

ABOUT CURRENT 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 for registering yourself in our race to perfection.](mailto:evaluation@ksgindia.com) 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, person alities, issues and	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	International Relation-India and other countries, various Indian and international agreements, effects of other countries on India and international institutions.		
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.			
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 important 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/ Governance	Ethics in international issues	Person alities and their teachings	Other important topics			
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Right to be forgotten

Delhi High Court has been approached for seeking directions to remove all the posts, videos, articles, etc. from the internet, sensationalizing past life of a person. **The plea claims that the 'Right to Be Forgotten' is an intrinsic part of the right to privacy.**

- **Silence the Past Events:** The Right to be Forgotten reflects the claim of an individual to have certain data (Information, Videos, Photographs etc.) deleted from certain internet records, for them to become untraceable.
- The **Personal Data Protection Bill, 2019** was introduced in Lok Sabha, which seeks to provide for protection of personal data of individuals, and establishes a Data Protection Authority for the same.
- The Bill governs the processing of personal data by: (i) government, (ii) companies incorporated in India, and (iii) foreign companies dealing with personal data of individuals in India.
- **Personal data is data which pertains to characteristics, traits or attributes of identity, which can be used to identify an individual.** The Bill categorises certain personal data as **sensitive personal data**. This includes financial data, biometric data, caste, religious or political beliefs, or any other category of data specified by the government, in consultation with the Authority and the concerned sectoral regulator.
- A nine-judge bench of the Supreme Court in **Puttuswamy v. Union of India** has declared that the right to privacy is a fundamental right protected under Part III of the Constitution of India.

'Right to be Forgotten': Status In India

- **Legislative Overview:** The Right to be Forgotten falls under the purview of an individual's right to privacy, which is governed by the Personal Data Protection Bill that is yet to be passed by Parliament.
- **Judicial Interpretation:** In 2017, the Right to Privacy was declared a fundamental right by the Supreme Court in its landmark verdict - "*the right to privacy is protected as an intrinsic part of the right to life and personal liberty under Article 21 and as a part of the freedoms guaranteed by Part III of the Constitution*".

What does the Personal Data Protection Bill say about the Right to be Forgotten?

- Clause 20 under Chapter V of this draft bill titled "Rights of Data Principal" mentions the "Right to be Forgotten." It states that the "data principal (the person to whom the data is related) shall have the right to restrict or prevent the continuing disclosure of his personal data by a data fiduciary".
- Therefore, broadly, under the Right to be forgotten, users can de-link, limit, delete or correct the disclosure of their personal information held by data fiduciaries.
- A data fiduciary means any person, including the State, a company, any juristic entity or any individual who alone or in conjunction with others determines the purpose and means of processing of personal data.
- Even so, the sensitivity of the personal data and information cannot be determined independently by the person concerned, but will be overseen by the Data Protection Authority (DPA). This means that while the draft bill gives some provisions under which a data principal can seek that his data be removed, but his or her rights are subject to authorisation by the Adjudicating Officer who works for the DPA.
- While assessing the data principal's request, this officer will need to examine the sensitivity of the personal data, the scale of disclosure, degree of accessibility sought to be restricted, role of the data principal in public life and the nature of the disclosure among some other variables.

When the Right can be Exercised?

In the right to privacy judgment, the Supreme Court had clarified that the recognition of this right "does not mean that all aspects of earlier existence are to be obliterated, as some may have a social ramification".

The apex court asserted that this right cannot be exercised where the information or data is necessary for: (1) exercising the right of freedom of expression and information; (2) compliance with legal obligations; (3) the performance of a task carried out in public interest, or public health; (4) archiving purposes in the public interest; (5) scientific or historical research purposes or statistical purposes; or (6) the establishment, exercise or defence of legal claims.

In the **Jorawer Singh Mundy case, the Delhi HC** also noted that where a court order is demanded to be taken down, the court will be required to examine the right to privacy of the petitioner on one hand, and the right to information of the public and maintenance of transparency in judicial records on the other hand.

Some Potential Challenges

- 1. Orders and Judgements are treated as public records and help other in building their arguments and opinions and is very much helpful for Judicial System**
- 2. Technological Constraints and load to remove the information from the social network will be ever burgeoning**
- 3. Overlap in Rights as Right to Privacy of an individual and be taken as against Right to Information for the public.**
- 4. The law once made will still be open for Judicial Scrutiny**

Do other countries recognise the Right to be forgotten?

In the European Union (EU), the right to be forgotten empowers individuals to ask organisations to delete their personal data. It is provided by the EU's General Data Protection Regulation (GDPR), a law passed by the 28-member bloc in 2018.

Conclusion

Right to be forgotten to establish well shall only be true once the Right to Privacy sinks well with the Indian democratic system. Albeit, it can be fairly established that the internet has a memory that can store almost everything about any entity and at times it can be unforgiving. It then becomes strenuous for an entity to turn a new leaf of life. The subsequent action of it being recognised as a right, there would be an arduous task of maintaining the balance between Individual right and Public rights at large. The courts have been burdened enough because of the incessant challenges of the overlaps of Rights and other Principles over rights. A win-win accord would entail Apex court's guidelines and taking this as base Parliament can have discussion and come out with the law.

By Chandramouli Sir

POLITY

Laws covering surveillance in India

News Excerpt

In response to the finding by a global collaborative investigative project that Israeli spyware Pegasus was used to target at least 300 individuals in India, the government has claimed that all interception in India takes place lawfully.

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Pre-Connect

- Surveillance means close observation of a person or groups especially the one who are under suspicion or the act or observing or the condition of being observed. Being a developing country, India has brought several changes into its policies on Information Technology and still a lot more changes need to be done.
- Communication surveillance in India takes place primarily under two laws — the Telegraph Act, 1885 and the Information Technology Act, 2000.
- Telegraph Act deals with interception of calls, the IT Act was enacted to deal with surveillance of all electronic communication, following the Supreme Court’s intervention in 1996.
- A comprehensive data protection law to address the gaps in existing frameworks for surveillance is yet to be enacted.

Application of the Telegraph Act, 1885

- Section 5(2) of the Telegraph Act reads as: *“On the occurrence of any public emergency, or in the interest of the public safety, the Central Government or a State Government or any officer specially authorised in this behalf by the Central Government or a State Government may, if satisfied that it is necessary or expedient so to do in the interests of the sovereignty and integrity of India, the security of the State, friendly relations with foreign states or public order or for preventing incitement to the commission of an offence, for reasons to be recorded in writing, by order, direct that any message or class of messages to or from any person or class of persons, or relating to any particular subject, brought for transmission by or transmitted or received by any telegraph, shall not be transmitted, or shall be intercepted or detained, or shall be disclosed to the Government making the order or an officer thereof mentioned in the order...”*

PEPPER IT WITH
Salient features of the Telegraph Act, 1885 and the Information Technology Act, 2000

THE PEGASUS PROJECT

- Paris-based media nonprofit Forbidden Stories and Amnesty International accessed a leaked database of thousands of phone numbers across the world targeted by a spyware called Pegasus
- They shared the data with global media organisations as part of a collaborative investigation called Pegasus Project
- An Israeli company called NSO Group makes Pegasus, a spyware capable of extracting data from a phone
- According to the report, at least 2 Union Cabinet ministers, 3 opposition leaders, a Constitutional authority, government officials, scientists and over 40 journalists in India were targeted

- Under this law, the government can intercept calls only in certain situations — the interests of the sovereignty and integrity of India, the security of the state, friendly relations with foreign states or public order, or for preventing incitement to the commission of an offence. These are the same restrictions imposed on free speech under Article 19(2) of the Constitution.
- Significantly, even these restrictions can be imposed only when there is a condition precedent — the occurrence of any public emergency, or in the interest of public safety.
- Additionally, a proviso in Section 5(2) states that even this lawful interception cannot take place against journalists. *“Provided that press messages intended to be published in India of correspondents accredited to the Central Government or a State Government shall not be intercepted or detained, unless their transmission has been prohibited under this sub-section.”*

Observations have been made by the Supreme Court

- ✓ In **Public Union for Civil Liberties v. Union of India (1996)**, Supreme Court pointed out lack of procedural safeguards in the provisions of the Telegraph Act and laid down certain guidelines for interceptions. A public interest litigation was filed in the wake of the report on “Tapping of politicians phones” by the CBI.
- ✓ The court noted that authorities engaging in interception were not even maintaining adequate records and logs on interception. Among the guidelines issued by the court were setting up a review committee that can look into authorisations made under Section 5(2) of the Telegraph Act.
- ✓ The court said, “Tapping is a serious invasion of an individual’s privacy. With the growth of highly sophisticated communication technology, the right to sold telephone conversation, in the privacy of one’s home or office without interference, is increasingly susceptible to abuse. It is no doubt correct that every Government, howsoever democratic, exercises some degree of sub-rosa operation as a part of its intelligence outfit but at the same time citizen’s right to privacy has to be protected from being abused by, she authorities of the day.”
- ✓ The Supreme Court’s guidelines formed the basis of introducing Rule 419A in the Telegraph Rules in 2007 and later in the rules prescribed under the IT Act in 2009.
- ✓ Rule 419A states that a Secretary to the Government of India in the Ministry of Home Affairs can pass orders of interception in the case of Centre, and a secretary-level officer who is in-charge of the Home Department can issue such directives in the case of a state government. In unavoidable circumstances, Rule 419A adds, such orders may be made by an officer, not below the rank of a Joint Secretary to the Government of India, who has been duly authorised by the Union Home Secretary or the state Home Secretary.

Application of the Information Technology Act, 2000

- Section 69 of the Information Technology Act and the Information Technology (Procedure for Safeguards for Interception, Monitoring and Decryption of Information) Rules, 2009 were enacted to further the legal framework for electronic surveillance.
- Under the IT Act, all electronic transmission of data can be intercepted. So, for a Pegasus-like spyware to be used lawfully, the government would have to invoke both the IT Act and the Telegraph Act.
- Apart from the restrictions provided in Section 5(2) of the Telegraph Act and Article 19(2) of the Constitution, Section 69 the IT Act adds another aspect that makes it broader — interception, monitoring and decryption of digital information “for the investigation of an offence”.
- Significantly, it dispenses with the condition precedent set under the Telegraph Act that requires “the occurrence of public emergency of the interest of public safety” which widens the ambit of powers under the law.

Do other countries have stricter laws against surveillance?

- ✚ This continues to be a grey area around the world. Take the U.S. for example. Electronic surveillance is considered a search under the Fourth Amendment which protects individuals from unreasonable search and seizure. Thus, the government has to obtain a warrant from a court in each case and crucially, establish probable cause to believe a search is justified. It also has to provide a specific time period under which the surveillance is to be conducted and to describe in particularity the conversation that is to be intercepted. There are very few exceptions, or exigent circumstances under which the government may proceed without a warrant.
- ✚ After the 9/11 attacks in 2001, the USA PATRIOT (Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism) Act was passed. Under certain provisions in this Act, the U.S. government used phone companies to collect information on millions of citizens and these were part of revelations made by the whistleblower Edward Snowden in 2013. Many aspects of the PATRIOT Act, particularly those involving surveillance, were to lapse after a certain time period but they were re-authorised by Congress.

It's an issue the U.S. still struggles with and several rights groups argue that the Act violates the Constitution.

Identifying the loopholes in the laws

- In 2012, the Planning Commission and the Group of Experts on Privacy Issues headed by former Delhi High Court Chief Justice A P Shah were tasked with identifying the gaps in laws affecting privacy.
- On surveillance, the committee pointed out divergence in laws on permitted grounds, “type of interception”, “granularity of information that can be intercepted”, the degree of assistance from service providers, and the “destruction and retention” of intercepted material, according to a report by the Centre for Internet & Society.

Conclusion

Although the grounds of selecting a person for surveillance and extent of information gathering has to be recorded in writing, the wide reach of these laws has not been tested in court against the cornerstone of fundamental rights. The government is accountable for protecting constitutionally guaranteed rights; therefore, cybersecurity breaches need an independent inquiry. India immediately needs to enact a data protection law that upholds the constitutional right to privacy. The current surveillance laws already provide conditions under which surveillance is permissible; however, the IT Rules that misconstrue the law's objectives need to be revoked. Surveillance technologies that are invasive beyond reasonable limits, like Pegasus, should be banned. Reforms are also required to ensure judicial oversight over public agencies.

Issue of Caste Census

News Excerpt

There is a saying about Bihar politics. Voters don't cast their votes; they vote their caste. Now, two principal parties of Bihar have brought the issue of caste census to the Centre. Bihar chief minister Nitish Kumar asserted that his strong pitch for a caste-based census was driven by “social”, and “not political”, concerns.

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Pre-Connect

- The responsibility of conducting the decennial Census rests with the Office of the Registrar General and Census Commissioner, under Ministry of Home Affairs.
- Shri Vivek Joshi, IAS of the Haryana cadre and 1989 batch is the current Registrar General and Census Commissioner of India.
- Census is a way of dispersing information based on the demographic, socio-cultural and economic data after an interval of ten years.
- Census is the process of collecting details and authentic information about the population growth or the growth of the economy. It also provides information on the mortality and fertility rate, languages as well.
- Census in India started from the year 1830 and the latest census was held in 2011.
- The first continuous or synchronous census started in the year 1881 and then followed a 10-year cycle. It was under the leadership of W.C Plowden, who was the Census commissioner of India.
- The first census of Independent India was conducted in 1951, and the latest census to be conducted was of 2011.
- **“Our Census - Our Future”** is the Slogan of Census 2021. As the census shapes political structures, economic decisions, development goals, delaying the 2021 census will have its costs.

What kind of caste data is published in the Census?

- Every Census in independent India from 1951 to 2011 has published data on Scheduled Castes and Scheduled Tribes, but not on other castes. Before that, every Census until 1931 had data on caste.

- However, in 1941, caste-based data was collected but not published. This was during World War II.
- In the absence of such a census, there is no proper estimate for the population of OBCs, various groups within the OBCs, and others. The Mandal Commission estimated the OBC population at 52%, some other estimates have been based on National Sample Survey data, and political parties make their own estimates in states and Lok Sabha and Assembly seats during elections.

Mapping the populace The census enumeration exercise will be done in three phases

HOUSE LISTING: Comprising 34 categories, it will be done from April to September, 2020

ENUMERATION: Comprising 28 categories, it will be held between February 9 and 28, 2021

REVISION: It will be done from March 1 to 5, 2021

OTHER HIGHLIGHTS:

- There will be a "third gender" category this time
- Government teachers will conduct the enumeration exercise
- Data will be collected on a web-based application developed under the Registrar General

THE OUTLIERS: There are around 45,000 villages in the country with no internet connectivity. For them, data can be gathered on paper

MANDATORY CLAUSE: Every citizen is compelled by law to participate in the Census exercise, and denial could lead to criminal action

How often has the demand for a caste census been made?

- ✓ It comes up before almost every Census, as records of debates and questions raised in Parliament show.
- ✓ Besides ruling and the opposition political parties from Bihar, and the Maharashtra Assembly which passed a resolution on January 8 urging the Centre to hold a caste-based Census in 2021.
- ✓ The constitutional body National Commission for Backward Classes urged the government to collect data on the population of OBCs "as part of Census of India 2021 exercise", as reported by The Indian Express.

New Guidelines

Parameters determining social, economic status of rural household to be tweaked

- Changes could reduce number of beneficiary household
- Aadhaar could become a single identifier
- New questionnaire to be floated
- List of deprived, automatically included individuals may see decline

The Perplexing Questions

- In 2010, then Law Minister wrote to the then Prime Minister Manmohan Singh calling for collection of caste/community data in Census 2011. The Issues of "There is a Central list of OBCs and State-specific list of OBCs. Some States do not have a list of OBCs; some States have a list of OBCs and a sub-set called Most Backward Classes" also came to fore.
- The Registrar General has also pointed out that there are certain open-ended categories in the lists such as orphans and destitute children. Names of some castes are found in both the list of Scheduled Castes and list of OBCs. Scheduled Castes converted to Christianity or Islam are also treated differently in different States. The status of a migrant from one State to another and the status of children of inter-caste marriage, in terms of caste classification, are also vexed questions."
- A full-fledged Socio-Economic Caste Census (SECC) was conducted: With an approved cost of Rs 4,893.60 crore, the SECC was conducted by the Ministry of Rural Development in rural areas and the Ministry of Housing & Urban Poverty Alleviation in urban areas. The SECC data excluding caste data was finalised and published by the two ministries in 2016.
- The raw caste data was handed over to the Ministry of Social Justice and Empowerment, which formed an Expert Group under former NITI Aayog Vice-Chairperson for classification and categorisation of data.
- The report of a Parliamentary Committee on Rural Development presented to the Lok Sabha Speaker on August 31, 2016, noted about SECC: "The data has been examined and 98.87 per cent data on individuals' caste and religion is error free. ORGI has noted incidence of errors in respect of

PEPPER IT WITH
 Delimitation Commission,
 Registrar General and Census
 Commissioner of India

1,34,77,030 individuals out of total SECC population of 118,64,03,770. States have been advised to take corrective measures.”

- This time, the demand is that castes be enumerated as part of Census 2021 itself. SECC has the potential to allow for a mapping of inequalities at a broader level.

How can SECC be differentiated from Census?

While SECC is a tool to identify the beneficiaries based on some parameters, census is a population quantifier.

Conclusion

A caste-based census is against the idea of a casteless society envisaged by leaders like Babasaheb Ambedkar in the Constitution and will weaken ongoing efforts to create social harmony. Caste is an emotional entity in the Indian Political setup and their enumeration can create hard identities.

New Ministry of Co-operation

News Excerpt

The government announced the creation of a new ministry, named the Ministry of Cooperation to realise the vision of ‘Sahkar se Samridhhi’ or prosperity through cooperatives.

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Pre-Connect

- This ministry will provide a separate administrative, legal and policy framework for strengthening the cooperative movement in the country.
- It will help deepen Co-operatives as a true people-based movement reaching upto the grassroots.
- In our country, a Co-operative based economic development model is very relevant where each member works with a spirit of responsibility. With this new ministry, there are 41 ministries at present in the Government of India.
- The Ministry will work to streamline processes for ‘Ease of doing businesses for co-operatives and enable development of Multi-State Co-operatives (MSCS).
- The Central Government has signalled its deep commitment to community based developmental partnership. Creation of a separate Ministry for Co-operation also fulfils the budget announcement made by the finance minister.

The 97th Constitutional Amendment Act of 2011 gave a constitutional status and protection to co-operative societies. In this context, it made the following three changes in the constitution:

- ❖ It made the right to form co-operative societies a fundamental right (Article 19).
- ❖ It included a new Directive Principle of State Policy on promotion of co-operative societies (Article 43-B).
- ❖ It added a new Part IX-B in the Constitution which is entitled “The Co-operative Societies” (Articles 243-ZH to 243-ZT).

Recently, supreme court struck down certain provisions of the Constitution (97th Amendment) Act, 2011 in so far as it introduced clauses dealing with the working of cooperative societies working within a state, saying the subject matter fell in the state list and “belongs wholly and exclusively to the State legislatures to legislate upon” and any change would require the ratification by at least one-half of the state legislatures as per Article 368(2) of the Constitution.

Formation of the new ministries

- A ministry in the Government of India essentially overlooks one subject and comprises employed officials such as civil servants who oversee its functioning. Most major ministries are headed by a Cabinet Minister.

- Cumulatively, all cabinet ministers, ministers of state and the ministers of state who have an independent charge are called the ‘Council of Ministers’ that aids the Prime Minister in governance. Some ministries also have subdivisions that are called departments.
- Ministries or departments are created by the President on advice of the Prime Minister under the Government of India (Allocation of Business Rules) 1961, which is part of Article 77 of the Constitution.
- Under these rules, each ministry is assigned a minister by the President on the advice of the Prime Minister. Each department in the ministry is generally under the charge of a civil servant or official who assists the minister on policy matters and general administration.
- The Cabinet Secretariat is responsible for coordination, smooth transaction of business and decision-making among ministries and departments and is under the direct charge of the PM.
- Under the 91st Constitutional Amendment Act, 2003, the total number of ministers in the Council of Ministers, including the PM, cannot exceed 15 per cent of the total members of the Lok Sabha. At present, the Lok Sabha has 543 members and 15 per cent of that is approximately 81.

What are cooperatives?

- ✓ According to the International Co-operative Alliance, cooperatives are people-centred enterprises owned, controlled and run by and for their members to realise their common economic, social, and cultural needs and aspirations.
- ✓ In India, a cooperative society can be formed under provisions of the Co-operative Societies Act, 1912. The provisions state that at least 10 people above 18 years, having the capacity to enter into a contract with common economic objectives, such as farming and weaving among others, can form a cooperative society.
- ✓ As the legislation indicates, the history of cooperatives in India can be divided into two phases — the pre-Independence era and the post-Independence era.
- ✓ British India first enacted the Cooperative Credit Societies Act, 1904. In 1919, cooperation became a provincial subject and provinces were authorised to make their own cooperative laws under the Montague-Chelmsford Reforms.
- ✓ In 1942, the British government enacted the Multi-Unit Cooperative Societies Act, intended to cover such societies whose operations extended to more than one province.
- ✓ Post-Independence in 1958, the National Development Council (NDC) recommended a national policy on cooperatives with the setting up of co-operative marketing societies. In 1984, Parliament enacted the Multi-State Cooperative Societies Act to declutter different laws governing the same types of societies.
- ✓ In 2002, a National Policy on Cooperatives was announced to support the promotion and development of cooperatives.

PEPPER IT WITH
Part III, Part IV and
Part IX of the
Constitution

Conclusion

Good governance entails the substitution of politics, which is what democracy is all about, with management. It seeks to insulate policy-making from the chaotic pressures of democracy. India is in the throes of a fierce passion for governance. Not just any governance but ‘maximum governance’, preferably in a combo with ‘minimum government’. We are the only country in the world that officially celebrates Christmas as ‘Good Governance Day’. Nobody speaks of the need for a good government anymore – only good governance.

Inter-State Water Dispute

News Excerpt

Tension continued to prevail at Srisaillam and NagarjunaSagar (NSP) projects as efforts by the Andhra Pradesh government to stop Telangana from drawing water for power generation met with little success.

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Constitutional Provisions

Article 262 of the Constitution provides for the adjudication of interstate water disputes. It makes two provisions:

- Parliament may by law provide for the adjudication of any dispute or complaint with respect to the use, distribution and control of waters of any inter-state river and river valley.
- Parliament may also provide that neither the Supreme Court nor any other court is to exercise jurisdiction in respect of any such dispute or complaint.
- Under this provision, the Parliament has enacted two laws [the River Boards Act (1956) and the Inter-State Water Disputes Act (1956)].
- The River Boards Act provides for the establishment of river boards for the regulation and development of Inter-state River and river valleys. A river board is established by the Central government on the request of the state governments concerned to advise them.
- The Inter-State Water Disputes Act empowers the Central government to set up an ad hoc tribunal for the adjudication of a dispute between two or more states in relation to the waters of an inter-state river or river valley. The decision of the tribunal would be final and binding on the parties to the dispute.
- Neither the Supreme Court nor any other court is to have jurisdiction in respect of any water dispute which may be referred to such a tribunal under this Act.

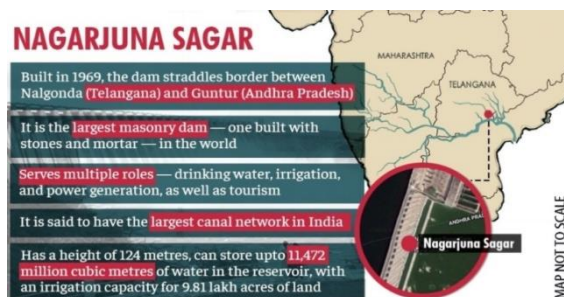
The need for an extra judicial machinery to settle inter-state water disputes is as follows: *“The Supreme Court would indeed have jurisdiction to decide any dispute between states in connection with water supplies, if legal rights or interests are concerned; but the experience of most countries has shown that rules of law based upon the analogy of private proprietary interests in water do not afford a satisfactory basis for settling disputes between the states where the interests of the public at large in the proper use of water supplies are involved.”*

Critical Corners

- The constitutional division of powers with respect to water is another issue. Water is listed as **Entry 17 under List II (State List) of the Seventh Schedule** but is subject to Entry 56 under List I (Union List), which confers powers on the Union government to regulate and develop interstate rivers.
- In the initial years of single party dominance, the negligence by the Union government in carving its definitive role – some called it “wilful abdication of its role” – has led to the states assuming unfettered and exclusive powers over the governance of river water.
- An outcome of this is the increasing resistance of states to any attempt by the Centre to assert its role.
- Institutions like Central Water Commission and Central Ground Water Board are perceived increasingly as irrelevant. States pursue their respective territorial visions of water resource development with little or no appreciation for the cumulative impact, with adverse implications to national water security.

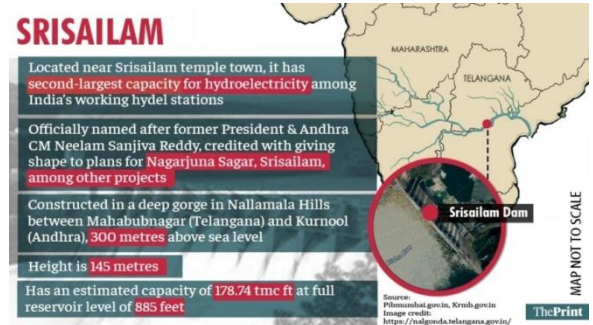
How is the water shared between the Telangana and Andhra Pradesh?

- ✓ The 1,400-km Krishna River flows east, from Mahabaleshwar in Maharashtra to the Bay of Bengal. It passes through Maharashtra, Karnataka, Telangana and Andhra Pradesh, forming a part of the border between the latter two.
- ✓ To streamline water-sharing between the states, the Krishna Water Disputes Tribunal (KWDT) was set up in 1969, in keeping with the Inter-State River Dispute Act, 1956.
- ✓ In 1976, the states entered into an agreement to divide the estimated 2,060 thousand million cubic feet (tmcft) of Krishna water into three parts



— 560 tmc feet for Maharashtra, 700 for Karnataka, and roughly 800 for erstwhile Andhra Pradesh.

- ✓ The agreement was signed on two schemes — the first was to share available water based on 75 per cent dependability, while the other recommended ways to share the surplus water.
- ✓ At the time of Andhra’s bifurcation in 2014, the water resources ministry extended the duration of the KWDT. Andhra Pradesh has asked that Telangana be included as a separate party at the KWDT. It has demanded allocation of the river water to be reworked among four states, instead of the existing three.
- ✓ In 2014, the two Telugu states agreed to split the water on a temporary or ad hoc basis in a 66:34 ratio.
- ✓ Both states have projects constructed on either side of the river, on the common reservoirs.
- ✓ All projects on the Krishna — Jurala, NagarjunaSagar, Pulichintala and Srisailam — were built when the states were one.
- ✓ Down the Srisailam reservoir is the Pothireddypadu head regulator from which Rayalaseema in Andhra Pradesh gets water.
- ✓ The maintenance of the Srisailam and Pulichintala projects, and the Prakasam barrage, are under Andhra, according to the Andhra government, while Telangana claims to look after the NagarjunaSagar and Jurala projects.
- ✓ During bifurcation, the central government constituted an ‘apex council’ to supervise the functioning of the Godavari River Management Board and the Krishna River Management Board.
- ✓ The council consists of the Union Minister of Water Resources and chief ministers of respective states.



Why have matters come to a head?

- The water of the Srisailam reservoir — which is the main storage for river water between the two states — has turned out to be a major warring point.
- Andhra Pradesh government wrote to the centre, protesting against Telangana’s use of the Srisailam reservoir water from 1 June for power generation.
- Andhra Pradesh government complained that the rival state was generating power below 834 feet, which is the Minimum draw down Level (MDDL) for producing electricity.
- Andhra Pradesh government said Telangana had not taken the approval of the Krishna River Management Board (KRMB) before going ahead with its plans.
- This autonomous body under the central government’s purview was set up when the states split. The board’s aim was to regulate the Krishna basin water supply to projects in both states.
- Andhra Pradesh government alleged that Telangana’s hydel project is not allowing water levels to rise in the Srisailam reservoir.
- For Andhra Pradesh to give water to the Rayalaseema region, the water level here needs to be around 881 feet.
- Although most chief ministers of Andhra Pradesh, including pre-bifurcation, have been from Rayalaseema, the region has remained relatively underdeveloped and under-watered.
- Under the Telugu Ganga Project, water from Srisailam reservoir is also sent to Chennai.
- Andhra also believes water used for hydel projects is ultimately wasted as it flows into the Bay of Bengal.
- But Telangana has said it will never stop generating power, adding that the KRMB has no right to object because there were no agreements between the states on hydel power generation.

- The Telangana government said it needed the hydel energy to power its Nettempadu, Bheema, Koilsagar and Kalwakurthy lift irrigation projects.

Way Forward

- ✦ There has to be clearly articulated policy intent. The National Water Policy has to declare the creation and nurturing of an ecosystem for interstate river water cooperation as one of its priorities, and enunciate specific steps towards setting the process in motion.
- ✦ Indian politics will have to build a political consensus, at the core of which will be how the Union government repositions itself. The political process has to redefine the existing Centre-state division of powers in terms of functional and operational responsibilities required to pursue the ambitious plans and programmes. In other words, the water agenda has to be elevated for a federal consensus, say, along the lines of the GST reforms.
- ✦ The idea of building federal consensus for water reforms is not entirely new. Forums like the National Water Resources Council, the National Development Council have existed but failed, chiefly because of their inability to assuage states about their neutrality.
- ✦ Development of strong and resilient institutional models for interstate coordination, primarily to give effect to any interstate project, programme or agreement. A River Basin Management Bill 2018 proposes to replace the River Boards Act 1956. It is unlikely that these institutional authorities will be effective without a consensus on the roles of the Centre and states (some of which have already resisted the move), and the operational domain of river basin authorities. The bill does not build on such a consensus, and instead assumes representation of states as sufficient to make the institutions work. An enduring and empowered deliberative forum, such as the Interstate Council, will enable such consensus building and evolution of collaborative solutions. The Interstate Council has been ill-conceived as a department of the executive, instead of as an institution at par with other institutions serving key constitutional functions.
- ✦ Pursuing an effective strategy for interstate river water disputes resolution. This requires a course correction. Deliberative approaches were integral to tribunals’ adjudication of the disputes, but subsequent amendments to the Act turned these tribunals into courts that increasingly rely on adversarial litigations. This is one of the reasons for extended delays in implementing the tribunals’ decisions. The tribunals’ adjudication process needs to be reviewed. The Supreme Court’s decision last year modifying the Cauvery Water Dispute Tribunal’s order was just another instance of continued reliance on litigatory approaches. Extending the Supreme Court’s jurisdiction opens up additional layers of judicial litigation.

PEPPER IT WITH
Water Stress, River Linking Project, Himalayan and Peninsular rivers

Conclusion

Several practical reasons necessitate this revisiting of interstate river water governance with particular focus on Centre-state relations. The country has set ambitious plans, with both development and conservation goals, and these depend on strong and reliable interstate river water cooperation. Besides the conventional supply augmentation, the development projects include proposed inland waterways over 105 national waterways. The interlinking of rivers, though much contested, has received patronage from consecutive governments – yet could not make much headway, partly due to the hurdles of interstate coordination.

