circular economy, decreases the environmental impact of a product and its packaging, and promotes the principle of “polluter pays” by holding the producer accountable for the entire lifecycle of the product.

Objectives of EPR

- Integration of environmental costs
- Improved waste management
- Reduction of disposal
- Reduction of the burden on municipalities
- Design of environmentally sound products.



About the latest Battery waste management rules

New rules will replace the Batteries (Management and Handling) Rules, 2001, guidelines are-

- ✓ The rules cover all types of batteries, viz. Electric Vehicle batteries, portable batteries, automotive batteries and industrial batteries.
- ✓ **EPR:** The rules function based on the concept of Extended Producer Responsibility (EPR) where the producers (including importers) of batteries are responsible for the collection and recycling/refurbishment of waste batteries and use of recovered materials from wastes into new batteries.
- ✓ EPR mandates that all waste batteries be collected and sent for recycling/refurbishment, and its prohibits disposal in landfills and incineration.
- ✓ **Digital backbone:** The rules will enable the setting up a mechanism and centralized online portal for the exchange of EPR certificates between producers and recyclers/refurbishers to fulfill the obligations of producers.
- ✓ **Industrial development:** The rules promote the setting up of new industries and entrepreneurship in the collection and recycling/refurbishment of waste batteries.
- ✓ **Recovery from waste:** Mandating the minimum percentage of recovery of materials from waste batteries under the rules will bring new technologies and investment in the recycling and refurbishment industry and create new business opportunities.

S.No.	Type of Battery	Recovery target for the year in percentage		
		2024-25	2025-26	2026-27 and onwards
1.	Portable	70	80	90
2.	Automotive	55	60	60
3.	Industrial	55	60	60
4.	Electric Vehicle	70	80	90

Note : Maximum recovery target is subject to the percentage of non-recoverable hazardous material content in the Battery. It would mean the reduction of recovery target by the same percentage of the hazardous material present in the Waste Battery.

- ✓ **Recycling:** Recommending the use of a certain amount of recycled materials in the making of new batteries will reduce the dependency on new raw materials and save natural resources.
- ✓ **Polluters pay principle:** Environmental compensation will be levied for non-fulfillment of Extended Producer Responsibility targets and commitment, responsibilities and obligations set out in the rules.
- ✓ **Compensation fund:** The funds collected under environmental compensation shall be utilised in the collection and refurbishing or recycling of uncollected and non-recycled waste batteries.

Conclusion

With India and its EV adoption as the context, the country still doesn't have major lithium-ion (Li-ion) cell producers. The lack of raw materials is one of the key reasons behind this. As a result, India is still dependent on imports of EV cells from countries such as China, Korea, and the US. While cell manufacturing is beginning to take shape in India, a proper recycling industry would further help in achieving the country's goal of self-sustainability for cell production. Thus, new battery waste management rules and EPR rules can pave the way for a sustainable future.

PEPPER IT WITH

Electric vehicles challenges in India, E-waste management rules and Basel convention.

Air pollution and Coal Fired Power plant

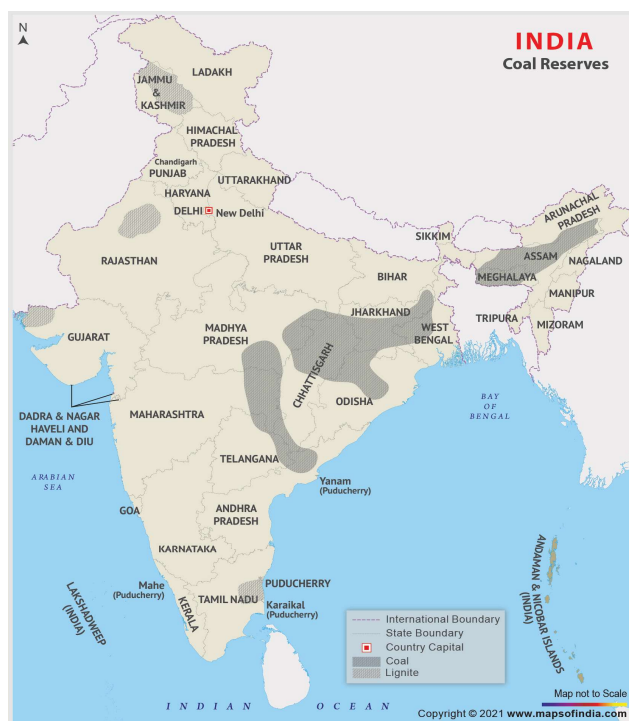
NEWS EXCERPT

India extended a deadline for coal-fired power plants to install equipment to cut sulphur emissions by 2025, the government said in a notification, marking the third pushback on a commitment to clean up dirty air.

Pre-connect

- Coal thermal power plants contribute to over half sulphur dioxide (SO₂) concentration, 30 per cent oxides of nitrogen (NO_x), 20 per cent particulate matter (PM) in the ambient air.
- At present, thermal power accounts for almost 60 per cent of India's total installed power generation capacity.
- It is produced by burning fossil fuels like coal, gas, etc.
- India's coal reserves are expected to last 100 years, compared to around 50 years for gas and about 16 years for oil.
- A report by NITI Aayog said that coal-based electricity generation capacity in India is likely "to peak at about 250 GW" by the end of this decade or immediately thereafter whereas coal-based electricity generation will slow down, and likely peak a few years later.
- As per the world bank report, the air pollution levels in India are among the highest in the world, posing a heavy threat to the country's health and economy.

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Implications of the coal-based power plant on Atmosphere

Thermal power plants are known to pump out a lot of greenhouse gases and ash, which are by-products of burning fossil fuels. Whilst some thermal power plants do use solar or nuclear energy, they are heavily reliant on fossil fuels.

- **Carbon dioxide:** It is one of the main gases that is released from the burning of fossil fuels and is known to be a greenhouse gas and a contributor of global warming.
- **Sulphur dioxide:** It is another gas that is released from power plants. Whilst it is technically not a greenhouse gas, it is known to have indirect effects to the atmosphere because it can affect the scattering of incoming sunlight, the formation of clouds and precipitation patterns.
- **Nitrogen oxides:** Thermal power plants are also one of the biggest contributors to the global nitrogen oxide levels. Nitrogen oxides are known to present visibility and respiratory issues, and they can also combine with other atmospheric gases and moisture to form acid rain and smog.

Initiatives taken by the Government

- ✓ Improving the efficiency of thermal power plants
 - Perform achieve and trade scheme under national mission on energy efficiency.
 - Adopting super critical/ultra-super critical technology for coal-based generation.
 - Efficiency improvement measures through renovation and modernization
 - Decommissioning of old and inefficient units.
- ✓ Thrust is being given for increasing the share of non fossil fuel (renewable, hydro etc.) based generation in the energy mix.
- ✓ Perform Achieve Trade (PAT) Scheme under National Mission on Enhanced Energy Efficiency is under implementation by Bureau of Energy Efficiency (BEE). Various energy efficiency measures like LEDs, star labelling etc.
- ✓ Government of India have issued policy on automatic transfer of linkage in case of scrapping of old units and replacing them with new supercritical plants.
- ✓ Increasing the share of renewable energy in the overall power generation in the country.

Greening Initiatives of India's Coal Sector

- ❖ The Ministry of Coal has set an ambitious goal for coal companies to bring more than 2400 hectare of area in and around coalfields under green cover with plantation of more than 50 lakh saplings for the year 2022-23.
- ❖ The identified areas include reclaimed mined out areas of coal companies and areas outside of leasehold - amenable for plantation and made available by State Government agencies.
- ❖ As of now, greening drive is in full swing in coal mining areas and about 1000 Ha of land has already been covered through block plantation, avenue plantation, grassland creation, bamboo plantation and high-tech cultivation

Alternative Sources

- **Hydro power plants:** They are especially suitable for quick supply of flexible power. Coordination with state operated hydro plants would play an important role in re-allocation of hydro generation. Thus CO₂ emissions will be less and cost of fuel will be minimal.
- **Reducing dependency:** To reduce dependence on import of fuel for power generation, the following needs to be done-
 - Improved coordination between railways and coal companies for making optimum utilization of resources.
 - The transparent web portal indicating information about the coal at each mine, transportation by railways and, stock at power plants can help in enhancing achievability of the desired coordination.
 - There is a need for an upsurge in the production and availability of domestic coal to the power sector.
 - Need for accelerating the permission documents and formal clearances such as environment clearances/forest clearances land acquisition.
 - Coal India Ltd. (CIL) has prepared a roadmap to enhance the production of coal substantially by 2019. 20 to 1 billion tonnes.
- **Infrastructure:** Augmentation of the gas pipeline infrastructure to transport natural gas for the speedy availability of the gas at the remote places.
- **New technologies:** Introduction of new technologies like ultra-supercritical technology can improve the efficiency of coal-based power generation by 1.5% over supercritical units.

PEPPER IT WITH

Fly Ash Bricks, ASH TRACK App, Carbon sequestering, Carbon Credit, Carbon Capturing

India's Updated Climate Pledge


NEWS EXCERPT

India's updated climate pledge to the Paris Agreement has been ranked fifth in compliance and fourth in ambition by a new study. European Union (EU) took the lead while the United States was ranked last in compliance and second to last in ambition.

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Pre-Connect

- The Paris Agreement is a global treaty wherein some 200 countries agreed to cooperate to reduce GHG emissions and rein in climate change. The agreement seeks to limit global warming to well below 2°C, preferably to 1.5°C, compared to pre-industry levels.



Cabinet approves new climate policy

India is now committed to achieve new targets to ease burden on climate by the year 2030

INDIA'S UPDATED NATIONALLY DETERMINED CONTRIBUTION	INDIA'S FIRST NDCS SUBMITTED IN 2015
<p>India now stands committed to reduce Emissions Intensity of its GDP by 45 percent by 2030, from 2005 level</p> <p>To promote sustainable lifestyle, 'LIFE' - 'Lifestyle for Environment' as a key to combating climate change" has been added to NDC</p>	<p>Achieve about 50% cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030</p> <p>Reduce the emissions intensity of GDP by 33 to 35 percent compared to 2005 levels</p> <p>Cumulative electric power installed capacity from non-fossil sources to reach 40%</p> <p>Create an additional carbon sink of 2.5- 3 billion tonnes of CO2 equivalent through additional tree cover</p>

- Nationally Determined Contribution(NDC), is a climate action plan to cut emissions and adapt to climate impacts. Each Party to the Paris Agreement is required to establish an NDC and update it every five years. However, NDCs are not legally binding.
- Carbon neutral means that any CO2 released into the atmosphere from a company's activities is balanced by an equivalent amount being removed.
- Climate-positive means that activity goes beyond achieving net-zero carbon emissions to create an environmental benefit by removing additional carbon dioxide from the atmosphere.
- Net-Zero emissions balance the whole amount of greenhouse gas (GHG) released and the amount removed from the atmosphere.

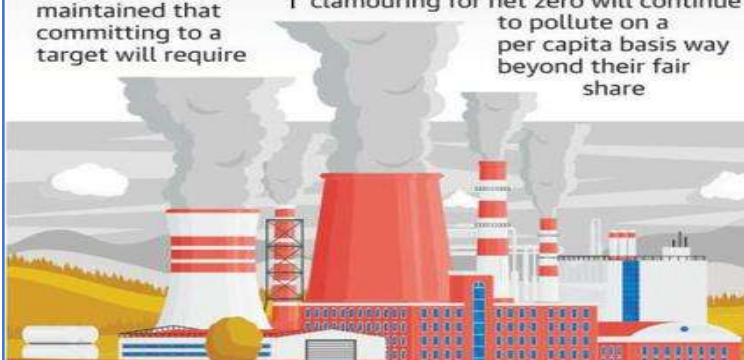
Updated NDC targets of India

- To put forward and further propagate a healthy and sustainable way of living based on traditions and values of conservation and moderation, including through a mass movement for 'LIFE'- 'Lifestyle for Environment' as a key to combating climate change.

Road to net zero

In 2015, over 190 countries committed to limiting global warming to 1.5°C above pre-industrial levels. Countries such as the U.K. and France have already enacted laws to achieve net zero target by 2050. This has put pressure on India, the third-largest emitter, which has not been in favour of committing to a deadline


- Net zero means committing to a year beyond which emissions will be balanced by taking an equivalent amount of greenhouse gases from the air
- India has maintained that committing to a target will require retiring coal plants and fossil fuel use overnight and even then, it will not guarantee that temperature rise stays below 1.5°C
- India says that future net zero promises are hollow as countries responsible for the climate crisis have not delivered on previous promises
- India argues that countries clamouring for net zero will continue to pollute on a per capita basis way beyond their fair share



- To adopt a climate friendly and a cleaner path than the one followed hitherto by others at corresponding level of economic development.
- To reduce Emissions Intensity of its GDP by 45 percent by 2030, from 2005 level.
- To achieve about recent cumulative electric power installed capacity from non-fossil fuel-based energy resources by 2030, with the help of transfer of technology and low-cost international finance including from Green Climate Fund (GCF).
- To create an additional carbon sink of 2.5 to 3 billion tonnes of CO₂ equivalent through additional forest and tree cover by 2030.
- To better adapt to climate change by enhancing investments in development programmes in sectors vulnerable to climate change, particularly agriculture, water resources, Himalayan region, coastal regions, health and disaster management.
- To mobilize domestic and new & additional funds from developed countries to implement the above mitigation and adaptation actions in view of the resource required and the resource gap.
- To build capacities, create domestic framework and international architecture for quick diffusion of cutting edge climate technology in India and for joint collaborative R&D for such future technologies.

Conclusion

India's NDC is ambitious, and it is a significant contribution towards achieving the goals of the Paris Agreement. Environmentally sustainable, low carbon initiatives are underpinning all key sectors of the Indian economy. India reaffirms its commitment to the UNFCCC and the Paris Agreement on Climate Change. This update to India's existing NDC is a step forward towards our long term goal of reaching net-zero by 2070.

Indian Pangolin			
 <p>Pangolin types</p> <ul style="list-style-type: none"> • Eight species of pangolins are found on two continents. They range from Vulnerable to Critically Endangered. • Four species live in Africa: Black-bellied pangolin (<i>Phataginus tetradactyla</i>), White-bellied pangolin (<i>Phataginus tricuspis</i>), Giant Ground pangolin (<i>Smutsia gigantea</i>) and Temminck's Ground pangolin (<i>Smutsia temminckii</i>). • The four species found in Asia: Indian pangolin (<i>Manis crassicaudata</i>), Philippine pangolin (<i>Manis culionensis</i>), Sunda pangolin (<i>Manis javanica</i>) and the Chinese pangolin (<i>Manis pentadactyla</i>). 	<p>About pangolin</p> <ul style="list-style-type: none"> • Of the eight extant species of pangolin, the Indian Pangolin <i>Manis crassicaudata</i> and Chinese Pangolin <i>M. pentadactyla</i> occur in India. • Indian Pangolin is a large anteater covered dorsally by 11-13 rows of scales. • The adult male is about one-third larger than the female. • A terminal scale is also present on the ventral side of the tail of the Indian Pangolin, which is absent in the Chinese Pangolin. • Its sticky tongue, which is longer than its body, is specially adapted for reaching and lapping up insects in deep crevices. • To tear open the anthills or termite mounds, it uses the powerful forelimbs that are armed with three disproportionately long claws. • In sharp contrast, the hind legs have tough soles and short, blunt nails on the five toes. 		<p>Habitat and Distribution in India</p> <ul style="list-style-type: none"> • The species is understood to occur in various types of tropical forests as well as open land, grasslands and degraded habitats, including in close proximity to villages. • The species can adapt well to modified habitats, provided its ant and termite prey remains abundant. • Indian Pangolin is widely distributed in India, except the arid region, high Himalayas and the North-East. It can be found at elevation up to 2500 m. • The species also occurs in Bangladesh, Pakistan, Nepal and Sri Lanka.
	<p>Threats to Indian pangolin</p> <ul style="list-style-type: none"> • Major threats to pangolins in India are hunting and poaching for local consumptive use (e.g. as a protein source and traditional medicine) • International trade, for its meat and scales in East and South East Asian countries, particularly China and Vietnam. • Its leathery skin, used to make boots, shoes and other goods. • Other threats include the expansion of agriculture, habitat loss and deterioration, which opens up previously inaccessible areas to hunting and poaching, pesticide use and road kill. 	<p>Conservation Status</p> <ul style="list-style-type: none"> • Schedule : Listed in Schedule I of Wildlife (Protection) Act, 1972. • IUCN : Endangered on IUCN Red List. • CITES : Pangolins gained the highest levels of protection under CITES and comes under APPENDIX 1. <p>Conservation Efforts</p> <p>TRAFFIC is mapping pangolin trade hubs, conduits, transportation, high poaching areas and drivers in relation to poaching and illegal trafficking of pangolins.</p> <p>TRAFFIC, in partnership with WWF-India and Wildlife Crime Control Bureau (WCCB) launched a social media campaign to create awareness.</p> <p>Maharashtra becomes first state in India to get dedicated action plan to protect pangolins.</p> <p>The Applied Environmental Research Foundation (AERF) has been promoting conservation with strong collaboration and partnership with the local communities with a geographical focus in the North-Western Ghats (NWG) for pangolin which is part global Biodiversity Hotspot</p>	

SCIENCE AND TECHNOLOGY

International Space Station (ISS)

NEWS EXCERPT

Owing to sanctions imposed by the West, Roscosmos, Russia's space agency had decided not to collaborate with Germany on cooperative activities in the Russian component of the International Space Station (ISS).

Pre-Connect

- The International Space Station, which was launched in 1998, is the only operational space laboratory as of now, orbiting the earth in a trajectory that is about 400 km above the land surface.
- It is run by more than 15 different countries and built with the cooperation of scientists from five space agencies: NASA of the US, Roscosmos of Russia, European Space Agency, JAXA of Japan and the Canadian Space Agency.
- Since its inception, it has been continually manned. A crew of six astronauts is on board at any particular time.
- Currently Four astronauts from the United States, two from Russia (who prefer to be called cosmonauts), and one from Germany are deployed on the ISS.
- It conducts a range of zero-gravity operations, space exploratory studies and technical development.
- It takes around an hour and a half to complete one orbit of the globe. As a result, it completes nearly 16 times around the globe, in a single day.
- Several smaller space stations have been used earlier. Example: Russian Mir space station and American Skylab.

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India Space Station

- ❖ Indian Space Station is an extension of the Gaganyaan Mission.
- ❖ ISRO will launch a small module for microgravity experiments.
- ❖ To be launched by 2030, Indian space station is envisaged to weigh 20 tonnes.
- ❖ Astronauts can stay for 15-20 days.
- ❖ To be placed in an orbit 400 km above earth.
- ❖ ISRO is working on Space Docking Experiment (Spandex) technology that allows transferring humans from one spacecraft to another.

PEPPER IT WITH

IN-SPACE, New Space
India Limited

What's the threat if Russia pulls out its support from ISS

- ISS is not entirely in zero-gravity space. It does encounter a little bit of gravity. The ISS sinks from its orbit at a height of around 250 miles above the Earth due to its large weight and resulting drag. It needs to be pulled up to its original line of motion. The withdrawal of Russia may have an impact on the ISS's orbit correction. As a result, the ISS might either fall into the sea or land.
- The ISS's orbit does not generally pass over Russian territory; it would most likely crash into another country, posing a bigger risk to places closer to the equator.
- SpaceX's dragon module and Boeing's Starliner can dock with the ISS and will work as an alternative to Russia.

Tomato Flu

NEWS EXCERPT

A new virus known as tomato flu, or tomato fever, has been identified in the Indian state of Kerala (Kollam District) in children younger than 5 years. They also diagnosed HFMD (Hand, Foot, Mouth disease).

Pre-Connect

- It is caused by a Coxsackie A 16 virus, shows symptoms similar to those of Covid-19 but not related to SARS COV-2.

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- It is a common contagious disease that generally targets children between one and five years of age and adults with weaker immunity.
- The rare viral infection is in an endemic state and is considered non-life-threatening, however, because of the dreadful experience of the Covid-19 pandemic, vigilant management is desirable to prevent further outbreak.
- States with higher cases - Haryana, Odisha, Kerala and Tamil Nadu.
- No causes have been found that cultivate or spread the virus.
- It has symptoms similar to Dengue and Chikungunya, but it is not related to it.
- Experts viewed that Tomato flu is similar to HFMD.

ANOTHER CAUSE FOR ALARM



- Tomato Flu is named after the tomato-shaped blisters that appear on the body

Vulnerable Population: The flu affects children below the age of five

Transmission: Tomato fever is contagious. It can transmit quickly from one person to another

SYMPTOMS

- Red blisters • Rashes
- Fever • Dehydration
- Lethargy • Nausea
- Coughing • Sneezing
- Runny nose

Treatment

- Symptomatic patients should go through molecular and serological tests for the diagnosis of the Zika virus, Chikungunya, and Dengue.
- Supportive therapy of paracetamol for fever, body ache and other symptomatic treatments can be done.
- There are no specific drugs for this disease; it is being treated with different combinations of medication for chikungunya and dengue.
- Sanitization and proper hygiene have been emphasised for the best prevention.

PEPPER IT WITH

HFMD RNA Virus, mRNA vaccine

Pen Plus Strategy

NEWS EXCERPT

African nations have adopted a new strategy to boost access to the diagnosis, treatment and care of severe non-communicable diseases (NCDs) called 'PEN-PLUS Strategy' under WHO.

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About PEN-PLUS Strategy

- It is a regional strategy to address severe NCDs at First-Level Referral Health Facilities' that is aimed at bridging the access gap in the treatment and care of patients with chronic and severe NCDs.
- It presents a chance to build the leadership required to train, monitor, and mentor the adoption and extension of chronic care services.
- It aims at reducing premature mortality from NCDs.
- The PEN-Plus strategy expands on current WHO projects for comprehensive NCDs detection, assessment, treatment, and care in primary healthcare institutions.

Package of essential noncommunicable (PEN) strategy

- The WHO Package of essential noncommunicable (PEN) disease interventions for primary health care in low-resource settings is a framework for strengthening the equity and efficiency of primary health care in low-resource settings for the integrated management of NCDs.
- Implementation of the WHO PEN is key to achieving objective 4 of the WHO Global action plan for the prevention and control of noncommunicable diseases 2013-2020, adopted by the World Health Assembly in 2013.

Non-Communicable Diseases (NCDs)

- ✓ They are illnesses or conditions that are not brought on by contagious substances.
- ✓ They are long-duration, often slowly progressing chronic diseases that are brought on by a confluence of genetic, physiological, environmental, and behavioural variables.

- ✓ These diseases are those chronic conditions that, if untreated or undiagnosed, result in significant degrees of disability and death in children, adolescents, and young adults.
- ✓ Heart conditions, malignancies, diabetes, and asthma are just a few examples of NCDs.
- ✓ According to WHO, globally, NCDs are the main cause of morbidity and mortality. They account for 71 per cent of global mortality.

Status of NCDs in India

- According to a 2015 WHO report, almost 5.8 million Indians die from NCDs (heart and lung diseases, stroke, cancer, and diabetes) per year.
- One in four Indians are at risk of dying from an NCD before the age of 70.
- The proportion of NCDs to the overall illness burden has increased from 30% to 40%.

Challenges of providing NCD services in primary health care

- ✚ Many of developing countries have a double burden of infectious and chronic diseases. This dual burden weakens the already stretched health systems with limited resources.
- ✚ There are many high-technology facilities that are required for diagnosis and treatment of NCDs in primary care.
- ✚ The health financing schemes available may not be able to cover all NCD interventions.
- ✚ The skills needed for the delivery of all NCD interventions are too complex to be learnt by the primary care workforce.
- ✚ There are many competing priority conditions that countries need to address at the primary care level, it is unrealistic to expect low-income countries to integrate care of all NCDs into primary care at once.

PEPPER IT WITH

National Health Mission, Accredited Social Health Activists (ASHA), NPCDCS, Global Action plan for the Prevention and Control of NCDs

Way forward

Through the comprehensive management of NCDs, and its integration into primary health care and universal health coverage, a majority of premature deaths and disability can be avoided.

NASA Artemis Mission

NEWS EXCERPT

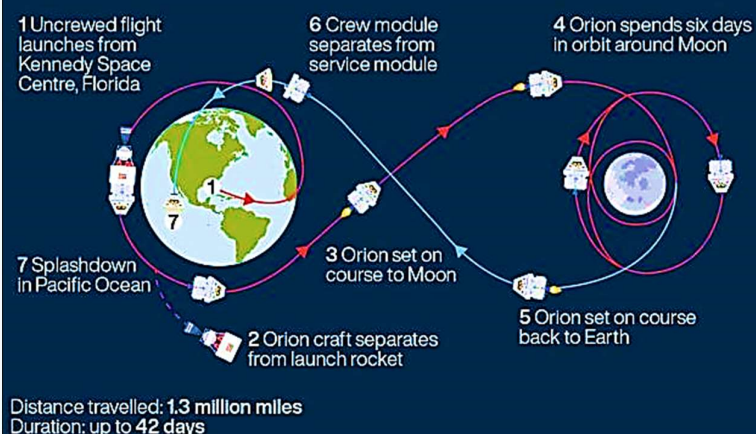
NASA intends to build a permanent lunar base at the moon's south pole, serving not only as a residence for moon-bound astronauts, but also as a staging ground for crewed missions to Mars and deep space exploration. On this line its, first step is Artemis 1 mission.

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Artemis 1 mission

- NASA's Artemis mission plans to enable human landing on the Moon at the beginning of 2024 and target sustainable lunar exploration by 2028.
- The program is led by the United States' National Aeronautics and Space Administration (NASA) with three partner agencies: European Space Agency (ESA), Japan Aerospace Exploration Agency (JAXA), and Canadian Space Agency (CSA).
- The program aims to find out any issues with the spacecraft before putting people on board.

Artemis 1 mission



Artemis accord:

- It describes a shared vision for principles, grounded in the Outer Space Treaty of 1967.
- It aims to create a safe and transparent environment which facilitates exploration, science, and commercial activities for all of humanity to enjoy.
- Till now, twenty-one countries have signed the Artemis accords, which include emerging space powers such as Brazil, South Korea, and the United Arab Emirates.
- It also includes private spaceflight companies.
- ✓ **Working:** The program's first step will be testing the flight of the Moon rocket, known as the Space Launch System (SLS), with the Orion capsule on top where astronauts will sit during future missions. This uncrewed flight, during which Orion will swing around the moon before returning to Earth, is to wring out any issues with the spacecraft before putting people on board.
- ✓ **Study:** The first mission will study the geologic processes of the earliest planetary bodies preserved on the Moon. This study will investigate rare types of volcanic processes on the Moon.

Why is the south pole of the moon so special?

- Its craters have been untouched by sunlight for billions of years — offering an undisturbed record of the solar system's origins.
- Its permanently shadowed craters are estimated to hold nearly 100 million tons of water.
- Its elemental and positional advantages make it a suitable pit stop for future space exploration.
- Its regolith has traces of hydrogen, ammonia, methane, sodium, mercury, and silver — making it an untapped source of essential resources.

PEPPER IT WITH

Chang'e 4, Chandrayaan 2,
International Lunar
Research Station.

Issues with mobile banking

NEWS EXCERPT

With the increasing penetration of mobile banking and digital payment, issues such as cyber threat, security and privacy are affecting people. Global cyber security firm Kaspersky warns of an increase in cyber-attacks on Android and iOS devices in the Asia Pacific (APAC) as more people switch to mobile banking in the region.

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Pre-Connect

Cyber security

- It is the protection of internet-connected systems such as hardware, software and data from cyber threats.
- It is used by individuals and enterprises to protect against unauthorized access to data centres and other computerized systems.

Trojan

- It is a malicious code or software that looks legitimate but can take control of your device, including smartphones.
- Recently, two prominent malware campaigns are operating to target smartphone users in several countries. They are Anubis, Roaming Mantis.

Types of cyber-attacks

Malware

Malware is an application that installs malicious software in the user's system. The software monitors the user's actions and keystrokes silently and collects all confidential user information. Example: Ransomware, worm, Trojan horse, spyware, bots etc.

Phishing

This type of attack attempts to steal confidential information from the user presenting them as a genuine entity. They often come in the form of emails, trying to trick a user to handle sensitive data like credit card numbers or passwords.

Denial of Service (DOS) and Distributed Denial of Service (DDoS)

DOS attack overloads the traffic on the server. Genuine requests go unattended.

DNS Spoofing

It is a type of security hacking that corrupts the Domain name system.

Password Attack

Attackers try to crack the password of a user by brute force (trying out all possibilities) or using tools. Password cracking tools like John the ripper, hash cat aid the criminals for the same

Eavesdropping attack

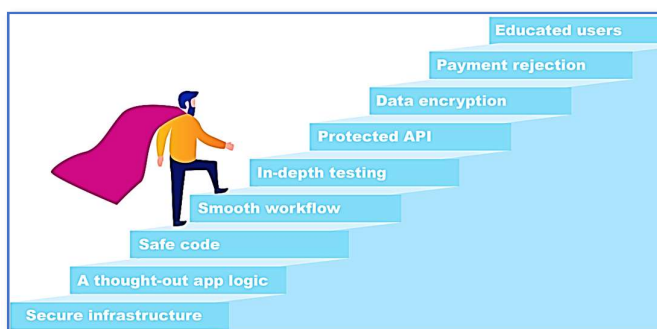
Hacker eavesdrops on the data communications flowing in the unsecured network. This type of attack is also known as sniffing or snooping.