The flagship programme of Ganga rejuvenation is a response to the intensely stressed river ecosystems. It has received unprecedented attention and investments but the tenuous Centre-state and interstate relations remain unaddressed.

Development of Infrastructure Facilities for Judiciary

News Excerpt

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With several courts still functioning on rented premises, the Union Cabinet approved a five-year extension for a centrally sponsored scheme for developing infrastructure for the judiciary.

Pre-Connect

- The Centrally Sponsored Scheme (CSS) for Development of Infrastructure Facilities for Judiciary has been in operation since 1993-94.
- Though the primary responsibility of infrastructure development for the subordinate judiciary rests with the state governments, the Central government through the scheme augments the resources of states for the construction of court buildings and residential quarters for judicial officers in all the states and UTs.
- The Cabinet also approved a proposal to support Gram Nyayalayas by providing recurring and non-recurring grants for a period of 5 years with a total outlay of Rs 50 crore.
- Funds will be released to states only after the notified Gram Nyayalayas are operationalised and Nyayadhikaris appointed and reported on the Gram Nyayalaya portal of Department of Justice.

The major activities of the Scheme

- The present proposal provides for additional activities like construction of lawyer halls, toilets complexes and digital computer rooms. This will add to the convenience of lawyers and litigants besides reducing digital divide.
- The Gram Nyayalayas Act, 2008 that came into force from 2 October 2009 was enacted for establishment of Gram Nyayalayas for speedy and easy access to justice system in the rural areas of India.
- A scheme of central assistance was formulated simultaneously to fund the initial cost in terms of non-recurring expenses for setting up of these courts with the assistance limited to Rs. 18.00 lakhs per Gram Nyayalaya as a one-time measure.
- Central Government also decided to bear 50% of the recurring expenses of these courts subject to a ceiling of Rs. 3.2 lakhs per court per annum during the first three years of their operations.
- Thirteen states have implemented this scheme by notifying 455 Gram Nyayalayas out of which 226 are functional.

PEPPER IT WITH
Subordinate Courts, National Legal Services Authority, Family Courts, LokAdalats

Monitoring of the Scheme

- ❖ An on-line monitoring system has been set up by the Department of Justice enabling data collection on progress, completion of court halls and residential units under construction as well as better asset management.
- ❖ Department of Justice has developed an online monitoring system with technical assistance from ISRO. The upgraded “Nyaya Vikas-2.0” web portal and mobile application is used for monitoring physical and financial progress of CSS judicial infrastructure projects by geo-tagging completed and ongoing projects. Quarterly review meetings are held with the representatives of all States/UTs and High Courts to review the status of implementation of projects.
- ❖ Regular State level meetings of the Monitoring Committee are held by various High Courts, States with State Chief Secretaries and PWD officials to enable speedy and good construction.

Categorization of Infrastructure: The definition of infrastructure for the purpose of court premises can be comprised as:

- ✓ The physical infrastructure of the courts is in a pathetic condition considering the state of court premises which were built earlier, they lack basic facilities like toilets, or even if the toilets are built they are not cleaned on a regular basis and may cause gut infections, lung and skin diseases, sexually transmitted diseases etc., facility of crèche for the women judicial officers or litigants because of which they're forced to leave their infants either with some relative or hire a babysitter as a consequence

of which the babies are not looked after efficiently, some of the court rooms even lack adequate lightening causing problems for the judges as well as lawyers.

- ✓ The personnel infrastructure of the courts requires ample number of judges, which is one the major problems faced by the subordinate courts in India, the lack of insufficient number of judges cause backloging of cases, delay in justice, problems caused to under trials etc. With India's population being 1.2 billion there should be 60,000 judges while the sanctioned strength is less than 25,000.
- ✓ The digital infrastructure includes the facilities like websites of courts inclusive of the information regarding the status of cases, mobile applications which may inform the people about their rights and other information regarding the functioning of the courts and other essential information. The digitization has become an important aspect of every industry in the world which focuses on the improvement of customer satisfaction and leveraging data for better decision making. The legal services may gain immensely by the digitalization.

Analytica

- There is a persistent lack of infrastructural development in the judiciary, especially the subordinate courts. This problem can be more efficiently be understood if one studies it in regards of the persons with physical disabilities, illiterates, women, senior citizen and trans-genders.
- Some of the court premises are well equipped and well designed, whereas, most of them lack the basic facilities such as the provisions of signage, directions, maps etc. for blind or general people, moreover to it, the entry and exit points are not well-managed, leading to crowds.
- As one moves towards the rural area from the urban areas the infrastructure of the court worsens.
- Basic necessities such as clean washrooms, access to water, seating arrangement, adequate lightening is badly neglected.
- At the end, it is important to note that being modern-day courts such infrastructural standard should be maintained as they play a vital role in enhancing the functioning of a court. The judicial infrastructure such be given priority and proper budget should be granted for the same.

Conclusion

Adequacy of judicial infrastructure is critical for reduction of pendency and backlog of cases in Courts. The CSS Scheme will increase the availability of well-equipped Court Halls and Residential Accommodations for Judicial Officers of District and Subordinate Courts all over the country. The courts are also being provided with better amenities enabling win-win situation for both the judiciary and the lawyers and also to ease of living of common man. Setting up of digital computer rooms will also improve digital capabilities and give impetus to the digitization initiation being pursued as a part of India's Digital India vision. This will help in improving the overall functioning and performance of the Judiciary. Continued assistance to the Gram Nyayalayas will also give impetus to providing speedy, substantial and affordable justice to the common man at his door step.

Issue of Director of inquiry in Lokpal

News Excerpt

The Lokpal, the apex body to inquire and investigate graft complaints against public functionaries, came into being with the appointment of its chairperson and members in March 2019.

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Pre-Connect

- The term Lokpal was coined in 1963 but it was not until January 2014 that the Lokpal and Lokayuktas, Act came into force. It was more than five years later, in March 2019, that the first chairperson and members of the Lokpal were appointed.
- According to the Act, the Lokpal shall, by a notification, constitute a prosecution wing headed by the Director of Prosecution for the purpose of prosecution of guilty public servants.

- According to the Lokpal Act, the Director of Prosecution shall, after having been so directed by the Lokpal, file a case in accordance with the findings of investigation report, before the special court and take all necessary steps in respect of the prosecution of public servants in relation to any offence punishable under the Prevention of Corruption Act, 1988.
- According to the law, the Lokpal shall also constitute an Inquiry Wing headed by the Director of Inquiry for the purpose of conducting preliminary inquiry into any offence alleged to have been committed by a public servant punishable under the Prevention of Corruption Act, 1988.
- According to provisions contained under Section 20 (1) (b) of the Lokpal and Lokayuktas Act, 2013, complaints in respect of public servants belonging to groups A, B, C or D are referred by the Lokpal to the CVC for a preliminary inquiry.

Lacking teeth

Six years after the Lokpal and Lokayuktas Act, 2013, was signed into law, key provisions for the ombudsman to function have not been operationalised

- First chairperson and members were appointed in March 2019
- 1,065 complaints were sent to the Lokpal. After scrutiny, complaints that did not fall within the Lokpal mandate were disposed of
- 1,000 complaints have been disposed of until September 30
- Section 60 of the Act empowers the Lokpal to make regulations on "the manner and procedure of conducting preliminary inquiry"
- Till now, no such regulations have been made
- The process of constitution of the Inquiry Wing is yet to be initiated, the Lokpal's office said on November 25

Highlights

- Of the 12 complaints received in the first three months of the ongoing fiscal, eight were against Group A or B officials and four were against chairperson/ member/officer/employee in any body/board/corporation/authority/company/society/trust/autonomous body wholly or partially financed by the Central government or controlled by it, according to the Lokpal data.
- The data showed that two complaints were closed after a preliminary examination and three complaints seeking preliminary inquiry were pending with the CVC.
- A status report from the CBI is pending in one complaint, showed the data for 2021-22 (up to June 2021), without mentioning further details.
- Almost six years after the Lokpal and Lokayuktas Act, 2013, were signed into law, several key provisions needed for the anti-corruption ombudsman to function have still not been operationalised.
- The Lokpal has said in response to RTI queries that the process of constituting the Lokpal's inquiry and prosecution wings has not yet begun, and regulations for how to conduct preliminary investigations have not been made.
- More than eight months later, the institution is functioning out of a government-owned hotel in Delhi. While it approved a logo and motto for itself, the Lokpal has not yet notified a format for filing complaints. Despite that obstacle, 1,065 complaints were sent to the Lokpal office.
- A note on the Lokpal website says that "After scrutiny, complaints that did not fall within the mandate of the Lokpal were disposed of and complainants have been informed accordingly," adding that 1,000 such complaints have been disposed of until September 30.
- The Lokpal would find it difficult to investigate complaints that do fall within its mandate as it has no inquiry wing or regulations for inquiries. "The process of constitution of Inquiry Wing of Lokpal is yet to be initiated in consultation with the government of India,"
- Section 60 of the Act gives the Lokpal the power to make regulations on "the manner and procedure of conducting preliminary inquiry or investigation". It also deals with making regulations on the website display of the status of all complaints — pending or disposed — along with records and evidence. However, in response to an RTI query, the Lokpal said, "Till now, no regulations have been made by the Lokpal under Section 60."


PEPPER IT WITH

Salient features of the Lokpal and Lokayuktas Act, 2013; Central Vigilance Commission; Whistle Blowers Protection Act (2014)

- The process of constitution of Prosecution Wing of Lokpal is yet to be initiated in consultation with the government of India.
- The rules for the disclosure of assets and liabilities by public servants have not been notified either. This is a key provision as the amassing of assets disproportionate to the known sources of income is often the basis for a complaint. The draft rules of 2017 were referred to a Parliamentary Standing Committee, which submitted its recommendations to the government in July 2018. The Centre is yet to submit any Action Taken Report to the Rajya Sabha.

Conclusion

The Lokpal and Lokayuktas Act, 2013 is complicated. This could perhaps not be avoided, given that what was being attempted was a new and bold experiment to pull the anti-corruption campaign out of oblivion. This law was badly needed, if only to lend a modicum of credibility to the process of enhancing the accountability of those in high places, who were cocking a snook at all efforts to demonstrate to the world that India is not second to any other nation in making its public administration clean and fair. All these imponderables, however, do not reduce the utility of a highly placed ombudsman.




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SOCIAL ISSUES

Vaccine Hesitancy in India

News Excerpt

Recently, the Vice President emphasized the need to educate people on the importance of Covid-19 Vaccination and urged all stakeholders to work collectively to achieve the target of full vaccination by the year end.

Pre-Connect

India launched its Covid-19 vaccination drive on January 16. Six months into it, there has been visible improvement on most fronts: the pace has picked up, and the gender and urban-rural gaps are reducing. Still, more needs to be done if India wants to achieve its stated target of vaccinating its entire adult population of 940 million by the end of 2021.

How Vaccination drive works?

- Starting April 1, vaccinations were opened up to those over the age of 45. In this phase too, vaccines were procured and allocated to states and private centres by the Union government.
- Starting May 1, India opened up vaccinations for everyone over the age of 18. This happened even as supplies remained constrained.
- States were allowed to procure up to 25% of the vaccines made locally for this; private hospitals were allowed to buy another 25%; and the remaining 50% was sourced by the Union government for distribution to the states for healthcare and frontline workers and those over the age of 45 years.

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Lambda, a news Covid-19 Variant

Recently, the World Health Organization designated the Lambda variant, previously known by its formal scientific name C.37, as the seventh and newest “variant of interest”, meaning it was something to watch out for.

About the new Lambda variant

- ❖ Like the Delta variant, the Lambda variant, which has now been detected in more than 25 countries, is feared to be more transmissible than the original virus, although it is not yet established because of lack of enough studies on it.
- ❖ The Lambda variant has not yet been found in the Indian population, but has recently been detected in the UK and other European countries.
- ❖ According to the WHO, the Lambda variant has at least seven significant mutations in the spike protein (the Delta variant has three) which could have a range of implications, including the possibility of increased transmissibility or enhanced resistance to antibodies, created either through natural infection or vaccination.
- ❖ Lambda variant had greater infectivity than the Alpha and Gamma variants (known to have originated in the UK and Brazil respectively).
- ❖ There are currently seven variants, including the Lambda, that the WHO classifies as “variants of interest”. Another four – Alpha, Beta, Gamma and Delta – have been designated as “variants of concern”, and are considered a bigger threat.
- ❖ Should India worry about the Lambda variant?
- ❖ The Lambda variant has so far not been found in India or neighbouring countries. In Asia, only Israel has reported this variant until now. But several countries in Europe from where travel to India is frequent, including France, Germany, UK, and Italy have reported this variant.
- ❖ The potential of emerging variants to bypass the immunity gained through vaccination means that there could be fresh waves of infections even in populations that were being considered close to reaching community-level protection.
- ❖ That is what is happening in many countries in Europe right now, particularly in the UK. There has been a sharp rise in cases in several countries in the last few weeks.

How vaccination drive is doing in Rural India?

- Recent data on Covid vaccinations in India suggests that vaccine hesitancy may be waning. Over 63 per cent of vaccinations in the past three weeks have taken place in rural areas, where hesitancy has been high.
- This turnaround is enormously heartening. About 65 per cent of India lives in villages, and this should help the government address the gaps and lags in Covid containment.

What were the reasons for Vaccination Hesitancy?

- ✓ Vaccine hesitancy has crippled various government programmes even before the Covid outbreak, including for polio elimination.
- ✓ It has been more prevalent in rural areas for a variety of reasons, including the dearth of health education.
- ✓ In the case of Covid-19, the focus was initially on urban areas, which saw maximum vaccination numbers in the early days of the rollout.
- ✓ Rural India called for a nuanced strategy that involved engagement with, and participation of, multiple stakeholders and influencers.
- ✓ With information about supply available in advance, district administrations have undertaken calibrated campaigns to reach out to the public.

What need to be done?

- There is a need to dispel fears in some sections and the vaccination drive should turn into a truly pan-India ‘Jan Andolan’.
- Urging the medical fraternity to take a lead in creating awareness and educating the people on the importance of getting themselves vaccinated.
- Stating that community support is critical in our fight against Corona virus, those having vaccine hesitancy should be made aware of the fact that they are putting their own lives and those of their family members at avoidable risk.
- The Centre and States need to work together in ‘Team India’ spirit to quicken the pace of the vaccine campaign.

The Unified District Information System for Education Plus Report

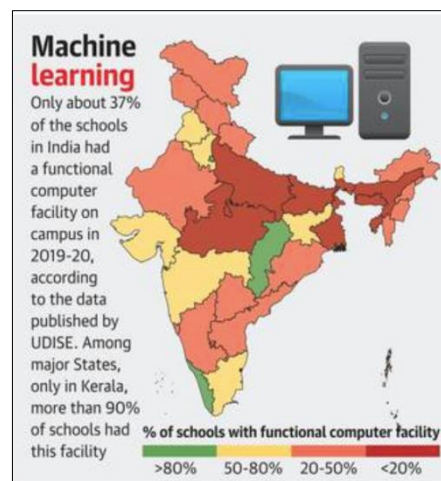
News Excerpt

Recently, UDISE+ report has been released by Education Ministry, shows only 22% of schools in India had Internet facilities.

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Pre-Connect

- The Indian Government has decided to develop an application, “Unified District Information System for Education Plus” (UDISE+) under the Ministry of Education, to collect the school details about factors related to a school and its resources.
- UDISE+ has a mandate of collecting information from all recognized and unrecognized schools imparting formal education from Pre-primary to XII.
- Information collected through the digital platform of UDISE+, is utilized for the planning, optimized resource allocation and implementation of various education-related programs and assessments of progress made.
- UDISE+, collects information through an online Data Collection Form (DCF) on parameters ranging from school, Infrastructure, teachers, enrolments, examination results etc. spread across 11 sections.



- The Schools which get onboarded successfully on the platform are provided a UDISE Code, which acts as a national level unique identifier. UDISE+ has the school as the unit of data collection and district as the unit of data distribution.

What report says about internet availability and digital education?

- Among government schools, less than 12% had Internet in 2019-20, while less than 30% had functional computer facilities.
- This affected the kind of digital education options available to schools during the pandemic, as well as plans for hybrid learning in the days ahead.
- The Unified District Information System for Education Plus (UDISE+) report collates data from more than 15 lakh schools across the country.
- The availability of digital education — whether via live, synchronous teaching on apps like Zoom, or through recorded lectures, emails, WhatsApp or educational apps — was largely dependent on whether schools, teachers and parents had access to the necessary infrastructure.
- In many States, teachers came to school and taught in their own empty classrooms, using their blackboards and lab facilities, while facing a computer screen that communicated the lessons to their students at home.
- However, the UDISE+ data makes clear the digital divide, which made this a viable option only in some States.
- In many Union Territories, as well as in the State of Kerala, more than 90% of schools, both government and private, had access to working computers.
- In States such as Chhattisgarh (83%) and Jharkhand (73%), installation of computer facilities in most government schools paid off, while in others such as Tamil Nadu (77%), Gujarat (74%) and Maharashtra (71%), private schools had higher levels of computer availability than in government schools.

School Innovation Ambassador Training Program

Recently, Union Education and Tribal Affairs Minister jointly launched the 'School Innovation Ambassador Training Program' for 50,000 school teachers.

- ❖ The program is a collaborative effort by the Ministry of Education's Innovation Cell, Ministry of Tribal Affairs, CBSE and AICTE, which will in turn nurture lakhs of students with innovation capabilities, develop a culture of innovation and lay the foundation of a new and vibrant India.
- ❖ This programme will have far reaching consequences which will help to fulfil the Prime Minister's vision of a New India.
- ❖ SIATP' will give wings to the creativity of the children and provide a platform so that they can give something new to the world with their ideas. Eklavya Model Residential Schools (EMRS) for tribal children is another ambitious programme of the Prime Minister under which 740 EMRS will be established in tribal dominated areas over the next three years.
- ❖ The students of EMRS will greatly benefit from SIATP since it is also the endeavour of Tribal Affairs Ministry to give the best possible education to the tribal children.
- ❖ Teachers will need to evolve new methods of teaching; they will need to first transform themselves into guides from being instruments of written text books. Shri Jha further said that apart from running Ekalavya World Education School, the Ministry of Tribal Affairs has been supporting initiatives of States/Union Territories in spreading scientific education to tribal students and the new initiative will help promote quality education among tribal children.
- ❖ The innovative and one-of-its-kind training program for school teachers, it aims at training 50,000 School Teachers on Innovation, Entrepreneurship, IPR, Design Thinking, Product development, Idea generation, among others.

- However, in States such as Assam (13%), Madhya Pradesh (13%), Bihar (14%), West Bengal (14%), Tripura (15%) and Uttar Pradesh (18%), less than one in five schools had working computers.
- The situation is worse in government schools, with less than 5% of U.P.'s government schools having the facility.
- Only three States — Kerala (88%), Delhi (86%) and Gujarat (71%) — have Internet facilities in more than half their schools.
- 90% of schools across the country have facilities for handwashing, which will gain added importance as they implement COVID-19 safety protocols while reopening.
- More than 80% of schools conducted medical check-ups during the year before the pandemic. Temperature testing and monitoring of symptoms need to become a daily activity, according to the Centre's health protocol for schools wishing to reopen.

What report says on dropout students?

- ✓ More boys dropped out of school at the secondary level as well as in primary classes (1 to 5), while the number of girls dropping out of school in the upper primary classes (6-8) was higher than that of the boys in 2019-20.
- ✓ The overall dropout rate at the secondary level in the country is over 17%, while in the upper primary classes (6 to 8) and the primary level it is 1.8 and 1.5% respectively.
- ✓ With more than 15 lakh schools, nearly 97 lakh teachers and over 26.5 crore students from the pre-primary to the higher secondary level, the Indian school education system is one of the largest in the world.
- ✓ There are over 3.8 crore students enrolled at the secondary level, of whom 44.3% are in government schools, a little over 20% are with government-aided schools and nearly 35% are with private-unaided schools.
- ✓ there are 19 States and Union Territories where the dropout rate at the secondary level (classes 9 and 10) is higher than the all-India rate (17.3%), with States such as Tripura, Sikkim, Nagaland, Meghalaya, Madhya Pradesh, Assam and Arunachal Pradesh having a dropout rate of over 25%.
- ✓ Punjab registered a zero-dropout rate for girls, while Assam recorded the highest dropout rate (35.2%) at the secondary level. There are six States and Union Territories where the dropout rate for boys is over 30%. For States such as Goa, the boys' (21.2%) dropout rate is nearly 10% higher than that of the girls (11.8%).

Largest drop in Open Defecation: WASH report

News Excerpt

Recently, report on water, sanitation and hygiene has been jointly released by World Health organization and UNICEF.

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Pre-Connect

- The Asia-Pacific region faces the challenge of having 369 million people without access to basic sanitation services and 163 million people lacking access to basic drinking water.
- UNICEF East Asia and Pacific Regional Office (EAPRO) has been working in the area of water, sanitation and hygiene (WASH) in 26 countries in the region with the intent of helping countries reach Sustainable Development Goal (SDG) 6, which targets universal and equitable water, sanitation and hygiene for all by 2030.
- This report provides a summary of the progress, major WASH results achieved, and lessons learned in the East Asia and Pacific Region in 2020.
- It also provides a brief financial analysis as well as a narrative on challenges that the region faces— dominated by the COVID-19 pandemic.

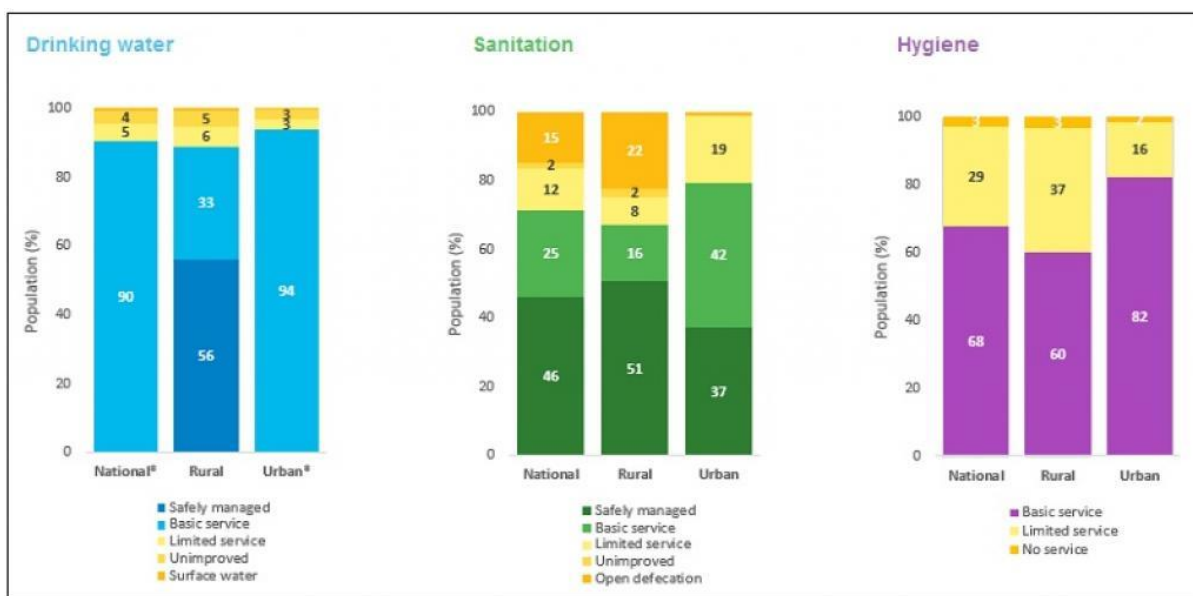
- Finally, the report offers a look into the WASH programme in 2021 and what the future of WASH must look like in order for us to meet national goals as well as the SDGs.

What report says?

- India was responsible for the largest drop in open defecation since 2015, in terms of absolute numbers.
- Within India, open defecation had been highly variable regionally since at least 2006.
- In 2006, the third round of the National Family Health Survey (NFHS) found open defecation to be practiced by less than 10 per cent of the population in four states and the Union Territory of Delhi, but by more than half the population in 11 states.
- By 2016, when the fourth round of the NFHS was conducted, open defecation had decreased in all states, with the largest drops seen in Himachal Pradesh and Haryana.
- It, however, showed that progress in curbing open defecation in sub-Saharan Africa was slow.

Progress in SDG 6

- ✓ The report also noted some progress towards the achieving SDG 6. Between 2016 and 2020, the global population with access to safely managed drinking water at home increased to 74 per cent, from 70 per cent.



- ✓ SDG 6 states that ensuring availability and sustainable management of water and sanitation for all by 2030 entails that water must be accessible at source, available when needed and free from any contamination.
- ✓ The report has shown an improvement in at-source water resources including piped water, boreholes or tube-wells, protected dug wells, protected springs, rainwater and packaged or delivered water.
- ✓ Water sources are considered ‘accessible on premises’ if the point of water collection is within the dwelling, compound, yard or plot, or is supplied to the household through piped supply or tanks.
- ✓ Globally, access to safely managed sanitation services increased over the 2000-2020 period by an average of 1.27 percentage points per year.

Report on hygiene in context of the COVID-19

- It is now recognised by scientists and research studies that people are infected with SARS-COV-2 through exposure to respiratory droplets of infected peoples.

- In June 2020, the World Health Organization and Unicef jointly launched the 'Hand Hygiene for All' initiative, which aims to improve access to handwashing infrastructure as well as stimulating changes in handwashing practices where facilities are available.
- Handwashing facilities with soap and water increased to 71 per cent, from 67 per cent.
- However, 3 in 10 people worldwide could not wash their hands with soap and water at home during the COVID-19 pandemic due to lack of water resources.

Government of India programme and Initiatives

- ✚ The Government of India has demonstrated its commitment to the overall well-being of its citizens. Back in 2005, the central government established the National Health Mission and introduced structural reforms to strengthen health care and sanitation.
- ✚ The National Health Policy 2017 clearly articulates the government’s commitment to reforming the health sector and achieving universal health coverage, not least by proposing an increase in the health budget to 2.5% of GDP.
- ✚ The policy also sets bound targets for disease elimination, reduction of premature and preventable mortality, systems strengthening, as well as improving health services.
- ✚ The government launched Mission Indradhanush in 2015 to rapidly increase immunisation coverage.
- ✚ It is also investing significant resources towards ending open defecation by 2019 through the Swachh Bharat programme.

NIPUN Bharat

News Excerpt

Recently, the Centre has pushed back the target date to 2026-27 of NIPUN Bharat Programme says that COVID-19 has already disrupted two academic years.

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Pre-Connect

- Ministry of Education has launched a National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat), for ensuring that every child in the country necessarily attains foundational literacy and numeracy (FLN) by the end of Grade 3, by 2026-27.
- The National Mission which has been launched under the aegis of the centrally sponsored scheme of Samagra Shiksha, will focus on providing access and retaining children in foundational years of schooling; teacher capacity building; development of high quality and diversified Student and Teacher Resources/Learning Materials; and tracking the

Samagra Shiksha Scheme

Samagra Shiksha is an overarching programme for the school education sector extending from pre-school to class 12. The scheme has been prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes. It subsumes the three Schemes of Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA) and Teacher Education (TE) and was launched in 2018.

The major objectives of the Scheme are

- ❖ Provision of quality education and enhancing learning outcomes of students;
- ❖ Bridging Social and Gender Gaps in School Education;
- ❖ Ensuring equity and inclusion at all levels of school education;
- ❖ Ensuring minimum standards in schooling provisions;
- ❖ Promoting Vocationalization of education;
- ❖ Support States in implementation of Right of Children to Free and Compulsory Education (RTE) Act, 2009; and
- ❖ Strengthening and up-gradation of SCERTs/State Institutes of Education and DIET as a nodal agency for teacher training.

progress of each child in achieving learning outcomes.

More about news

The School Education Department says no additional funding is being allocated for the National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat). Instead, money is being allocated from the flagship Samagra Shiksha scheme, which actually saw a 20% drop in its budget this year.

Student Covered under NIPUN Bharat Programme

- The mission will focus on children of age group of 3 to 9 years including pre-school to Grade 3.
- The children who are in Class 4 and 5 and have not attained the foundational skills will be provided individual teacher guidance and support, peer support and age appropriate and supplementary graded learning materials to acquire the necessary competencies.

Objectives of NIPUN Bharat Programme

- ✓ To ensure an inclusive classroom environment by incorporating play, discovery, and activity-based pedagogies, linking it to the daily life situations of the children and formal inclusion of children's home languages.
- ✓ To enable children to become motivated, independent and engaged readers and writers with comprehension possessing sustainable reading and writing skills.
- ✓ To make children understand the reasoning in the domains of number, measurement and shapes; and enable them to become independent in problem solving by way of numeracy and spatial understanding skills.
- ✓ To ensure availability and effective usage of high-quality and culturally responsive teaching learning material in children's familiar/home/mother language(s).
- ✓ To focus on continuous capacity building of teachers, head teachers, academic resource persons and education administrators.
- ✓ To actively engage with all stakeholders i.e., Teachers, Parents, Students and Community, policy makers for building a strong foundation of lifelong learning.
- ✓ To ensure assessment 'as, of and for' learning through portfolios, group and collaborative work, project work, quizzes, role plays, games, oral presentations, short tests, etc.
- ✓ To ensure tracking of learning levels of all students.

How this programme is Unique

- The unique feature is that the goals of the Mission are set in the form of LakshyaSoochi or Targets for Foundational Literacy and Numeracy.
- Although, the overall aim is to achieve the desired learning outcomes by the end of grade 3, however, in order to generate greater awareness among the parents, community, volunteers etc. the Lakshyashas been developed from Balvatika to Grade 3.
- The Laskhyas are based on the learning outcomes developed by the NCERT and international research and ORF studies.
- The success of NIPUN Bharat will primarily depend on teachers, so, there will be a special emphasis on capacity building of teachers.
- A special package for foundational literacy and Numeracy under NISHTHA is being developed by NCERT and around 25 lakh teachers teaching at pre-primary to primary grade will be trained this year on FLN.

Benefits of NIPUN Bharat Mission

- ✚ Foundational skills enable to keep children in class thereby reducing the dropouts and improve transition rate from primary to upper primary and secondary stages.
- ✚ Activity based learning and conducive learning environment will improve quality of education.
- ✚ Innovative pedagogies such as toy-based and experiential learning will be used in classroom transaction thereby making learning a joyful and engaging activity.

- ✦ Intensive capacity building of teachers will make them empowered and provide greater autonomy for choosing the pedagogy.
- ✦ Holistic development of the child by focusing on different domains of development like physical and motor development, socio-emotional development, literacy and numeracy development, cognitive development, life skills etc. which are interrelated and interdependent, which will be reflected in a Holistic Progress Card.
- ✦ Children to achieve steeper learning trajectory which may have positive impacts on later life outcomes and employment.
- ✦ Since almost every child attends early grades, therefore, focus at that stage will also benefit the socio-economic disadvantageous group thus ensuring access to equitable and inclusive quality education.