Why is the need of cyber security in Mobile banking system?

- ✓ **Trust:** Due to data breach, it is tough to trust financial institutions. Customer's faith in banking system gets derailed.
- ✓ **Data protection and privacy:** With an increasing number of users, devices and programs in the modern enterprise, combined with the increased deluge of data, much of which is sensitive or confidential, the importance of cyber security continues to grow.
- ✓ **Public assets:** As people use mobile banking services, public money needs to be protected.

How cyber- threats in Mobile Banking can be avoided**Way forward**

As users are increasing day by day, it is important to maintain the security of information and update the security parameters in order to prevent cyber-attacks. A strong cyber security strategy can provide a good security posture against malicious attacks designed to access, alter, delete, destroy, or extort an organizations or user's systems and sensitive data.

**Hydrogen fuel cells****NEWS EXCERPT**

India's has recently unveiled its first indigenously developed hydrogen fuel cell-powered bus, developed by KPIT-CSIR in Pune.

Hydrogen Fuel cells

- According to the US Department of Energy, fuel cells work in a similar manner to conventional batteries found in electric vehicles but they do not run out of charge and don't need to be recharged with electricity.
- Hydrogen acts as the basic fuel in a hydrogen fuel cell, but the cell also needs oxygen to work.
- A hydrogen fuel cell uses the chemical energy of hydrogen to produce electricity.
- It is a clean form of energy with electricity, heat and water being the only products and by-products.
- They provide advantages over traditional combustion-based technologies, including greater efficiencies and lower emissions.

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WHY HYDROGEN?


- India's electricity is heavily coal-dependent. Hydrogen will replace fossil fuels, address pollution and oil-price rise
- It's the most abundant element in the universe, is lighter, energy dense, and
- two-three times more efficient than burning petrol
- It will benefit transportation (contributes 1/3rd of India's greenhouse-gas emissions), iron and steel and chemicals sectors

Green Hydrogen/Green Ammonia Policy

The policy for meeting decarbonization goals towards net zero emissions by 2070 is in line with the UN climate targets of capping the earth's temperature to 1.5°C as pledged in Paris agreement and reiterated at the COP26 summit in Glasgow in 2021.

Provisions:

- The Ministry of Power notified the green hydrogen and ammonia policy.
- Under this Policy, the government offered to set up manufacturing zones for production of green hydrogen/ ammonia in any of the manufacturing zones.
- Waiver of inter-State transmission charges for 25 years will be allowed to the manufacturers of green hydrogen/ ammonia for projects commissioned before June 30, 2025.
- The policy offers that green hydrogen and ammonia manufacturers may purchase renewable power from the power exchange or set up renewable energy (RE) capacity themselves or through any other developer, anywhere.
- The manufacturers of Green Hydrogen / Ammonia and the renewable energy plant shall be given connectivity to the grid on priority basis to avoid any procedural delays.
- The benefit of Renewable Purchase Obligation (RPO) will be granted incentive to the hydrogen/Ammonia manufacturer and the Distribution licensee for consumption of renewable power.

GREY HYDROGEN: Constitutes India's bulk production. Extracted from hydrocarbons (fossil fuels, natural gas). By-product: CO ₂	BLUE HYDROGEN: Sourced from fossil fuels. Emissions/by-products (CO, CO ₂) are captured and stored, so, better than grey hydrogen
	GREEN HYDROGEN: Generated from renewable energy (like solar, wind). Electricity splits water into hydrogen and oxygen. By-products: water, water vapour

Uses of Hydrogen fuel cell

- ✓ **Power:** Fuel cells act as power sources for a variety of commercial, industrial and residential applications. These range from homes to spacecraft and research stations.
- ✓ **Cogeneration:** Fuel cells can be made even more efficient through cogeneration. This is where fuel cell systems are used to generate power while the waste heat produced is used to heat buildings or power cooling systems.
- ✓ **Transport:** Fuel cells can be used for a variety of transport applications, from automobiles to buses, ships, trains and aircraft. Fuel cells are also being incorporated into motorcycles, bicycles and scooters.
- ✓ **Portable Power:** The smaller micro fuel cells are aiming to reach markets such as mobile devices and laptops with advantages including energy density and weight reduction when compared to lithium-ion batteries.

Conclusion

Despite its promise, hydrogen technology is yet to be scaled up. Scaling up the technology and achieving critical mass remains the big challenge. Globally, there were around 25,000 hydrogen fuel cell vehicles on the road at the end of 2020; by comparison, the number of electric cars was 8 million. More vehicles on the road and more supporting infrastructure can lower costs. India's proposed Hydrogen Energy mission is seen as a step in that direction.

Anti-Radiation Pills**NEWS EXCERPT**

Amid the Russia- Ukraine war, fears of a nuclear disaster at **Ukraine's Zaporizhzhia power plant** are growing, the European Union has decided to pre-emptively supply 5.5 million anti-radiation pills to be distributed among residents in the vicinity.

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Zaporizhzhia Nuclear Power Station

- It is located in south eastern Ukraine; it is the largest nuclear power plant in Europe and among the 10 largest in the world.
- It was built by the Soviet Union near the city of Enerhodar, on the southern shore of the Kakhovka Reservoir on the **Dnieper River**.

Anti-Radiation Pills

- These are Potassium iodide (KI) tablets, known to provide some protection in cases of radiation exposure.
- They contain non-radioactive iodine and can help block absorption and subsequent concentration of radioactive iodine in the thyroid gland.
- The pills are not meant for everybody. They are recommended for people under 40 years of age. Pregnant and breastfeeding women are also advised to take them.

Potassium iodide (KI)

- ✓ Potassium iodide (KI) is a type of iodine that is not radioactive and can be used to help block one type of radioactive material, radioactive iodine (I-131), from being absorbed by the thyroid.
- ✓ There are harmful health effects included when people take this. (Hypothyroidism, sometimes severe illness or death).

Conclusion

- Anti-radiation pills do not provide 100% protection. Its effectiveness depends on how much radioactive iodine gets into the body and how quickly it is absorbed in the body.
- While it can protect the thyroid against radioactive iodine, it cannot protect other organs against radiation contamination.

International Atomic Energy Agency (IAEA)

- ❖ It is the world's central intergovernmental forum for scientific and technical co-operation in the nuclear field.
- ❖ It works for the safe, secure and peaceful uses of nuclear science and technology, contributing to international peace and security and the United Nations' Sustainable Development Goals.
- ❖ It was created in 1957 in response to the deep fears and expectations generated by the discoveries and diverse uses of nuclear technology.
- ❖ The Agency's genesis was U.S. President Eisenhower's "Atoms for Peace" address to the General Assembly of the United Nations on 8 December 1953.
- ❖ It works in close partnership with Member States, United Nations agencies, research organizations and civil society to maximize the contribution of nuclear science and technology to the achievement of development priorities.

PEPPER IT WITH

Convention on Nuclear Safety (CNS)
Convention on Supplementary Compensation for Nuclear Damage (CSC)
Agreement for Application of Safeguards to Civilian Nuclear facilities.

Quantum Computing

NEWS EXCERPT

According to IBM, India has been witnessing growing interest in quantum computing, with students, developers, and academia actively participating. Consequently, the country is emerging as a talent hub for quantum computing.

Government effort in promoting the Quantum computing

National Mission on Quantum Technologies & Applications (NM-QTA):

- It will be led by the **Department of science and technology**.
- It will look at building expertise in the quantum frontiers which will be essential for national security, and the development of quantum computers, quantum chemistry, quantum communication, new materials, quantum sensors, as well as quantum cryptography.
- The aim of the mission is to create skilled human resources for Quantum technology that will be a workforce of over 25,000 over the next 5-7 years.

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- It focuses on innovation and start-ups, technology development, and human and infrastructural resource generation to address issues concerning national priorities.

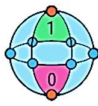
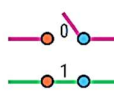



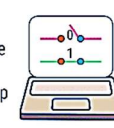


Quantum Computer Simulator (QSim) Toolkit

- It is launched by the **Ministry of Electronics and Information Technology** (MeitY).
- It provides the first quantum development environment for academicians, industry professionals, students, and the scientific community in India.

Quantum-Enabled Science and Technology (QuEST): The Department of Science and Technology launched the QuEST initiative to lay out infrastructure and to facilitate research in the field.

AGNii (Accelerating Growth of New India's Innovations):

- AGNii is a programme of the **Office of the Principal Scientific Adviser** to the Government of India, a Mission under the Prime Minister's Science, Technology, and Innovation Advisory Council (PM-STIAC).
- It helps in commercialising the Indian technological innovation.

Quantum Computing	Vs.	Classical Computing
 <p>Calculates with qubits, which can represent 0 and 1 at the same time</p>		 <p>Calculates with transistors, which can represent either 0 or 1</p>
 <p>Power increases exponentially in proportion to the number of qubits</p>		 <p>Power increases in a 1:1 relationship with the number of transistors</p>
 <p>Quantum computers have high error rates and need to be kept ultracold</p>		 <p>Classical computers have low error rates and can operate at room temp</p>
 <p>Well suited for tasks like optimization problems, data analysis, and simulations</p>		 <p>Most everyday processing is best handled by classical computers</p>

What is the way ahead for India?

- India has always been a heavy importer of technology. In 2020, India imported hardware and software amounting to US \$10.4 billion, while the tech exports were a mere US \$0.3 billion. For India to move from being an importer of quantum technology to an exporter, it needs to revisit and rework its technology policy objectives, frameworks, and deliverables.
- As the demand for semiconductor chips goes up with the coming of these computers, India needs to give a push to its semiconductor industry simultaneously.
- Entrepreneurship, innovation, university courses at all levels, scholarships, fellowships, training programmes, and consulting in quantum technology will be crucial towards developing a knowledge ecosystem and bridging the skill gap.
- India must also give a boost to its investor ecosystem which can help amplify production of hardware components of a quantum computer and its applications.

Concern

Quantum technology can put the present-day encryption at risk, which can pose a threat to a country's critical cyber infrastructure, thereby, putting its national security at stake. Confidential military and strategic information can be decrypted easily once quantum computers and their applications become a reality.

Conclusion

While India's quantum technology strategy appears ideal on paper, relevant agencies should ensure that it acknowledges these policy-level and implementation-level gaps and addresses them in a timely manner, so as to ensure India emerges as a world leader in the quantum technology space.

SECURITY

The Inflatable Aerodynamic Decelerator (IAD)

NEWS EXCERPT

The Indian Space Research Organization (ISRO) recently announced the successful test of a supersonic 'Inflatable Aerodynamic Decelerator' (IAD).

About IAD

- IAD has been designed and developed indigenously at Vikram Sarabhai Space Centre.
- The IAD was tested by ISRO using a Rohini-300 (RH300 Mk II) sounding rocket, from the Thumba Equatorial Rocket Launching Station (TERLS) near Thiruvananthapuram.
- IAD is an inflatable structure made of Kevlar fabric, coated with **Polychloroprene**.
- Its shape is maintained by a **closed, gas-pressured body** and the **inflatant gas** is also generated internally.
- Inflatable Aerodynamic Decelerator (IAD) is a **technique used for an atmospheric entry of the rocket body** (the component known as the payload part i.e., **spent rocket stages (for usability)**), so that the payload is not destroyed on speedy entry into a planetary atmosphere due to the impact.

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Significance

- IAD technology that could **help with the cost-effective recovery of expended rocket stages** (wasted stages of rocket during space missions) for re- usability and the **safe landing of payloads on some other planets** (like Mars or Venus in the future and making space habitats for humans).
- It can also be used for interplanetary missions.
- IAD is designed to increase drag upon entering the atmosphere of any planetary body, like Earth, Mars, or even Moon.
- Operation of IAD:** The IAD aims to do something similar to retrorocket but without firing rocket engines. It just uses friction or aerodynamic drag.
- Scope of this technology:** The IAD has huge potential in a variety of space applications viz. Recovery of spent stages of the rocket, Landing payloads on Mars or Venus and Making space habitats for human space flight missions.

PEPPER IT WITH

Sounding Rockets, Solid
Propellant Technology,
Supersonic Speeds,
Polychloroprene

Problems with Atmospheric re-entry and Interplanetary Missions:

- ✓ Objects entering an atmosphere experience **atmospheric drag**, which puts mechanical stress on the object, and **aerodynamic heating** (temperatures of about 3000 degrees Fahrenheit (about 1649 degrees Celsius)) caused mostly by compression of the air in front of the object, but also by **drag**. These **forces can cause loss of objects** with lower compressive strength and can explode.
- ✓ **Crewed space vehicles must be slowed to subsonic speeds.**

Interplanetary Missions and Recovering spent rocket stages:

- In the case of re-entry, the rocket/spacecraft is travelling at high speeds owing to the energy added by its propulsion system and gravitational pull on its mass. So, it is crucial to slow down a rocket/spacecraft.
- The rocket stages that are **re-entering earth's atmosphere travel at supersonic speeds** and **spacecraft entering other planets travel at hypersonic speeds.**

What has been used for re- entry of rockets?

The commonly used technology to slow down a descending spacecraft/rocket is the firing of a **retro-rocket**.

- ✚ **Retrorocket (retrograde rocket)** is a rocket engine providing thrust opposing the motion of a vehicle, thereby causing it to decelerate.
- ✚ **Problem with retrorocket:** The amount of rocket fuel required to slow the vehicle would be nearly equal to the amount used to accelerate it initially, and it is thus highly impractical to use retro rockets for the entire Earth reentry procedure.

Way forward

- > IAD technology opens a gateway for **cost effective spent stage recovery** and the **safe landing of payloads on some other planets**.
- > By **suitably sizing the IAD**, the **need for a retro rocket can be avoided for spent stages of vehicle first stage**, where energy of spent stage is comparatively less.

Indo-Russian Venture

NEWS EXCERPT

In 2019, India and Russia had inked an **Inter-Governmental Agreement (IGA)** under which a Joint Venture Indo-Russian Rifles Private Limited (IRRPL) was formed in Amethi, Uttar Pradesh. The manufacture of the AK-203 assault rifles will be started soon.

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Pre-connect:

Indo-Russian Rifles Pvt. Ltd. (IRRPL)

- **IRRPL** was **set up jointly between erstwhile OFB** [now Advanced Weapons and Equipment India Limited (AWEIL) and Munitions India Limited (MIL)] of India and **Rosoboronexport (RoE)** and concern Kalashnikov of Russia. The Russian side owns 49.5% of the shares.
- The new joint venture will manufacture world famous Kalashnikov assault rifles of the newest 200 series and eventually will reach full localization of production.
- The **Indian Army** will be the **first recipient of the AK-203 outside Russia**. Currently, it is under limited use by the Russian Special Forces.
- Initially, it will include Russian components. There also in batches of 20,000-40,000, the percentage of indigenous content would be increased gradually from 5% to 100% with a plan to produce all AK-203 after the first 1.2L with 100% indigenisation.

Problem with INSAS rifle:

- The INSAS rifle which has been the mainstay of the armed forces has been plagued by limited upgrades, inefficiencies, and manufacturing quality concerns.
- The equipment has been unable to change with the evolution of the Army. Example: It is difficult to use it for countering urban assailants in a close quarter battle.

PEPPER IT WITH

India-Russia Defence cooperation, India-Russia Inter-Governmental Commission on Military Technical Cooperation Munitions India Limited, Advanced Weapons and Equipments India Limited

Kalashnikov assault rifles - why needed India?

- ✓ It can perform in temperatures as low as -50 degrees Celsius. This makes it perfect for the mountainous warfare the Indian Army engages in with Pakistan and China.
- ✓ The rifle sustains dust storms and other builds of sand in desert environments. This makes this weapon suitable for even the long desert terrain we share with Pakistan.
- ✓ The rifle sustains tropical rain environments even when, exposed to the long downpour. This means that not only will the wetter and tropical operations benefit, but with the combined ability to resist sand and silt, it will be viable for coastal forces to use this as well.
- ✓ It is light weight weapon and handy when compared to INSAS rifle. So, it suits to India's long bordering protection operations.

Way forward

- This Joint Venture program will give a **big boost to self-reliance in defence**.
- Kalashnikov assault rifles will **enhance the combat potential of soldiers** to meet the **operational challenges** and the increasing the **effectiveness** of **Counter-Insurgency** or **Counter-Terrorism operations**.
- The project will provide **business opportunities to various MSMEs** and other defence industries for supply of raw material and components. It will in turn lead to generation of new employment opportunities.
- The **Indian defence-industrial sector** will have the **opportunity to fulfill the needs of national security agencies** in this **category** of **small arms**, resting upon advanced Russian technologies.

ART AND CULTURE

Kartavya Path

NEWS EXCERPT

In his address to the nation on August 15, this year, Prime Minister emphasized the need to shed colonial symbols that still latch on to the national capital. Acting on similar lines, Rajpath renamed Kartavya Path (Path of duties) and Installed 28-foot statue of Netaji Subhash Chandra Bose under the Grand Canopy, which once had the statue of George V, are meant to represent that spirit.

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History of Rajpath (King's Way)

- In 1911, the British Imperial Government changed the capital of the British Indian Empire from Calcutta to Delhi. The Emperor of India George V had visited Delhi during the Durbar of 1911 and formally proclaimed the decision to move the capital.
- Accordingly, construction on the district of New Delhi, which would serve as the purpose-built administrative capital of the Indian Empire, began in that year.
- Sir Edwin Lutyens and Herbert Baker, the leading British architects of that time, constructed the new city of Delhi.
- They wanted to construct a modern imperial city centered around a "ceremonial axis" like London. They constructed the boulevard (artificial road) that connects Viceroy's Palace to India Gate and ends at Purana Qila. They have named the road as "Kings Way" to honor George V.
- The Viceroy's house (Rashtrapati Bhavan) was built on Raisina Hill overlooking the Kingsway till Purana Qilla. With a view of Jama Masjid to the left and Safdarjung's Tomb to the right, the view from the house of the Viceroy was to comprise all objects of historical interest in the city.
- After India attained its independence, the road was given its Hindi name, 'Rajpath'. Now it is renamed Kartavya Path (Path of duties).
- For 75 years, Rajpath has been the showpiece stretch for the Republic Day parade that is held on January 26 every year.

The concept of Rajpath

- It implies the idea of a king who rules over the ruled. i.e., It symbolises the icon of colonial power and slavery of British Raj.
- But in the Independent democratic new India, it is the public who are Supreme and the Government and Public Servants are here to serve and fulfill their needs.

The concept of new Kartavya Path (Path of duties)

- ✓ It symbolizes Public Ownership and Empowerment towards Nation.
- ✓ It will inspire everyone, who visits or crosses this road to fulfill their duties.
- ✓ Netaji's statue at such a prominent place, will surely remind people, sacrifices made by innumerable freedom fighters.
- ✓ It will inspire people to take the challenges the nation is facing today, so that the tryst with destiny is redeemed.

Other Changes made from Colonial Path

- Country has changed hundreds of laws that have been going on since British Era.
- The Indian Budget, which followed the times of the British Parliament for so many decades, was changed.
- Through the National Education Policy, now the youth of the country are being liberated from the compulsion of foreign language.
- The new Naval Ensign (Nishan) introduced for doing away with the colonial past and befitting the rich Indian maritime heritage.

Chola-Era Craftsmanship

NEWS EXCERPT

Puranic Hinduism, represented by the worship of Siva, Vishnu and associated deities, had become popular by the time of the Cholas. A large number of temples dedicated to these deities were built. The temples were provided vast areas of land and a considerable section of the population came under their influence.

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Representation of Shiva in the Sculptures of Cholas:

- Siva was the preeminent god for the Cholas.
- He was represented in two forms. The iconic form of Shiva was **Lingodhbhava**, and the **Nataraja** idol was the human form.
- A trace of the locations of temple centers in Kaveri delta could provide us the map of an agrarian-political geography spatially and temporally.
- The repeated representation of **Tripurantaka** (the destroyer of three mythical cities of asura) form of Siva in sculpture and painting gave him a warrior aspect and helped in gaining legitimacy for the ruler.
- The representation of **Nataraja or Adal Vallan (king of dance)** in the form of idol was the motif of Tamil music, dance and drama with hymns composed by Nayanmars, the Saiva saints. These hymns sang the praise of Siva and extolled the deeds of God. They held great appeal to the devotees from different social sections.

Adal Vallan (king of dance) or Nataraja:

- Shiva is associated with the end of the cosmic world with which this dancing position is associated.
- In this form he has been shown balancing himself on his right leg and suppressing the apsara, the demon of ignorance or forgetfulness, with the foot of the same leg.
- At the same time, he raises his left leg in bhujaanga trasita stance, which represents tirobhava, that is kicking away the veil of maya or illusion from the devotee's mind.
- His four arms are outstretched and the main right hand is posed in abhaya hasta or the gesture suggesting. The upper right holds the damaru, his favorite musical instrument to keep on the beat tala. The upper left hand carries a flame while the main left hand is held in dola hasta and connects with the abhaya hasta of the right hand.

Significance

This cosmic dance of Shiva is called 'Ananda Tandava,' meaning the Dance of Bliss, and symbolizes the cosmic cycles of creation and destruction, as well as the daily rhythm of birth and death.

Lingodhbhava:

- ✓ Lingodhbhava (Lingodbhavamurthy) is an iconic representation of Shiva, installed in the rear devakoshta (niche) of the garbhagriha (sanctum) of all Shiva temples.
- ✓ The idol represents the emergence of Lord Shiva from the Shiva Linga, and he is popularly worshipped by the devotees in this form.
- ✓ Lingodhbhava was praised by the Nayanmar saints, and they have mentioned this form in their holy work Devaram.

Tripurantaka:

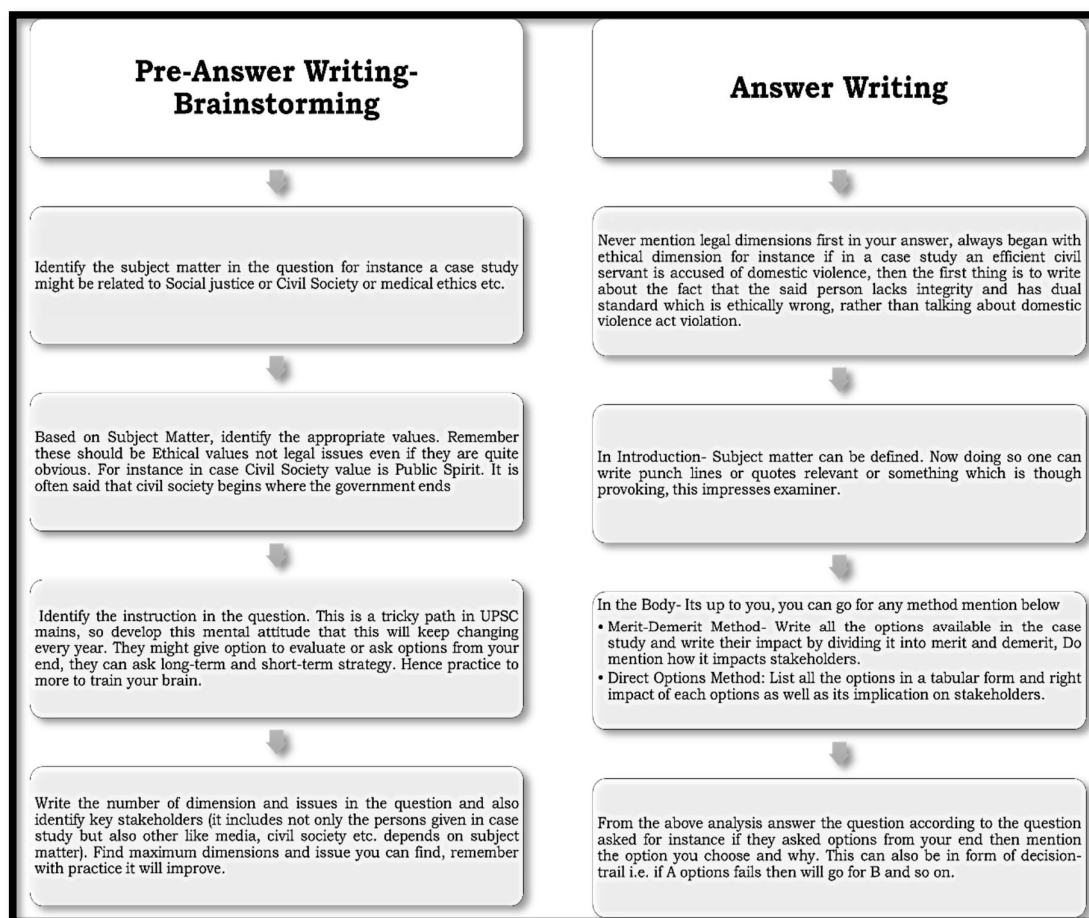
- Tripurantaka or Tripurari is a manifestation of the Hindu god Shiva.
- Shiva as Tripurantaka is accredited with destroying three mythical cities of the asuras.
- Tripurantaka created his weapons and chariot with the help of different gods and goddesses, along with various other components of the universe.

CONTEMPORARY ETHICS CASE STUDIES

Approach for case studies

Key Points to Remember

- The only way to master case studies of ethics is through practice. The more a person practices, the more writing skills and ethical perspectives develop.
- There is no modal standard approach to case studies, one can cover many parameters, however, they should be pragmatic and above de-minimum.
- Ethics Case studies require critical and ethical thinking which is based on rationality and logic.
- Writing a case study from an ethical perspective requires adding ethical values to the answer. Remember Ethical values are positive things one cannot write as a Lack of Transparency as ethical values it is just Transparency.



Pro-Tips

- Analyze previous year's UPSC questions and prepare a list of subject matters. According to which you can prepare a table of all the ethical values involved. This will reduce your reaction time in exam.
- There is no rule that one cannot use the terminology of other GS papers in the case studies, rather one should use such terminology or examples from a static syllabus to enhance one's answer.
- Lastly, remember to just PRACTICE, PRACTICE AND PRACTICE !!!

Case Studies for practice

1. You are a newly appointed IAS officer in the Estate department of the state. According to rules, once transferred IAS/IPS officers have to vacate their houses within 3 months and if they do not, the government can charge rent. It is being brought to your notice that despite being transferred several IPS officers have not vacated their residential premises. Further none of them paid any rent, arrears of which ran in crores. When you looked into the file, you find several of the officers are senior officers with good connections in the government.
 - a) Discuss the ethical issues involved in the case.
 - b) Critically Examine the options available to you as the IAS officer. What options will you adopt and why?
2. You are a program coordinator in an NGO, and you were repeatedly reading news about the rising instances of suicide cases, due to the insolvency people are facing and due to the recent pandemic crisis of Covid-19. Your friend approaches you with the case of her cousin Amit who is facing insolvency due to covid-19 pandemic and in a desperate situation, he decided to sell his kidney in the black market. Amit contacted a doctor in another city and was assured a hefty amount in lieu of his kidney. However, Amit was asked to deposit a significant amount for the operation and bribe the police. In the given situation Amit took a further loan and deposited it in the account told by the doctor. After a few days, the doctor in the other city stopped answering Amit's calls and even blocked his number. Since the matter involved an illegal organ donation market, Amit didn't approach the police and in desperation and depression tried to commit suicide. Your friend wished that you can provide her with a way out.
 - a) Discuss the ethical issues involved in the case.
 - b) Critically examine the options available to you as an NGO coordinator. What option will you adopt and why?
3. You are a Judge of a High Court and one day a case came into your court regarding a tweet on the microblogging website Twitter. In this tweet, an activist tagged a retired Indian Diplomat and mentioned the properties owned by the diplomat in the foreign country. Not only that, but the tweet also tagged the finance minister asking her to initiate an Enforcement Directorate inquiry against the said diplomat. You are being approached by the diplomat for legal relief who is demanding the taking down of the tweet.
 - a) Discuss the ethical issues involved in the case.
 - b) Critically Examine the options available to you as the Judge. Which options will you adopt and why?
4. You are recently appointed as the Vice-Chancellor of a major university. Within a month of your joining major issues erupted on the campus, and students started protesting against your policy of introducing triple room sharing against the normal double room sharing. You took this decision as the minister had informed you about the seat increase to be taken in the university, before the upcoming state assembly elections. Further, a large number of students are going on a hunger strike against the fee hike mandated by the University Fee Committee.
 - a) Discuss the ethical issues involved in the case.
 - b) Critically Examine the options available to you as the vice-chancellor. What option will you adopt and why?

Note: In case studies the number of options available are not limited, one can use her/his imagination to explore more, hence your options might not be wrong, just make sure that they are pragmatic in nature.



SCAN THIS QR FOR MODEL ANSWER

PHILOSOPHY OF THE MONTH

Life Lessons from the Samudra Manthan

- Significant goals can be achieved when people work collectively- Just like Asurs and Devas came together for the Manthan Exercise.
- Every person is important in a team to withstand obstacles that might come in a project- During Manthan all participant played their significant role.
- The ego of power and wealth often becomes the reason for one's downfall- When Asurs tried to take away the elixir, using illusion Lord Vishnu brought it back and gave to Devas.
- Self-realisation is achieved after one gives up false pride- Amrit of Samudra Manthan.
- The body and mind must be in the sound state to attain Self-realisation- Dhanwantri came out of Samudra Manthan.