Way forward

- The goal has simply been to enrol children in school, and then to ensure that they finish Class 10. This mission specifies stage-wise learning goals to ensure that students are acquiring the necessary building blocks.
- Annual Status of Education Report (ASER) found that less than 30% of Class 3 students could read at Class 2 level or do double digit subtraction in 2018. Operationalising a changed mindset would require changes in curriculum, teacher training, assessment, and messaging to parents, such as holistic report cards.
- There is a need for following the NEP recommendation to see early childhood education as a continuum, with a focus on the Anganwadi and pre-school systems as well.
- There would be a need to ensure that when schools are reopened, there is a focus on school readiness activities for younger classes, rather than going straight to a traditional curriculum.
- NIPUN Bharat could recommend a 60-90 day focus on foundational literacy and numeracy before transitioning to a regular timetable.

Malaria-Free health Strategy

News Excerpt

Recently, the World Health Organization (WHO) declared that China was “malaria-free” followed a seven decade-long, multi-pronged health strategy that was able to entirely eliminate indigenous cases for four straight year.

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According to WHO China is the first country in the Western Pacific region to be declared malaria-free in more than 30 years, following Australia in 1981, Singapore in 1982 and Brunei in 1987.

Timeline of China’s Efforts to remove malaria

- The effort began in the early 1950s, a time when China was reporting millions of cases annually, starting with a multi-pronged approach of providing anti-malarial medicines while targeting mosquito breeding grounds and using insecticide spraying.
- A national effort called ‘the 523 Project’ was launched in 1967 involving more than 500 scientists from 60 institutes, the WHO noted, leading to the discovery of artemisinin in the 1970s, which is “the core compound of artemisinin-based combination therapies, the most effective antimalarial drugs available today”.
- In the 1980s, China began using insecticide-treated nets widely, distributing 2.4 million nets by 1988. Cases began to drop, down to 117,000 in 1990.
- The number would fall to 5,000 annually by the end of the following decade. With assistance from the Global Fund to Fight AIDS, Tuberculosis and Malaria starting in 2003, China “stepped up training, staffing, laboratory equipment, medicines and mosquito control, an effort that led to a further reduction in cases.

How did China come to a malaria-free country in only seven decades?

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The primary lessons learnt from the national control programme in 1950–2009 have been summarized in the following aspects:

- High commitment by government at all levels with coordinating resources, including financial and human resources to be sustainably invested in national malaria control programmes.
- Robust working mechanism to promote the actions on multi-sectoral, multi-regional and multi-disciplinary cooperation, which ensure the activities performed in time.
- Innovative researches produced rich tools used in the national malaria control programmes, including updating the strategies in different control phases and developing new chemotherapy drugs and schemes, diagnostics, surveillance kits and schemes, insecticide-treated bed-nets, and ways for information-education-communication.
- Deep integration between western medicine and Chinese traditional medicine allowed the Chinese Nobel Prize winner Tu Youyou to discover artemisinin which contributed significantly to saving life of world population.
- Active communities involvement to modify mosquito habitats and improve sanitation through patriotic public health campaign.

With regard to the national malaria elimination programme initiated in 2010, the main activities related to the malaria elimination were summarized as follows:

- The Action Plan for Malaria Elimination in China (2010–2020) was issued by the Chinese Ministry of Health together with other 12 Ministries of the Central Government in 2010.
- Stratified strategy with four catalogues of epidemic status was implemented to strengthen malaria surveillance and response.
- The “National Information Management System for Parasitic Disease Control and Prevention” was established in 2011 to improve the surveillance and response system during elimination phase.

China’s 1-3-7 strategy

- It credited China’s public health system offering free of charge diagnosis and treatment of malaria in bringing down cases to zero, as well as a “1-3-7 strategy” referring to a one-day deadline to report a malaria diagnosis, confirming a case and determining the spread by the third day, and measures taken to stop the spread by the seventh day, along with continued surveillance in high-risk areas.
- At the same time, concern over imported cases remains, particularly from Laos, Myanmar and Vietnam, which share a border with the southwestern Yunnan province. The “malaria-free” certification was welcomed by public health experts in China and was welcome news for its health authorities, amid an intense global debate over how they handled the COVID-19 pandemic and scrutiny facing its disease control agencies.

Analytica

✓ What is the current scenario of malaria in India?

- ✓ India has a great history of malaria control. The highest incidence of malaria occurred in the 1950s, with an estimated 75 million cases with 0.8 million deaths per year.
- ✓ The launch of National Malaria Control Programme in 1953 and the National Malaria Eradication Programme in 1958 made it possible to bring down malaria cases to 100,000 with no reported deaths by 1961.
- ✓ But from a nearing stage of elimination, malaria resurged to approximately 6.4 million cases in 1976. Since then, confirmed cases have decreased to 1.6 million cases, approximately 1100 deaths in 2009 to less than 0.4 million cases and below 80 deaths in 2019.
- ✓ India accounted for 88% of malaria cases and 86% of all malaria deaths in the WHO South-East Asia Region in 2019 and is the only country outside Africa among the world’s 11 ‘high burden to high impact’ countries.

The road ahead for India:

- ✓ India is a signatory to National Framework for Malaria Elimination (NFME) 2016-2030 aiming for malaria elimination by 2030.
- ✓ This framework has been outlined with a vision to eliminate the disease from the country which would contribute to improved health with quality of life and poverty alleviation.
- ✓ India stands at a very crucial stage. The present challenge is the detection of asymptomatic/afebrile cases in most endemic areas.
- ✓ The current approach for mass screening with Rapid Diagnostic Tests (RDTs) would not fulfil the basic purpose because these tests fail to detect <100 parasites/μL blood and also the problem of deletion of certain diagnostic genes in the Plasmodium falciparum dominated areas. To overcome this, a microPCR-based point-of-care device that detects <5 parasites/μL blood can be used. The same technology is being used in Tuberculosis and COVID-19 diagnosis.
- ✓ Molecular Malaria Surveillance must be used to find out the drug-resistant variants and genetic-relatedness studies to find out the imported or indigenous cases.
- ✓ The results of each malaria case can be registered in a central dashboard at the National Vector Borne Disease Control Programme, as it is done for COVID-19 cases by Indian Council of Medical Research.
- ✓ All intervention activities must strictly be monitored. Vector biology, site of actual vector mosquito bite, host shifting behaviour, feeding time, feeding behaviour and insecticide resistance studies need to be carried out to support the elimination efforts. Medical entomologists who would help accelerate elimination plans should be appointed at both Central and State levels.

Recently, five portals of importance were launched and four publications were released by the Union Minister of Ayush

- ❖ Minister launched CTRI portal pertinent to Ayurveda Dataset along with AMAR, RMIS, SAHI and e-Medha portals.
- ❖ After the inclusion of dataset pertinent to Ayurveda in CTRI portal, the Ayurveda Clinical Trials would have worldwide visibility and will further the cause of strengthening Ayurvedic Research.
- ❖ Similarly, SHAHI portal incorporates authentic resources and will be of immense help in showcasing historical veracity of Ayurveda.
- ❖ With the help of e- Medha portal anyone can have online access to more than 12 thousand books.
- ❖ These books are related to Indian Medical Heritage and can be accessed through NIC's e- granthalaya platform.
- ❖ AMAR portal, which was also launched recently, is a repository for Ayurveda, Yoga, Unani, Siddha and Sowa-Rigpa Manuscripts and catalogues. Another Portal CCRAS- Research Management Information System or RMIS in short, is a research guidance platform.

Conclusion

The entire world is now facing the once in a century pandemic of COVID-19. This has resulted in an over 32% decline in total blood smear collection for malaria surveillance in 2020 in India compared to 2019. India has to quickly overcome this and make the elimination process back on track and put all efforts to make India malaria-free by 2030.

Integrated Child Development Scheme (ICDS)

News Excerpt

Recently, The report came out during 'State Level Public Hearing and Policy Dialogue' in implementation of ICDS services under Women and Child Development Department conducted by Right to Food Campaign along with various other organizations.

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The reports says that in the first six months in Jharkhand, more than 55% of the surveyed 18, 288 beneficiaries of Supplementary Nutrition given to the most vulnerable under Integrated Child Development Scheme (ICDS)—did not receive it by the state even once.

Pre-Connect

- Under the ICDS Scheme children between the age of 6 months to 6 years and pregnant and lactating women are provided Supplementary Nutrition, Pre-school non-formal education, Nutrition and health education, Immunization, Health check-up and referral services through Anganwadi services as well as through Health Department.
- Supplementary Nutrition includes Take Home Ration (THR), Hot Cooked Meal and morning snacks and holds importance for many vulnerable households as it impacts the nutritional outcome of the children.

Why Jharkhand?

Jharkhand specifically is important as every second child in the state is stunted and underweight and every third child is affected by stunting and every 10th child is affected from severe wasting and around 70% children are anemic, as per National Family Health Survey-4 data.

Key finding of the Survey

- The ICDS survey in Jharkhand covered a total of 8818 families in 159 blocks.
- It covered 7809 children beneficiaries from 6 months to 3 years age group, 6560 in the age group of 3 years to 6 years and 4459 pregnant women and lactating families. Out of the surveyed families, 96.8% i.e. 8525 families found to be registered with Anganwadi Services.
- In Jharkhand, 11.26 lakh children are in the age group six months to three years and 15.78 lakh children in three to six years of age group, and 7.21 lakh pregnant and lactating mothers which is supposed to be covered by 38, 432 Anganwadi Centers.
- The minimum cost per beneficiary is Rs 8 per day for hot cooked meals or THR and it has to be given for 25 days in a month i.e 200 per person per month. More than 35 lakh beneficiaries are supposed to be covered in a year which comes out to Rs 70 crore into 12 months which is 840 crore. Now half yearly it should cost around Rs 420 crore.
- Extrapolating our survey findings to the entire state, i.e more than 55% were not given ration even once in the first six months—it seems that the nutritional supplement worth more than 200 crore were not given to the beneficiaries.

Way forward

- ✓ Private companies’ involvement in supply of THR—or Take Home Food—was cancelled and it was given to Jharkhand State Livelihood Promotion Society—under Rural Development Department—who later trained SHGs for this purpose.
- ✓ However, the amount spent on SHGs is in lakhs. They helped the government, but the process of reimbursement is very long. The government needs to allocate a revolving fund like NREGA for implementation of this scheme rather than running it on reimbursement mode.

India’s Neurological Diseases Burden

News Excerpt

The contribution of non-communicable and injury-related neurological disorders to the total disease burden in India has more than doubled between 1990 and 2019, revealed a study published recently in The Lancet Global Health.

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Neurological disorders are medically defined as disorders that affect the brain as well as the nerves found throughout the human body and the spinal cord. Structural, biochemical or electrical abnormalities in the brain, spinal cord or other nerves can result in a range of symptoms.

What report says?

- Stroke caused 699,000 deaths, which was 7.4% of the total deaths in the country in 2019.

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- The contribution of non-communicable neurological disorders to total DALYs (disability adjusted life-years) in India doubled from 4.0% in 1990 to 8.2% in 2019, and the contribution of injury-related neurological disorders increased from 0.2% to 0.6%.
- These neurological disorders include non-communicable neurological disorders (stroke, headache disorders, epilepsy, cerebral palsy, Alzheimer’s disease and other dementias, brain and central nervous system cancer, Parkinson’s disease, multiple sclerosis, motor neuron diseases, and other neurological disorders), communicable neurological disorders (encephalitis, meningitis, and tetanus), and injury-related neurological disorders (traumatic brain injuries and spinal cord injuries).
- The largest contributors to the total neurological disorder DALYs in India were stroke (37.9%), headache disorders (17.5%), epilepsy (11.3%), cerebral palsy (5.7%), and encephalitis (5.3%). Stroke, headache disorders, and epilepsy are the leading contributors to neurological disorders burden in India.
- Headache is the commonest neurological disorder affecting 1 in 3 Indians, and is often neglected in terms of public health priority.
- It is the second leading contributor to the disease burden from neurological disorders in India.
- Migraine affects females more than males, greatly affecting adults in the working age population.
- While communicable diseases contributed to the majority of total neurological disorders burden in children younger than five years, non-communicable neurological disorders were the highest contributor in all other age groups.
- While the burden of infectious neurological disorders has fallen in India, this burden is higher in less developed states. On the other hand, the burden of neurological disorders related to injury is higher in more developed states.

What are the reasons?

- The burden of non-communicable neurological disorders is increasing in India mainly due to ageing of the population.
- Among the known risk factors for neurological disorders burden, high blood pressure, air pollution, dietary risks, high fasting plasma glucose, and high body-mass index are the leading contributors.
- Several government policies and initiatives are in place to address the burden of neurological disorders across India, however more focused efforts are required for the planning of specific neurology services in each state.

What need to be done?

- ✓ We need to work around these disorders in terms of providing health infrastructure and personnel. This is an epidemiological transition or flip. Injury-related neurological disorders have increased threefold since 1991. These are entirely preventable. So, this is a noteworthy finding and we need to work on preventing head injuries by simple measures like wearing helmets.
- ✓ There is an urgent need to initiate and bring about comprehensive, structured headache services across all the states. Headache, especially migraine, needs to be recognised as a public health problem and included under the national non-communicable disease control programme.
- ✓ There is a need to address the shortage of trained neurology workforce, and strengthen early detection and cost-effective management of neurological disorders in the country to deal with their growing burden

State of Food Security and Nutrition in the World 2021

News Excerpt

Recently, State of Food Security and Nutrition on the World 2021 report has a grim reminder of this impact of the COVID-19 pandemic.

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- The State of Food Security and Nutrition in the World 2021 was jointly prepared by the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), the United Nations Children’s Fund (UNICEF), the World Food Programme (WFP) and the World Health Organization (WHO).
- The FAO report has quoted a study done in 63 low- and middle-income countries covering a population of 3.5 billion on changes in the income of people. It has extrapolated its impact on choice of diets.

Key finding of the report

- The study found a significant dip in people’s affordability for healthy food due to a loss in income. The pandemic led to an additional 141 million people being unable to afford a healthy diet in the countries studied.
- Food Security and Nutrition Around the World
- The number of people in the world affected by hunger continued to increase in 2020 under the shadow of the COVID-19 pandemic.

- After remaining virtually unchanged from 2014 to 2019, the PoU increased from 8.4 percent to around 9.9 percent between 2019 and 2020, heightening the challenge of achieving the Zero Hunger target in 2030. The 2020 estimate ranges from 9.2 to 10.4 percent, depending on the assumptions made to reflect the uncertainties around the assessment.
- Of the total number of undernourished people in 2020 (768 million), more than half (418 million) live in Asia and more than one-third (282 million) in Africa, while Latin America and the Caribbean accounts for about 8 percent (60 million).
- Globally, 149.2 million (22.0 percent) of children under the age of five years suffered from stunting (SDG Indicator 2.1.1) in 2020.
- The overall decline in food intake has also increased hunger levels in 2020, making the primary Sustainable Development Goal of ending hunger by 2030 impossible now. Between 720 and 811 million people in the world endured hunger in 2020. In comparison to 2019, there were an additional 161 million people who faced hunger.

Food Security and Nutrition in India

- ✓ According to the data presented in the report, the prevalence of moderate to severe food insecurity in India rose by about 6.8 percentage points in 2018-20.
- ✓ In absolute terms, the number of persons facing moderate to severe food insecurity has increased by about 9.7 crore since the outbreak of Covid.
- ✓ PMSFI estimates thus derived show that there were about 43 crore of moderate to severe food-insecure people in India in 2019. As a result of the pandemic-related disruptions, this increased to 52 crore in one year. In terms of prevalence rates, moderate to severe food insecurity increased from about 31.6 per cent in 2019 to 38.4 per cent in 2021.

Reasons for Hunger and food insecurity in India

Support for Marginalized Individual for Livelihood and Enterprise (SMILE) Scheme:

- ❖ A scheme “SMILE - Support for Marginalized Individuals for Livelihood and Enterprise” formulated which includes sub scheme - ‘Central Sector Scheme for Comprehensive Rehabilitation of persons engaged in the act of Begging’.
- ❖ Focus of the scheme is on rehabilitation, provision of medical facilities, counseling, basic documentation, education, skill development, economic linkages etc.
- ❖ Pilot projects initiated on Comprehensive Rehabilitation of Persons engaged in the act of Begging in ten cities namely Delhi, Bangalore, Chennai, Hyderabad, Indore, Lucknow, Mumbai, Nagpur, Patna and Ahmadabad.
- ❖ The Ministry of Social Justice and Empowerment has formulated a scheme “SMILE - Support for Marginalized Individuals for Livelihood and Enterprise”, which includes subscheme - ‘Central Sector Scheme for Comprehensive Rehabilitation of persons engaged in the act of Begging’.
- ❖ This scheme covers several comprehensive measures including welfare measures for persons who are engaged in the act of begging.
- ❖ The focus of the scheme is extensively on rehabilitation, provision of medical facilities, counselling, basic documentation, education, skill development, economic linkages and so on.
- ❖ The scheme would be implemented with the support of State/UT Governments/Local Urban Bodies, Voluntary Organizations, Community Based Organizations (CBOs) , institutions and others.
- ❖ Scheme provides for the use of the existing shelter homes available with the State/UT Governments and Urban local bodies for rehabilitation of the persons engaged in the act of Begging. In case of non-availability of existing shelter homes, new dedicated shelter homes are to be set up by the implementing agencies.

- Despite being self-sufficient in the production of major food commodities, problems of hunger and food insecurity are grave in India because of widespread economic distress, high unemployment and high levels of inequality.
- A large proportion of the poor is dependent on the informal economy in which incomes are too low and uncertain. Unemployment rates have risen sharply over the last few years.
- High (and fluctuating) food prices, shrinking public investment and the economic slowdown have compounded the distress among working classes and the peasantry.
- With low and uncertain incomes, families dependent on the informal economy do not have assured access to adequate and nutritious food.
- These longstanding problems were aggravated last year because of lack of preparation to deal with the pandemic.

Way forward

The sharp increase in food insecurity points to an urgent need for the government to establish systems for regular monitoring of the food security situation in the country and to universalise access to the public distribution system, at least during the pandemic. Everyone, irrespective of whether they have a ration card or not, should be allowed to take subsidised grain from ration shops. With almost 120 million tonnes of grain currently lying with the government, it requires almost no additional resources.

Inequalities in Health Indicators: Oxfam Report

News Excerpt

Recently, the Oxfam report titled as “Inequality Report 2021: India’s Unequal Health Story” released says that states attempting to reduce existing inequalities and with higher expenditure on health had lower confirmed cases of Covid-19.

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Pre-Connect


- Oxfam India is a movement of people working to end discrimination and create a free and just society.
- Oxfam India work to ensure that Adivasis, Dalits, Muslims, and women and girls have safe-violence free lives with freedom to speak their mind, equal opportunities to realize their rights, and a discrimination free future. They research to find lasting solutions to end rising inequalities and exclusion of marginalized communities from getting decent jobs, quality free education and healthcare.

Key finding of the Report

- The “general category is better off than the SCs and STs, Hindus are better off than Muslims, the rich are better off than the poor, men are better off than women, and the urban population is better off than the rural population” on most health determinants, interventions and indicators.
- While women’s literacy has improved across social groups over the years, SC and ST women lag behind the general category by 18.6% and 27.9%, respectively. There exists a gap of 55.1% between the top and bottom 20% of the population in 2015-16.

INDIA'S HEALTHCARE UNDER THE WEATHER

- ₹1 of every ₹6 spent on hospitalisation came through borrowing
- 5 beds per 10,000 persons (down from 9 per 10,000 as per 2010 Human Development Report)
- 1 govt allopathic doctor for every 10,189 people (as per National Health Profile, 2017)
- 1 state-run hospital for every 90,343 people



64.2% India's out-of-pocket health expenditure

18.2% the world average

HOSPITAL BEDS PER THOUSAND POPULATION

India		*0.5
Bangladesh		0.87
Mexico		0.98
Chile		2.11

*(least among BRICS nations) (Source: Oxfam report)

- Though the female literacy rate among Muslims (64.3%) is lower than all religious groups, inequality has reduced over time.
- As far as sanitation is concerned, 65.7% households have access to improved, non-shared sanitation facilities in the general category while SC households are 28.5% behind them and ST are 39.8% behind them. While 93.4% of households in the top 20% have access to improved sanitation, only 6% have access in the bottom 20 % — a difference of 87.4%.
- The share of institutional deliveries in India has increased from 38.7% in 2005-06 to 78.9% in 2015-16, but inequalities persist with ST households 15% below the general category, Muslims 12% behind Hindus and a 35% gap between the poorest and richest 20% of the population.

Women and Covid-19

- ✓ Over 50 per cent of people from SC and ST communities faced difficulties in accessing non-Covid medical facilities, compared to 18.2 per cent of people in the 'general' category.
- ✓ The report points out that the vaccination drive against Covid-19 ignores the country's digital divide — entering the pandemic, only 15 per cent rural households had an internet connection; smartphone users in rural India were almost half of those in urban areas. More than 60 per cent of women across 12 states had never used the internet.
- ✓ The average medical expenditure per hospitalisation case has tripled between 2004 and 2017, making it difficult for poorer and rural households.
- ✓ One rupee in every Rs 6 spent on hospitalisation came through borrowing; while urban households depended on savings, rural households depended on loans.
- ✓ Despite improvement in child immunisation, the rate of immunisation of girls continues to be below that of the male child; immunisation of children in urban areas is more than those in rural areas; and immunization of SCs and STs is behind that of other caste groups.
- ✓ The child immunisation of the high-wealth quintile group is much higher than that of low-wealth quintile. More than 50 percent of children still do not receive food supplements in the country.

What need to be done?

- The right to health should be enacted as a fundamental right that makes it obligatory for the government to ensure equal access to timely, acceptable, and affordable healthcare of appropriate quality and address the underlying determinants of health to close the gap in health outcomes between the rich and poor.
- The free vaccine policy should adopt an inclusive model to ensure that everyone, irrespective of their gender, caste, religion or location i.e. people living in hard-to-reach areas, gets the vaccine without any delay.
- Increase health spending to 2.5 percent of Gross Domestic Product (GDP) to ensure a more equitable health system in the country; ensure that union budgetary allocation in health for SCs and STs is proportionate to their population; prioritize primary health by ensuring that two-thirds of the health budget is allocated for strengthening primary healthcare;
- State governments need to allocate their expenditure on health to 2.5 percent of Gross State Domestic Product (GSDP); the centre should extend financial support to the states with low per capita health expenditure to reduce inter-state inequality in health.
- Institutionalize a centrally-sponsored scheme that earmarks funds for the provision of free essential drugs and diagnostics at all public health facilities.
- Regulate the private health sector by ensuring that all state governments adopt and effectively implement Clinical Establishments Act or equivalent state legislation; extend the price capping policy introduced during the COVID-19 pandemic to include diagnostics and non-COVID treatment in order to prevent exorbitant charging by private hospitals and reduce catastrophic out-of-pocket health expenditure.
- Inter-sectoral coordination for public health should be boosted to address issues of water and sanitation, literacy, etc. that contribute to health conditions. Specific roles and Statement of

Purposes (SoPs) of departments/ ministries, and convergence plans need to be detailed out for reducing health inequality in the country.

Periodic Labour Force Survey (PLFS)

News Excerpt

Recently, National Statistical Office (NSO) released Periodic Labour Force Survey (PLFS).

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Pre-Connect

NSO launched the PLFS in April 2017. The first annual report (July 2017-June 2018) was released in May 2019 and the second (July 2018-June 2019) in June 2020. The results of PLFS 2017-18, out in 2019.

Key findings

- Unemployment rate rose to 13.3 per cent in July-September 2020 as compared to 8.4 per cent in the year-ago period.
- Joblessness or unemployment rate (UR) is defined as the percentage of unemployed persons in the labour force. The UR was 20.9 per cent in April-June 2020.
- As per the survey, labour force participation rate for all ages was 37 per cent in September quarter 2020, up from 36.8 per cent in the same period a year ago. It was 35.9 per cent in April-June 2020.
- Labour force refers to the part of the population which supplies or offers to supply labour for pursuing economic activities for the production of goods and services and therefore, includes both employed' and unemployed' persons.
- The estimates of unemployed persons in CWS give an average picture of unemployment in a short period of 7 days during the survey period.
- WPR stood at 32.1 per cent in July-September 2020, down from 33.7 per cent in the same period a year ago. It was 28.4 per cent in April-June 2020.

Analytica

- Self-employed workers comprise three broad categories — own-account workers (those who run their enterprise without hiring any labour); employers (those who run their enterprise by hiring labour) and unpaid family workers/helpers in household enterprises.
- The third group comprises those who are engaged in their household enterprises, working full or part time, but do not receive any regular salary or wages in return for the work performed.
- It is this latter category, considered as poor quality employment, that has witnessed an increase in its share in total employment from 13.3 per cent (2018-19) to 15.9 per cent (2019-20) and contributed to the falling unemployment rate.
- The increase in this category of workers is reflective of rising underemployment. As the number of members working in household enterprises rises, each worker simply works for less time than before and a large section of the workforce is underemployed.
- The share of the other two categories of self-employed workers, that is, own account workers and employers has declined.
- The share of regular salaried workers, which had been steadily rising in India until the PLFS 2018-19 and is considered as a more stable and secure form of employment, is now showing a decline.
- Significantly, even amongst regular salaried workers, those who are not eligible for any social security benefits has increased from 51.9 per cent to 54.2 per cent suggesting that formalisation would have been adversely impacted.
- Two trends that point to a deterioration in quality of employment merit attention vis-à-vis the sectoral composition. First, in the non-agriculture sector, the share of those engaged in informal enterprises increased from 68.4 per cent in 2018-19 to 69.5 per cent in 2019-20.

- Second, within the agricultural sector, much of the increase is coming through the category of unpaid family helpers. Their share in agricultural employment has increased (from 25.7 per cent to 29.7 per cent), while that of own account workers and employers has declined (48.4 per cent to 44.5 per cent) between the two rounds.
- The PLFS 2019-20, however, shows a sharp increase in the female LFPR by 5.5 percentage points. Much of this is driven by the increased LFPR of rural women.
- This rise coupled with their increasing engagement as unpaid family workers (and not better forms of employment such as regular salaried work) appears to mark a reversal of the trend of reduction in distress participation of women in the workforce.
- These metrics suggest that the decline in unemployment rate based on the usual status approach masks a deterioration in the quality of employment and rising underemployment, challenges which are only likely to have intensified post Covid.



The graphic is a promotional banner for a free webinar. It features the KSG logo at the top left, with the tagline 'An Institute For IAS Exam...'. The main title 'GEOGRAPHY OPTIONAL' is centered in large, bold, blue letters. To the right, a purple and orange banner says 'FREE WEBINAR'. Below the title, there are two circular portraits of speakers: Chandramouli on the left and B.M. Panda on the right. In the center, there is a calendar icon with a clock, indicating the date and time. The date is '16th AUG, MONDAY' and the time is '7:00PM'. At the bottom left, there is a purple box with the text 'FOR ASSISTANCE' and a phone icon followed by the number '9013 811 020'. At the bottom right, the website 'www.ksgindia.com' is listed.

ECONOMY

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Financing facility under 'Agriculture Infrastructure Fund'

News Excerpt

The Union Cabinet recently gave its approval to the modifications in Central Sector Scheme of Financing Facility under 'Agriculture Infrastructure Fund'.

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Pre-Connect

Agriculture Infrastructure Fund

- The Union Cabinet in July 2020 has approved a new pan India Central Sector Scheme called Agriculture Infrastructure Fund.
- The scheme aims to provide a medium - long term debt financing facility for investment in viable projects for post-harvest management Infrastructure and community farming assets through interest subvention and financial support.
- Under the scheme, Rs. One Lakh Crore will be provided by banks and financial institutions as loans to Primary Agricultural Credit Societies (PACS), Marketing Cooperative Societies, Farmer Producers Organizations (FPOs), Self Help Group (SHG), Farmers, Joint Liability Groups (JLG), Multipurpose Cooperative Societies, Agri-entrepreneurs, Startups, Aggregation Infrastructure Providers and Central/State agency or Local Body sponsored Public Private Partnership Project.

Benefits

- All loans under this financing facility will have interest subvention of 3% per annum up to a limit of Rs. 2 crore. This subvention will be available for a maximum period of seven years.
- Further, credit guarantee coverage will be available for eligible borrowers from this financing facility under Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE) scheme for a loan up to Rs. 2 crore. The fee for this coverage will be paid by the Government.
- In case of FPOs the credit guarantee may be availed from the facility created under FPO promotion scheme of Department of Agriculture, Cooperation & Farmers Welfare (DACFW).
- Moratorium for repayment under this financing facility may vary subject to minimum of 6 months and maximum of 2 years.

Recent Modifications

Government of India
Ministry of Agriculture and Farmers Welfare

Atmanirbhar Bharat Abhiyan
Through
Agri Infrastructure Fund

Golden Opportunity to Invest
through the Schemes of
National Horticulture Board
In convergence with Agri Infrastructure Fund

Financing Facility

₹ 1,00,000 crore will be provided for financing Agriculture Infrastructure Projects at farm-gate and aggregation points for following activities:-

- (i) Supply chain services including e-marketing platforms
- (ii) Warehouses
- (iii) Silos
- (iv) Pack houses
- (v) Assaying units
- (vi) Sorting and grading units
- (vii) Cold chains
- (viii) Logistics facilities
- (ix) Primary processing centers
- (x) Ripening Chambers

Pattern of Financing and Participating Institutions

- All loans to have interest subvention of 3% per annum up to a limit of ₹2 crore for a maximum period of 7 years.
- Credit guarantee coverage for a loan upto ₹2 crores. The fee for this coverage will be paid by the Government.
- In case of FPOs, the credit guarantee may be availed from the facility created under FPO Promotion Scheme of DAC&FW.
- All Scheduled Commercial Banks, Scheduled Co-operative Banks, Regional Rural Banks (RRBs), Small Finance Banks, Non-Banking Financial Companies (NBFCs) and National Co-operative Development Corporation (NCDC).

Note : This Financing Facility and Interest Subvention is available in addition to capital subsidy under NHB Schemes.

Financial Assistance

Financial Assistance in the form of back ended capital investment subsidy is available for the following activities :-

Sr.	Item	Cost Norms
1	Integrated Post Harvest Management Projects e.g. Pack House, Ripening Chamber, Refer Van, Retail Outlets, Pre-cooling units, Primary Processing etc.	₹145.00 lakh per project.
2	Integrated pack house with facilities for conveyer belt, sorting, grading units, washing, drying and weighing.	₹50.00 lakh per unit with size of 9Mx18M
3	Pre-cooling	₹25.00 lakh / unit with capacity of 6MT.
4	Ripening Chamber	₹1.00 lakh/MT
5	Primary Processing of F&V, Aromatic Plants and Cashew	₹25.00 lakh/ unit
6	Cold Storage and Controlled atmosphere storages from 5001 to 10000 MT capacity	From ₹6800 to ₹9500 per MT plus component-wise cost norms for add on components

Pattern of Assistance

A. For Post Harvest Infrastructure
Credit linked back ended subsidy @ 35% of cost limited to ₹50.75 lakh per project in general areas and @ 50% upto ₹72.50 lakh per project in NE Region, Hilly States and Scheduled Areas.

B. For Cold Storage and Controlled Atmosphere Storages
Credit linked back ended subsidy @ 35% per project in general areas and @ 50% per project in NE Region, Hilly States and Scheduled Areas.

For more details about Agri. Infrastructure Fund Scheme please visit agricoop.nic.in and for the Schemes of NHB visit nhb.gov.in

- ✓ Eligibility has now been extended to State Agencies/APMCs, National & State Federations of Cooperatives, Federations of Farmers Producers Organizations (FPOs) and Federations of Self Help Groups (SHGs).
- ✓ At present Interest subvention for a loan upto Rs. 2 crore in one location is eligible under the scheme. In case, one eligible entity puts up projects in different locations then all such projects will be now be eligible for interest subvention for loan upto Rs. 2 crore.
- ✓ However, for a private sector entity there will be a limit of a maximum of 25 such projects. This limitation of 25 projects will not be applicable to state agencies, national and state federations of cooperatives, federations of FPOs and federation of SHGs.
- ✓ Location will mean physical boundary of a village or town having a distinct LGD (Local Government Directory) code. Each of such projects should be in a location having a separate LGD code.
- ✓ For APMCs, interest subvention for a loan upto Rs. 2 crore will be provided for each project of different infrastructure types e.g. cold storage, sorting, grading and assaying units, silos, et within the same market yard. APMC markets are setup to provide market linkages and create an ecosystem of post-harvest public infrastructure open to all farmers.
- ✓ The power has been delegated to Minister of Agriculture & Farmers Welfare to make necessary changes with regard to addition or deletion of beneficiary in such a manner so that basic spirit of the scheme is not altered.

Conclusion

The modifications in the Scheme will help to achieve a multiplier effect in generating investments while ensuring that the benefits reach small and marginal farmers.

Revamped Distribution Sector Scheme

News Excerpt

The Union Cabinet, chaired by the Prime Minister has recently approved a Reforms-based and Results-linked, Revamped Distribution Sector Scheme.

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Highlights

- The Scheme seeks to improve the operational efficiencies and financial sustainability of all DISCOMs/ Power Departments excluding Private Sector DISCOMs by providing conditional financial assistance to DISCOMs for strengthening of supply infrastructure.
- The assistance will be based on meeting pre-qualifying criteria as well as upon achievement of basic minimum benchmarks by the DISCOM evaluated on the basis of agreed evaluation framework tied to financial improvements.
- Implementation of the Scheme would be based on the action plan worked out for each state rather than a “one-size-fits-all” approach.
- The Scheme will have an outlay of Rs.3,03,758 crore with an estimated GBS from Central Government of Rs.97,631 crore.
- It is proposed that the currently ongoing approved projects under the Schemes of IPDS, DDUGJY along with PMDP-2015 for the Union Territories of Jammu & Kashmir (J&K) and Ladakh would be subsumed in this Scheme, and the savings of their GBS (approx. Rs. 17000 crore) would be part of the total outlay of the Revamped Distribution Sector Scheme under the existing terms and conditions till their sunset on 31" March, 2022.
- The funds under these Schemes would be available for the identified projects under IPDS and for the approved ongoing projects under Prime Minister’s Development Program (PMDP) for the Union Territories of J&K and Ladakh under IPDS and DDUGJY till 31 March, 2023.
- The Revamped Distribution Sector Scheme aims to improve operational efficiencies and financial sustainability, by providing result-linked financial assistance to DISCOMs for strengthening of

supply infrastructure based on meeting pre-qualifying criteria and achieving basic minimum benchmarks.

- The Scheme would be available till the year 2025-26. REC and PFC have been nominated as nodal agencies for facilitating implementation of the Scheme.

Scheme Objectives

- Reduction of AT&C losses to pan-India levels of 12-15% by 2024-25.
- Reduction of ACS-ARR gap to zero by 2024-25.
- Developing Institutional Capabilities for Modern DISCOMs
- Improvement in the quality, reliability, and affordability of power supply to consumers through a financially sustainable and operationally efficient Distribution Sector.

Details

- ✓ The Scheme provides for annual appraisal of the DISCOM performance against predefined and agreed upon performance trajectories including AT&C losses, ACS-ARR gaps, infrastructure upgrade performance, consumer services, hours of supply, corporate governance, etc.
- ✓ DISCOMs have to score a minimum of 60% of marks and clear a minimum bar in respect to certain parameters to be able to be eligible for funding against the Scheme in that year.
- ✓ The Scheme has a major focus on improving electricity supply for the farmers and for providing daytime electricity to them through solarization of agricultural feeders.
- ✓ Under the scheme, works of separation of 10,000 agriculture feeders would be taken up through an outlay of almost Rs 20,000 crore, which would be highly beneficial to the farmers who would get access to dedicated agriculture feeders providing them reliable and quality power. This Scheme converges with the Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan (PM-KUSUM) Scheme, which aims to solarize all feeders, and provide avenues for additional income to farmers.
- ✓ A key feature of the Scheme is to enable consumer empowerment by way of prepaid Smart metering to be implemented in Public-Private-Partnership (PPP) mode. Smart meters would allow consumers to monitor their electricity consumption on a routine basis instead of monthly basis, which can help them in usage of electricity as per their own needs and in terms of the resources available.
- ✓ While in all 25 crore Smart meters are planned to be installed during the Scheme period, priority would be given to install prepaid Smart Meters in a mission mode in the first phase in
 - (i) all Electricity Divisions of 500 AMRUT cities, with AT&C Losses > 15%
 - (ii) all Union Territories
 - (iii) MSMEs and all other Industrial and Commercial consumers
 - (iv) all Government offices at Block level and above
 - (v) other areas with high losses.
- ✓ It is proposed to install approximately 10 crore prepaid Smart Meters by December, 2023 in the first phase. The progress of installation of prepaid Smart meters would be monitored closely, especially those in Government Offices, to enable their installation in a time-bound manner.
- ✓ Looking into the scattered nature of agricultural connections and their remoteness from the habitations, agricultural connections would be covered only through Feeder Meters.
- ✓ Along with the time-bound implementation of prepaid Smart metering for consumers, it is also proposed to take up System metering at Feeder and Distribution Transformer (DT) level with communicating feature simultaneously in PPP mode.
- ✓ Artificial Intelligence would be leveraged to analyze data generated through IT/OT devices including System Meters, prepaid Smart meters to prepare system generated energy accounting reports every month to enable DISCOMs to take informed decisions on loss reduction, demand forecasting, Time of Day (ToD) tariff, Renewable Energy (RE) Integration and for other predictive analysis.

- ✓ This would contribute a great deal towards enhancing operational efficiency and financial sustainability of the DISCOMs. Funds under the scheme would also be used for development of applications related to the use of Artificial Intelligence in the Distribution sector. This would promote the development of Startups in the Distribution Sector across the country.

Major components

- **Consumer Meters and System Meters**
 - Prepaid Smart Meters for all consumers except Agricultural consumers
 - ~25 crore consumers to be covered under prepaid Smart metering
 - Prioritizing the urban areas, UTs, AMRUT cities and High Loss areas for prepaid Smart metering i.e. ~10 crore prepaid Smart meter installation by 2023, the balance to be taken up in phases
 - Communicable AMI meters proposed for all Feeders and Distribution Transformers to enable energy accounting, leading to better planning for loss reduction by DISCOMs
 - Installing prepaid Smart Meters should help DISCOMs in improving of their operational efficiencies and strengthen DISCOMs to provide better service to consumers
- **Feeder Segregation**
 - Scheme also focuses on funding for feeder segregation for unsegregated feeders, which would enable solarization under KUSUM
 - Solarization of feeders will lead to cheap/ free day time power for irrigation and additional income for the farmers.
- **Modernization of Distribution system in urban areas**
 - Supervisory Control and Data Acquisition (SCADA) in all urban areas
 - DMS in 100 urban centers
- **Rural and Urban area System strengthening**

Provision for Special Category States

- ✚ All Special Category States including North-Eastern States of Sikkim and States/Union Territories of Jammu & Kashmir, Ladakh, Himachal Pradesh, Uttarakhand, Andaman & Nicobar Islands, and Lakshadweep will be treated as Special Category States.
- ✚ For Prepaid Smart metering, grant of Rs 900 or 15% of the cost per consumer meter worked out for the whole project, whichever is lower, shall be available for “Other than Special Category” States. For “Special Category” States, the corresponding grant would be Rs 1350 or 22.5% of the cost per consumer, whichever is lower.
- ✚ In addition, the DISCOMs can also avail of an additional special incentive of 50% of the aforementioned grants if they install the targeted number of Smart meters by December, 2023.
- ✚ For works other than Smart metering, maximum financial assistance given to DISCOMs of “Other than Special Category” States will be 60% of the approved cost, while for the DISCOMs in Special Category States, the maximum financial assistance will be 90% of the approved cost.

Financial Stability Report: RBI

News Excerpt

Recently, the Reserve Bank released the 23rd issue of the Financial Stability Report (FSR), which reflects the collective assessment of the Sub-Committee of the Financial Stability and Development Council (FSDC) on risks to financial stability and the resilience of the financial system in the context of contemporaneous issues relating to development and regulation of the financial sector.

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Highlights of the RBI Report

- Sustained policy support, benign financial conditions and the gathering momentum of vaccination are nurturing an uneven global recovery.
- Policy support has helped in shoring up financial positions of banks, containing non-performing loans and maintaining solvency and liquidity globally.
- On the domestic front, the ferocity of the second wave of COVID-19 has dented economic activity, but monetary, regulatory and fiscal policy measures have helped curtail the solvency risk of financial entities, stabilise markets, and maintain financial stability.
- The capital to risk-weighted assets ratio (CRAR) of scheduled commercial banks (SCBs) increased to 16.03 per cent and the provisioning coverage ratio (PCR) stood at 68.86 per cent in March 2021.
- Macro stress tests indicate that the gross non-performing asset (GNPA) ratio of SCBs may increase from 7.48 per cent in March 2021 to 9.80 per cent by March 2022 under the baseline scenario; and to 11.22 per cent under a severe stress scenario, although SCBs have sufficient capital, both at the aggregate and individual level, even under stress.
- Going forward, as banks respond to credit demand in a recovering economy, they will need to reinforce their capital and liquidity positions to fortify themselves against potential balance sheet stress.

Analytica

- According to RBI Governor, the dent on balance sheets and performance of financial institutions in India has been much less than what was projected earlier, although a clearer picture will emerge as the effects of regulatory reliefs fully work their way through. Yet, capital and liquidity buffers are reasonably resilient to withstand future shocks, as the stress tests presented in this report demonstrate.
- Even as the recovery was underway, new risks had emerged including the still nascent and mending state of the upturn, vulnerable as it is to shocks and future waves of the pandemic; international commodity prices and inflationary pressures; global spill-overs amid high uncertainty; and rising incidence of data breaches and cyber-attacks.
- India's financial system remained on the front foot and prepared to intermeditate in meeting the resource needs of an economy on the move, the priority was to maintain and preserve financial stability.
- In a situation in which economic activity has been disrupted by the pandemic, the financial system can take the lead in creating the conditions for the economy to recover and thrive
- RBI Governor stated that stronger capital positions, good governance and efficiency in financial intermediation can be the touchstones of this endeavour so that financing needs of productive sectors of the economy are met while the integrity and soundness of banks and financial institutions are secured on an enduring basis.

The capital-to-risk weighted assets ratio (CRAR)

CRAR also known as the capital adequacy ratio, is one of the most important financial ratios used by investors and analysts. The ratio measures a bank's financial stability by measuring its available capital as a percentage of its risk-weighted credit exposure. The purpose of the ratio is to help banks protect their depositors and promote financial health.

The formula to calculate a bank's capital-to-risk weighted assets ratio is:

Capital-To-Risk Weighted Assets = (Tier 1 Capital + Tier 2 Capital / Risk-Weighted Assets)

Tier 1 capital is the core capital of a bank; the capital it needs to absorb losses without stopping operations. It includes equity and disclosed reserves.

Tier 2 capital is supplementary capital that is less secure than tier 1 capital. It includes undisclosed reserves and subordinated debt.

A bank's risk-weighted assets are its assets weighted by their riskiness used to determine the minimum amount of capital that must be held to reduce its risk of insolvency. These items can all be found on a bank's financial statements

A Provisioning Coverage Ratio or PCR

It is the percentage of funds that a bank sets aside for losses due to bad debts. A high PCR can be beneficial to banks to buffer themselves against losses if the NPAs start increasing faster. A quick glance at the PCR ratio of the bank can tell you the bank is vulnerable to NPAs or not. Typically, a PCR ratio of 70%+ is considered healthy for banks.

Provision Coverage Ratio = Total provisions / Gross NPAs.

Forex Reserves in India

- The RBI Data showed that country's foreign exchange reserves surged by USD 5.066 billion to touch a record high of USD 608.999 billion in the week ended June 25, 2021.
- During the week under review, the increase in the forex reserves was on account of a rise in foreign currency assets (FCA), a major component of the overall reserves, Reserve Bank of India's (RBI) weekly data showed.
- FCA rose by USD 4.7 billion to USD 566.24 billion.
- Expressed in dollar terms, the foreign currency assets include the effect of appreciation or depreciation of non-US units like the euro, pound and yen held in the foreign exchange reserves.
- Gold reserves rose by USD 365 million to USD 36.296 billion in the period under review.
- The special drawing rights (SDRs) with the International Monetary Fund (IMF) remained unchanged at USD 1.498 billion.
- The country's reserve position with the IMF increased marginally by USD 1 million to USD 4.965 billion in the week.

Merger of Department of Public Enterprises with the Finance Ministry

News Excerpt

The government has merged the Department of Public Enterprises (DPE) with the Finance Ministry to give it a better control over key state-owned firms, review their capital expenditure plans and chalk out measures relating to revival as well as closure of CPSEs.

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Highlights

The finance ministry will now have six departments, with five other departments being Economic Affairs, Revenue, Expenditure, Investment and Public Asset Management and Financial Services. Ministry of Heavy Industries and Public Enterprises, the parent ministry of DPE, will now be called the Ministry of Heavy Industries.

Significance of the move

- The move comes ahead of the significant privatisation roadmap being pursued by the government, including strategic sale of Bharat Petroleum Corporation Ltd (BPCL), Shipping Corporation, Container Corporation, Neelachal Ispat Nigam Ltd, Pawan Hans, Air India, which are expected to be completed in 2021-22.
- Key government companies like BPCL, ONGC, IOC, HPCL, Power Grid Corporation, Coal India, among others, will now come under direct control of Finance Ministry.
- As part of the divestment strategy for the financial sector, the government has decided to launch an initial public offering (IPO) of Life Insurance Corporation of India (LIC) and residual stake sale in IDBI Bank during the financial year beginning April. Privatisation of two public sector banks and one insurance company is also on the cards.
- DPE’s present functions includes, among others, review of capital projects and expenditure in CPSEs and measures aimed at improving their performance and capacity building.

2021 Investment Climate

News Excerpt

The United States, in a report '2021 Investment Climate Statements: India' said that India “remains a challenging place to do business” and also referred to the removal of the special constitutional status from the state of Jammu and Kashmir (J&K) and the passage of the Citizenship Amendment Act (CAA).

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Highlights of the Report

- New protectionist measures, including increased tariffs, procurement rules that limit competitive choices, sanitary and phytosanitary measures not based on science, and Indian-specific standards not aligned with international standards, effectively closed off producers from global supply chains and restricted the expansion in bilateral trade.
- In its report, the State Department said that the National Democratic Alliance (NDA) government’s first 100 days of its second term were marked by two “controversial” decisions. Ex. The removal of special constitutional status from J&K and the passage of the CAA.
- India maintains that the CAA was its “internal matter” and that “no foreign party has any locus standi on issues pertaining to India’s sovereignty.”
- India has categorically told the international community that the scrapping of Article 370 was its internal matter.
- The State Department report said that protests followed the enactment of the CAA but ended with the onset of COVID-19 in March 2020 and the imposition of a strict national lockdown.
- The management of Covid-19 became the dominant issue in 2020, including the drop in economic activity and by December 2020, economic activity started to show signs of positive growth.

- The State Department said that in response to the economic challenges created by the COVID-19 pandemic and the resulting national lockdown, India enacted extensive social welfare and economic stimulus programmes and increased spending on infrastructure and public health.
- The government also adopted production linked incentives to promote manufacturing in pharmaceuticals, automobiles, textiles, electronics and other sectors. These measures helped India recover from an approximately eight per cent fall in GDP between April 2020 and March 2021, with positive growth returning by January 2021
- Noting that the Indian government continued to actively court foreign investment, the report said that in the wake of COVID-19, India enacted ambitious structural economic reforms, including new labour codes and landmark agricultural sector reforms, that should help attract private and foreign direct investment.
- In February 2021, Finance Minister announced plans to raise USD 2.4 billion through an ambitious privatisation programme that would dramatically reduce the government's role in the economy.
- In March 2021, Parliament further liberalised India's insurance sector, increasing the Foreign Direct Investment (FDI) limits to 74 per cent from 49 per cent, though still requiring a majority of the Board of Directors and management personnel to be Indian nationals.

Analytica

In June 2021, Finance Minister announced relief funds worth Rs. 628,993 crores (US\$ 84.73 billion) to support economic recovery. Key highlights are as follows:

- The government announced an additional Rs. 1.5 lakh crore funding for Emergency Credit Line Guarantee Scheme, taking the overall cap of permissible assurance to Rs. 4.5 lakh crore.
- To support the National Export Insurance Account (NEIA) Trust, the government announced an additional Rs. 33,000 crore for project exports over the next five years through the Exim Bank of India.
- The government announced to extend the production-linked incentive (PLI) scheme for mobile phones by one year until FY26, lending a boost mobile phone manufacturer including domestic players.
- In June 2021, Finance Minister announced an additional outlay of Rs. 19,000 crore (US\$ 2.56 billion) for the BharatNet project—to expand broadband penetration in rural areas through the PPP model and boost the 'Digital India' initiative.

India: An Attractive Investment Destination

- ✓ India is presently known as one of the most important players in the global economic landscape. The country is on a fast-paced growth and is expected to become a US\$ 5 trillion economy by 2022.
- ✓ Going by the estimates of Government of India, the country will need investment of US\$ 4.5 trillion to build sustainable infrastructure by 2040. The Union Budget 2021-22 highlights a 34.5% increase in capital expenditure—Rs. 142,151 crore (US\$ 19.58 billion)—compared with BE 2020-21 to boost economic growth through infrastructure development.
- ✓ Increased government investment is expected to attract private investments, coupled with the government's key Production-linked Incentive Scheme providing significant support.
- ✓ According to provisional estimates published by the National Statistical Office (NSO), India witnessed a V-shaped recovery in the second half of FY21.
- ✓ As per the estimates, India recorded an increase of 1.1% in the second half of FY21, due to increased government expenditure, recovery in private consumption and investment in the fourth quarter of FY21.
- ✓ Sectors such as services also recorded growth in the fourth quarter of FY21 and this is expected to push further economic recovery in FY22. In addition, anticipated healthy monsoon presents a positive outlook for growth of the agricultural sector.

Global Survey on Digital and Sustainable Trade Facilitation

News Excerpt

India has scored 90.32% in United Nation’s Economic and Social Commission for Asia Pacific’s (UNESCAP) latest Global Survey on Digital and Sustainable Trade Facilitation. The Survey hails this as a remarkable jump from 78.49% in 2019.

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About the Survey

The Global Survey on Digital and Sustainable Trade Facilitation is conducted every two years by UNESCAP. The 2021 Survey includes an assessment of 58 trade facilitation measures covered by the WTO’s Trade Facilitation Agreement. The Survey is keenly awaited globally as it evidences whether or not the trade facilitation measures being taken have the desired impact and helps draw comparison amongst countries. A higher score for a country also helps businesses in their investment decisions.

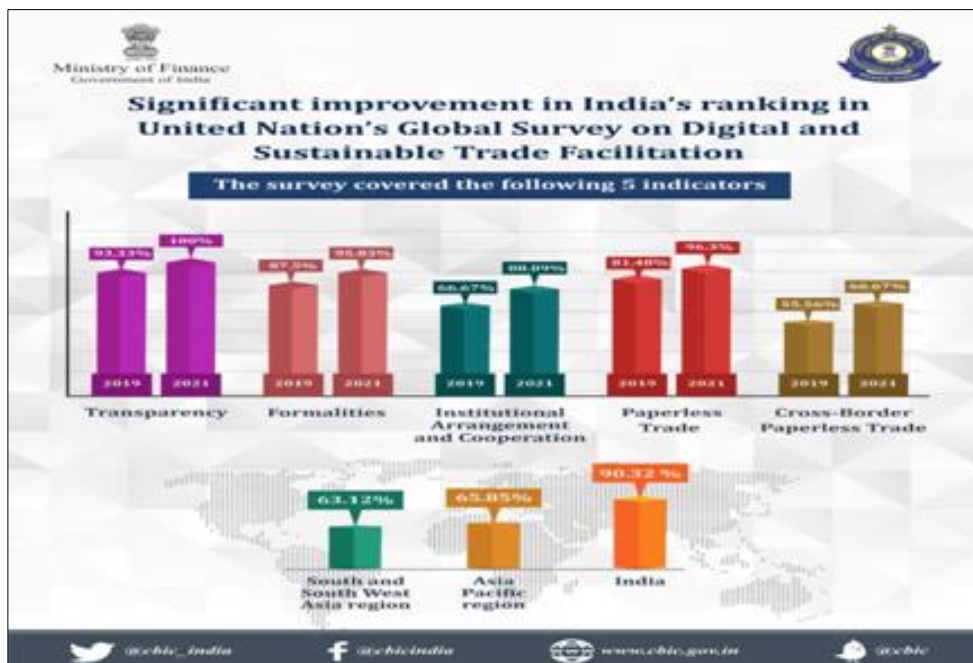
Highlights

After evaluation of 143 economies, the 2021 Survey has highlighted India's significant improvement in the scores on all 5 key indicators, as follows:

- Transparency: 100% in 2021 (from 93.33% in 2019)
- Formalities: 95.83% in 2021 (from 87.5% in 2019)
- Institutional Arrangement and Cooperation: 88.89% in 2021 (from 66.67% in 2019)
- Paperless Trade: 96.3% in 2021 (from 81.48% in 2019)
- Cross-Border Paperless Trade: 66.67% in 2021 (from 55.56% in 2019)

Analytica

- The Survey notes that India is the best performing country when compared to South and South West Asia region (63.12%) and Asia Pacific region (65.85%).
- The overall score of India has also been found to be greater than many OECD countries including France, UK, Canada, Norway, Finland etc. and the overall score is greater than the average score of EU.
- India has achieved a 100% score for the Transparency index and 66% in the “Women in trade” component.



- CBIC, has been at forefront of path breaking reforms under the umbrella of 'Turant' Customs to usher in a Faceless, Paperless and Contactless Customs by way of a series of reforms. This has had a direct impact in terms of the improvement in the UNESCAP rankings on digital and sustainable trade facilitation.
- Further, during the Covid19 pandemic, Customs formations have made all efforts to expedite Covid related imports such as Oxygen related equipments, life-saving medicines, vaccines etc.
- A dedicated single window COVID-19 24*7 helpdesk for EXIM trade was created on the CBIC website to facilitate quick resolution of issue(s) faced by importers.

The Economic and Social Commission for Asia and the Pacific (ESCAP)

It serves as the United Nations' regional hub promoting cooperation among countries to achieve inclusive and sustainable development. The largest regional intergovernmental platform with 53 Member States and 9 associate members, ESCAP has emerged as a strong regional think-tank offering countries sound analytical products that shed insight into the evolving economic, social and environmental dynamics of the region. The Commission's strategic focus is to deliver on the 2030 Agenda for Sustainable Development, which is reinforced and deepened by promoting regional cooperation and integration to advance responses to shared vulnerabilities, connectivity, financial cooperation and market integration.

RBI's CPS

News Excerpt

The Reserve Bank of India (RBI) has decided to allow non-bank payment system providers (PSPs), including prepaid payment instruments (PPI) issuers like mobile wallets, card networks and white label ATM operators to participate in the Centralised Processing System (CPS) as direct members. CPS includes Real Time Gross Settlement and National Electronic Funds Transfer systems, owned and operated by the RBI.

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Highlights

- The RBI move — first indicated in April 2021 — means allotment of a separate Indian Financial System Code (IFSC) to non-banks, opening a current account with the RBI in its core banking system (e-Kuber) and maintaining a settlement account with the RBI.
- It will also mean membership of Indian Financial Network (INFINET) and use of Structured Financial Messaging System (SFMS) to communicate with CPS.

Analytica

- According to the RBI, direct access for non-banks to CPS lowers the overall risk in the payments ecosystem.
- It also brings advantages to non-banks like reduction in cost of payments, minimising dependence on banks, reducing the time taken for completing payments.
- The RBI said the risk of failure or delay in execution of fund transfers can also be avoided when the transactions are directly initiated and processed by the non-bank entities.
- Non-bank entities shall transfer funds from their Current Account to RTGS Settlement Account and vice versa during the operating hours.

KVIC's Project BOLD

News Excerpt

An unique scientific exercise serving the combined national objectives of reducing desertification and providing livelihood and multi-disciplinary rural industry

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support has been initiated by Khadi and Village Industries Commission (KVIC). The project named “Bamboo Oasis on Lands in Drought” (BOLD) is the first of its kind exercise in India which was launched recently from the tribal village NichlaMandwa in Udaipur, Rajasthan.

Highlights

- 5000 saplings of special bamboo species – BambusaTulda and BambusaPolymorpha specially brought from Assam – have been planted over 25 bigha (16 acres approx.) of vacant arid Gram Panchayat land.
- KVIC has thus created a world record of planting the highest number of bamboo saplings on a single day at one location.
- Project BOLD, which seeks to create bamboo-based green patches in arid and semi-arid land zones, is aligned with Prime Minister’s call for reducing land degradation and preventing desertification in the country.
- The initiative has been launched as part of KVIC’s “Khadi Bamboo Festival” to celebrate 75 years of independence “Azadi ka Amrit Mahotsav”. KVIC is set to replicate the Project at Village Dholera in Ahmedabad district in Gujarat and Leh-Ladakh region by August this year.

The Khadi and Village Industries Commission (KVIC)

- ❖ It is a statutory body established by an Act of Parliament, it took over the work of former All India Khadi and Village Industries Board.
- ❖ The KVIC is charged with the planning, promotion, organisation and implementation of programs for the development of Khadi and other village industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary.
- ❖ The KVIC may also undertake directly or through other agencies studies concerning the problems of Khadi and/or village industries besides research or establishing pilot projects for the development of Khadi and village industries.
- ❖ The broad objectives that the KVIC has set before it are-
 - The social objective of providing employment.
 - The economic objective of producing saleable articles.
 - The wider objective of creating self-reliance amongst the poor and building up of a strong rural community spirit.

- Total 15,000 bamboo saplings will be planted before August 21.

Analytica

- KVIC Chairman said that the green patches of bamboo on these 3 places will help in reducing the land degradation percentage of the country, while on the other hand, they will be havens of sustainable development and food security.
- The bamboo plantation program in Udaipur will boost self-employment in the region. Such projects will benefit a large number of women and unemployed youths in the region by connecting them to skill development programs.
- KVIC has judiciously chosen bamboo for developing green patches. Bamboos grow very fast and in about three years’ time, they could be harvested.

- Bamboos are also known for conserving water and reducing evaporation of water from the land surface, which is an important feature in arid and drought-prone regions.

Matsya Setu App

- ❖ Union Minister for Fisheries, Animal Husbandry and Dairying recently launched the Online Course Mobile App “Matsya Setu”.
- ❖ 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.
- ❖ The online course app aims to disseminate the latest freshwater aquaculture technologies to the aqua farmers of the country.
- ❖ Matsya Setu app has species-wise/ subject-wise self-learning online course modules, where renowned aquaculture experts explain the basic concepts and practical demonstrations on breeding, seed production and grow-out culture of commercially important fishes like carp, catfish, scampi, murrel, ornamental fish, pearl farming etc.
- ❖ Better Management Practices to be followed in maintaining the soil & water quality, feeding and health management in aquaculture operations are also provided in the course platform.

Central Bank Digital Currency (CBDC)

News Excerpt

The Reserve Bank of India (RBI) is examining use cases of a central bank digital currency (CBDC) and is also looking at a phased implementation strategy.

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What is CBDC

- A Central Bank Digital Currency (CBDC) is the digital form of a country’s fiat currency that is also a claim on the central bank. Instead of printing money, the central bank issues electronic coins or accounts backed by the full faith and credit of the government.
- This new type of currency is still early in its development. Most countries are still only starting to explore the idea, such as the U.S. form of a digital dollar. A few ambitious countries, including China with its digital yuan and South Korea, have already finished a demo and are piloting the technology. But a CBDC has yet to be deployed on a large scale.
- Each country exploring a CBDC has its own approach. Several CBDCs are based on the same general principles and blockchain technology underlying Bitcoin, the original cryptocurrency.
- A CBDC offers three main elements:
 - A digital currency
 - Issued by the central bank
 - Universally accessible

Types of CBDCs-

CBDCs are categorized into two different proposals based on the targeted users:

- Retail Central Bank Digital Currency-
 - Retail CBDC, based on distributed ledger technology, is traceable, anonymous, and available around the clock. It offers possibilities for interest rate applications, as well.
 - Due to these advantages, a retail central bank digital currency focuses, in particular, on supporting the general public. Additionally, it helps lower the cost of cash printing and promotes financial inclusion.
- Wholesale Central Bank Digital Currency-

- Wholesale CBDC increases payments and security settlement efficiency while resolving liquidity and counterparty risk issues.
- It's a great fit for financial institutions which have reserves deposited in a central bank.
- With their capability to improve wholesale financial systems' speed and security, even central banks consider wholesale central bank digital currency a favoured alternative to existing systems today.

Common CBDC features

- ✓ CBDCs are digital, but with a different technological makeup. They are generally proposed to reengineered money from the ground up, with many borrowing from Bitcoin's underlying technology with distributed ledger technology (DLT).
 - In order to keep track of money, banks need to store financial records, such as how much money a person has and what transactions they've made, in a ledger.
 - Instead of one central database storing all the financial records of people, DLT is composed of several copies of this transaction history, each stored and managed by a separate financial entity, and usually managed from the top by the country's central bank. These financial entities share DLT together in a distributed manner.
 - This is what's known as a permissioned blockchain, because only a select few entities can access and/or alter the blockchain.
 - In addition, central entities control who gets access to the blockchain and what they can do with it.
 - This sits in contrast to a permissionless blockchain, such as Bitcoin, which allows anyone to run the software and participate in sending transactions on the network. No central entity can turn users away.
- ✓ **Lower costs and higher efficiency**- Advocates claim that because of the way CBDCs are structured under the hood, they could lead to lower costs for transferring money. The idea is that with a CBDC, financial entities are more connected, making a smoother way to move money around than the disjointed financial system that's in place today.
- ✓ **Tracking payments**- DLTs give a full record of all the transactions. Some governments, such as China, which is known for its extensive surveillance apparatus, will potentially want to use this financial information to keep tighter tabs on its citizens.

Why issue a CBDC?