Intuition is wisdom at its purest

- If one truly understands then it is not hard to conclude that both Science and Philosophy carry common intellectual aspirations
- However, while science is tilted towards the set of facts, philosophy is based on the intuitive school.
- What constitutes real knowledge is a tricky question to answer. While the Vedic period calls it self-realisation, Western thinkers consider it as logical knowledge.
- Though logical knowledge helps in generating pragmatic responses it cannot provide an understanding of the Absolute Metaphysical Reality. An intellectual mind is accomplished when intuitive knowledge is manifested in an individual.
- This is because intellect is finite and limited in its scope of application. Intuition on the other hand emanates from an intimate fusion of the individual's thought process with Pure Consciousness- A State where subject and object become one, most authentic realisation of the eternal truth.
- Self-realisation, therefore, is the edifice upon which other forms of knowledge are fostered and built.
- Therefore, intellect is the logical awareness of the human mind and intuition forms a part of profound knowledge of the highest level of Consciousness. Hence, Intuition is wisdom at its purest.

To think positively, acquiring a holistic vision is compulsory

- Thinking or our thought process is a spectrum between the poles of negative thinking and positive thinking or between destructive negative thinking and Constructive Positive thinking.
- Success lies in the core of constructive positive thinking and failure lies in destructive negative thinking.
- Constructive thinking comes to that person, who carries a focused mind, a pure heart and practises detachment or attachment to all, is useful to one and all.
- There are certain criteria by which one can identify a Constructive Positive Thinker. One among them is holistic vision. The ability to perceive reality as whole, rather than carrying a myopic view.
- When the whole picture of any situation is before us, we know all truths and as a result, many conflicts get resolved automatically. For instance, if two people are fighting over a colour of a lizard they both saw, a constructive Positive thinker will get to understand that it is not a lizard but a chameleon.
- In our daily life, we interact with many people, daily and their thought processes can be negative or positive or both and we judge them instantly on their reactions. However, all these are facing a human being bore, the same way a chameleon bore different colours.
- A constructive positive thinkers won't judge until they grasp the holistic ground of other people's reality.

PT CONCATENATION

Swasth Sabal Bharat Sammelan

About- Organ Donation in India

- In India, Organ donation is regulated through Transplantation of Human Organs Act (THOA), 1994.
- The Act legalised the concept of Brain Death which is the irreversible and permanent cessation of all brain functions. In case of Brain Death, organs can be transplanted to terminally ill people.
- A panel of 4 doctors has to declare a person brain dead before their organs can be harvested.
- Doctors have to conduct 4 tests which are Cornea reflex test, Ear reflex test, Gag reflex test and Aphenia reflex test twice in a time frame of six hours, before declaring a person brain dead.

LINK IT WITH- Article 21, Active vs Passive Euthanasia, Ethical dilemma- Limited Health resources and their judicious utilization.

PM-SHRI Yojana

About: It is a Centrally Sponsored Scheme, intended to upgrade school. It stands for Pradhan Mantri Schools for Rising India (PM-SHRI)- Upgradation of School Infrastructure.

- Under the scheme, 14500 schools will be upgraded in accordance with New Education Policy (NEP).
- This Scheme will give focus on a discovery oriented, learning centric way of teaching, including modern infra, latest technology, smart classrooms, sports and more.

LINK IT WITH- Right to Education, New Education Policy, Ethics-Ensuring Dignity of Students and responsibility of teachers towards students.

Land Leasing of Railways

About- New Land Lease policy of Railways

- It will help in attracting more cargo to railways, increase railways' modal share in freight transportation thereby reducing logistics cost of the industry.
- It will bring more revenue to railways.
- It will simplify approvals for utilities as envisaged in PM Gati Shakti Programme
- The policy amendment will enable employment generation potential of about 1.2 lakh employment.

LINK IT WITH- National Monetisation Pipeline, National Infrastructure Pipeline, Ethical dilemma- Effective utilisation of resources vs public ownership.

SOWA RIGPA

About- Foundation National Institute of Sowa Rigpa (NISR) at Saboo Thang area of Leh- NSIR is conducting research on the Rhodiola plants which can propel Leh's Economy.

- It commonly known as Amchi system of medicine is one of the oldest, Living and well documented medical tradition of the world.
- It has been popularly practicing in Tibet, Magnolia, Bhutan, some parts of China, Nepal, Himalayan regions of India and few parts of former Soviet Union etc.
- The majority of theory and practice of Sowa-Rigpa is similar to "Ayurveda".
- The basic theory of Sowa-Rigpa may be adumbrated in terms of the following five points-
 - The body in disease as the locus of treatment;
 - Antidote, i.e., the treatment;
 - The method of treatment through antidote;
 - Medicine that cures the disease;
 - Materia Medica, Pharmacy & Pharmacology.

LINK IT WITH- Traditional System of Medicine in India, Generic Drugs, PM-BJP Scheme. Ethics- Tradition vs Modernity

Bulk Drug Parks

About: Promotion of Bulk Drug Parks- Scheme to support the Bulk Drugs manufacturing in the country.

- It aims to bring down the cost of manufacturing of bulk drugs by creation of world class common infrastructure facilities.
- The Indian Pharmaceutical industry is the 3rd largest in the world by volume.
- It will provide easy access to standard testing & infrastructure facilities.
- It will focus on common waste management system, optimization of resources and economies of scale.

LINK IT WITH- Vaccination program in India, Active Pharmaceutical Ingredients, Cooperative federalism, PLI for pharmaceuticals

E-Daakhil portal

About: An online portal for filing consumer complaints.

- Launched by Ministry of Consumer Affairs, Food & Public Distribution
- Common Service Centres (CSC) is integrated with the e-daakhil site in order to make electronic filing easier for rural consumers.
- Consumer Protection Act 2019, allows for hearing the complaints through video conferencing in consumer commissions.

LINK IT WITH- Consumer protection Act, 2019. Surrogate Advertisement, Ethical issues- Marketing and advertising to children and consumer privacy.

Hallmark Unique Identification (HUID)

About: Hallmarking of Gold Jewellery which is mandatory from June 2021.

- It is a Scheme of Ministry of Consumer Affairs, Food & Public Distribution.
- HUID- 6 Digit alphanumeric code made up of letters and digits, given during the moment of Hallmarking.
- There are now three symbols which authenticate purity of gold-BIS Mark, mark of weight and HUID.
- Consumer can check authenticity by verifying HUID on the BIS App.
- It will prevent mis-selling of gold.

LINK IT WITH- Gold Consumption in India and the related issues of money laundering and generation of black money, Gold Monetization Scheme, Sovereign Gold bond.

The Investor Education and Protection Fund Authority (IEPFA)

About: IEPFA's 6th Foundation Day

- Work under the aegis of the Ministry of Corporate Affairs.
- It administers the Investor Education and Protection Fund
- The fund is created to make refunds of shares, unclaimed dividends, etc. to investors.

LINK IT WITH- National Council of Applied Economic Research, SEBI

Grievance Redressal Index

About: Published by Department of Administrative Reforms and Public Grievances (DARPG) on monthly basis

Evaluating Grievance Redressal mechanism of various Ministries and Departments of Government of India.

LINK IT WITH: Ethics and Accountability in Governance.

'Swachh Vayu Diwas'

About: Government organizes Swachh Vayu Diwas on the occasion of International Day of Clean Air for Blue Skies

- United Nations General Assembly has designated 7th September as the "International Day of Clean Air for blue skies" with the global theme of "The Air We Share".
- Government launched a global initiative 'Lifestyle for the Environment' (LiFE) to promote lifestyle that is in tune with our planet and does not harm it. And those who live such a lifestyle are called "Pro-Planet People".
- The idea of LiFE promotes an environment-conscious lifestyle that focuses on 'mindful and deliberate utilisation' instead of 'mindless and destructive consumption'.

LINK IT WITH- NACP, Air Pollution in Indian Cities.

India's External Debt 2021-22

About: The External Debt Management Unit (EDMU) in the Department of Economic Affairs, Ministry of Finance, has released 28th edition of the Status Report on India's External Debt 2021-22

- India's external debt is modest, occupying 23th position globally.
- External Debt grew by 8.2%. Majority of it is US dollar denominated while second highest is Indian Rupee denominated.
- Long term debt is much greater than short term debt. Commercial borrowings (CBs), NRIs deposits, short-term trade credit and multilateral loans together accounted for 90 per cent of the total external debt.
- Sovereign External Debt is less than non-Sovereign external debt.
- Both External debt as a ratio to GDP and the debt service ratio fall in comparison with previous year.

LINK IT WITH- Budget- Revenue receipts and expenditure and Capital receipts and expenditure, Exchange Rate Risk, Disinvestment, Balance of Payment.

Rashtriya Puruskar Portal

About: Launched by Ministry of Home Affairs

- It will bring together all the Awards of the various Ministries/Departments/Agencies of the Government of India under one platform to ensure transparency and public partnership
- Following awards are to be nominated
 - Padma Awards
 - Digital India Awards
 - National Award for Excellence in Forestry
 - National Gopal Ratna Award
 - National Water Awards
 - Nari Shakti Puraskar
 - Subhash Chandra Bose Aapda Prabandhan Puraskar
 - Jeevan Raksha Padak

LINK IT WITH- Ethics of Public Participation- enhancing the integrity of the public participation process.

First Nasal Vaccine against COVID- 19

About: Nasal Vaccine supported by DBT-BIRAC gets emergency use authorization from the drug regulator DCGI (Drugs Controller General of India)

- Developed by Bharat Biotech and supported by Department of Biotechnology's (DBT) PSU-Biotechnology Industry Research Assistance Council (BIRAC)
- Part of Mission Covid-Surkasha of BIRAC under Atamanirbhar 3.0.
- A vector-based vaccine (ChAd Vector)

CERVAVAC

About: India's first indigenously developed vaccine for the prevention of cervical cancer

- Cervical cancer ranks as the 2nd most prevalent cancers in India and accounts for nearly one-fourth of the world's cervical cancer deaths.
- It provides vaccination against human papillomavirus (HPV).
- It is estimated that HPV types 16 and 18 (HPV-16 and HPV-18) together contribute to approximately 70% of all invasive cervical cancer cases worldwide.
- Major India's Vaccine Research Programme:
 - Indo-US Vaccine Action Programme,
 - National Biopharma Mission
 - Ind-CEPI Mission
 - Mission COVID Suraksha

Taragiri

About- Project 17A Frigate

- It is fifth frigate of Project 17A frigate and named after a hill range in Himalayas located at Garhwal.
- It is an advanced version of the P17 Frigates (Shivalik Class) with improved stealth features, state of the art weapons and sensors and platform management systems.
- 75% of the orders for equipment & system of Project 17A ships are being placed on indigenous firms including MSMEs.

Mahalanobis National Crop Forecast Centre (MNCFC)

About- It will be Centre of excellence in Geo-Spatial Technology utilization in Agriculture Sector.

- MNCFC was established in 2012 as an attached Office of DA&FW (Department of Agriculture & Farmers Welfare).
- It focuses on enhancing satellite remote sensing and GIS technologies in crop estimation.
- Capabilities of MNCFC will be enhanced to include Crop surveillance and estimations, Disaster risk reduction in Agriculture, Farmer centric services – weather, pest/disease surveillance advisory, Nutrient management advisory and Agro-forestry decision support and Environment & Energy.

International Dairy Federation World Dairy Summit 2022

About-Key Facts about Indian Dairy Sector

- Dairy Sector in India is driven by small farmers and based on the philosophy of "production by masses" than "Mass Production".
- Dairy cooperatives collect milk twice a day from about two crore farmers in more than two lakh villages in the country and deliver it to the customers.
- Indigenous breeds in India can withstand many adverse circumstances which might be created due to climate change.
- Women have a 70% representation in the workforce in India's dairy sector. More than a third of the members of dairy cooperatives in India are women.
- India produce near about 210 million tonnes, accounting for 23% of global milk production and dairy sector in India is growing at 6% per annum.
- India is also proving biometric based identification for dairy animals known as Pashu Aadhar.
- By 2025 India will vaccinate 100% animals against foot and mouth diseases.

Safety in Electrical Installations

About: Government released National Electrical Code of India and guide for using National Building Code of India 2016.

- These two documents provide people with the awareness about their rights and duties while constructing their own home or buying one from a builder are also developed.
- The handbook on Safety in Electrical Installations is jointly developed by BIS and International Cooper Association (ICA) India.
- NBC is a technical document in which all provisions relating to planning, design, construction and operation and maintenance of buildings are covered.
- Implementation of these codal provisions ensures minimum required level for the safety, health, amenity, accessibility and sustainability of buildings.

"PRAYAS"

About: Early Intervention Centre of Army

- It is a comprehensive state-of-the-art facility which is dedicated to the children with special needs.

Hindi Diwas

- Hindi derives its name from the Persian word "Hind" which means land of Sindhu River.
- Celebrated on 14th September every year to mark the unanimous adoption of Hindi as Official Language by Constituent Assembly in 1949. Although the first Hindi diwas was celebrated in the year 1953.
- After English and Mandarin, Hindi is the third most spoken language across the globe.
- Fiji also has Hindi as its official language. UAE recognises it as Minority language.
- Central Hindi Directorate and Central Institute of Hindi works in the direction of development of Hindi Language.
- Word Hindi Conference is organised every year on January 10, since 1975 to promote Hindi Globally.

BLO e-Patrika

About: ECI initiative to establish direct communication with Booth Level Officers

- Booth Level Officers are fundamental blocks of the ECI system and are also the most effective field level institution.
- BLOs are the primary source of information for every voter across the length and breadth of the country.
- BLO E-Patrika is to ensure a cascading information model for a better informed and motivated Booth Level Officer.
- E-Patrika will include subjects like EVM-VVPAT training, IT applications, Special Summary Revision, Minimum SVEEP Activities at polling booths, Postal Ballot facility, accessible elections, Electoral Literacy Clubs, unique voter awareness initiatives and National Voters' Day.

Investment Promotion Agencies

About: IPA is a body that attracts investment in a country

- Invest India is the IPA for India.
- It is the first point of contact for global companies who are to make a home in India.
- It helps in expanding the start-up ecosystem in India.
- It work covers the entire gamut of India's transformational business sector.

Ladakh Apricot

About: The Agricultural and Processed Food Products Export Development Authority (APEDA) is developing new export brand from Ladakh.

- Locally it is known as 'Chuli'.
- APEDA will take logistics support from the PARVAZ scheme which provides air logistics support

- Ladakh is the biggest apricot producer in the country with a total production of 15,789 tonnes that constitutes nearly 62 percent share in total.
- The native apricot genotypes of Ladakh contains high TSS (Total Soluble Solids) content, late and extended flowering and fruit maturity, and white seed stone phenotype, which offer opportunity for exporting to different nations worldwide.

"Swachhata" Portal for the Special Campaign 2.0

About- It will focus on Swachhata and Reducing Pendency of work in Government

- Developed by the Department of Administrative Reforms and Public Grievances (DARPG) in the Union Ministry of Personnel.
- The idea is to declutter physical spaces of the government offices both indoor and outdoor and use space created for other useful purposes.