- If a country issues a CBDC, its government will consider it to be legal tender, just like fiat currencies; both CBDC and physical cash would be legally acknowledged as a form of payment and act as a claim on the central bank or government.
- A central bank digital currency increases the safety and efficiency of both wholesale and retail payment systems. On the wholesale side, a central bank digital currency facilitates quick settlement of retail payments.
- It could improve the efficiency of making payments at the point of sale or between two parties (p2p).
- No physical coins or notes are available to individuals in a digital society, and all money is exchanged in a digital format. If a country intends to become a cashless society, a digital currency with government / central bank backing is a credible alternative.
- The pressure for governments to adopt a CBDC is strong, as the market for private e-money is on the rise. If it becomes mainstream, beneficiaries are at a disadvantage because e-money providers aim to maximize their profits instead of the general public's. Issuing a CBDC would give governments an edge over the competition from private e-money.
- In addition to domestic transactions, the current cross-jurisdiction payments' model depends heavily on central banks operating the real-time gross settlement (RTGS) infrastructure within which all local banks' obligations must settle.

- Since time lags exist in cross-border payments, participating parties are exposed to settlement and credit risk. A CBDC is available around the clock, while privacy is taken into account to eliminate counterparty credit risk.

Challenges

- ✦ Citizens could pull too much money out of banks at once and purchase CBDCs, triggering a run on banks.
- ✦ Centralizing, through the government, a system designed to be private may produce backlash from users and create cybersecurity risks.
- ✦ Regulatory processes are not updated to deal with the new forms of money and need to be made more robust before adopting this technology.
- ✦ **National Security Implications of a CBDC**-For Ex.- Right now, the United States is able to monitor and regulate most digital payment flows of dollars all over the world. But new payment systems could limit the ability of policymakers to track cross-border flows. In the long term, the absence of US leadership and standards setting can have geopolitical consequences, especially if China maintains its first-mover advantage in the development of CBDCs.

CBDC's path to mass adoption

- Decentralized blockchains today have a "user beware" attitude: all transactions are irrevocable once settled and assets cannot be recovered if the transacting party is unwilling to cooperate with legal authorities. This is not a viable option for a CBDC aiming for mass adoption.

	Bitcoin	CBDC
Monetary Policy	Fixed and understood by its users. Only 21M Bitcoin will be created. Bitcoin cannot be debased.	Determined by policy makers. CBDCs are susceptible to monetary inflation.
Geography	Global. Accessible to anyone in the world with Internet.	Determined by policy makers. International settlement may mirror current practices.
Storage	Anyone can securely receive and store value with a Bitcoin private key.	Determined by policy makers. Users could be at risk of seizure if they don't meet requirements.
Transfer	Anyone can transfer value with a private key and Internet access.	Determined by policy makers. Users could be at risk of censorship if they don't meet requirements.
Hours of Operation	99.9% uptime since inception.	Determined by policy makers. Automated monitoring may allow 24/7 uptime.

Bitcoin compared to CBDCs. Image: Grayscale

- Moreover, no existing non-banking payment system has this kind of treatment under existing laws. Nor is it possible for legal authorities to compel cooperation, since the recipient could be an unknown person from overseas not subject to abide by the laws and regulations of the CBDC's jurisdiction.
- Instead, CBDC issuers should modify their state under banking, property, payment, and contract law. This is possible only with hybrid two-layer designs that address two distinct problems:
 - A CBDC needs a proper management infrastructure, wherein transactions can be first verified and then modified under the jurisdiction's law. A dispute resolution system must have security, compliance, and auditing processes.
 - A CBDC also needs to report its state (account balances, transactions, etc.) to relevant regulatory bodies, which can be more than just the state of the transactions — this includes things like information on IP addresses or account IDs. This information is vital in dispute resolution for payment systems.

Why have so many countries been exploring CBDCs recently?

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- Bitcoin has grown rapidly since it launched in 2009, inspiring a slew of offspring currencies and financial products using a similar underlying technology.
- But it wasn't until 2019, when libra, the Facebook-backed digital currency project based on blockchain technology, was unveiled that governments around the world began to more seriously explore whether they should be adopting similar technology.
- They began to wonder if a currency created by a company as widespread and powerful as Facebook could challenge government control of money.
- In response, governments accelerated exploration of whether they can incorporate similar technologies into their national payment systems.
- Most countries see a CBDC as a supplementary form of money, not necessarily a currency that will replace the existing infrastructure.
- In a survey released in January 2020, the Bank for International Settlements (BIS), the international central bank coordinator, asked 66 central banks whether they are working on a CBDC; 80% of the central banks said they are exploring the idea, while 10% are "imminently close" to launching a CBDC for the general public.

Do We Need CBDC in India?

The adoption of CBDC has been justified for the following reasons:

- ✓ Central banks, faced with dwindling usage of paper currency, seek to popularise a more acceptable electronic form of currency (like Sweden);
- ✓ Jurisdictions with significant physical cash usage seeking to make issuance more efficient (like Denmark, Germany, or Japan or even the US);
- ✓ Central banks seek to meet the public's need for digital currencies, manifested in the increasing use of private virtual currencies, and thereby avoid the more damaging consequences of private currencies.
- ✓ India is leading the world in terms of digital payments innovations. Its payment systems are available 24X7, available to both retail and wholesale customers, they are largely real time, the cost of transaction is perhaps the lowest in the world, users have an impressive menu of options for doing transactions and digital payments have grown at an impressive rate. Thus, CBDC becomes idea worthy of exploration.

RBI's Stance on CBDC

- RBI has been exploring the pros and cons of introduction of CBDCs since quite some time.
- Generally, countries have implemented specific-purpose CBDCs in the wholesale and retail segments.
- Going forward, after studying the impact of these models, launch of general purpose CBDCs shall be evaluated.
- RBI is currently working towards a phased implementation strategy and examining its use so it could be implemented with little or no disruption to India's banking or monetary systems.

Countries experimenting with CBDCs

China: Digital Yuan- The People's Bank of China is one of the first central banks to develop a CBDC. They deployed a special task force in 2014 to research and implement a digital Yuan. It gained traction in 2020 when China announced the testing of a CBDC prototype. As per reports, the Chinese digital Yuan will impact the \$27 trillion payment market in China.

Sweden: e-krona- In 2017, the world's oldest bank, Swedish Riksbank, began its CBDC project called e-krona. E-krona intends to offer a robust alternative in case of emergency or turmoil of private payment service providers, thereby ensuring the Swedish payment system remains stable.

Bahamas: Sand Dollar- In 2019, the Bahamas also began their CBDC project called "Sand Dollar" — it was fully deployed in October 2020. Each Sand Dollar constitutes an additional digital variant to the Bahamian dollar, which is, in turn, kept at a 1:1 peg with 1 US dollar. The project delivers inclusive access to financial services and regulated payments.

Way Forward

- ✦ Given the considerable efforts and attention that central banks are dedicating to central bank digital currencies, they will become a reality soon.
- ✦ Introducing CBDCs to the world will help boost crypto adoption as people will have access to the platforms to convert cryptocurrencies into legal tenders. Moreover, it will also help in the financial inclusion of the bankless population.
- ✦ CBDCs will have far-reaching implications on the future of finance, including the buying and selling of digital assets and securities.
- ✦ Implementation of CBDCs will rely on the foundations of a dedicated legal framework to facilitate the transparency, distribution, and issuance of a digital form of money by global governments.
- ✦ As regulators and central banks take concrete steps in the direction of establishing CBDCs, the world will begin to embrace digital currencies as a standard.

RBI Retail Direct Scheme

News Excerpt

The Reserve Bank of India (RBI) recently announced the 'RBI Retail Direct' scheme, a one-stop solution to facilitate investment in government securities (G-secs) by individual investors.

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As part of continuing efforts to increase retail participation in government securities, 'the RBI Retail Direct' facility was announced in the Statement of Developmental and Regulatory Policies dated February 05, 2021 for improving ease of access by retail investors through online access to the government securities market – both primary and secondary - along with the facility to open their gilt securities account ('Retail Direct') with the RBI.

In pursuance of this announcement, the 'RBI Retail Direct' scheme, which is a one-stop solution to facilitate investment in Government Securities by individual investors was issued.

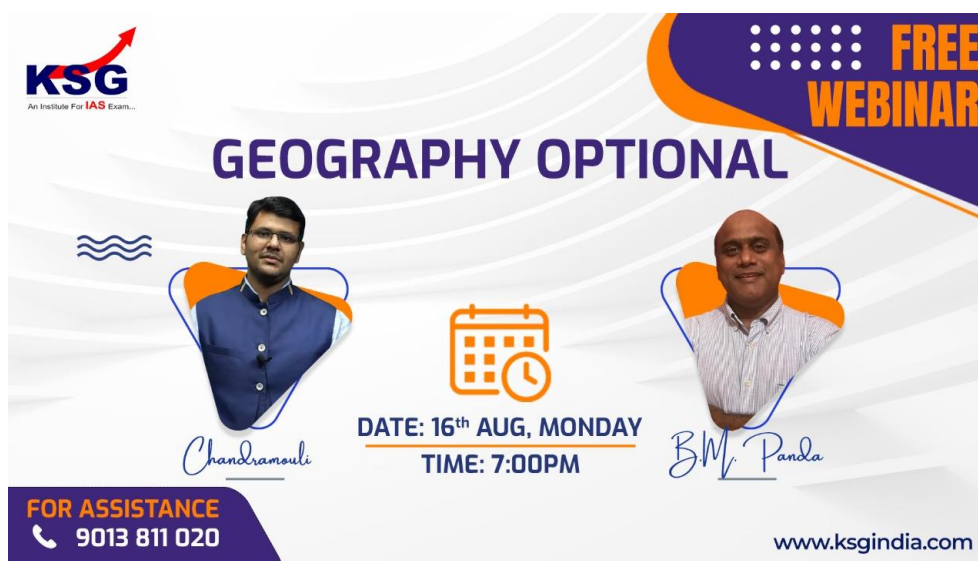
Highlights

The highlights of the 'RBI Retail Direct' scheme are:

- Retail investors (individuals) will have the facility to open and maintain the 'Retail Direct Gilt Account' (RDG Account) with RBI.
 - RDG Account can be opened through an 'Online portal' provided for the purpose of the scheme.
 - The 'Online portal' will also give the registered users the following facilities:
 - Access to primary issuance of Government securities
 - Access to NDS-OM.
- Retail investors, as defined under the scheme, can register under the Scheme and maintain a RDG Account, if they have the following:
 - Rupee savings bank account maintained in India;
 - Permanent Account Number (PAN) issued by the Income Tax Department;
 - Any OVD for KYC purpose;
 - Valid email id; and
 - Registered mobile number.
 - Non-Resident retail investors eligible to invest in Government Securities under Foreign Exchange Management Act, 1999 are eligible under the scheme.
 - The RDG account can be opened singly or jointly with another retail investor who meets the eligibility criteria.
 - **Fee and charges**
 - No fee will be charged for opening and maintaining 'Retail Direct Gilt account' with RBI.
 - No fee will be charged by the aggregator for submitting bids in the primary auctions.

- Fee for payment gateway etc., as applicable, will be borne by the registered investor.
- **Investor services:** Registered investors can use the online portal for the following investor services:
 - a. **Account Statement-** Transaction history and balance position of securities holdings in the Retail Direct Gilt Account can be obtained from the link provided. All transaction alerts will be provided through e-mail/SMS.
 - b. **Nomination facility-** The nomination form in the prescribed format duly signed can be filled up and uploaded. There can be a maximum of two nominees. In the event of death of the registered investor, the securities available in the RDG Account can be transmitted to the RDG Account or any other Government securities account of the nominee on submission of death certificate and transmission form.
 - c. **Pledge/Lien-** Securities held in the RDG Account will be available for pledge/lien.
 - d. **Gift Transactions-** 'Retail Direct Investors' will have an online facility to gift government securities to other Retail Direct Investors.
 - e. **Grievance redressal**

- ❖ Government securities, for the purpose of this scheme, mean securities issued in form of stock by credit to SGL/CSGL account maintained with RBI as defined under Section 3(iii) of Government Securities Act 2006. These include:
 - Government of India Treasury Bills;
 - Government of India dated securities;
 - Sovereign Gold Bonds (SGB);
 - State Development Loans (SDLs).
- ❖ NDS-OM means RBI's screen based, anonymous electronic order matching system for trading in Government securities in the secondary market
- ❖ OVD means Officially Valid Document defined under RBI-Know Your Customer (KYC) Direction, 2016, as amended from time to time.
- ❖ Retail Direct Gilt Account (RDG Account) means gilt account maintained in the books of RBI under this Scheme.



The advertisement features the KSG logo at the top left, with the tagline 'An Institute For IAS Exam...'. The main title 'GEOGRAPHY OPTIONAL' is prominently displayed in the center. To the right, a blue and orange banner reads 'FREE WEBINAR'. Below the title, there are two circular portraits of speakers: Chandramouli on the left and B.M. Panda on the right. A central icon of a calendar and clock indicates the date and time: 'DATE: 16th AUG, MONDAY' and 'TIME: 7:00PM'. At the bottom left, a purple box contains the text 'FOR ASSISTANCE' and the phone number '9013 811 020'. The website 'www.ksgindia.com' is listed at the bottom right.

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INTERNATIONAL RELATION

India - EU Cooperation

News Excerpt

Recently, a Virtual meeting between Union Minister for Agriculture & Farmers Welfare and Mr. Janusz Wojciechowski, Member of the European Commission, Agriculture was held. The strong momentum of the India-EU relations especially since the last India-EU Summit in July, 2020 was acknowledged.

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Highlights of the Virtual meeting

- Discussions on UN Food System Summit and bilateral cooperation.
- G20 Agriculture Minister Process and fixation of the Maximum Residue Limit of Tricyclazole in Indian Basmati Rice by the EU.
- The Member of the European Commission, Agriculture explained in detail the recent reforms undertaken by the EU in the Common Agriculture Policy as well as the EU Farm to Fork Strategy to make agriculture green as well as sustainable.
- EU has set a target of bringing 25 percent of the area in the EU under Organic Farming by 2030.
- Union Minister raised the issue of fixing the Maximum Residual Limit (MRL) of Tricyclazole used in rice crop which has been a concern for India and is affecting India's Basmati Rice Exports to the EU.

UN Food System Summit and Bilateral Cooperation

- ❖ The UN Secretary General has called for the first ever UN Food Systems Summit to be held in September 2021.
- ❖ It will strategize the actions for positive change in Agri-food systems in the world to realize the vision of the 2030 Agenda for Sustainable Development.
- ❖ Guided by five Action Tracks, the Summit will bring together key players from the worlds of science, business, policy, healthcare and academia, as well as farmers, indigenous people, youth organizations, consumer groups.
- ❖ The term “food system” refers to the constellation of activities involved in producing, processing, transporting and consuming food.

India-EU Relations

- India and the European Economic Community established diplomatic relations in the 1960s, cementing it in 1983 with the establishment of the Delegation of the European Commission to New Delhi.
- The 1994 Cooperation Agreement between India and the EU opened the door for larger political and diplomatic interactions.
- The recognition of each other's potential led to the signing of the strategic partnership in 2004 with emphasis on developing international cooperation to address issues related to multilateralism, intensification of economic interactions and furthering sustainable development.
- The signing of the strategic partnership led to the release of the first joint action plan (JAP) in 2005, which defined mutually agreed objectives and proposed a range of activities in the areas of economic, political and development cooperation.

EU Farm to Fork Strategy

- ❖ It is at the heart of the European Green Deal aiming to make food systems fair, healthy and environmentally-friendly.
- ❖ It aims to accelerate EU's transition to a sustainable food system.
- ❖ It sets out both regulatory and non-regulatory initiatives, with the common agricultural and fisheries policies as key tools to support a just transition.

- The high-level trade group established under the JAP recommended the initiation of negotiation of a free trade agreement (FTA); with negotiations beginning in 2007 focused on limiting up to 90 percent of tariffs and the liberalisation of services and market access.
- Despite a robust start in the 2000s, the India-EU partnership lost much of its momentum over the next decade. While India's bilateral relations with EU member states — like Germany, France and the United Kingdom (UK) — developed substantially, it did not lead to the expected intensification of ties with the grouping.
- India and EU's pre-occupation with their neighborhoods contributed to the relations taking a backseat. This was further affected by the lack of progress in the FTA and the 2012 arrest of Italian marines, which not only affected ties between Italy and India but also led to increased tensions with the EU.
- During this period, the EU largely turned its attention to China as a key partner and larger market in Asia.
- However, the global geopolitical scenario has changed over the past few years. The uncertain US policy outlook under former President Donald Trump, the upending of the liberal multilateral order and the rise of an assertive China has led both India and EU to realise that a substantive engagement was imperative.
- Moreover, given India's growing regional and international relevance, it is crucial for the EU to renew its focus on developing the economic, political and defense partnership.
- Also, since 2016, both India and the EU, through their various joint statements and initiatives, have intensified their partnership in crucial strategic areas, including climate change, sustainable development and military-to-military dialogue.

India-EU Trade Relations

- ✓ Trade and economics remain at the core of the India-EU partnership. Since the 1970s, India has been a beneficiary of preferential tariffs for its exports under the EU's generalised system of preferences, which reduces import duties for almost 66 percent of product tariff lines with an aim to support various industrial sectors in the developing countries.
- ✓ In 2019-20, India's trade with the EU stood at US\$ 104.93 billion (INR 767,143 crore), comprising of US\$ 53.73 billion (INR 392,820 crore) worth Indian exports and US\$ 1.2 billion (INR 374,323 crore) of imports.
- ✓ Over the April 2000-March 2020 period, foreign direct investment inflows from the EU to India were valued at US\$ 109.55 billion (INR 800,920 crore)
- ✓ Additionally, over 6,000 EU companies are said to operate in India, providing direct and indirect employment to over six million people
- ✓ With the establishment of an investment facilitation mechanism for EU investments in India in 2017, there is a renewed focus on facilitating ease of doing business norms for EU investors in India.
- ✓ This mechanism allows for close coordination between the Indian government and the EU to formulate solutions to the issues and problems faced by EU investors in operating in India
- ✓ Strategically, the EU is placing renewed attention on India, which is visible through various policy documents it has published in the past few years. In its 2018 Strategy on India document, the EU acknowledged its interest in promoting India's advancement and treating India on an equal footing.
- ✓ In 2019-20, the EU accounted for only 11 percent of India's total trade, while India accounted for only 1.9 percent of the EU's trade, illustrating the huge untapped potential in India's economic ties with the EU given the size of their respective economies.

Emerging development partnership

- In recent decades, India has shifted from being a net recipient country to a provider of development cooperation under the aegis of South-South cooperation.

- For this, India has adopted a multi-pronged outlook that includes trade, investments and cooperation agreements, leading to increased bilateral visibility and capabilities.
- Its development compact includes “capacity-building and skills transfer, concessional finance (further divided into grants and lines of credit), preferential trade, investment, and technical cooperation”.
- Between 2008 and 2020, India disbursed approximately INR 61,067.58 crore (US\$ 8.35 billion) as grants and loans under various development compacts.
- India-EU development cooperation spans several decades and encompasses issues like health, education, poverty reduction, water and sanitation.
- The 2005 JAP highlighted that since 1976, the European Commission has committed 2 billion euro (US\$ 2.4 billion) in development cooperation to India and recognised that “India is itself becoming an increasingly active player in evolving development policy”, reflecting the altered European view of India as an emerging economic powerhouse.
- Also, the Indian government’s decision to limit the number of international donors marked a concrete step towards changing the dynamics of development cooperation with the EU.
- In 2014, the EU ended its Development Cooperation Instrument (DCI) with India; between 2007 and 2013, the total EU assistance to India through the DCI was 450 million euro (US\$ 545 million).
- Another development cooperation instrument is the European Investment Bank (EIB), which has provided loans for three different metro projects in India — 450 million euro (US\$ 545 million) for the Lucknow metro, 600 million euro (US\$ 727 million) to support two metro lines in Pune, and 500 million euro (US\$ 606 million) for Bengaluru.
- With the signing of 2019-20 JAP, the EU and India also decided to step up their cooperation in the “development of smart and sustainable urbanisation,” complimenting the ‘Make in India’ plan that “presupposes quality and resilient infrastructural development”.
- Third, the education and science and technology sectors have emerged as key areas of development cooperation. Both sides have committed themselves to cooperate further through initiatives like the Global Initiative of Academic Networks. India and the EU have also partnered on various projects related to climate change, resource efficiency, renewable energy and digital cooperation.
- India and the EU have also committed to enhance their collaboration in other countries; Roadmap 2025 lays emphasis on launching concrete trilateral/cooperation projects in pilot partner countries and to establish an India–EU Annual Review on Development partnership in third countries.
- Another key area of development cooperation is the 2030 Agenda for Sustainable Development. India and the EU are working closely on several fronts that cover the Sustainable Development Goals (SDGs) — such as the smart cities initiative (SDG 11), clean water and sanitation (SDG 6) and climate action (SDG 13).
- The two have become key stakeholders in global efforts to combat climate change through the framework of Clean Energy and Climate Change Partnership, 2017.

Areas of Concern

- ✚ India and the EU have emerged as important stakeholders in the multilateral global system. Economic cooperation between the two sides has been grown despite the stalled FTA negotiations.
- ✚ Although India and the EU have not been able to tap into each other’s strengths, there is tremendous opportunity to overcome long-standing differences in trade relations. Three issues will likely define their future economic trajectory — Brexit, FTA negotiations and post-COVID-19 economic recovery.

- ✦ Since 2019, India and the UK have been the top five investors in each other's economies. The UK's exit from the EU will not only have an economic implication for the grouping but for the larger world economy, and India is not immune to this phenomenon.
- ✦ India considers the UK as a gateway to continental Europe and with it exiting the EU, Indian firms will lose this advantage. Additionally, Indian firms with EU-wide operations and headquarters in the UK will likely be impacted due to the border restrictions.
- ✦ Nonetheless, Brexit could provide India the opportunity to reset its trade and economic ties with the UK and the EU. India and the UK must consider launching their own trade deal negotiations and build on the already robust bilateral economic ties.
- ✦ The proposed Broad-based Trade and Investment Agreement (BTIA) between India and EU has been stalled since May 2013 as both sides are yet to iron out differences over several issues. The BTIA is a kind of comprehensive free trade agreement being negotiated by the two sides.
- ✦ The conclusion of the BTIA will not only strengthen India and the EU's global standing but can also provide an opportunity to further integrate their partnership on various shared goals like green economy, sustainable development and resource efficiency.

Impact of Covid-19 Pandemic on India-EU Relationship

- The priority area for India and the EU remains the post-COVID-19 economic recovery. Over the past few months, the pandemic has expanded into an economic crisis, a geopolitical shock and a social challenge. Tackling its impacts requires multilateralism, cooperation and solidarity.
- While the euro area economy is expected to contract by 7.8 percent in 2020, the Indian economy is expected to contract by 10.3 percent. The pandemic has exposed the weaknesses in the global economic system and the overdependence on the China-dominated international supply chains.
- This has led many countries to re-evaluate their economic policies and push for self-reliance. India and the EU are not immune to these debates.
- India is keen to promote itself as an alternative manufacturing hub and an innovation destination to become the “nerve centre of global supply chains”. This is also the vision of the Atmanirbhar Bharat policy, which aims to merge domestic production and consumption with the global supply chains.
- In the post COVID-19 world, India-EU economic relations will not be defined just by BTIA negotiations but also on efforts to become part of reliable supply chain networks.

Way Forward

- Negotiators from both sides must look beyond the multiple differences to focus on the complementarities.
- Given the reluctance to agree to the other's demands, India and the EU should begin by negotiating less difficult sectors and aim for greater cooperation in new areas like green technology and artificial intelligence, which could lead to a more balanced outcome in the talks.
- Multilaterally, India and the EU can work to strengthen the World Health Organisation and bring together various stakeholders, health experts and global economic institutions to prepare a coordinated approach to handle the current and any future health crisis.
- Intensified dialogue and deliberations, a realignment of trade policies and emerging prospects of collaboration in the post-pandemic world provide India and the EU an opportunity to transform their economic ties into a robust strategic partnership.

US-Taliban Deal

News Excerpt

After 20 years of war, foreign forces are pulling out of Afghanistan following a deal between the US and the Taliban militants they removed from power back in 2001.

Highlights

- The conflict has killed tens of thousands of people and displaced millions.

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- The Taliban have pledged not to allow Afghanistan to become a base for terrorists who could threaten the West.
- But the country's hardline former rulers have quickly gained territory in recent weeks from Afghan army soldiers, who are now being left to protect a fragile government.
- The Taliban also made a pledge for national peace talks, but many fear a worsening civil war remains a far more likely outcome.
- Nevertheless, Joe Biden, the fourth US president to oversee what has become America's longest-ever war - one costing hundreds of billions of dollars - has set a symbolic date of 11 September 2021 for full withdrawal.

Pre-Connect

- Back in 2001, the US was responding to the 9/11 attacks on New York and Washington, in which nearly 3,000 people were killed. Officials identified Islamist militant group al-Qaeda, and its leader Osama Bin Laden, as responsible.
- Bin Laden was in Afghanistan, under the protection of the Taliban, the Islamists who had been in power since 1996.
- When they refused to hand him over, the US intervened militarily, quickly removing the Taliban and vowing to support democracy and eliminate the terrorist threat. The militants slipped away and later regrouped.
- NATO allies had joined the US and a new Afghan government took over in 2004 but deadly Taliban attacks continued. President Barack Obama's "troop surge" in 2009 helped push back the Taliban but it was not long term.
- In 2014, at the end of what was the bloodiest year since 2001, NATO's international forces ended their combat mission, leaving responsibility for security to the Afghan army. That gave the Taliban momentum and they seized more territory.
- Peace talks between the US and the Taliban started tentatively, with the Afghan government pretty much uninvolved, and the agreement on a withdrawal came in February 2020 in Qatar.
- The US-Taliban deal did not stop the Taliban attacks - they switched their focus instead to Afghan security forces and civilians, and targeted assassinations. Their areas of control grew.

The Cost of the War

- ✓ Research by Brown University estimates losses in the Afghan security forces at 69,000. It puts the number of civilians and militants killed at about 51,000 each.
- ✓ More than 3,500 coalition soldiers have died since 2001 - about two-thirds of them Americans. More than 20,000 US soldiers have been injured.
- ✓ According to the UN, Afghanistan has the third-largest displaced population in the world.
- ✓ Since 2012, some five million people have fled and not been able to return home, either displaced within Afghanistan or taking refuge in neighbouring countries.
- ✓ Brown University research also puts the US spending on the conflict - including military and reconstruction funds in both Afghanistan and Pakistan - at \$978bn up to 2020.

Challenges Ahead

- The joint declaration is a symbolic commitment to the Afghanistan government that the US is not abandoning it.
- The Taliban have got what they wanted: troops withdrawal, removal of sanctions, release of prisoners.
- This has also strengthened Pakistan, Taliban's benefactor, and the Pakistan Army and the ISI's influence appears to be on the rise. It has made it unambiguous that it wants an Islamic regime.
- The Afghan government has been completely sidelined during the talks between the US and Taliban. The future for the people of Afghanistan is uncertain, and will depend on how Taliban honors its commitments and whether it goes back to the mediaeval practices of its 1996-2001 regime.

- Much will depend on whether the US and the Taliban are able to keep their ends of the bargain, and every step forward will be negotiated, and how the Afghan government and the political spectrum are involved.

India's Position in the War

- ✦ India and the Taliban have had a bitter past. New Delhi nurses bitter memories from the IC-814 hijack in 1999, when it had to release terrorists — including Maulana Masood Azhar who founded Jaish-e-Mohammed that went on to carry out terror attacks on Parliament (2001), in Pathankot (2016) and in Pulwama (2019). The Taliban perceived India as a hostile country, as India had supported the anti-Taliban force Northern Alliance in the 1990s.
- ✦ India never gave diplomatic and official recognition to the Taliban when it was in power during 1996-2001.
- ✦ In recent years, as US-Taliban negotiations picked up momentum, New Delhi has been in touch with all stakeholders. But its foreign policy establishment has shied away from engaging with the Taliban directly.
- ✦ Even when former envoy to Afghanistan Amar Sinha and former envoy to Pakistan T C A Raghavan were sent as “non-official representatives” to talks with the Taliban in Moscow in November 2017, they went as “observers” and did not engage in direct talks as such.
- ✦ India has been backing the Ghani-led government and was among very few countries to congratulate Ghani on his victory. India’s proximity to Ghani also drew from their shared view of cross-border terrorism emanating from Pakistan.
- ✦ India shows consistent support for an “independent, sovereign, democratic, pluralistic and inclusive” Afghanistan in which interests of all sections of society are preserved.
- ✦ India supports “enduring and inclusive” peace and reconciliation which is “Afghan-led, Afghan-owned and Afghan-controlled”. India aims to “end to externally sponsored terrorism”- a signal that the state and non-state actors must keep Pakistan-sponsored terrorism at bay.
- ✦ To convey India’s commitment, agreements for road projects in Bamyan and Mazar-e-Sharif provinces with Indian development assistance were signed recently.

Implications of the US-Taliban Deal on India

- India has strategic interests in Afghanistan’s future and as its ally, India can have an edge over Pakistan.
- Over the years India has tried to build its camaraderie with Afghanistan through investing in infrastructure, education sector, irrigation development and power generation projects. Indian engineers are helping to construct the Shahtoot dam near Kabul and Afghanistan was among the first countries to receive anti Covid-19 vaccination from India.
- But despite this association, India’s strategic, economic and security related interests depend on how the current Afghan government keeps the Taliban at bay after the Biden administration pulls its military presence from the region.
- The withdrawal from Afghanistan will only bring challenges for the Indian Subcontinent as the US military presence kept a check on the radically extremist forces and created the possibility of a conducive environment for India to work with Afghanistan.
- The withdrawal can lead to a surge in international and regional terrorism, re-emergence of Taliban’s influence on Pakistan and the political instability it will create in the region.
- India’s larger concerns are about the resurgence of Taliban, which can undoubtedly reassure and incite the extremist elements in Kashmir and other parts of India through India-focused militant groups such as Laskhar- e-Toiba and Jaish-e-Mohammed, which are believed to have relocated to Afghanistan in large numbers.
- Unlike the United States, both India and Pakistan share a geographical proximity to Afghanistan, therefore any political instability in the region will affect both the countries.
- Pakistan has been supportive of Taliban in the past and with the American withdrawal from Afghanistan, Pakistan can again scale up its support to Taliban.

- India is wary of the future of the Afghan government without the support of the US military as it will trigger a geopolitical flux in the region and if peace talks do not fall through and there is a reneging of the terms of the Doha Accord by the Taliban then this consequence directly threatens India's political, security, and economic interests in Afghanistan.
- Therefore, to safeguard its own interests, India needs to reorient its policies towards Afghanistan and deal with the changing dynamics of power shift in the region.

Child Soldier Recruiter List

News Excerpt

The United States of America has added Pakistan and 14 other countries to a Child Soldier Recruiter List.

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- The US Child Soldiers Prevention Act (CSPA) requires the publication in the annual Trafficking in Persons (TIP) report a list of foreign governments that have recruited or used child soldiers during the previous year (April 1, 2020, to March 31, 2021).
- The United Nations too has identified the recruitment and use of child soldiers as among six “grave violations” affecting children in war and has established numerous monitoring and reporting mechanisms and initiatives to combat this practice. The UN verified that over 7,000 children had been recruited and used as soldiers in 2019 alone.
- The recruitment or use of children below the age of 15 as soldiers is prohibited by both the UN Convention on the Rights of the Child (CRC) and the additional protocols to the Geneva Conventions, and is considered a war crime under the Rome Statute of the International Criminal Court.
- In addition, the Optional Protocol to the CRC on the involvement of children in armed conflict further prohibits kids under the age 18 from being compulsorily recruited into state or non-state armed forces or directly engaging in hostilities. The United States is a party to the Optional Protocol.
- Outside of the United States, the international community responded to human rights abuses inflicted on children by enacting the CRC. The CRC was adopted on November 20, 1989 and entered into force on September 2, 1990.
- Currently, 193 countries have ratified the CRC. The CRC requires state parties to “take all feasible measures” to ensure that children under 18 are not engaged in direct hostilities. It further prohibits the state parties from recruiting children under 15 into the armed forces.
- In 2000, the UN Committee on the Rights of the Child adopted the Optional Protocol to the Convention on the Rights of the Child on the involvement of children in armed conflict. While the CRC requires states to refrain from using children under 15 in direct hostilities, the Optional Protocol raises this age to 18.

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- The countries which have been added to the annual TIP list of the US State Department this year are: Pakistan, Turkey, Afghanistan, Myanmar, Democratic Republic of the Congo, Iran, Iraq, Libya, Mali, Nigeria, Somalia, South Sudan, Syria, Venezuela and Yemen.
- The following types of security assistance are prohibited for countries that are in the list:
 1. Licenses for direct commercial sales of military equipment
 2. Foreign military financing for the purchase of defense articles and services, as well as design and construction services
 3. International military education and training
 4. Excess defense articles
 5. Peacekeeping operations

- The countries will also not be eligible for the US Department of Defence’s “train and equip” authority for building the capacity of foreign defense forces.

Criticism of the List

- ✓ International treaties and instruments, such as the CRC and its Optional Protocol regarding children in armed conflict, are valuable and necessary tools to establish international norms as they raise awareness regarding human rights abuses.
- ✓ However, these treaties are limited in scope and nature, and they tend to be idealistic rather than practicable.
- ✓ The UN’s mechanisms only bind state parties that ratify the treaties. It therefore has no authority over countries that are not parties to the convention or are non-state entities, such as rebel militias recruiting child soldiers.
- ✓ It also relies on the signatories themselves to implement its doctrines and prevent human rights abuses around the world.
- ✓ Therefore, most of the responsibility in preventing such abuses lies with the individual countries themselves.
- ✓ While the UN views its treaties and conventions as binding on state parties, it has no police power mechanism to enforce its decisions.
- ✓ Therefore, the CRC and its Optional Protocol are limited by the signatories’ willingness to comply. Somalia, for example, is a signatory but it hasn’t ratified the convention.

OPEC’s output pact proposal

News Excerpt

The latest round of meetings among the OPEC+ group of oil-exporting countries has stalled as the UAE has pushed back proposals making an increase in crude oil supply conditional on an extension to an output agreement.

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- The OPEC+ group of countries had, in April 2020, entered into a two-year agreement, which entailed steep cuts in crude production to deal with a sharp fall in the price of oil as a result of the Covid-19 pandemic.
- The price of Brent crude hit an 18-year low of under \$20 per barrel in April 2020 as economic activity around the world crashed as countries dealt with the pandemic.
- The initial production cut by OPEC+ was about 10 million barrels per day or about 22 per cent of the reference production of OPEC+ nations.
- In November 2020, however, the price of Brent crude started climbing consistently and has, now, risen to \$76.5 per barrel — up from about \$40 per barrel at the end of October — buoyed by the steady rollout of vaccination programmes around the world.
- OPEC+ however maintained lower levels of production despite crude oil prices reaching pre-Covid levels, with Saudi Arabia, notably, announcing a further cut in production of 1 million barrels per day for the February-to-April period, which helped boost rising prices even further.

OPEC+ group of oil-exporting countries

In 2016, OPEC allied with other top non-OPEC oil-exporting nations to form an even more powerful entity named OPEC+ or OPEC Plus. It came into existence to counteract other nations’ capacity to produce oil, which could limit OPEC’s ability to control supply and price.

The non-OPEC countries which export crude oil are termed as OPEC plus countries.

OPEC plus countries include Azerbaijan, Bahrain, Brunei, Kazakhstan, Malaysia, Mexico, Oman, Russia, South Sudan and Sudan.

- UAE agreed that there was a need to increase crude oil production from August, but did not agree to a condition by the OPEC Joint Ministerial Monitoring Committee (JMMC) that the two-year production agreement be extended by six months.

Analytica

- The UAE’s key objection to the existing agreement is the reference output used to calculate the total production apportioned to each oil-exporting country.
- The UAE noted that the baseline production level reference used in the current agreement was not reflective of the UAE’s production capacity and, therefore, led to the UAE being apportioned a lower share of total production of crude oil.
- The UAE noted that the baseline reference production levels were unfair and that it would be open to extending the agreement if baseline production levels were reviews to be fair to all parties.
- Raising production now, as vaccination campaigns stoke hopes of economic recovery, would increase revenues for producing countries that have seen their budgets hard hit by lower prices. But pumping too much too soon could undermine the rebound in energy prices.
- OPEC Plus essentially faces a choice between acceding to Abu Dhabi’s demands, or failing to reach a deal that could drive crude prices sharply higher. Also at risk is the unity of the alliance, which if broken could potentially trigger a price war.

Impact on India

The OPEC+ group ran into sharp criticism from developing economies, including India, for deliberately maintaining low supply levels to raise prices.

- ✓ India is of the view that the high price of crude oil was slowing down the economic recovery of developing economies post the pandemic.
- ✓ If the UAE and other OPEC+ nations do not reach an agreement to increase production in August, expected relief in the form of lower crude oil prices could be delayed.
- ✓ India is currently facing record-high prices of petrol and diesel, with pump prices of the former exceeding Rs 100 per litre in 13 states and Union Territories.
- ✓ High crude prices have led to Indian oil marketing companies hiking the price of petrol by about 19.3 per cent and that of diesel by about 21 per cent since the beginning of 2021.

Assassination of Haiti's President

News Excerpt

Recently, Jovenel Moïse, Haiti’s 53-year-old President, was assassinated at his private residence in Port-au-Prince by unidentified gunmen, pushing the Caribbean nation, already battered by months-long protests, economic miseries and the COVID-19 outbreak, into further chaos.

Pre-Connect

- Haiti is a French- and Creole-speaking country.
- Haiti, the world’s first independent Black-led republic, after slaves successfully revolted against Napoleon Bonaparte’s forces in 1803, has a long, painful history of foreign interventions, coups, dictatorships and not-so-successful democratic experiments.
- Moïse, a former banana plantation manager who called himself “Banana Man”, rose to political fame when he contested the 2016 presidential election.
- In 2010, the country was battered by a devastating earthquake that killed at least 300,000 people.

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- Moïse promised a new beginning by strengthening institutions and ending corruption, and won the election in the first round itself. But under his administration, the political and economic situation in Haiti further deteriorated.
- While the motive of the assassination is not clear yet, Moïse was at the centre of a turmoil that had engulfed Haiti over the past many years.

Nord Stream 2 pipeline

News Excerpt

The US, which had previously imposed sanctions to prevent the completion of a major new gas pipeline between Russia and Germany, has now signalled its approval for the project.

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- In 2015, the Russian energy major Gazprom and five other European firms decided to build Nord Stream 2, valued at around \$11 billion.
- The 1,200-km pipeline will run from Ust-Luga in Russia to Greifswald in Germany through the Baltic Sea, and will carry 55 billion cubic metres of gas per year.
- The under-construction pipeline will run along with the already completed Nord Stream 1 system, and the two together will supply an aggregate of 110 billion cubic metres of gas to Germany per year.
- The pipeline falls in the territory of EU members Germany and Denmark, and is about 98% complete.



Analytica

Controversy Behind the Pipeline

- Since it was first planned, Nord Stream 2 has drawn criticism from the US, where both the Democratic and Republican parties believe that the project would increase Europe’s dependence on Russia for natural gas, thus emboldening its leader Vladimir Putin.
- Currently, EU countries already rely on Russia for 40 per cent of their gas needs.
- The project also has opponents in eastern Europe, especially Ukraine, whose ties with Russia have seriously deteriorated in the aftermath of the Crimean conflict in 2014.
- There is an existing land pipeline between Russia and Europe that runs through Ukraine. The country feels that once Nord Storm 2 is completed, Russia could bypass the Ukrainian pipeline, and deprive it of lucrative transit fees of around \$3 billion per year.
- Ukraine also fears another invasion by Russia once the new pipeline is operational.
- Russia, on its part, has dismissed these fears. Germany, too, has solidly stood behind the Nord Stream 2, despite opposition from allies, with Chancellor Angela Merkel’s government insisting that it is a commercially beneficial project.
- Poland and the Baltic countries remain convinced that the pipeline will facilitate even more aggressive behavior from Russia.

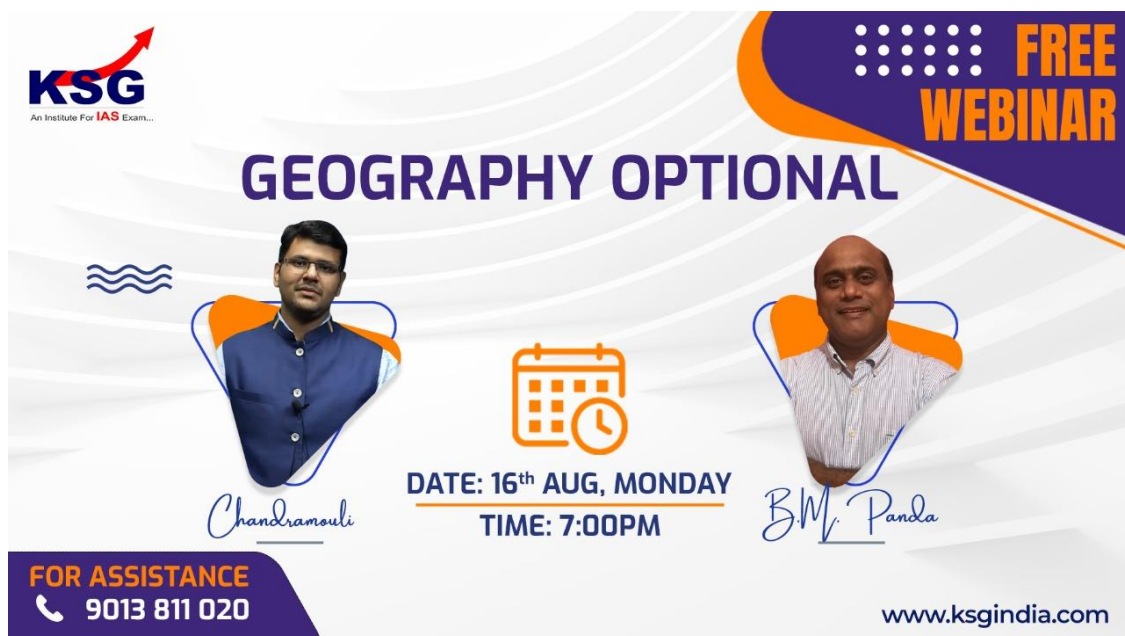
- Their concerns are valid. But paradoxically, the agreement could ultimately strengthen security in the region. And ultimately, as long as it helps ensure the powerful country to their West remains firmly anchored there, Central and Eastern European countries will also benefit from this agreement.

Position of the USA

- ✓ In December 2019, work on the project was suspended due to the threat of US sanctions, and in January 2021, Washington actually carried out its threat– imposing sanctions on a Russian ship tasked with laying pipes for the project. Many had then predicted that the punitive action could prove to be the pipeline’s death knell.
- ✓ The pipeline also cast a shadow on US-Germany relations, with former President Donald Trump saying that it could turn Germany into a “hostage of Russia”.
- ✓ The administration of Democrat Joe Biden, however, has instead gone with the softer option of threatening Russia with consequences should it use the pipeline to harm Ukraine or other countries in eastern Europe.
- ✓ The US-Germany deal lays out that if Russia attempts to use energy as a weapon or commit further aggressive acts against Ukraine, Germany will take steps on its own and push for actions at the EU, including sanctions, to limit Russian export capabilities to Europe in the energy sector.

Conclusion

The great power competition unfolding between the U.S. on the one hand and Russia and China on the other is most likely to manifest itself in hybrid terms — involving political, diplomatic, economic, informational and military challenges, below the level of tanks crossing borders. That means that a close partnership between Washington and Berlin is likely to pay long-term dividends to the benefit of not only Germany and the U.S. but Central and Eastern Europe as well.



The graphic is a promotional banner for a free webinar. It features the KSG logo in the top left corner. The main title is "GEOGRAPHY OPTIONAL" in large, bold, blue letters. To the right, a purple and orange banner says "FREE WEBINAR". Below the title, there are two circular portraits of speakers: Chandramouli on the left and B.M. Panda on the right. In the center, there is a calendar icon and the text "DATE: 16th AUG, MONDAY" and "TIME: 7:00PM". At the bottom left, there is a phone icon and the text "FOR ASSISTANCE 9013 811 020". At the bottom right, the website "www.ksgindia.com" is listed.

ENVIRONMENT

Micro-Plastic Pollution in Rivers

News Excerpt

Recently, A NGO 'Toxics Link' has released a study on analysis of Micro-plastics along River Ganga. It has found that the river is heavily polluted with micro-plastics.

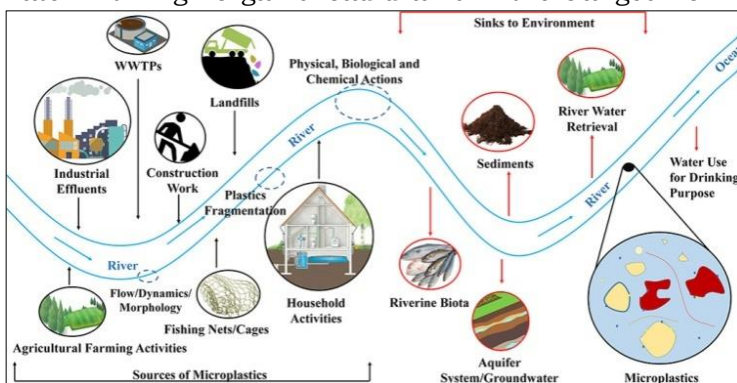
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Pre-Connect

- National River Conservation Plan (NRCP) is a centrally funded scheme launched in 1995, aimed at preventing the pollution of rivers. Presently, it covers 38 rivers in 178 towns spread over 20 States.
- The Central Pollution Control Board (CPCB) is statutory organization. It was constituted under the Water (Prevention and Control of Pollution) Act, 1974. The main function of CPCB is to improve the quality of air, promote cleanliness of water bodies and to prevent pollution.
- 'Namami Gange Programme' is an Integrated Conservation Mission aimed to accomplish the twin objectives of effective abatement of pollution, conservation and rejuvenation of National River Ganga.
- Micro-plastics are any synthetic solid particles or polymeric matrix, with regular or irregular shape and with size ranging from 1 µm to 5 mm, of either primary or secondary manufacturing origin, Micro-plastics are non-biodegradable and persistent in marine and freshwater.

Key Findings of the Study

- According to the study, the Ganga is the second largest contributing catchment with an annual discharge of 0.12 million tonnes of plastic.
- The high concentration of pollution is during the wet season and is most likely from the Indian and East Asian summer monsoon (June-September) in the north, when the freshwater flux is at peak.
- The river Ganga is polluted with plastic waste, mainly single-use and secondary plastic. Untreated municipal discharges and industrial waste generated approximately 75% of pollution in the Ganga River, resulting in extreme pollution load.
- Followings are cited as major reasons for pollution in river Ganga—
 - A large proportion of sewage water with high organic load drains in the Ganges from its basin area, besides industrial effluents from countless tanneries, chemical plants, textile mills, distilleries, slaughterhouses, and hospitals contribute to the pollution of the Ganges.



- For the study, samples of Ganga's water were collected and micro-plastics were found in all of them. Varanasi had the highest concentration of plastic pollution.
- The untreated sewage waste from densely populated cities across the river's course (for instance- Varanasi and Kanpur), along with industrial waste and religious offerings that are wrapped in non-degradable plastic add a significant amount of pollutants into the river.
- As the river flows, these waste and plastic materials break down further and are eventually carried into the Bay of Bengal and then into the ocean which is the "ultimate sink" of all plastics that are used by humans

Micro-Plastic and its Impact

✓ **Impact on Environment:**

Micro-plastics pollute the water environment, quality of groundwater; change the ecosystem, affects biodiversity by reducing species diversity and act as vectors for spreading toxic chemical additives.

✓ **Impact on Living Organisms:**

Micro-plastics are ingested by zooplanktons and bio-accumulates in the food chain. Riverine fishes are the most exposed freshwater species to Micro-plastics. Ingestion of Micro-plastics causes digestive tract blockage and stomach lining damage leading to starvation of the organism, digestion impairment and reduced and delayed reproductive ability, resulting into a lifespan reduction. Heavy metals, organic contaminants, nutrients, and antibiotics are adsorbed onto Micro-plastics which increases eco-toxicity.

✓ **Socio-Economic:** Severely affected by marine plastic pollution owing to the reduced fish population, loss of income from tourism, damage to coastal agriculture, etc. Consumption of contaminated food further poses health risk for the coastal communities. Micro-Plastic pollution could aggravate the crisis of food security and issue of malnutrition.

✓ **Impact on Human:** Occurrence of micro-plastics across food-chain ensures their presence in human food, increasing the possibility of exposure of associated toxic chemicals to humans. In direct impact, micro-beads can lead to bacterial infections in the gum, skin or injure the cornea by

Detergent Footprint and Pollution

- ❖ Water pollution caused by detergents would be big concern in India. The per capita detergent consumption in India is around 2.7 Kg. per year. It is around 3.7 kg in Philippines and Malaysia and 10 kg in the United States of America.
- ❖ 'Nonylphenol' is a hazardous chemical present in detergents.
- ❖ It bio-accumulates and can pose serious environmental and health risks.
- ❖ It has been detected in human breast milk, blood and urine, and is associated with reproductive and developmental effects in rodents.
- ❖ The Bureau of Indian Statistics (BIS) has set the standard of phenolic compounds in drinking water {0.001 milligram per litre (mg/L)} and surface water (5.0 mg/L).
- ❖ Some phosphate-based detergents can cause the water body to become choked with algae and other plants. Eutrophication deprives the water of available oxygen, causing the death of other organisms.
- ❖ Detergents are capable of destroying the external mucus layers that protect the fish from bacteria and parasites, causing severe damage to the gills. Mostly fish die when detergent concentrations are near 15 parts per million (ppm). Detergent could blocks out light and disrupting the growth of plants.

- ❖ The Central Pollution Control Board (CPCB) in 2018 identified 351 polluted river stretches in India.
- ❖ Maharashtra has the highest number of polluted river stretches (53), followed by Assam (44), Madhya Pradesh (22), Kerala (21), Gujarat (20), Odisha (19), and West Bengal and Karnataka (17).
- ❖ Almost 60 per cent of polluted river stretches exist in eight states: Maharashtra, Assam, Madhya Pradesh, Kerala, Gujarat, Odisha, West Bengal and Karnataka.
- ❖ About 72,368 million litres per day (MLD) of sewage was generated against which operational treatment capacity was only 26,869 MLD in 2021, according to the latest CPCB report National inventory of sewage treatment plant 2021.
- ❖ This is not even half of the total sewage generated in the country. A huge amount of sewage is left untreated / partially treated and discharged directly into rivers.
- ❖ This untreated water cause pollution in river and lastly in Oceans.

sticking in the eye. In facial products, it can cause tiny skin rips.

Analytica

- Sadly, micro-plastics are less studied in India despite the country being among the major plastic consumers and producer of approx. 5.6 million tons of plastic waste annually.
- The Central Pollution Control Board’s (CPCB) Annual Report on Implementing the Plastic Garbage Rules, 2016, is the only regular estimate of the quantum of plastic waste generated in India.
- According to it, the waste generated in 2018-19 was 3,360,043 tonnes per year (roughly 9,200 tonnes per day).
- The total municipal solid waste generation is between 55 and 65 million tonnes per day, plastic waste contributes about 5-6 per cent of total solid waste generated in India.
- Approximately 12 per cent has been burnt, while the remaining 79 per cent has accumulated in landfills. Plastic waste is blocking our sewers, threatening marine life and generating health risks for residents in landfills or the natural environment.

Way Forward

- ✚ The findings clearly indicate that the river pollution is linked to human activity, and plasticwaste management needs to improve substantially to control land-based pollution sources.
- ✚ The unchecked effluent discharges and sewage dumping is resulting in serious pollution whichneeds to be addressed immediately.
- ✚ Though Plastic Waste Management Rules have been in force in the country for some years, theirimplementation on the ground is very poor. Improving this along with minimizing the single-useplastics could be part of the solution.
- ✚ There is a dire need to look at the threat of plastic to river life more realistically, more comprehensively, and above all, with an eye on the future. A scenario build-up for the future will help the decision-makers arrive at an appropriate strategy to address the problem.
- ✚ Meanwhile, consumers can limit their personal contributions to micro-plastic pollution by avoiding products that contain micro-beads, choosing clothing made from natural fibers, avoid single use plastic products and taking care not to litter or flush plastic materials down the drain.

PEPPER IT WITH
 Bio-Remediation, Microbeads,
 Bio-accumulation, BOD,
 Eutrophication, ODF+, National
 Water mission

LEAF Coalition

News Excerpt

A new initiative to mobilize around \$1 billion to reward tropical countries for halting deforestation was announced. The initiative, called the LEAF Coalition (Lowering Emissions by Accelerating Forest finance), will offer monetary support for protecting tropical forests by selling carbon credits for avoided deforestation.

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About LEAF

- The LEAF coalition initiative is built on tenets of the REDD+ program. Additionally, it allowed companies to compensate for greenhouse gas emissions generated in their operations by paying tropical forest countries to keep an equivalent volume of carbon locked up in their forests.
- LEAF is launched by Norway, the U.K. and the U.S. It is a public-private alliance that also involves companies including Amazon, Airbnb, Bayer, Boston Consulting Group, GlaxoSmithKline (GSK), McKinsey, Nestlé, Salesforce, and Unilever.
- The marketplace created by LEAF aims to offer a consistent, long-term source of demand for developing countries that manage to effectively protect their tropical forests. The goal is to make forests more valuable.

- The \$1 billion in funds will come in approximately equal proportions from national governments and private companies. Emergent, a U.S. nonprofit set up by the Environmental Defense Fund (EDF) in late 2019 for this purpose, will provide the platform and function as an intermediary buyer, speeding up and standardizing the credit-buying process for both forest-nation sellers and international buyers.
- LEAF will use rigorous criteria set by an independent standard, The REDD+ Environmental Excellence Standard (TREES) established by the Architecture for REDD+ Transactions’ (ART), to ensure emissions reductions are real and verified and that social and environmental safeguards are respected.
- LEAF aims to monetize the value of carbon locked up in the tropical forests of most developing countries, thereby propelling these countries to help mitigate climate change.
- Tropical forests are massive carbon sinks and by investing in their protection, public and private players are likely to stock up on their carbon credits.
- The LEAF Coalition sets a high standard for how companies can supplement deep cuts in their own emissions by investing in additional emission reductions from tropical and subtropical forests and also by ensuring that the rights of indigenous peoples who have and who continue to protect these forests are respected and fulfilled.

Why is LEAF is considered as right approach?

<p>Working at scale: It engages tropical forest countries and states to reduce deforestation on a jurisdictional level and supporting their investments in sustainable development.</p>	<p>Robust social protections: LEAF ensures the full and effective participation of local and Indigenous peoples in line with the Cancun Safeguards.</p>	<p>Raising ambition: It involves the private sector support, not instead of, deep cuts in their own value chains in line with science-based emission reduction targets.</p>
<p>Environmental integrity: LEAF used the independent and rigorous ART/TREES standard to ensure uncompromising environmental and social integrity.</p>	<p>Results-based finance: Payments made by public and private sectors for demonstrated results that increase the speed and scale of forest protection.</p>	<p>Mobilizing finance: Catalysing private capital at scale, providing an avenue for companies to go beyond individual efforts to support global action</p>

Significance

- Such a financial impetus is crucial as it incentivizes developing countries to capture extensive deforestation and provide livelihood opportunities to forest-dependent populations.
- The implementation of the coalition’s plan will help pump in fresh rigour among developing countries like India, where the problem of forest fires is prevalent.
- LEAF would undertake larger units of land, thus addressing the issues of deforestation at wider scale.
- LEAF would channelize the financial support from MNCs to curb the instances of forest fires and deforestation.

Analytica

- The LEAF Coalition is a game-changer in the fight to save tropical forests. It would ensure sustainable livelihoods for Indigenous peoples and forest communities, advancing sustainable development in forest countries, and protecting global forests on the scale needed to address the climate crisis.

- Buying carbon credits is a tool that companies can use to meet net-zero goals, compensating for emissions elsewhere in their operations, although the coalition underscored that companies participating in LEAF remain committed to “deep voluntary cuts in their own greenhouse gas emissions, in line with science-based targets and consistent with the long-term temperature goals of the Paris Agreement.
- Companies contributions to the LEAF Coalition come in addition to, and not as a substitute for, internal emissions reductions,” meaning that a company can’t say it failed to deliver on its emissions reductions and then buy more credits to make up for the shortfall.
- Additionally, the credits are not a part of Paris Agreement exchange, meaning that credits don’t move between countries; the emissions reductions are credited to the tropical country generating the credits. For Instance—if a U.S. company buys credits to apply toward emissions from its operations, those credits do not count toward the emissions reductions commitment of the United States.

Key Concerns

- ✓ A country willing to participate would need to fulfill certain pre-determined conditions laid down by the Coalition. Therefore, universal approach to conserve tropical forest is missed.
- ✓ It is often cited by the environmentalist that ‘double accounting’ of carbon credit could be used to manipulate the data and without the independent controller companies can misuse the provision.

PEPPER IT WITH

CBDR, Paris Agreement, UN forum on Forest, AICHI Targets, Carbon offsetting, Carbon Credit, Carbon Border Adjustment Mechanism, INDC

Conclusion

Finance is the supporting means for the implementation of mitigation and adaptation activities in an international climate agreement. At the international level, LEAF could contribute to the development of a more accurate picture of how much funding is going to climate change activities. It would also allow transparency in the international climate finance. And, at the national level, it would let developing countries plan more effectively on how to use climate finance, allocate funding in line with international priorities, monitor how effective funded activities are, and verify support provided by LEAF Coalition. It would also strengthen trust by making accountability clear to citizens and funders.

Heat Dome

News Excerpt

Recently, some tracts of North America (especially parts of Canada and USA) are sweltering under very high temperatures (close to 50°C). The phenomenon behind this abnormal weather is known as a ‘heat dome’.

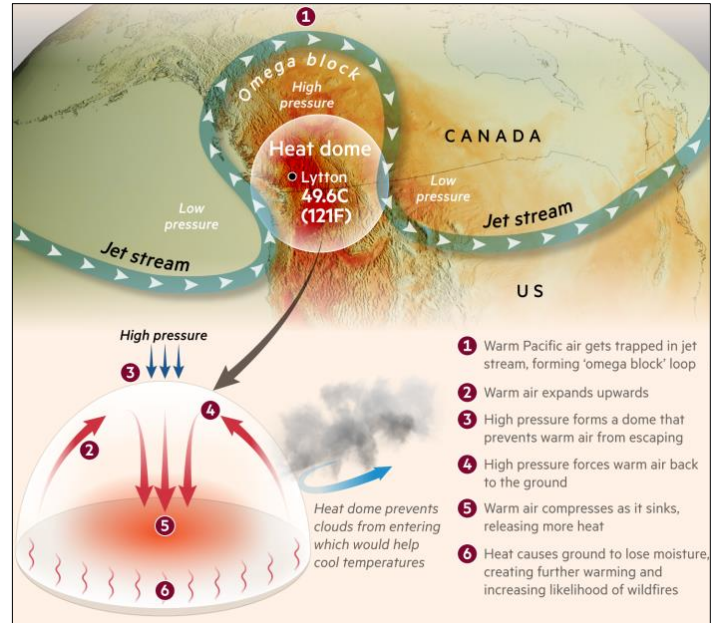
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About Heat Dome

- A heat dome is effectively an area of high pressure that parks over a region like a lid on a pot.
- The phenomenon of ‘Heat Dome’ is commencing with the strong difference (or gradient) in temperature of ocean.
- The variation in gradient causes more warm air, heated by the ocean surface, to rise over the surface.
- Prevailing winds move the hot air east, the northern shifts of the jet stream trap the air and move it toward land, where it sinks (creating High Pressure), resulting in heat waves.
- High pressure way up in the atmosphere can trap heat, leading to an increase in temperatures at ground level. This effect is fuelled by heat rising from the ocean, creating an amplification loop.
- The high pressure in the atmosphere acts like a dome and prevents the heat from dissipating. As the air gets hotter, everything gets hotter and hotter.

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- Additionally, Heat dome also formed when strong, high-pressure atmospheric conditions combined with influences from La Niña, creating vast areas of sweltering heat that gets trapped under the high-pressure "dome."
- Generally, the winds blow from west to east in jet streams but the flow often shifts to the north and south which attribute to Heat Dome.
- The western Pacific Ocean's temperatures have increased in the past few decades and are relatively more than the temperature in the eastern Pacific.
- They are more likely to form during La Niña years like 2021, when waters are cool in the eastern Pacific and warm in the western Pacific.



Reason for its formation

- There are two things that contribute to a heat dome – atmospheric pressure and rising sea temperatures.
 - Strong change in ocean temperature, this change in ocean temperature from the west to the east is the cited as reason for the heat dome (HD).
 - The main cause was a strong change (or gradient) in ocean temperatures from west to east in the tropical Pacific Ocean during the preceding winter.
 - As prevailing winds move the hot air east, the northern shifts of the jet stream trap the air and move it toward land, where it sinks, resulting in heat waves.
- ❖ To understand how 'Heat Dome' is caused let consider the Pacific ocean to a large swimming pool in which the heater is turned on. Once the heater is on, the portions of the pool close to the heating jets will warm up faster and therefore, the temperature in that area will be higher.
 - ❖ In the same way, the western Pacific ocean's temperatures have increased in the past few decades and are relatively more than the temperature in the eastern Pacific. This strong change in ocean temperature from the west to the east is what a team of scientists believe is the reason for the heat dome, which is when the atmosphere traps heat at the surface, which encourages the formation of a heat wave.

Impacts of Heat Dome

- ✓ Heat dome discourages the Cloud Formation. Therefore, trapping of heat can damage crops, dry out vegetation, reduce moisture holds in soil and result in droughts.
- ✓ The sweltering heat wave will also lead to rise in energy demand, especially electricity, leading to pushing up rates. Excessive demand could push some people to 'energy poverty'.
- ✓ The heat domes can also act as fuel to wildfires, which destroy a lot of land and fuel up the deforestation and loss of biodiversity.