Shoonya Campaign

About- Anniversary of India's zero pollution e-mobility campaign.

- Urban freight and mobility demand is expected to grow at a CAGR of 8% through 2030.
- Evs are way out for India to meet this demand as do not emit PM or NOx emissions at the tailpipe and they release 60% less CO2 and have 75% lower operating costs.
- Shoonya supplements existing national and sub-national EV policies as well as corporate efforts in India by creating consumer awareness and demand for zero pollution rides and deliveries in Indian cities.
- The electrification of the ride-hailing and delivery sector in India could mitigate close to 54 MT of CO2 emissions, 16,800 tonnes of PM emissions, and 537,000 tonnes of NOx pollution, saving roughly 5.7 lakh crore in expenditures over a year.
- Shoonya can lead to dramatic emission reductions in the transport sector, supporting India's five-point agenda (Panchamrit), announced at COP 26, to reduce carbon emissions and secure its 2070 climate goals.

Agreement between Union Government- Government of Assam- Adivasi Group.

- It will end decades old crisis of Adivasis and tea garden workers in Assam.
- Union Government has a target of making North-East free of extremism by 2025
- In the present agreement- 1,182 cadres of tribal groups of Assam joined the mainstream by laying down their arms.
- Since 2014, around 8,000 militants have joined the mainstream of society by laying down their arms
- Government of India has fulfilled 93 percent of all the agreements signed so far, resulting in the restoration of peace in the entire North East including Assam.
- Government of India has also targeted to resolve all inter-state border disputes before 2024.
- The agreement also provides for the establishment of an Adivasi Welfare and Development Council with a view to ensure speedy and focused development of Tea Gardens and measures for rehabilitation and resettlement of armed cadres and welfare of Tea Garden workers.
- North-East is the critical piece in India's Act East Policy.

"E-Baal Nidan"

About- Portal for redressal of grievances against violation of child rights.

- Developed by National Commission for Protection of Child Rights (NCPCR) under Section 13 of the CPCR Act, 2005.
- Any person can register a complaint reporting about any violation committed against a child, which can be tracked.
- NCPCR is a statutory body established under Section 3 of the Commission for Protection of Child Rights (CPCR) Act, 2005. It empowered under various acts such as:

- Protection of Children from Sexual Offences (POCSO) Act, 2012
- Juvenile Justice (Care and Protection of Children) Act, 2015
- Right to Free and Compulsory Education (RTE) Act, 2009.

KRITAGYA 3.0

About- A National level Hackathon on crop improvement by ICAR

- KRI-Krishi (Agriculture), TA-Taknik (Technology), GYA-Gyan (Knowledge)
- It is organised under National Agricultural Higher Education Project (NAHEP)
- NAHEP is an ICAR project funded by World Bank
- The overall objective of NAHEP is to support participating Agricultural Universities (AUs) and ICAR in providing more relevant and higher quality education to the student.

Rice Fortification

- Process of adding Fortified Rice Kernels (FRK) to normal Rice (Custom Milled Rice) in the ratio of 1:100 at the time of milling of Rice
- Fortified rice is
 - Nearly identical to traditional rice in aroma, taste, and texture.
 - Cost-effective strategy to increase vitamin and mineral content in a diet
 - Supports nutritional security by fighting anaemia and malnutrition in the country.

LINK IT WITH- Genetically Modified Crops, Global Hunger Index. Hidden Hunger

Revision of Threshold Capital for Small Companies

- For a Small Company now
 - Paid-up Capital- "not exceeding Rs. 4 crore"
 - Turnover-"not exceeding Rs 40 crore"
- Benefits of this revisions
 - No need to prepare cash flow statement as part of financial statement.
 - Advantage of preparing and filing an Abridged Annual Return.
 - Mandatory rotation of auditor not required.
 - An Auditor of a small company is not required to report on the adequacy of the internal financial controls and its operating effectiveness in the auditor's report.
 - Holding of only two board meetings in a year.
 - Annual Return of the company can be signed by the company secretary, or where there is no company secretary, by a director of the company.
 - Lesser penalties for small companies.

LINK IT WITH- Types of Companies under Companies Act and MSME classification based on paid up capital and Turnover.

World Ozone Day

About: It Commemorate the signing of the Montreal Protocol

- India is a party to the Montreal Protocol (June 1992).
- India has taken several steps such as:
 - It has phased out Chlorofluorocarbons, Carbon tetrachloride, Halons, Methyl Bromide and Methyl Chloroform for controlled uses by 1 January 2010.
 - India has three step program
- Hydrochlorofluorocarbons Phase-out Management Plan (HPMP) Stage - I has been successfully implemented from 2012 to 2016
- Hydrochlorofluorocarbons Phase-out Management Plan (HPMP) Stage - II is under implementation since 2017 and will be completed by 2023.

- Stage III of the HPMP, the last of the HPMPs to phase out remaining HCFCs, will be implemented from 2023 - 2030.
- By 1st Jan 2025, India will phase out HCFCs in all manufacturing sectors, comprising refrigeration and air-conditioning manufacturing sectors.

LINK IT WITH- Kigali Amendment, India Cooling Action Plan.

Green Expressways

About- Reducing both pollution and commuting time of Indian Highways.

- Currently, India imports 16 lakh crore of fossil fuel which is affecting its environment.
- Government of India launched Green Highway policy in 2015 to promote greening of highways across the country with participation of farmers, private sector and government institutions.
- Core idea is to reduce the impact of air pollution and dust by planting trees and shrubs along the National Highways. It will create natural sink for air pollutants and arrest soil erosion at the embankment slopes.
- Further, Ministry plans to remove the structural and engineering deformities and others issues to reduce the commuting time on the highways. It would also help in curbing the number of road accidents in the country.
- As of present, 27 green express highways are planned which will be operational by the end of December 2022.

LINK IT WITH- Green Highway Policy 2015, Different types of Public-Private Partnership models. Greenfield project and Brownfield project.

Asia-Pacific Institute for Broadcasting Development (AIBD)

About- 47th Annual Meeting hosted in India

- It was established in 1977 under the auspices of UNESCO. It serves the country of the United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP) in the field of electronic media development.
- It has 26 full members with Ministry of Information and Broadcasting representing India as a full-time member.
- Prasar Bharti utilizes the various services of the AIBD.
- India holds presidency of AIBD till 2023.

LINK IT WITH: Media regulators in India, Digital Media Guidelines and Code of Ethics

New Amendments in Insolvency and Bankruptcy Code

- Sale of Individual Assets are now allowed, if there is no rescue plan for the entity as a whole the first time. It will help in maximize value in resolution It will help in improving value received in the resolution plan.
- It allows Committee of Creditors (CoC) to function as Stakeholders Consultation Committee (SCC) in the first 60 days. Therefore, the asset will remain in market for longer time, attracting more investors as it gets marketed to wider audience of potential bidders.
- It also allows creditors to examine whether they want to explore the option of compromise or arrangement. For this they can either go for restructuring under companies act or seek the same from tribunal while applying for a liquidation order. The move will help in reducing delays in the process.

LINK IT WITH- Chakravuyh Problem of India economy, Pre-Packaged Insolvency Resolution Process, IBBI, Information Utility, Cross Border Insolvency.

District Disability Rehabilitation centres

- Model centers established by Ministry of Social Justice & Empowerment.
- These are run jointly by District Management Team headed by DM/Collector and a reputed NGO (Usually Indian Red Cross Society).

- It provides services like hearing aids test lab, speech therapy room, visual therapy room, psychologist room, physiotherapist room, gait practice parallel bar and tele-medicine/tele-therapy.

LINK IT WITH- Accessible India Campaign, Schemes like- Badhte Kadam, Nirmaya, Prerna, Rights of Persons with Disabilities Act, 2016. Article 41 of the Constitution- Ethics- Attitude of Society towards Different abled persons.

Swachh Sagar Surakshit Sagar Campaign

About: Mission of Ministry of Earth Sciences to clean coastal areas.

- The plan is to develop behavioural change among the masses and raise awareness about the damage cost by the plastic usage on marine life.
- Eco-Mitram- a mobile app was launched to spread awareness and for voluntary registration for people for cleaning activity.
- Clean oceans support marine lives and marine economy sustains near about 8% of world population. Absence of which could lead to famine, poverty and even wars.

LINK IT WITH- Shunya Campaign, Plastic induced pollution, Ethics- Earth has plenty for everyone need but not for greed, all life forms are children of mother earth for which it provides not only Human has right to survive.

ARE YOU READY FOR PRELIMS 2023?

KSG IAS presents
SELF ASSESSMENT TEST







SCAN QR CODE TO ATTEMPT THE TEST



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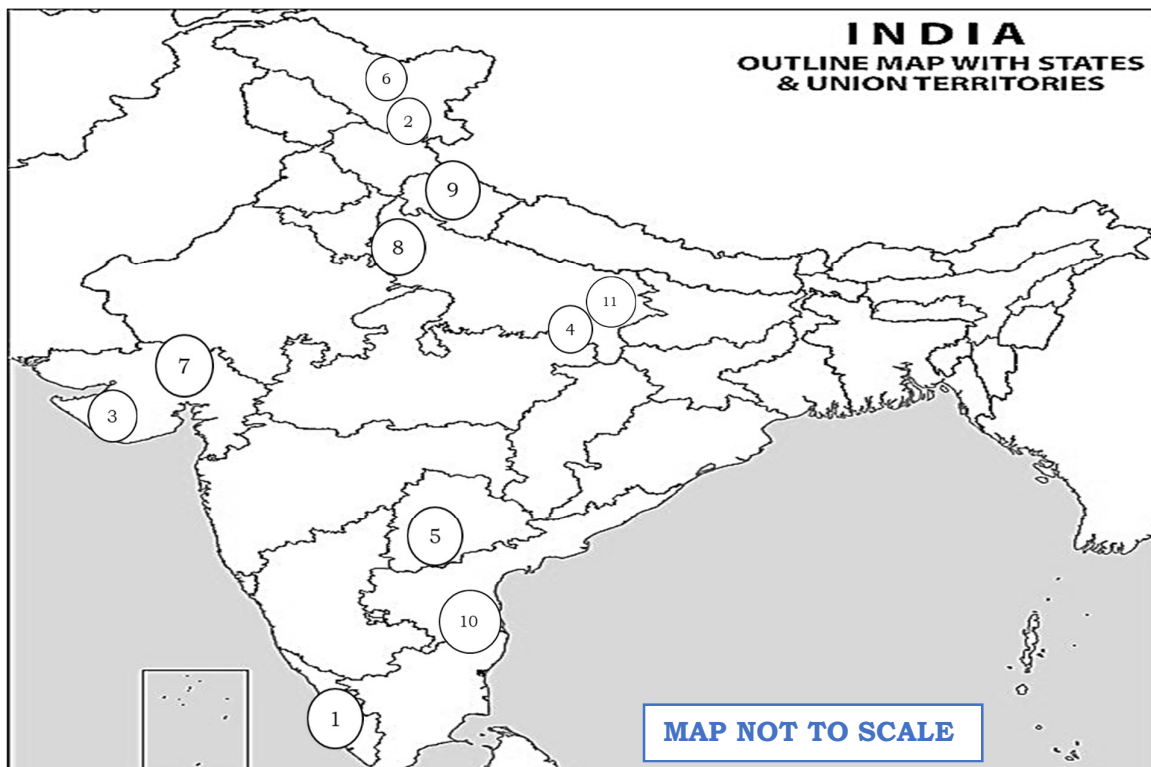

<http://bit.ly/satkskg>

PERSON IN NEWS

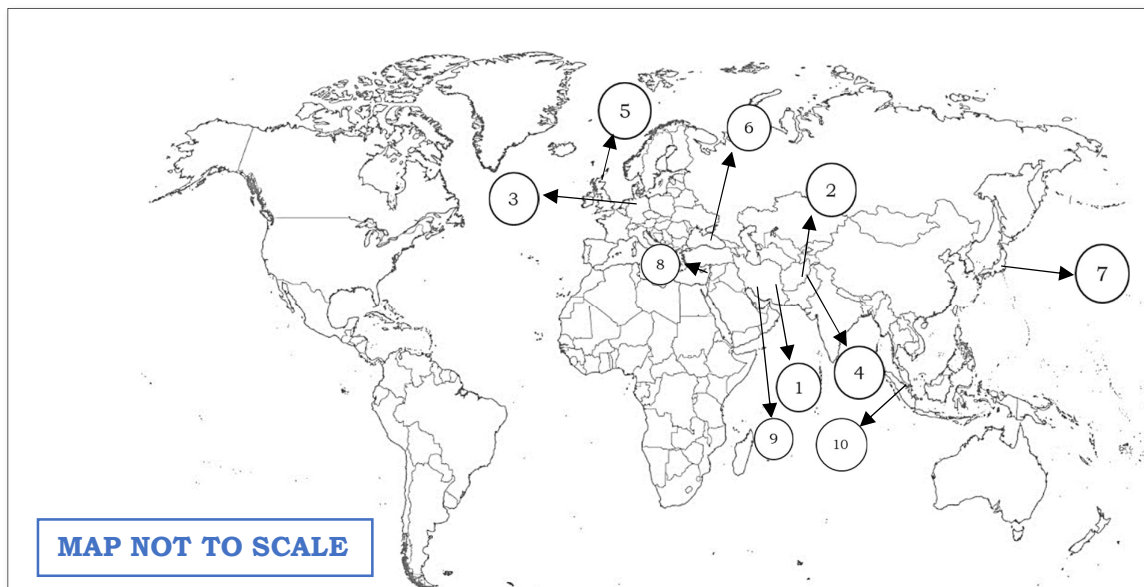
				
<p>RAMJI GOND</p> <ul style="list-style-type: none"> As part of Azadi Ka Amrit Mahotsav, the Centre is commemorating 'Hyderabad Liberation Day' on September 17 with year-long celebrations. Ramji Gond was a Gond chief ruled the tribal areas in present-day Adilabad district of Telangana. Ramji and his men fought against the British and Nizams to preserve his Gond kingdom in the 18th century. Ramji Gond and 1,000 of his followers who were hanged en masse from a banyan tree, popular known as 'Veyyivurula Marri', by Nizams. Ramji Gond in part inspired the later actions of Kumram Bheema. 	<p>Turrebaz Khan</p> <ul style="list-style-type: none"> Also known as Turrum Khan was born in Begum Bazar, Hyderabad State He was highly inspired by the famous Sepoy Mutiny in 1857 and he led uprising of 1857 in Hyderabad along with Maulvi Allauddin. He mobilised 6,000-odd people to attack the British Residency. He was caught and shot dead on January 24 in the forests of Toopran. Turrebaz Khan's legacy lies in a memorial, which was constructed near Koti Women's college in 1959. 	<p>Beohar Rajendra Sinha</p> <ul style="list-style-type: none"> He was among the stalwarts who rallied for the inclusion of Hindi as an official language of India. On his birth anniversary, Hindi was adopted as an official language by the Constituent Assembly. The Day also marked celebration of Hindi Diwas. He wrote more than 100 books on Buddhism which were added to many universities syllabus. Some of his famous works includes गोरखजी तुलसीदास की समन्वय साधना (1928), महात्मा जी का महाव्रत (1935), त्रिपुरी का इतिहास (1939), हिंदी गीता (1942) 	<p>PANDURANG KHANKHOJE</p> <ul style="list-style-type: none"> Born in 1883 at Wardha (Maharashtra) he was an Indian revolutionary, scholar, agricultural scientist, one of the founding members of Ghadar party. He was also associated with Berlin Committee (India Independence Committee) and was also associated with Communist Party of India. Post-independence he researched on corn, wheat, pulses and rubber, developing frost and drought-resistant varieties and was parts of efforts to bring in Green Revolution in India. He was also revered as an Agricultural Scientist in Mexico 	<p>VO Chidambaram Pillai</p> <ul style="list-style-type: none"> He was born on 5th September 1872 and was known as Kappalottiya Tamilan (The Tamil Helmsman) He was a freedom fighter who funded the Swadeshi Steam Navigation company. In many ways a true visionary of Atamanirbhar Bharat. Launched first Indigenous Indian shipping service between Tuticorin (India) and Colombo Sri Lanka His published works includes : Thirukkural and Tolukappiyam