PEPPER IT WITH
Temperature Inversion, Heat Waves, Specific heat of ocean, Air & Pressure System of World, Primary Winds

Exposure to the Hazardous Chemicals

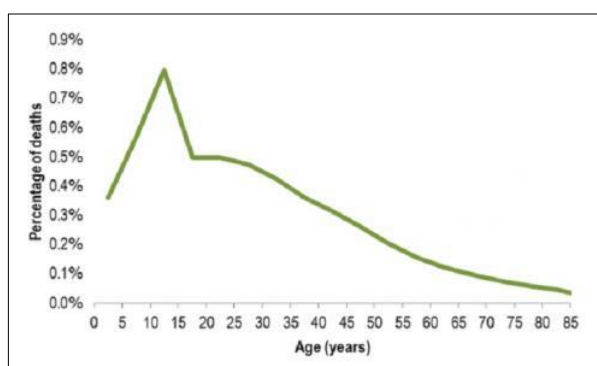
News Excerpt

Recently, World Health Organization (WHO) has released worrying estimates regarding exposure to the hazardous chemical.

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Key Highlights of the report

- According to latest estimates by the WHO, Deaths due to exposure to hazardous chemicals worldwide rose 29 per cent in 2019 from 2016.
- Two million people died due to exposure to hazardous chemicals in 2019, compared to 1.56 million in 2016.
- Between 4,270 and 5,400 people died every day due to unintentional exposure to chemicals, according to the figures. Children and young adults were particularly affected by unintentional poisoning from hazardous chemicals.
- The data reiterate the need for regulation and effective governance of chemicals.
- Most deaths due to exposure to hazardous chemicals are preventable, according to the WHO. They can be prevented by reducing or removing chemical exposure.
- In 2019, 53 million disability-adjusted life-years were lost. This is an increase by over 19 per cent since 2016.
- Some 45 million disability-adjusted life-years were lost due to unregulated use of chemicals in 2016.
- There has been a 56 per cent increase in disability-adjusted life-years lost due to exposure to lead since 2016, a closer look at the WHO data shows. In 2019, 21.6 million disability-adjusted life-years were lost due to lead exposure.



Impacts of Hazardous Chemical

- At least 1 in 3 children — up to approximately 800 million globally — have blood lead levels at or above 5 micrograms per decilitre (µg/dL).
- Lead exposure causes cardiovascular diseases (CVD), chronic kidney diseases and idiopathic intellectual disability which is responsible for nearly 45 per cent or close to half of these deaths in 2019.
- Hazardous chemicals are present in the air, in consumer products, at the workplace, in water, or in the soil. They can cause several diseases including mental, behavioural and neurological disorders, cataracts, or asthma.

What India Should Do?

India must take a note of this serious issue. India’s national chemical policy has been pending since 2012 and it must have to be release by Government. So that comprehensive strategies can be adapted to minimize the exposure to the chemicals. There is a need for a comprehensive law in the country to regulate chemical use, production and safety.

Way Forward

- ✓ Addressing hazardous pollution and exposure among children requires a coordinated and concerted pronged approach.
- ✓ **Prevention and Control Measures:** Prevention of exposure is paramount. Preventing children’s exposure to high-risk sites, preventing pregnant women and children’s exposure to products that contain hazardous chemicals. This can be done by way of improving recycling practices and collection systems.

- ✓ **Management, Treatment and Remediation:** This includes strengthening primary health care, including providing training for healthcare workers about how to identify, manage and treat chemical exposure in children and pregnant women. This could help in rural areas.

Human-Wildlife Co-existence: UNEP Report

News Excerpt

A joint report between the United Nations Environment Programme (UNEP) and WWF titled 'A future for all - the need for human-wildlife coexistence' has recently released.

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Pre-Connect

- **World Wide Fund for Nature (WWF):** It is an independent conservation organization with over 30 million followers and a global network active in nearly 100 countries. Its mission is to stop the degradation of the planet's natural environment and conserve world's biological diversity.
- **The United Nations Environment Programme (UNEP):** It is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system and serves as an authoritative advocate for the global environment.

Key Findings of the Report

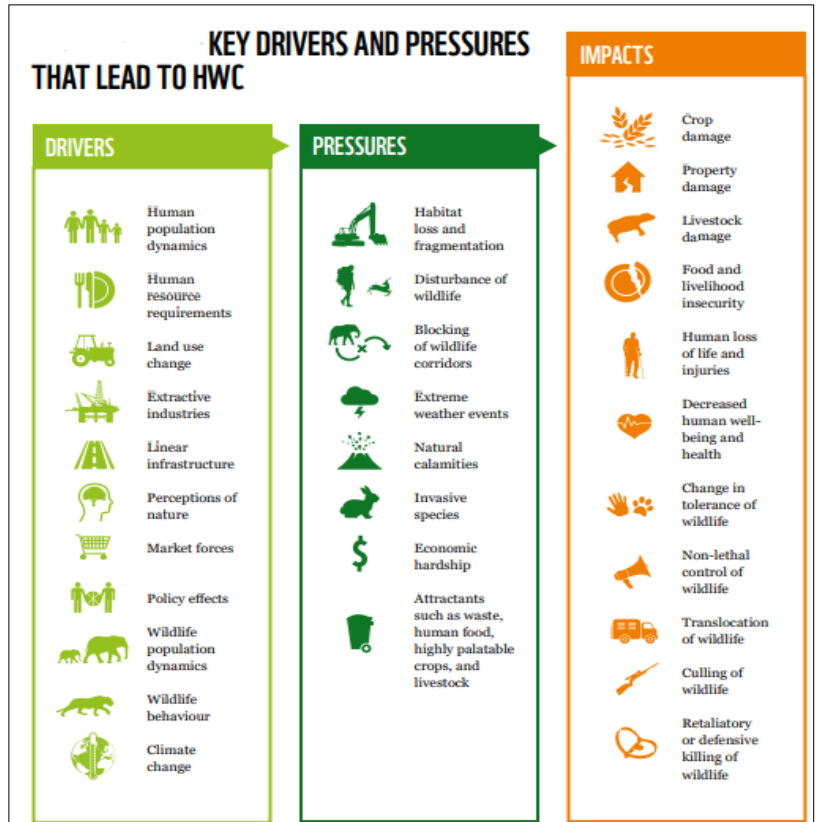
- As per the report, Global wildlife populations have declined an average of 68 per cent since 1970.
- The report reveals that globally, conflict-related killing affects more than 75% of the world's wild cat species, as well as many other terrestrial and marine carnivore species such as polar bears and Mediterranean monk seals, and large herbivores such as elephants.
- Human-wildlife conflict (HWC), in combination with other threats, has driven the significant decline of species that were once abundant and species that are naturally less abundant have been pushed to the brink of extinction.
- Conflict between humans and animals is one of the main threats to the long-term survival of some of the world's most iconic species.
- Due to the lack of protected areas, inadequate conservation efforts the intensity of conflict with human is increasing.
- Marine and terrestrial protected areas cover only 9.67% of the globe, and most of these protected areas are disconnected from each other.
- Therefore, many species depend on human-dominated spaces for their survival, and shared landscapes where both humans and wildlife exist outside protected areas play an increasingly important role for the survival of key species such as large predators and herbivores.
- Currently, 35% of India's tiger range, 40% of the African lion range and 70% of the African and Asian elephant ranges are outside protected areas.
- Marine species, such as turtles and whales, that travel thousands of kilometers annually, are also increasingly interacting with people. With so much overlap, effective HWC management becomes increasingly necessary.

Report and India

- ✓ India has world's second-largest human population as well as large populations of tigers, Asian elephants, one-horned rhinos, Asiatic lions and other species.
- ✓ In India, data from the Union Ministry of Environment, Forest and Climate Change indicates that over 500 elephants were killed between 2014-2015 and 2018-2019, mostly due to human-elephant conflict. During the same period, 2,361 people were killed as a result of conflict with elephants.
- ✓ India's elephants are restricted to just 3-4 per cent of their original habitat. Their remaining range is plagued by deforestation, invasive species and climate change.

Reasons responsible for HWC

- HWC results from a variety of ecological and anthropogenic drivers that exert pressures on landscapes where humans and wildlife share space.
- Ecological drivers include seasonal changes, natural calamities, and animals' life cycles, as well as the movement patterns of animals.
- Anthropogenic drivers, such as habitat loss, changes in land use, livestock management, expansion of agricultural practices, climate change, resource extraction, infrastructure development, and urbanisation, increase the potential for HWC.



- Generally, an increase in the area of land and sea that is shared by people and wildlife – usually caused by diminishing areas available for wildlife to exist away from human disturbance – drives HWC.
- Each driver of conflict generates multiple pressures, which, in turn, have several negative impacts on biodiversity and human welfare.
- For instance—if forests are cleared for settlements or agriculture, or roads are cut into previously inaccessible areas, habitat loss and fragmentation result, forcing wildlife and people into closer proximity to each other. This problem may be further compounded by the degradation of wild habitat caused by sub-urbanisation and the expansion of livestock grazing. Such changes also drive species to shift their territorial and movement behaviour, and once that old habitat is lost, wild species invariably come into more frequent contact with people. This habitat loss imposes biotic pressures on wildlife populations and, at the same time, these pressures may be exacerbated by the effects of factors such as climate change or the increase in wildlife populations resulting from ongoing conservation efforts. Combined, these multiple pressures may result in wildlife threatening or destroying human life or property, thereby setting off social and economic repercussions.

Impacts

- ✚ HWC can have repercussions that extend beyond the directly affected communities and wildlife. HWC has the potential to negatively affect not only the concerned people and animals but also conservation and sustainable development initiatives much more broadly.
- ✚ HWC can also weaken production systems and other businesses, as well as regional and national economies. Some more Impacts are the following—
 - **Impact on Wildlife And Ecosystems:** HWC threatens the survival of various terrestrial and marine species. While apex predators and emblematic key species are most at risk, more-common species and wider conservation landscapes are also impacted.
 - **Impact on Local Communities:** Local communities bear the costs of living with wildlife. These negative impacts shape people's risk perceptions, while cultural and social norms also

influence people's tolerance of wildlife. The hidden costs resulting from safety concerns and increased investment in HWC management measures exacerbate the direct financial losses communities experience from HWC.

- **Impact on Social Dynamics:** HWC can pit people against each other when diverse societal needs and responses are - inadequately, addressed. Such conflicts can be detrimental to communities and undermine the political credibility of governments.
- **Impact on Sustainable Development:** HWC is as relevant for sustainable development as it is for wildlife conservation, since HWC creates adverse ecological, social, and economic impacts. Moreover, most SDGs have connections to HWC, although that connection is not explicitly mentioned in any formal SDG statements.

Analytica

- ✚ Currently, HWC management actions are often disparate and not implemented holistically or at scale.
- ✚ The SDGs and the CBD have provided international platforms to help achieve a sustainable future for all. However, attempts to stop biodiversity loss, poverty, inequality, and climate change and to achieve peace and justice through such efforts have failed to connect these goals and activate synergies at a large scale, especially as they relate to HWC.
- ✚ Human-wildlife conflict is as much a development and humanitarian issue as it is a conservation concern, affecting the income of farmers, herders, artisanal fishers, and Indigenous peoples, particularly those living in poverty and without resilience; interfering with access to water for communities competing with wildlife for local water sources and driving inequality where those who pay the price for living with wildlife do not receive the benefits of coexistence, among other things. Yet despite being so strongly linked to the Sustainable Development Goals (SDGs), human-wildlife conflict continues to be overlooked by policymakers.

Way Forward

- » Mainstreaming HWC management and the aim of coexistence into global conventions and regional programmes is an urgent necessity. While completely eradicating human-wildlife conflict is not possible, but well-planned, integrated approaches to managing it can reduce conflicts and lead to a form of coexistence between people and animals.
- » Working towards coexistence of people and wildlife requires connecting and reconciling sustainable development and biodiversity conservation and managing trade-offs between the two. Holistic and integrated responses that minimize and manage HWC – especially those developed at scale and emphasizing the benefits of living with wildlife – can enable safe, stable, and prosperous coexistence between people and wildlife.

The Standard Operating Procedure for Environmental Violations

News Excerpt

Recently, the Ministry of Environment, Forest and Climate Change (MoEF&CC) has released the Standard Operating Procedure (SOP) for identification and handling of violation cases under the Environmental Impact Assessment (EIA) Notification, 2006.

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Pre-Connect

- The EIA Notification, 2006 has been notified under the Environment (Protection) Act, 1986 and it regulates the environmental clearance process in India.
- EIA is a planning tool to help integrate the environmental concerns into developmental process at the initial stage of project planning and design.
- This SOP has been framed in compliance with the directives provided by the National Green Tribunal. In the case of Tanaji B. Gambhire vs Chief Secretary Government of Maharashtra. NGT had directed the MoEF&CC to frame SOP regarding environmental violation.

Key Points

- This SOP deal with environmental violations that includes stiff penalties, includes shutting down of projects and demolition of projects that have failed to acquire environmental clearance (EC) or are in non-compliance of the clearance they have received.
- The SOP gives powers to government agencies such as the CPCB, state pollution control boards and state environment impact assessment authorities to identify such violations and take penal action against them including penalties.
- The SOP defines "violation" and "non-compliance" to mean as—
 - 'Violations' involving cases where construction work, including expansion of an existing project, has begun without the project proponent having acquired environmental clearance.
 - "Non-compliance" means non-compliance of terms and conditions prescribed by the Regulatory Authority in the prior EC accorded to the project.
- This SOP has the following guiding principles—
 - Action has to be initiated under section 15 and section 19 of the Act against all violations.
 - Projects which are not allowable/permissible for grant of EC as per extant regulations are to be demolished.
 - Projects which are allowable / permissible, but, where prior EC has not been taken as per extant regulations, projects are to be closed, until EC is granted and projects where prior EC has been granted are to revert back to permitted production level.
 - Violators are required to pay for the violation period and such payment will be proportionate to the scale of the project and extent of commercial transaction.
 - Setting up of a mechanism for reporting violation to the regulatory authorities.
- The permissibility of the project shall be examined from the perspective of whether such activity/project was at all eligible for grant of prior EC. For instance—if a Red Industry is functioning in a CRZ-I area, which means that the activity was, in the first place, not permitted at the time of commencement of the project. Therefore, the activity is not permissible and therefore it shall be closed and demolished.

Analytica

- ✓ The 'post facto regularisation of violations' – in which violations are first committed and then the project proponent files for clearance by which they are let off by paying a penalty, while the damage has been done would not serve the purpose of Environmental Conservation. Instead of compensation, penalties will allow projects without acknowledging the environmental damage.
- ✓ These SOP gives immense power to the ministry in determining the violator and the offence. While on other hand these changes are very substantive. Moreover, to give effect these SOP, Ministry must have to include it in the new EIA draft as an amendment.
- ✓ The ministry has circumvented the public opinion. These SOP are framed without public discourse. The similar big issue with the EIA draft 2020 was seen, thus discouraging people's participation in environment related initiatives.

Conclusion

The MoEF&CC has been receiving requests for regularisation of different categories of violation cases and such cases have been pending for want of an approved procedural framework. Since the present SOP is guided by the observations and decisions of Indian courts on the 'principle of proportionality' and 'polluter pays principle', it provides some clarity and guidance to deal with the cases of violation. However, effective implementation of the SOP could help to protect the environment apart from according the industries an opportunity to ensure compliance.

Gross Environment Product in Uttarakhand

News Excerpt

Recently, the Uttarakhand government has announced to induct assessment of its natural resources in the form of ‘Gross Environment Product’ (GEP). It would be along the lines of Gross Domestic Product (GDP).

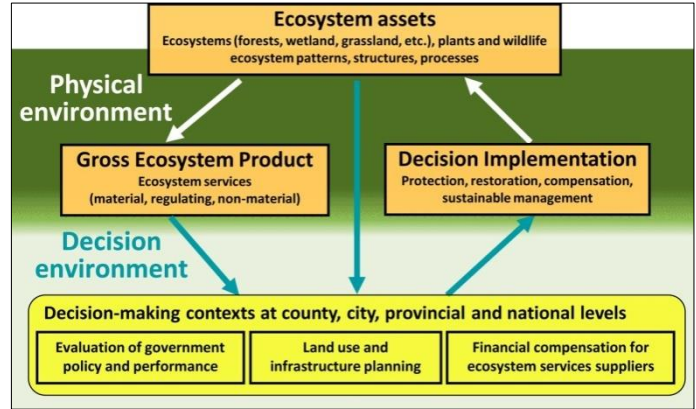
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About Gross Environmental Product (GEP)

- GEP is the total value of final ecosystem goods and services supplied to human well-being in given region annually, like a district, a province, or a country.
- GEP is the total economic value of ecosystem provision (EPV), Ecosystem regulating services (ERV) and cultural services (ECV) in the given area annually.

$$GEP = EPV + ERV + ECV$$

- Ecosystem Assets are the natural resources that produce and provide ecological goods and services.
- GEP shows a country’s environmental health, and also how both indicators were intrinsically connected.
- The basis for calculating GEP would be the micro-level status of the different environmental aspects.
- The GEP would include forest cover, tree density, soil erosion, groundwater table, air quality, dissolved oxygen in river water as well as measures for protecting the environment.
- GEP is a universal measure of ecological status. It can be applied to various countries and regions, and all types of ecosystems.
- GEP can be applied to measure the status of ecosystem services, which is an important indicator of sustainable development.



Need for GEP

The GEP calculation includes comprehensive evaluation of all the forest and environment resources that we have in all the states. Its findings would bring everything into a single format if we are to understand what things are going wrong, what works and what can be fixed

Expected Outcomes

- It will assign a monetary value to its natural resources in the form of Gross Environment Product (GEP).
- GEP can be applied as a quantitative indicator for officials’ performance appraisal and off-office auditing.
- GEP can be applied as a scientific basis for PES/Eco Compensation and public financial transfers.
- It is also a critical indicator for measuring the progress of Eco-civilization.

India’s first Cryptogamic Garden

- ❖ India’s first cryptogamic garden opens in Dehradun. Around 50 species have been grown in the garden at Deoban in Chakrata at a commanding height of 9,000 ft.
- ❖ Cryptogamae means “hidden reproduction” referring to the fact that no seed, no flowers are produced. Thus, cryptogams represent the non-seed bearing plants.
- ❖ Algae, bryophytes (moss, liverworts), lichens, ferns and fungi are the best-known groups of cryptogams that require moist conditions to survive

PEPPER IT WITH

Kuznets Curve, SDG, REDD+, LEAF

- GEP would provide insight to understand what the environmental price is we are paying to push up GDP every year.

Conclusion

The implementation of the concept and calculation of the GEP will let us understand the impact of anthropological pressure on our ecosystem and natural resources- air, water, soil, forests. This will enable us to make policies.

The Fit for 55 packages

News Excerpt

The European Union (EU) in December 2020 submitted a revised Nationally Determined Contribution (NDC) in compliance of the Paris Agreement. Now, the European Commission released the **'Fit for 55 package'** of climate and energy proposals to minimize the GHG emissions.

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About Fit for 55 Packages

- As part of the Paris agreement, the EU raised its target for cutting GHG and agreed to slash the emission of harmful gases by at least 55% by 2030 compared to 1990 levels, up from the previously promised target of 40%. It also set a long-term goal of achieving **carbon neutrality by 2050**.
- The “Fit for 55” proposal will offer a set of concrete measures to achieve this planned goal. The ‘Fit for 55’ proposal is attempted to address a set of strong sectoral emission reduction targets or pathways to achieve the new Nationally Determined Contributions (NDCs). NDC are commitment made under Paris Agreement.
- It claims to achieve a balance between “regulatory policies” and market-based carbon pricing to avoid the pitfalls of each.
- Vehicular carbon emissions must be cut by 55 per cent by 2030 and by 100 per cent by 2035, which means a phase-out of petrol and diesel vehicles by 2035.
- It proposes to increase the binding target of renewable sources in the EU’s energy mix to 40 per cent (compared to the earlier goal of 32 per cent) and improve energy efficiency by 36 per cent (compared to 32.5 per cent earlier) by 2030.
- It calls for the creation of an emissions trading system (ETS) for buildings and road transport, separate from the EU’s current ETS, to become operational from 2026.
- To help low-income citizens and small businesses adjust to the new ETS, the EU proposes the creation of a Social Climate Fund, which will take various forms ranging from funding for renovation of buildings, and access to low carbon transport, to direct income support.
- It includes a new emissions trading system for transport and buildings, a ban on the sale of polluting cars from 2035 and a carbon border price on imported goods.
- The proposal also includes a contentious plan called **“Carbon Border Adjustment Mechanism” (CABM)** which would impose tariffs on imported products based on the greenhouse gas emissions associated with them, effectively shielding EU-based companies from goods made in countries with less strict emission policies.
- The new package has set a target to enhance the EU’s sink capacity to 310 million tonnes of CO2 equivalent.

Implication of Package on EU’s Economy

- The European Union’s plan to cut its greenhouse gas emissions by more than half by the end of the decade will touch almost every industry in the trade bloc, with profound consequences for jobs and the bloc’s economy.
- This initiative will put Europe at the forefront of new technologies like electric car batteries, offshore wind generation or aircraft engines that run on hydrogen.

- The proposals could reshape polluting industries like steelmaking, which directly employs 330,000 people in the European Union.
- As a result of this proposal, steel producers and cement makers will pay for every ton of carbon dioxide their factories emit. Cargo ships may not be able to dock in ports, unless they run on cleaner fuels. Commercial airliners will be required to fill up with synthetic fuel produced with green energy. The plan would affect industries in Europe like—

Automakers:

- Most automakers have announced plans to shift to electric vehicles, but many have resisted putting an expiration date on the fossil-fuel powered vehicles, which still generate the most profits. The European Commission plan would effectively require all new cars to be emissions-free by 2035, removing any flexibility for automobile companies to continue selling some gasoline or diesel vehicles, including hybrids.
- Public funds will be used to help build charging stations every 60 kilometers. This will encourage sales of electric cars. The commission will also help finance a network of hydrogen fueling stations. It would be benefitting the long-haul trucks that run on fuel cells that convert hydrogen to electricity.

Airlines:

- Aircraft are major producers of carbon dioxide emissions but also difficult to convert to emission-free operation. According to the commission proposals, airlines would be compelled to begin mixing synthetic fuel with the fossil fuels they now use, and they will no longer receive tax breaks on fossil fuels. In other words, they will have to pay more to pollute. Airlines could transfer that cost to customers.

Shipping:

- The deal singles out companies that ship cargos by water, making them pay more for the emissions they generate to encourage their transition to cleaner energy. Most ships plying the seas today run on low-grade oil and are major polluters.
- Shipping industry lobbyists have already complained it was unclear how the plan would be applied and which shipping routes would be affected.

Heavy industry:

- The European Commission plan would raise the cost of polluting by tightening the European Trading System, which compels companies to effectively pay for the dangerous carbon dioxide they release into the environment. Anticipation of the changes has already helped drive up the price of credits by about 50%.
- Steelmakers have warned that the proposals could further erode their competitive advantage over producers in China and discourage the investment needed to shift to lower emissions.

Energy:

- Electricity producers will be pushed to speed up the switch to wind, solar and hydropower from coal. Renewables already account for 20% of the electricity produced in Europe. The goal is to raise the figure to 40% by 2030, largely by increasing the penalty that utility companies pay for power generated by fossil fuels, which would make wind and solar more attractive financially.

Challenges

- ✓ Pushback can be expected from sectors that could be impacted such as industry, and citizen groups who may fear a hike in prices such as fuel and energy costs.
- ✓ The fuel industry will pass on emission costs for buildings and transport to citizens.
- ✓ The CBAM will equalize the price of carbon between domestic products and imports and ensure that the EU's climate objectives are not undermined by production relocating to countries with less ambitious policies. This could affect the trade relations and cause a new era of trade war.

Landslide and Flash Floods

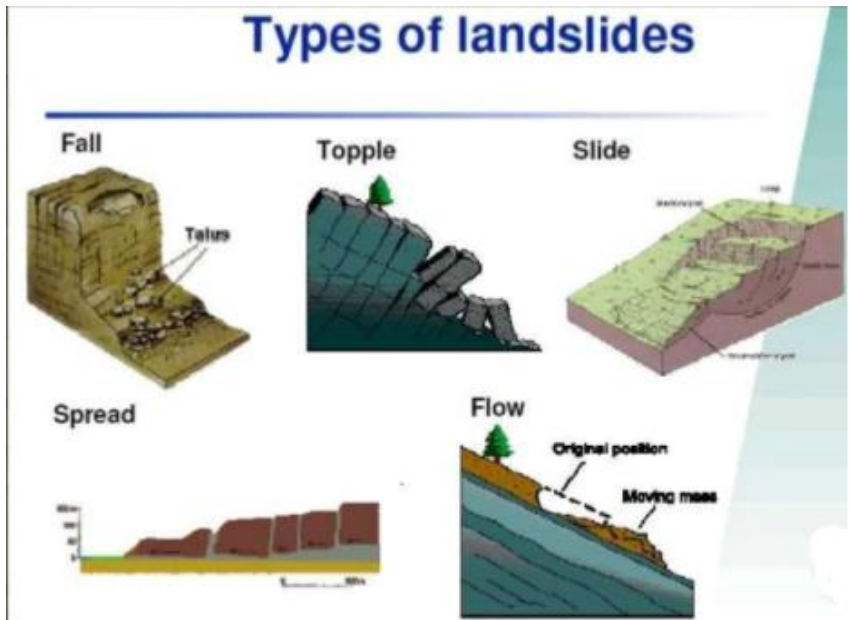
News Excerpt

Recently, in Himachal Pradesh and in some other hilly states, the instances of flash floods and landslides have caused havoc upon people.

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About Landslide

- A landslide is defined as the movement of a mass of rock, debris, or earth down a slope. Landslides are a type of "mass wasting," which denotes any down-slope movement of soil and rock under the direct influence of gravity.
- Slope movement occurs when forces acting down-slope (mainly due to gravity) exceed the strength of the earth materials that compose the slope.
- Landslides can be initiated in slopes already on the verge of movement driven by rainfall, snowmelt, changes in water level, stream erosion, and changes in ground water, earthquakes, volcanic activity, disturbance by human activities, or any combination of these factors.
- Earthquake shaking and other factors can also induce landslides underwater. These landslides are called submarine landslides. Submarine landslides sometimes cause tsunamis that damage coastal areas.



About Flash Floods

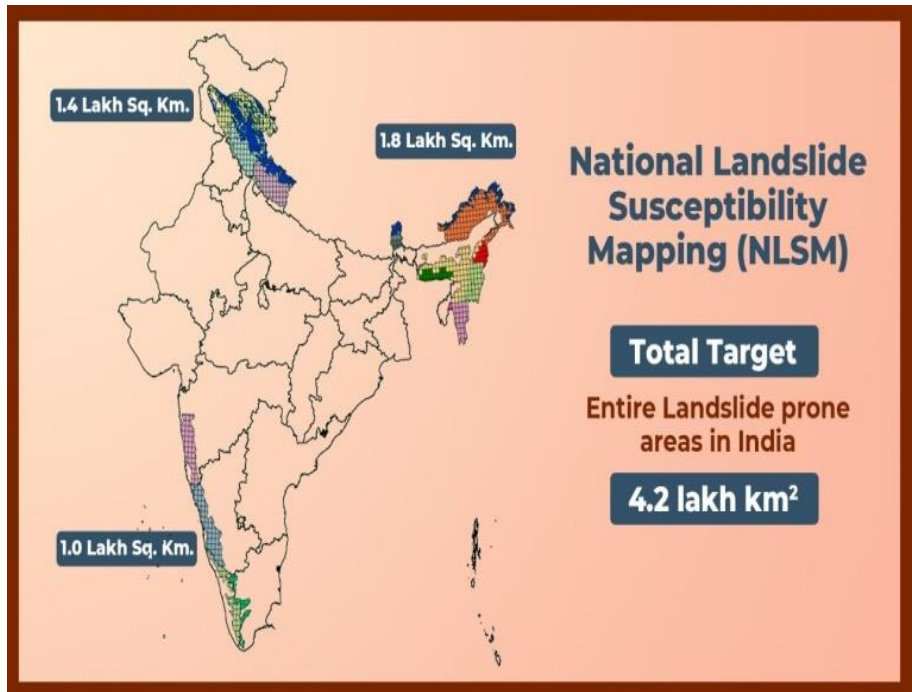
- A flood caused by heavy or excessive rainfall in a short period of time, generally less than 6 hours.
- Flash floods are usually characterized by raging torrents after heavy rains that rip through river beds, urban streets, or mountain canyons. They can occur within minutes or a few hours of excessive rainfall.
- Flash Flood can also occur even if no rain has fallen, for instance—failure of levee or dam.
- The intensity of the rainfall, the location and distribution of the rainfall, the land use and topography, vegetation types and growth/density, soil type, and soil water-content all determine how quickly the Flash Flooding may occur, and influence where it may occur.
- Urban Areas are also prone to flooding in short time-spans and, sometimes, rainfall (from the same storm) over an urban area will cause flooding faster and more-severe than in the suburbs or countryside.
- The impervious surfaces in the urban areas do not allow water to infiltrate the ground, and the water runs off to the low spots very quickly.

Causes of Landslides

- ✓ **Forest fire:** fires cause soil erosion and induce floods and landslides due to the destruction of the natural vegetation. (E.g. ridges of Manipur-Nagaland border) which could induce landslides.

- ✓ **Volcanoes:** Strato volcanoes are prone to sudden collapse, especially during wet conditions. The conditions commonly prevail after volcanic eruptions that kill vegetation over extensive areas and spread loose volcanic rocks over the landscape. During subsequent rainy seasons, swollen rivers will erode the new deposits and sometimes generate lahars that are dangerous to people downstream.
- ✓ **Inappropriate drainage system:** Natural drainage lines on slopes are blocked by terracing/ contour bounding adopted to prevent soil erosion and to enhance percolation during dry season for cultivation, without adequate provision for surface drainage of excess storm water during high intensity rains increase the landslide vulnerability.

✓ **Cutting & deep excavations:**
Developmental activities like construction of buildings, road cutting, embankments, cut and fill structures causes modification of natural slopes, blocking of surface drainage, loading of critical slopes and withdrawal to toe support promoting vulnerability of critical slopes.



✓ **Change in slope/land use pattern, deforestation, agricultural practices on steep slopes:**

Deforestation and cultivation of seasonal crops and increase in settlements. Improper land use practices such as heavy tilling, agricultural practices and settlement patterns have contributed to creep and withdrawal of toe support in many cases.

Ways for Mitigation of Landslides

- ✓ There is dire need to restrict the construction and other developmental activities such as roads and dams in the areas prone to landslides especially in Hilly tracts. This could help to minimize the threat to the people.
- ✓ Additionally, Government with the people participation should discourage the agriculture activities along valleys areas. This could help to halt the alteration in slope, and in that way landslide can be averted.
- ✓ There should be large-scale afforestation programmes and construction of bunds to reduce the flow of water. Terrace farming should be encouraged in the northeastern hill states where Jhumming (Slash and Burn/Shifting Cultivation) is still prevalent.