			
<p>Annie Besant</p> <ul style="list-style-type: none"> Born in 1847 in United Kingdom Annie Besant came to India in 1893 as a part of Theosophical society. In 1914, She established Young Men's Indian Association to prepare youth for Public Service In 1916, She started All India Home Rule League with Bal Gangadhar Tilak to advocate for self-rule in India. In 1917, She became the first women President of the Indian National Congress. She established Central Hindu College and Girl's College in Benares, Madanapalle College and Adyar Arts League She was associated with New India and Commonweal newspapers. 	<p>Mokshagundam Visvesvaraya</p> <ul style="list-style-type: none"> Born on 15th September 1861, his birth anniversary is celebrated as Engineers Day. He was awarded with BAHART RATNA in 1955 for being India's greatest civil engineer. He is known for designing one of India's first flood protection system in Hyderabad. He is known for various significant contribution in building water reservoir, for town planning and for industry and commerce development. He was behind the design of the block system of irrigation and introduction of automatic sluice gate on dam He played a major role in setting up Hindustan Aeronautics Limited 	<p>Dr Sarvepalli Radhakrishnan</p> <ul style="list-style-type: none"> He was philosopher, teacher, writer and politician who served as First Vice President of India and later as Second President of India from 1962 to 1967. His birth anniversary is celebrated as Teachers Day every year in India. He was considered as bridge builder between India and West. He was awarded BHARAT RATNA in 1954 was the first individual to be awarded the Sahitya Akademi fellowship. He headed University Education Commission 1940-49 and defined objectives of education. As a respect towards Dr Radhakrishnan Oxford University started two scholarship programmes- Radhakrishnan Chevening Scholarships and the Radhakrishnan Memorial Award. 	<p>Netaji Subhash Chandra Bose</p> <ul style="list-style-type: none"> Born on 23rd January 1897, Netaji birth anniversary is celebrated as Parakram Diwas While Swami Vivekananda was his spiritual Guru, his political mentor was Chittaranjan Das. In 1919, he cleared prestigious Indian Civil Service [ICS] exam but left the job due to its discriminatory nature. He participated in the Civil Disobedience Movement in 1930. He was editor of newspaper Forward and his own publication was Swaraj He won both 1938 and 1939 presidential election of congress, however due to ideological differences left congress and founded Forward Bloc. In 1943, He formed Azad Hind Government with its own Indian National Army in Singapore and gave the clarion call of "Delhi Chalo" INA inspired the famous Royal Navy Mutiny which served as the last nail in the coffin of British Rule in India.

MAP CONNECT



Serial No	Place Name	Reason
01.	Kochi	Commissioning of INS Vikrant and Kalady village (Kochi)- Birthplace of Adi Shankaracharya
02.	Leh	Foundation of National Institute of Sowa Rigpa (NISR) at Saboo Thang area.
03.	Junagadh	6th State Centre of Coconut Development Board at Junagadh in Gujarat.
04.	Mirzapur	Laying down of Foundation stone of 'Chunar Logistics Park'
05.	Hyderabad	Year-long commemoration of the "Hyderabad Liberation Day"- 17th September 2022-17th September 2023
06.	Ladakh	India's first-ever "Night Sky Sanctuary"
07.	Ahmedabad	Ahmedabad would soon be developed into the world's biggest sports city and Location of First Centre-State Science Conclave
08.	Greater Noida	International Dairy Federation organised World Dairy Summit 2022
09.	Uttarakhand	India's first observatory to monitor space activity
10.	Tirupati	India's first Lithium Cell Manufacturing Plant
11.	Varanasi	first-ever SCO Tourism and Cultural Capital



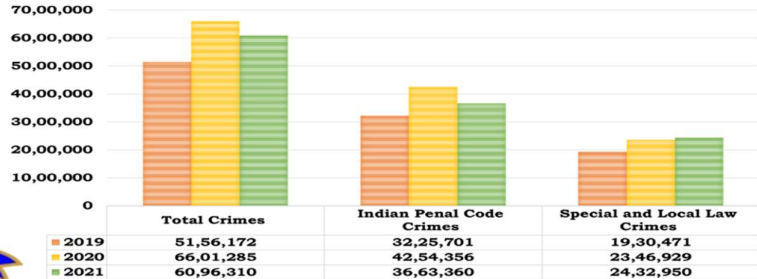
Serial No.	Place Name	Reason
01	Iran	Massive Protested erupted in Iran over the death of a woman Mahsa Amini in police custody. She was apprehended by the Moral Police for allegedly wearing a hijab headscarf in an “improper” way. This has created debate on Human rights in Iran and women choice.
02	Afghanistan	US has terminated the designation of Afghanistan as a major non-NATO ally. The designation gave several facilities and concessions to Afghanistan in terms of defence and security-related assistance and equipment
03	Germany	Youth activists staged a coordinated “global climate strike” to highlight their fears about the effects of global warming and demand more aid for poor countries hit by wild weather.
04	Pakistan	The U.S. is providing a \$450 million sustenance package for Pakistan's F-16 fleet
05	United Kingdom	Demise of Queen Elizabeth II and end of an era. It also symbolises end of colonialism polity.
06	Turkey	Israel-Turkey meet after 14 years is seen in a positive light especially after Abraham Accords.
07	Japan	Typhoon Nanmadol damages space centre in Japan and left 1.3 lakh homes without power.
08	Lebanon	Lebanon’s financial system has been in paralysis since 2019 with the Lebanese Pound having lost nearly 95% of its value. Therefore, people are robbing bank for their own money.
09	Bahrain	The Kingdom of Bahrain organised Mango Festival for Indian Mangoes.
10	Indonesia	G20 Labour and Employment ministers meeting

NCRB REPORT

NCRB CRIME IN INDIA REPORT-DATA SHEET FOR STATES/UT

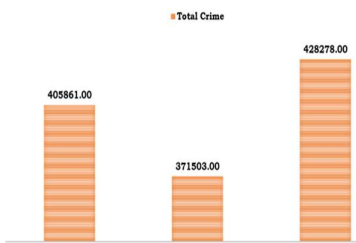


OVERALL CRIME IN INDIA

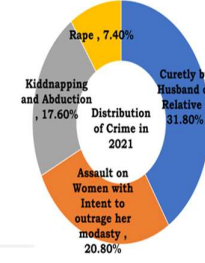
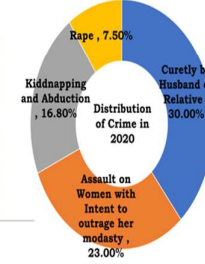
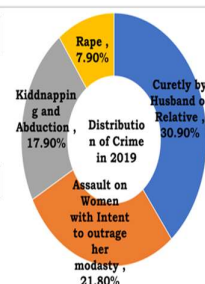


Crime Against Women

TOTAL CRIME AGAINST WOMEN

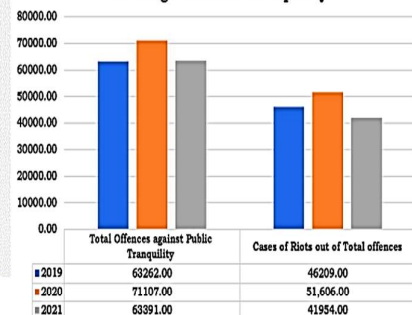


Crime Registration Per Lakh Women



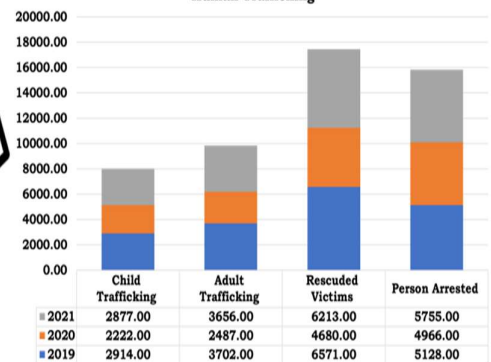
Public Tranquillity

Crime Against Public Tranquillity



Human Trafficking

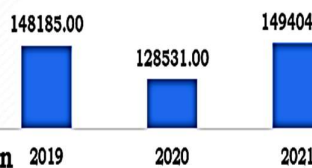
Human Trafficking



Crime Against Children

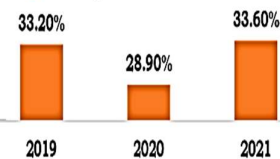
Total Number of Crime against Children

Total Number of Cases

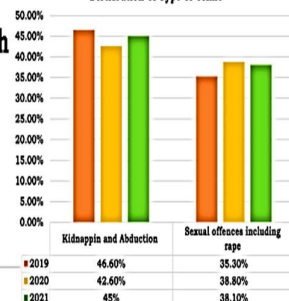


Crime Registration Per Lakh Children

Crime Registration Per Lakh Children

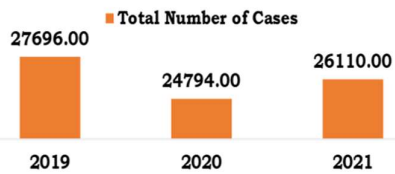


Distribution of Type of Crime

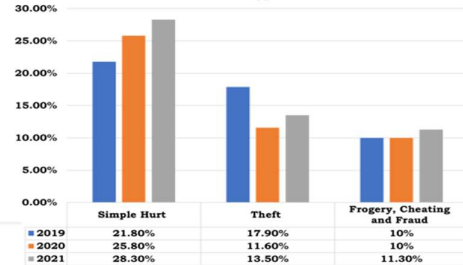




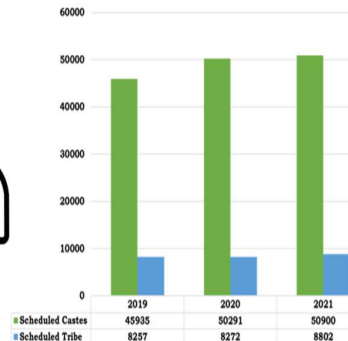
Total Number of Crime against senior citizens



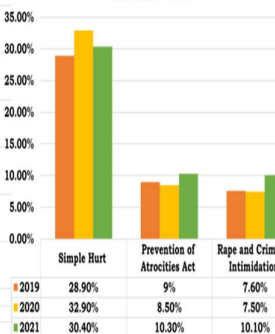
Distribution of Type of Crime



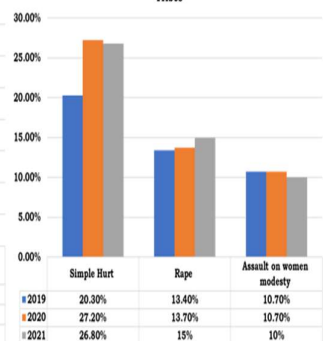
Total Crimes Committed against Scheduled Castes and Scheduled Tribe



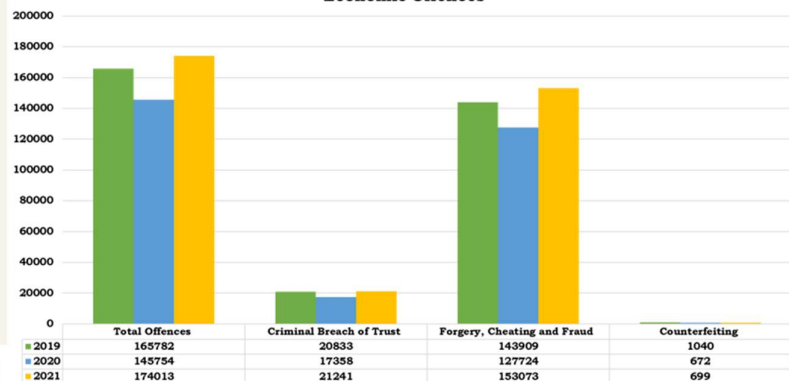
Different Types of Atrocities committed on Scheduled Castes



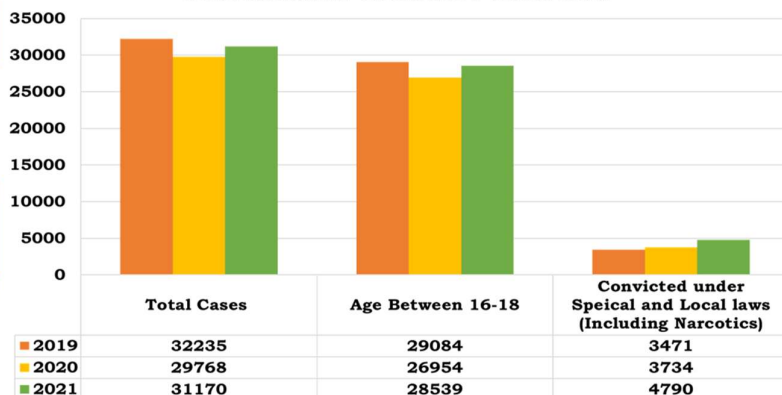
Different Type of Atrocities committed on Scheduled Tribes



Economic Offences



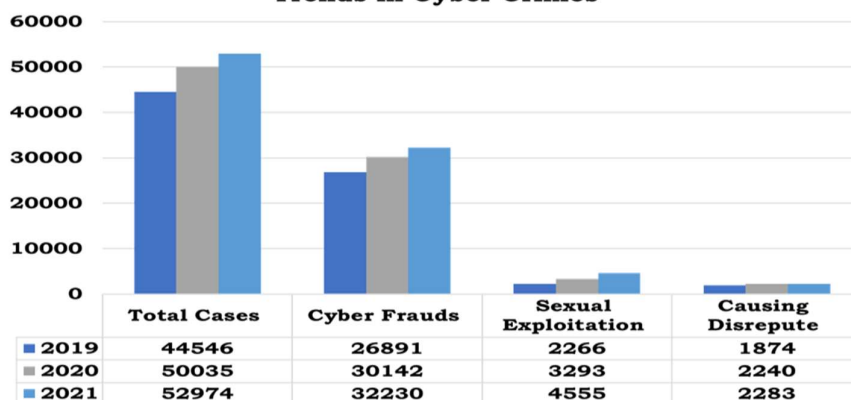
JUVENILES IN CONFLICT WITH LAW





Cyber Crimes

Trends in Cyber Crimes



KEY OBSERVATION FROM CRIME IN INDIA REPORT (2019-2021)

- As the pandemic set-in, the number of crimes increased sharply. It was mostly attributed to rise in the cases registered under “Disobedience to order duly promulgated by Public Servant”. As people flouted COVID norms such cases increased sharply and so did overall crime. Two lesson, Indian society should learn at this juncture. Firstly, At the time of crisis it’s difficult to follow rules and regulations, but they must be followed so that everybody can come out of crisis with minimum suffering. Secondly, even at the toughest of the time we should hold on to the path of ethics and morality.
- Due to pandemic, especially during the first wave, registration of crime declined, however it does not mean that incident of crime has declined.
- Almost 1/3rd of Crime against women have occurred within the safe space she considered as home i.e., cruelty by husband and relatives. On the sociological front, it shows the issues and challenges in the institution of marriage in India. On legal front it shows that despite stringent laws like Section 498-A of IPC, effective deterrent against the domestic violence is still absent. Further, sexual offences and offences impacting modesty of women remained the same. This shows that perception of women has not changed significantly and Schemes like Beti Bacho and Beti Padhao needs to bring behavioural change towards women. We should remember “यत्र नार्यस्तु पूज्यन्ते, रमन्ते तत्र देवताः”
- Crimes against children are also increasing sharply, it calls for better policies including stringent amendment in POSCO Act. Further awareness must be generated among the children about good touch and bad touch and they should be taught to raise their voices. Psychological factors play a crucial role in shaping personality of a child. India is looking towards a phase wherein its trajectory of development will depend of its capability to reap its demographic dividend. Therefore, it needs to secure development of its children.
- Almost 20% of India’s population will be over 60 by 2050 and geriatric care will be a core policy issue. However, crimes against senior citizens are increasing day by day especially of theft and cheating. On a societal level, generation gap needs to be reduced, so that elderly people are not devoid of companionship and familial support. Policies like, Vittyta Shaksharta Abhiyan needs to be promoted on a block level so that elderlies get aware of the fraudulent practices. There is also a need to increase healthcare infrastructure and expansion of social security net.

- Despite laws like Prevention of Atrocities Act, exploitation of Scheduled Caste and Scheduled Tribes continues to increase. It's very shameful, that when India celebrates its "Azadi Ka Amrit Mahotsav" the poison of caste-based discrimination continues to affect life of millions of Indians. Especially, when it comes to Dalit Women the situation is more worrisome. Incident of Rape among Tribal women is also increasing, showing their grim situation. There is need to implement XaXa Committee report in both spirit and letter to provide for Tribal development. Through NALSA, justice should be brought to the homes of tribal population. Incidents of caste prejudices must be dealt stringently.
- Though, involvement of juveniles in crime has decreased, however from a more comprehensive view it can be said that more or less, it has remained same. This raises question on the focus being given to Child rearing practices in India. In the era of consumerism and globalisation, child rearing practices often gets ignored. Even if, they are talked about then they are being viewed from the lens of gender stereotype. A child is a responsibility of both parents and they both are equally responsible for its growth and development as a human being. Further, Juvenile care homes in India need to be revamped, they should reform convicted juveniles than transforming them into hard-core criminals. Majority of accused in juvenile category are of 16-18 yrs. of age, this shows the societal decay among the youth, teens are unable to channelise their energy in the right direction rather they are lured to unethical and corrupt path. There is need to develop more efficient and effective programs like Khelo India to bring more youth on the path of development and progress.
- Cyber Crimes have seen a tremendous jump in the pandemic, especially Cyber frauds. Further Chinese companies through digital lending apps created debt trap for so many people, that took several lives. Cyber awareness needs to reach to the bottom, cyber criminals must be dealt with stringent punishment and people need to learn the lesson that "all that glitters is not gold".

THEMATIC ESSAYS

1. The mediocre teacher tells, the good teacher explains
2. Vasudhaiva kutumbakam is the core of India's Civilisation ethos
3. Democracy, Diplomacy and Dialogue are ways out of conflicts

NOTE: Attempt the above given essays, and to get direction and approach 'Scan QR Code'.



Concept Clearing Assignment

1. What do you understand by the term soft policing? Do you think India need soft policing? Justify with example.
2. Explain the law regulating cannabis in India. Do you think India should legalize use of cannabis? Give arguments
3. Explain the mechanism of Facial Recognition Technology. What are the concerns associated with the technology?
4. What are the factors behind the Sri-Lankan economic crisis? How does the instability in island nation impacts India?
5. How does Non-Alignment Policy helped in strengthening India's foreign policy interest? Explain the factors behind the shift from Non-Alignment Policy to Multi-Alignment policy.
6. Water remains a crucial roadblock in improving India-Bangladesh interest. Discuss.
7. How does La-Nina impact Indian monsoon? Explain the relationship between La-Nina and Indian Ocean Dipole
8. What do you understand by the term "Zombie Ice"? Explain its impact on the environment.
9. Shift to electronic vehicles is not without creation of any waste and therefore requires our urgent attention. Discuss in the context of Battery Waste management rules 2022.
10. Discuss the concept of One Nation-One Fertilizer. Enumerate the challenges in the scheme.
11. What do you understand by the term windfall tax? Do you agree that India needs windfall tax? Give arguments
12. What are the factors responsible for the low participation of Women in Science? Highlight the efforts taken by government to overcome this challenge.
13. Highlight the efforts taken by India in advancement of WASH practices. Suggest some measures to improve WASH practices in India.
14. What are issues associated with the practice of Manual Scavenging in India. Enumerate legal and other steps taken by government to deal with the issue of Manual Scavenging in India.
15. What do understand by the term Community Forest Reserves (CFR)? Explain the importance of CFR Rights.

PT ORIENTED QUESTIONS

1. With reference to UIDAI, consider the following statements:
 1. It is a statutory body under the Ministry of Home Affairs.
 2. It stores the Data of Aadhaar under its Central Identities Data Repository.
 Which of the following statements given above is/are correct?
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
2. Janamaithri Suraksha Project is the initiative of which among the following state of India?
 - (a) Rajasthan
 - (b) Tamil Nadu
 - (c) Kerala
 - (d) Karnataka
3. Consider the following statements regarding Pradhan Mantri Schools for Rising India (PM-SHRI):
 1. It is a Central sector scheme aimed to upgrade schools.
 2. It will give focus on a discovery-oriented, learning-centric way of teaching, including modern infra and the latest technology.
 Which of the following statements given above is/are correct?
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
4. Which among the following criteria qualifies a community as a scheduled tribe?
 1. Ethnological Traits
 2. Distinctive Culture
 3. Population
 4. Traditional characteristics
 5. Backwardness
 6. Geographic Isolation
 Select the correct answer using the code given below:
 - (a) 1, 2, 4, 5 and 6 only
 - (b) 2, 3, 5 and 6 only
 - (c) 1, 3, 4 and 5 only
 - (d) 1, 2, 3, and 6 only
5. With reference to Non-Alignment Movement (NAM), Consider the following statements:
 1. The Bandung Conference led to the formation of NAM.
 2. Within NAM member countries, higher numbers belong to Asian Countries.
 Which of the following statements given above is/are correct?
 - (a) 1 only
 - (b) 2 only
 - (c) Both 1 and 2
 - (d) Neither 1 nor 2
6. A 'E-Daakhil portal' is associated with which of the following?
 - (a) Filing PIL in Supreme Court
 - (b) Merit-based school entry system of Union Government
 - (c) Ease of electronic filing for rural consumers
 - (d) None of the above
7. Which among the following is not a pillar of Indo-Pacific Economic Framework (IPEF)?
 - (a) Maritime Security Cooperation
 - (b) Clean Economy
 - (c) Supply Chain
 - (d) Trade and Commerce
8. With reference to Kushiya River, consider the following statements:
 1. It is the tributary of Barak River
 2. It forms river boundary between India and Bangladesh
 3. It forms Kalni river by joining with Surma river.
 Which of the following statements given above is/are correct?
 - (a) 1 and 2 only
 - (b) 2 and 3 only

- (c) 3 only
(d) 1, 2 and 3

9. With reference to 'Inflatable Aerodynamic Decelerator' (IAD), consider the following statements:

1. It has been developed by NASA.
2. It is a technique used for an atmospheric entry of the rocket body.
3. It can be used for inter-planetary mission.

Which of the Statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

10. Consider the following statements:

1. The Indian Army will be the first recipient of the AK-203 outside Russia.
2. Kalashnikov assault rifles can perform in temperatures as low as -50 degrees Celsius.

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

11. With reference to Kartavya Path, consider the following statements:

1. It implies the idea of a king who rules over the ruled.
2. It symbolizes Public Ownership and Empowerment towards Nation.

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

12. Which among the following states of India has highest Marine fish production?

- (a) Gujarat

- (b) Tamil Nadu
(c) Odisha
(d) Karnataka

13. With reference to "One Nation One fertiliser" scheme consider the following statements:

1. It intends to create a uniform branding of all fertilisers irrespective of company.
2. It focuses on improving the product quality as brand name now is "Bharat"
3. It will shift the burden of fixing fertilizer's maximum retail price into market forces.

Which of the following statements given above is/are not correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 3 only
(d) 1, 2 and 3

14. With reference to Monetary Policy Committee (MPC), Consider the following statements:

1. It is a statutory body.
2. It consist of both RBI and Government of India representatives.
3. All the members of MPC are eligible for re-appointment.

Which of the following statements given above is/are correct?

- (a) 1 and 2 only
(b) 2 and 3 only
(c) 3 only
(d) 1, 2 and 3

15. With reference to Windfall Tax consider the following statements:

1. It imposed on service-based businesses.
2. It ensures symmetrical tax imposition and collection.

Which of the following statements given above is/are correct?

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

16. Project Sunrise in North Eastern India is related to which among the following?

- (a) Development of Micro, Small and Medium Industry
- (b) Control the growing number of cases of HIV due to drug abuse
- (c) Control Illegal Wildlife trafficking in the region
- (d) Develop Infrastructure in the region

17. Consider the following with reference to the Community Forest Resources in India:

- 1. The rights over Community Forest Resources are defined under the Forest Rights Act, 2006.
- 2. Community Forest Resource area covers any categories of forest except National Parks and Wildlife Sanctuaries.
- 3. Community Forest Resource areas are identified by respective State Governments.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 1 and 3 only
- (d) 2 and 3 only

18. Consider the following:

- 1. The recent report called 'India Covid-19 Procurement: Challenges, innovations, and Lessons ' released by the World Health Organisation.
- 2. The Covid- 19 Emergency Response and Health Systems Strengthening Project jointly financed by World Bank and Asian Development Bank.

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

19. Which of the following International Organisation initiated 'WASH initiative':

- (a) World Bank
- (b) UNICEF
- (c) United Nations Development Programme
- (d) World Health Organisation

20. Consider the following:

- 1. Health
- 2. Education
- 3. Standard of Living

Which of the parameters given above is/are involved with Human Development Index?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

21. With reference to the warming of sea, consider the following statements:

- 1. Positive IOD (Indian Ocean Dipole) events are often associated with El Niño and negative events with La Niña.
- 2. La Nina conditions will support normal rains if countered with the development of negative IOD conditions over the Indian Ocean.

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

22. Which of the following can be cited as sources responsible for releasing of "per- and polyfluoroalkyl substances," (PFAS) in environment?

- 1. Non-Stick cookware
- 2. Fire Fight Foams
- 3. Stain resistant products
- 4. Mining and Oil well surfactants

Select the correct answer using the code given below:

- (a) 2, 3 and 4 only
- (b) 1, 2 and 3 only
- (c) 1 and 4 only
- (d) 1, 2, 3 and 4

23. Which of the following pollutants are released in atmosphere due to the burning of coal?

1. Sulphur dioxide
2. Nitrogen oxides
3. Oxygen for respiration

Select the correct answer using the code give below:

- (a) 1 and 3 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3

24. Consider the following statements regarding Indian Pangolin:

1. It is listed in schedule V of Wildlife protection act, 1972.
2. It has been listed as 'vulnerable' on the IUCN Red List.

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

25. The 'Grievance Redressal Index' is published by which among the following?

- (a) Department of Financial Services
- (b) Department of Administrative Reforms and Public Grievances
- (c) NITI Aayog
- (d) Department of Investment and Public Asset Management

26. From the declines of Guptas until the rise of Harshavardhana in the early seventh century, which of the following kingdoms were holding power in Northern India? (UPSC 2021)

1. The Guptas of Magadha
2. The Paramaras of Malwa
3. The Pushyabhutis of Thanesar
4. The Maukharis of Kanauj

5. The Yadavas of Devagiri

6. The Maitrakas of Valabhi

Select the correct answer using the codes given below.

- (a) 1, 2 and 5 only
- (b) 1, 3, 4 and 6 only
- (c) 2, 3 and 4 only
- (d) 5 and 6 only

27. With reference to the cultural history of India, which one of the following is the correct description of the term 'paramitas'? (UPSC 2020)

- (a) The earliest Dharmashastra texts were written in aphoristic (sutra) style.
- (b) Philosophical schools that did not accept the authority of Vedas.
- (c) Perfections whose attainment led to the Bodhisattva path
- (d) Powerful merchant guilds of early medieval south India.

28. Which of the following is not included in the assets of a commercial bank in India? (UPSC 2020)

- (a) Advances
- (b) Deposits
- (c) Investments
- (d) Money at call and short notice

29. With reference to the history of India, the terms "kulyavapa" and "dronavapa" denote- (UPSC 2020)

- (a) measurement of land
- (b) coins of different monetary value
- (c) classification of urban land
- (d) religious rituals

30. Which one of the following ancient towns is well-known for its elaborate system of water harvesting and management by building a series of dams and channelizing water into connected reservoirs? (UPSC 2021)

- (a) Dholavira
- (b) Kalibangan
- (c) Rakhigarhi
- (d) Ropar

ANSWERS

1. b	7. a	13. b	19. d	25. b
2. c	8. b	14. a	20. d	26. b
3. b	9. d	15. b	21. c	27. c
4. a	10. c	16. b	22. d	28. b
5. a	11. b	17. a	23. b	29. a
6. c	12. a	18. d	24. d	30. a



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