Geospatial Technologies in Water Sector

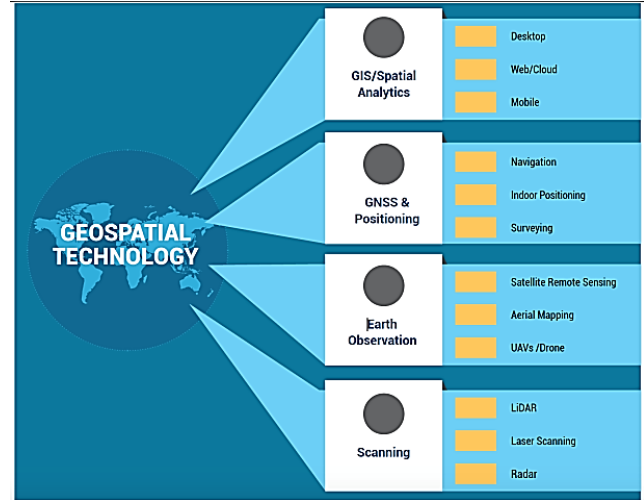
News Excerpt

Recently, a report on Opportunities from Use of Geospatial Technologies in Water Sector was released. It has also outlined the key water sector programmes and projects in the country.

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What is Geo-Spatial Technology?

- Geospatial Technology is an emerging field of study that includes Geographic Information System (GIS), Remote Sensing (RS) and Global Positioning System (GPS).
- Geospatial technology enables to acquire data that is referenced to the earth and use it for analysis, modeling, simulations and visualization.
- Geospatial technology allows us to make informed decisions based on the importance and priority of resources most of which are limited in nature.



Key Points of the Report

- Adoption of Geospatial technologies are supported by the various governments, private and academic institutions in India.
- This report intends to provide an outline of the scope, budgets and stakeholder ecosystem of various national level water-related programmes and projects.
- Report provide an overview of geospatial technologies, its relationship and place in the digital world and deep dives into assessing the use geospatial technologies in the water-related programmes and projects, highlighting the potential capabilities at various points.

Water Sector in India

- ✓ India receives 3,000 billion cubic metres of water every year through rainfall or other sources such as glaciers; of this, only 8% is collected.
- ✓ Total capacity of India’s reservoirs stands at 250 billion cubic meters (bcm), while its total water bearing capacity over the surface is around 320 bcm.
- ✓ As the country that withdraws the largest quantity of underground water, India fills ground water aquifers at the rate of 458 bcm per year, while it extracts around 650 bcm of water from the earth.
- ✓ 89% of India’s water resources are used for agriculture, out of which 65% is withdrawn from under the ground. Industry too obtains around 80% of their water requirements from underground sources.



Benefits of use of Geo-Spatial Technologies in Water Sector

It has been widely seen that precise, real-time, and continuous data that geospatial sources provide for the water sector have a significant impact in the prognosis of water related projects. It enables

better measurement, management, and maintenance of assets, monitoring of resources and even providing predictive and prescriptive analysis for forecasting and planned interventions.

Way Forward

- ✦ **Long-term Geospatial Vision:** In order to derive maximum benefit from geospatial technology implementation in various programmes, user departments need to build a long-term vision of the outcomes of geospatial implementation. This will ensure a sustainable infrastructure and human resource investments, as well as better programmes outcomes.
- ✦ **Data and system integration:** Data by itself is not useful unless it is contextualised. For this to happen, various datasets including demography, socio-cultural, economic, and other parameters need to be integrated with spatial and non-spatial data related to water, like soil moisture, annual rainfall, rivers, aquifer, groundwater levels, water quality etc. There is also a need to integrate various geospatial information from disparate sources - maps, spreadsheets, social media.
- ✦ **Improving water use efficiency:** Agriculture sector is the largest user of water resources in our country. It uses 80-85% of water resources, while have only about 30-35% efficiency of water use. Geospatial technologies can be used for increasing water use efficiency, so that this can be increased to at least 50%. Similarly, the industrial sector too can look into their effluence treatment strategies to improve water use efficiency in the country.

Species in News

Black Panther

- A rare melanistic leopard (A sub-species of Common Leopard), popularly called black leopard, was spotted in the Navegaon block of the Navegaon Nagzira Tiger Reserve (NNTR) in the Maharashtra.
- Black Panthers are extremely rare and Indian forest has good number of Black Panthers, can be spotted in Kabini Wildlife Sanctuary of Karnataka, Anshi Dandeli Sanctuary in Karnataka, Nilgiri Biosphere Reserve of Tamil Nadu and Tadoba Andhari Tiger Reserve of Maharashtra.
- Common leopard is listed in Schedule I of the Indian Wildlife (Protection) Act, 1972 and included in Appendix I of CITES. Listed as Vulnerable on the IUCN Red List.

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Mangroves’s Genomic

- Scientists have reported for the first time a reference-grade whole genome sequence of a highly salt-tolerant and salt-secreting true-mangrove species, avicennia marina.
- Avicennia marina is one of the most prominent mangroves species found in all mangrove formations in India. It is a salt-secreting and extraordinarily salt-tolerant mangrove species that grows optimally in 75 per cent seawater.
- It is among the rare plant species which can excrete 40 per cent of the salt through salt glands in the leaves, besides its extraordinary capacity to exclude salt entry to the roots.
- The genomic resources generated will pave the way for researchers to study the potential of the identified genes for developing drought and salinity tolerant varieties of important crop species of the coastal region that is significant for India with 7,500 kilometres of coastline and two major island systems.
- Mangroves are a unique group of species found in marshy intertidal estuarine regions and survive a high degree of salinity through several adaptive mechanisms. They are a critical resource for the coastal region and are of great ecological and economic value.
- They also form a link between marine and terrestrial ecosystems, protect shorelines, provide habitat for a diverse array of terrestrial organisms.

SCIENCE & TECHNOLOGY

Monkey B Virus

News Excerpt

China has reported the first human infection case with Monkey B virus (BV) after a Beijing-based veterinarian was confirmed with the same a month after he dissected two dead monkeys in early March.

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Pre-Connect

- It said that there were no fatal or even clinically evident BV infections in China before, and therefore, the vet’s case marks the first human infection case with BV identified in China.
- First identified in 1932, the virus is learnt to have infected only 50 people till 2020, of which 21 died.

Analytica

What is Monkey B virus?

The virus, initially isolated in 1932, is an alphaherpesvirus enzootic in macaques of the genus Macaca. B virus is the only identified old-world-monkey herpesvirus that displays severe pathogenicity in humans.

How is it transmitted?

- The infection can be transmitted via direct contact and exchange of bodily secretions of monkeys and has a fatality rate of 70 per cent to 80 per cent.
- According to the Centre for Disease Control and Prevention, Macaque monkeys commonly have this virus, and it can be found in their saliva, faeces (poop), urine (pee), or brain or spinal cord tissue.
- The virus may also be found in cells coming from an infected monkey in a lab. B virus can survive for hours on surfaces, particularly when moist.

PEPPER IT WITH
Zoonotic Diseases, Disease X,
WHO, One Health Approach

When can a human get infected with B virus?

Humans can get infected if -

- ✓ they are bitten or scratched by an infected monkey;
- ✓ get an infected monkey’s tissue or fluid on broken skin or in eyes, nose, or mouth;
- ✓ scratch or cut oneself on a contaminated cage or other sharp-edged surface or get exposed to the brain (especially), spinal cord, or skull of an infected monkey.

Symptoms

- According to CDC, symptoms typically start within one month of being exposed to B virus, but could appear in as little as three to seven days.
- The first indications of B virus infection are typically flu-like symptoms such as fever and chills, muscle ache, fatigue and headache, following which an infection person may develop small blisters in the wound or area on the body that came in contact with the monkey.
- Some other symptoms of the infection include shortness of breath, nausea and vomiting, abdominal pain and hiccups.
- As the disease progresses, the virus spreads to and causes inflammation (swelling) of the brain and spinal cord, leading to neurologic and inflammatory symptoms such as pain, numbness, itching near the wound site; issues with muscle coordination; brain damage and severe damage to the nervous system and in extreme cases, death.
- The virus might pose a potential threat to laboratory workers, veterinarians, and others who may be exposed to monkeys or their specimens.

Zika Virus Disease

News Excerpt

Recently, Zika virus disease was reported in Kerala. While one case was confirmed, 13 other suspected cases have been identified so far. The virus, transmitted by Aedes mosquito, was reported in Thiruvananthapuram district.

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Pre-Connect

- Zika virus is a mosquito-borne flavivirus that was first identified in Uganda in 1947 in monkeys. It was later identified in humans in 1952 in Uganda and the United Republic of Tanzania.
- Outbreaks of Zika virus disease have been recorded in Africa, the Americas, Asia and the Pacific. From the 1960s to 1980s, rare sporadic cases of human infections were found across Africa and Asia, typically accompanied by mild illness.
- The first recorded outbreak of Zika virus disease was reported from the Island of Yap (Federated States of Micronesia) in 2007. This was followed by a large outbreak of Zika virus infection in French Polynesia in 2013 and other countries and territories in the Pacific.
- As per WHO, to date, a total of 86 countries and territories have reported evidence of mosquito-transmitted Zika infection.

Analytica

- Zika virus disease is caused by a virus transmitted primarily by Aedes mosquitoes, which bite during the day.
- Symptoms are generally mild and include fever, rash, conjunctivitis, muscle and joint pain, malaise or headache. Symptoms typically last for 2–7 days. Most people with Zika virus infection do not develop symptoms.
- Zika virus infection during pregnancy can cause infants to be born with microcephaly and other congenital malformations, known as congenital Zika syndrome. Infection with Zika virus is also associated with other complications of pregnancy including preterm birth and miscarriage.
- An increased risk of neurologic complications is associated with Zika virus infection in adults and children, including Guillain-Barré syndrome, neuropathy and myelitis.
- There is no antiviral treatment available for Zika virus. But most patients recover from the illness within a week of infection. The virus has an incubation period of three to 14 days. Severe disease and death are rare.

PEPPER IT WITH
One Health Approach, Pandemic vs. Epidemic, IMR

What is Guillain-Barré syndrome?

- ❖ Guillain-Barré syndrome (GBS) is a rare neurological disorder in which the body's immune system mistakenly attacks part of its peripheral nervous system—the network of nerves located outside of the brain and spinal cord.
- ❖ GBS can range from a very mild case with brief weakness to nearly devastating paralysis, leaving the person unable to breathe independently.
- ❖ Fortunately, most people eventually recover from even the most severe cases of GBS. After recovery, some people will continue to have some degree of weakness.
- ❖ Guillain-Barré syndrome can affect anyone. It can strike at any age (although it is more frequent in adults and older people) and both sexes are equally prone to the disorder. GBS is estimated to affect about one person in 100,000 each year.

Avian Influenza

News Excerpt

Recently, an 11-year-old boy died of H5N1 avian influenza in Delhi. This is the first recorded death due to the bird flu in India this year. In January, bird flu was confirmed in several states with thousands of birds, including migratory species, being found dead.

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What is bird flu?

- Bird flu or avian influenza is a disease caused by avian influenza Type A viruses found naturally in wild birds worldwide.
- The virus can infect domestic poultry including chickens, ducks, turkeys and there have been reports of H5N1 infection among pigs, cats, and even tigers in Thailand zoos.

Bird flu: Infection in humans

- There have been reports of avian and swine influenza infections in humans including A(H1N1), A(H1N2), A(H5N1), A(H7N9), etc.
- The first report of human H5N1 infection was in 1997 and currently, over 700 human cases of Asian Highly Pathogenic Asian Avian Influenza A (HPAI) H5N1 virus have been reported to the World Health Organisation from 16 countries.
- The infection is deadly as it has a high mortality rate of about 60%.
- The most common route of virus transmission is direct contact — when a person comes in close contact with infected birds, either dead or alive.
- Humans can also be affected if they come in contact with contaminated surfaces or air near the infected poultry. There is no sufficient evidence suggesting the spread of the virus through properly cooked meat.
- According to AIIMS Chief, the transmission of the virus from birds to humans is rare and sustained human-to-human transmission of the H5N1 virus has not yet been established.

Symptoms of avian influenza

According to US CDC, the reported signs and symptoms of avian influenza A-virus infections in humans have ranged from mild to severe influenza-like illness.

- ✓ Fever, cough, sore throat, muscle aches, nausea, abdominal pain, diarrhoea, vomiting
- ✓ Severe respiratory illness (e.g., shortness of breath, difficulty breathing, pneumonia, acute respiratory distress, viral pneumonia, respiratory failure)
- ✓ Neurologic changes (altered mental status, seizures)
- ✓ Risk groups- Children and adults below 40 were seen to be the most affected and mortality was high in 10-19 years olds.

PEPPER IT WITH
Disease Vulnerability, One Health Approach, WHO

Open Network for Digital Commerce (ONDC) Project

News Excerpt

The Department for Promotion of Industry and Internal Trade (DPIIT) recently issued orders appointing an advisory committee for its Open Network for Digital Commerce (ONDC) project that is aimed at curbing “digital monopolies”. This is a step in the direction of making e-commerce processes open source, thus creating a platform that can be utilised by all online retailers.

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Highlights

- Several operational aspects including onboarding of sellers, vendor discovery, price discovery and product cataloguing could be made open source on the lines of Unified Payments Interface (UPI).

DELHI: VIJAY NAGAR 9717380832 & **OLDRAJENDER NAGAR** 9811293743 | **JAIPUR:** 8290800441
BENGALURU: KORMANGALA 7619166663 & **CHANDRA LAYOUT** 7619136662 | **BHOPAL:** 7509975361
PATNA: 7463950774 | **INDORE:** 7314977441 | **RANCHI:** 9939982007 | **www.ksgindia.com**

- An executive of an e-commerce company has said that if mandated, this could be problematic for larger e-commerce companies, which have proprietary processes and technology deployed for these segments of operations.

Analytica

The meaning and significance of making something open-source

- Making a software or a process open-source means that the code or the steps of that process is made available freely for others to use, redistribute and modify it.
- For example, while the operating system of Apple's iPhones — iOS — is closed source, meaning it cannot be legally modified or reverse engineered, Google's Android operating system is open-source, and therefore it is possible by smartphone OEMs such as Samsung, Xiaomi, OnePlus, etc to modify it for their hardware.
- If the ONDC gets implemented and mandated, it would mean that all e-commerce companies will have to operate using the same processes.
- This could give a huge booster shot to smaller online retailers and new entrants.

The purpose of project

- ✓ ONDC seeks to promote open networks, which are developed using the open-source methodology. They will encourage the usage of standardised open specifications and open network protocols, which are not dependent on any particular platform or customised one.
- ✓ ONDC is expected to digitise the entire value chain, standardise operations, promote inclusion of suppliers, derive efficiencies in logistics and enhance value for stakeholders and consumers. They will provide a level-playing field.
- ✓ Permissions for an open-source project are enforced through an open-source licence easing adoption and facilitating collaboration.
- ✓ A nine-member advisory council has been constituted to advise the government on measures needed to design and accelerate the adoption of ONDC.

Digital monopolies

- Digital monopolies refer to a scenario wherein e-commerce giants or Big Tech companies tend to dominate and flout competition law pertaining to monopoly.
- The giants have built their own proprietary platforms for operations.
- In March, India moved to shake up digital monopolies in the country's \$ 1+ trillion retail market by making public a draft of a code of conduct -- Draft Ecommerce Policy.
- The government sought to help local start-ups and reduce the dominance of giants such as Amazon and Walmart-Flipkart. The rules sought to define the cross-border flow of user data after taking into account complaints by small retailers.
- The government wants to ensure that local players are able to access the data first. Safeguards under consideration include regulation and audits of the cross-border flow of data of Indian consumers and users.
- The proposals also seek to prevent the e-commerce giants from giving deep discounts and have exclusive tie-ups with preferred sellers.

PEPPER IT WITH
e-commerce rules, GAFA tax,
Start Up India, Digital India

Processes

- ✚ Sellers will be onboarded through open networks. Other open-source processes will include those such as vendor and price discovery; and product cataloguing.
- ✚ The format will be similar to the one which is used in the Unified Payments Interface (UPI).
- ✚ Mega e-commerce companies have proprietary processes and technology for these operations. Marketplaces such as Amazon, Flipkart, Zomato, BigBasket and Grofers will need to register on the ONDC platform to be created by DPIIT and QCI.

- ✦ The task of implementing DPIIT’s ONDC project has been assigned to the Quality Council of India (QCI).
- ✦ QCI was set up in 1997 by the government of India jointly with Indian industry (represented by CII, FICCI and ASSOCHAM) as an autonomous body under the administrative control of the department.
- ✦ QCI establishes and operates the National Accreditation Structure for conformity assessment bodies; providing accreditation in the field of education, health and quality promotion.

Government Stance

- ❖ In the order forming the council, the DPIIT noted that the ONDC aims at promoting open networks developed on open-sourced methodology, using open specifications and open network protocols, independent on any specific platform.
- ❖ ONDC is expected to digitise the entire value chain, standardise operations, promote inclusion of suppliers, derive efficiency in logistics and enhance value for consumers.

Discovery of a new source of gravitational waves

News Excerpt

Scientists have for the first time detected gravitational waves – ripples in the fabric of space-time – produced by the collision of a neutron star and a black hole. This finding confirms that there are neutron star-black hole systems and will help answer many questions about the cosmos, from star formation to the expansion rate of our universe.

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Pre-Connect

- Gravitational waves are produced when celestial objects collide and the ensuing energy creates ripples in the fabric of space-time which carry all the way to detectors on Earth.
- Since the first ever direct detection of gravitational waves in 2015, astronomers have predicted that this type of system – a black hole and neutron star merger – could exist, but without any compelling observational evidence.
- Now that scientists have finally witnessed the existence of this new type of system, they said their detection will bring important new clues about how black holes and neutron stars form.

Analytica

- According to the researchers, the reverberations from the two celestial objects were picked up using a global network of gravitational wave detectors, the most sensitive scientific instruments ever built.
- On January 5 this year, the Advanced LIGO detector in Louisiana, US and the Advanced Virgo detector in Italy, picked up the final throes of the death spiral between a neutron star – the collapsed core of a massive supergiant star – and a black hole as they circled ever closer and merged together.
- Just days later, a second signal was picked up by both detectors coming from the final orbits and smashing together of another neutron star and black hole pair.
- This is the first-time scientists have seen gravitational waves from a neutron star and a black hole Previous gravitational wave detection have spotted black holes colliding, and neutron stars merging but not one of each, the researchers said.
- These detections confirm that there are populations of binary systems consisting of a neutron star and a black hole
- Such astrophysical systems can help answer many big questions about the universe, from star formation and stellar evolution, to the expansion fate of our Universe.
- In future the team hopes to detect many more neutron star - black hole collisions, including cases where the black hole tearing apart the neutron star is observed in both gravitational waves and light.
- These observations will help scientists to find out more about what neutron stars are made of.

Black Hole

- ✓ A black hole is a place in space where gravity pulls so much that even light can not get out. The gravity is so strong because matter has been squeezed into a tiny space. This can happen when a star is dying.
- ✓ Black holes can be big or small. Scientists think the smallest black holes are as small as just one atom. These black holes are very tiny but have the mass of a large mountain.
- ✓ Another kind of black hole is called "stellar." Its mass can be up to 20 times more than the mass of the sun. There may be many, many stellar mass black holes in Earth's galaxy, Milky Way.
- ✓ The largest black holes are called "supermassive." These black holes have masses that are more than 1 million suns together.
- ✓ Scientists think the smallest black holes formed when the universe began.
- ✓ Stellar black holes are made when the center of a very big star falls in upon itself, or collapses. When this happens, it causes a supernova. A supernova is an exploding star that blasts part of the star into space. Scientists think supermassive black holes were made at the same time as the galaxy they are in.

Neutron stars

- They are formed when a massive star runs out of fuel and collapses. The very central region of the star – the core – collapses, crushing together every proton and electron into a neutron.
- If the core of the collapsing star is between about 1 and 3 solar masses, these newly-created neutrons can stop the collapse, leaving behind a neutron star. (Stars with higher masses will continue to collapse into stellar-mass black holes.)
- This collapse leaves behind the most dense object known – an object with the mass of a sun squished down to the size of a city.
- Since neutron stars began their existence as stars, they are found scattered throughout the galaxy in the same places where we find stars. And like stars, they can be found by themselves or in binary systems with a companion.
- Many neutron stars are likely undetectable because they simply do not emit enough radiation. However, under certain conditions, they can be easily observed. A handful of neutron stars have been found sitting at the centers of supernova remnants quietly emitting X-rays.

PEPPER IT WITH
Solar System, Milky Way galaxy,
Asteroids, Big Bang theory

Right to Repair Movement

News Excerpt

With products becoming difficult to repair, activists and consumer organisations are advocating the ‘Right to Repair’ movement, which aims to enable consumers to repair their electronics products by themselves or third-party technicians.

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Pre-Connect

Recently, U.S. President signed an executive order calling on the Federal Trade Commission (FTC) to prevent companies from restricting customers from repairing their own products -- including laptops, smartphones, cars, washing machines, and heavy manufacturing equipment.

Significance of the movement

- Consumers often spend huge amount of money on these appliances and gadgets, and sometimes find them to become obsolete within a few years after purchase.
- For example, a smartphone’s battery is likely to degrade over time and slow down the device’s performance. And, if the battery is not replaceable, the consumer is forced to dump the device and spend thousands of rupees on a new phone.
- Fragile and irreparable components also reduce the life of a product. Manufacturers, too, drop support for functional devices, and non-standard parts.

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- Most modern technology consists of irreparable and irreplaceable components, especially if it is powered by sophisticated computer chips.
- With products becoming difficult to repair, activists and consumer organisations are advocating the 'Right to Repair' movement, which aims to enable consumers to repair their electronics products by themselves or third-party technicians.

Present Status of the Movement

- As of 2021, more than 32 U.S. states have proposed legislations to the right-to-repair act, while only the state of Massachusetts has passed a law. The Motor Vehicles Owners' Right to Repair Act passed in 2012 required automobile manufacturers to provide necessary documents to allow third-party technicians to repair their vehicles.
- U.K.'s Right to Repair requires appliance manufactures to provide consumers access to spare parts and make complicated parts available in professional repair shops.

Response of the Tech Companies

- ✓ Tech giants including Amazon, Apple, Microsoft, and Tesla disfavour the movement stating it threatens the protection of intellectual property and trade secrets.
- ✓ Apple Inc last year was fined \$113 million for artificially slowing down all older models of the iPhone. Previously in 2017, the California-based company started offering battery discounts to affected users, which could have been avoided if Apple permitted third-party battery replacements.
- ✓ Microsoft and Google have also opposed the legislation, stating it allows unvetted access to sensitive diagnostic information and software.
- ✓ Tech mogul Elon Musk's Tesla has said such an act would weaken the system's cybersecurity and make it prone to attacks.

Effects on the consumers

There are various problems faced by the consumer in the absence of Right to Repair.

- **Affecting of livelihood** – In the present-day modern world, it is very difficult to stay apart from the essential gadgets and devices which have become part of the daily lives. The authorised service centres of reputed companies take time to repair. The component which can be repaired in couple of hours to a day, takes around a week to get alright.
- **Charging high cost of repair** - One would have bought an appliance by paying a substantial amount of his saving and to further repair it exclusive of warranty he needs to pay another hefty supply from his salary. The exorbitant costs which are imposed at the company's service centres cuts down much lower in the general market for the similar repair.
- **Only option is replacing** – When the device gets old, its actual market value also diminishes. When it gets damaged, the actual cost for repair at most of the times will be around 40%-50% of the similar product along with upgrades. So, technically at most of the time, the only option is to replace the same and buy a new one.
- **Monopoly creation** – Such kind of regressive practices arises an unhealthy competition in the market. This creates a monopoly of the manufacturers against other, which they exploit to have a better control on the supply of products, which they produce, in the market. They can control the supply by discontinuing the production of the necessary components, and thus letting the product die.
- **The Job Crisis** – The positive argument for the implementation of 'Right to repair' will be that its implementation definitely leads to an additional creation of jobs for the repair technicians that would emerge out of this shift in policy and industry practice.
- **Saving the mother earth-** With the increasing awareness and apparent effects of Climate Change being observed, there was an increasing demand to reduce the electronic waste. Such types of regulations are a stepping stones towards saving carbon emissions and using the electronic resources more wisely.

Concern for the Manufacturers

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- ✦ In order to do the repairs, the consumers or the independent repair shops, other than the spare parts and service information, need a wholesome accessibility to the specialised tools and software's.
- ✦ Some manufacturers are afraid that the independent repairers might not have the required skill, techniques, and repair machines, which may lead to poor repair and damaging the machine, which might potentially render them dangerous.
- ✦ Digital Europe, one industry group said that they understand the political ambition to integrate strict energy and resource efficiency aspects, but they are concerned that some requirements are either unrealistic or provide no added value. The regulations limit market access, deviate from internationally-recognised best practices and compromise intellectual property.

It's Viability in India

- ❖ India, being a developing country and home to highest population of people living below poverty, must think to imbibe such laws in its legal system.
- ❖ The extra cost of repair pose a burden on the lower-middle and middle class strata. With the unemployment rate going high, and the slow economy also marks a burden on India, which is in a sheer need of some economic miracle.
- ❖ India is also a signatory of the Paris agreement to limit Climate change and curb the emission of greenhouse gases. Therefore, in addition to the societal and welfare obligation, it also needs to fund its programme working for the Climate Change. In such situations, the Electronic waste and its disposal is a worrisome task for the authorities.
- ❖ The passing of 'Right to repair' laws can act as a measure to assist the government in controlling above evils to a reasonable level, although not eradicating the same in toto.

PEPPER IT WITH
e-waste, consumer rights,
Environmental Degradation

Conclusion

As the liberty principle applies, one must have full control over the product which he/she owns. Every person has the right to enjoy, manage and alienate his belonging, be it movable or immovable. But such right gets limited applicability, in case of electronic appliances, due to the policies of the manufacturers. With the changes coming in the western world, it's time that we become aware of our Liberty to own. As it has been said, 'If you can't fix it, you don't own it.'

Suborbital Space flights

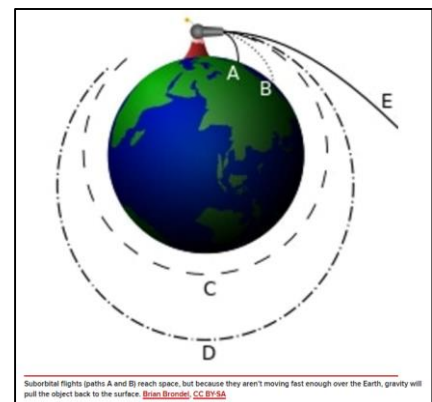
News Excerpt

Suborbital space missions are in the news as the founders of Virgin Galactic and Blue Origin take their maiden flights.

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Pre-Connect

- Oct.1942: Nazi aerospace engineers achieved the first suborbital flight of their V-2 rocket. The vehicles were weapons dropped on the Allies that, because of their great speed, were almost impossible to intercept.
- Oct.1957: The Soviet Union fired the opening shot in the space race, launching the first artificial satellite, Sputnik 1, into orbit.
- April1961: Soviet cosmonaut Yuri Gagarin made the first human orbital flight in history. He completed one orbit of our planet before coming back to Earth.
- May1961: U.S. astronaut Alan Shepard became the first American in space, traveling on a 15-minute suborbital flight.



- Nov.1963: India launched its first suborbital rocket, Nike-Apache, whose components were built by NASA.
- April 2001: Dennis Tito became the first space tourist, paying a reported \$20 million for a trip to orbit aboard a Russian Soyuz spacecraft.
- Oct. 2004: SpaceShipOne won the Ansari X Prize by becoming the first private vehicle to reach suborbital space twice within five days. Its design was later bought and used by Virgin Galactic to create SpaceShipTwo.
- Sept. 2008: SpaceX's Falcon 1 became the first privately funded rocket to reach orbit.
- Nov. 2015: Blue Origin's reusable New Shepard capsule made its historic first flight into suborbital space. The company's rocket booster successfully landed autonomously on a landing pad — also a first.

Highlights

- Suborbital Space Flight means that while these vehicles will cross the ill-defined boundary of space, they will not be going fast enough to stay in space once they get there.
- If a spacecraft reaches a speed of 17,500 mph (28,000 km/h) or more, instead of falling back to the ground, it will continuously fall around the Earth. That continuous falling is what it means to be in orbit and is how satellites and the Moon stay above Earth.
- Anything that launches to space but does not have sufficient horizontal velocity to stay in space – like these rockets – comes back to Earth and therefore flies a suborbital trajectory.

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Significance of the Suborbital Flights

Although the two spacecrafts launched in July 2021 will not reach orbit, the accomplishment of reaching space in private spacecraft is a major milestone in the history of humanity. Those aboard these and all future private-sector, suborbital flights will for a few minutes in space, experience a few minutes of exhilarating weightlessness and absolutely earn their astronaut wings.

Difference between Orbital and Suborbital Flight

- ✓ Orbital and suborbital flight are common terms in the spaceflight industry that sound very similar, but they mean different things.
- ✓ The main difference between orbital and suborbital flight is the speed at which a vehicle is traveling. An orbital spacecraft must achieve what is known as orbital velocity, whereas a suborbital rocket flies at a speed below that.
- ✓ Orbital velocity is the speed that an object must maintain to remain in orbit around a planet.
- ✓ To orbit 125 miles (200 kilometers) above Earth, a spacecraft must travel at a screaming 17,400 mph (28,000 km/h). It is actually this incredibly high speed which makes orbital space flight technically so complex and therefore expensive.
- ✓ Suborbital flight, in contrast, requires much lower speeds. A suborbital rocket doesn't have the power to achieve orbit. Instead, it will fly up to a certain height that depends on its speed, and then come back down once its engines are shut off. To reach 125 miles above Earth, a suborbital vehicle needs to fly at a relatively sedate 3,700 mph (6,000 km/h), although that's still much faster than a commercial airplane, which flies at around 575 mph (925 km/h).
- ✓ Thus, a suborbital rocket is much smaller in size, less expensive to design, lower cost to operate, safer, and can be made REUSABLE.
- ✓ At the top of their flight arc, passengers in a suborbital vehicle will still achieve a few minutes of weightlessness. They are, in fact, falling back toward Earth, but they are experiencing freefall, similar to an airplane completing parabolic manoeuvres to simulate zero gravity.

PEPPER IT WITH
Space Diplomacy, space force,
Reusable Launch Vehicles, ISRO
RLV-TD

- ✓ Several private spaceflight companies are vying to take paying customers on either orbital or suborbital trips. Virgin Galactic and Blue Origin are in a race to achieve regular private suborbital flights in the near future.

The moon ‘wobble’ affect

News Excerpt

According to a recently published study, the phenomenon called as “Moon Wobble” is expected to lead to more flooding here on Earth in the middle of the next decade.

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What is Moon Wobble?

- It is a regular oscillation that humans have known about for centuries, and it is one of many factors that can either exacerbate rising sea levels or counteract them, alongside other variables like weather and geography.
- The authors of the study, published in the peer-reviewed scientific journal Nature Climate Change, aimed to untangle all of those variables in an effort to improve predictions about the future of floods. Their results underscored a basic fact separate from the movement of the moon: Our oceans are rising because of climate change.
- Rising temperatures caused by greenhouse gas emissions are not the only cause of higher flood risks, and the report explored the interplay of many variables that push and pull at ocean levels.
- One particular variable seemed to capture outside attention: the moon wobble. The study warned that we should expect this wobble to heighten high tides in the middle of the 2030s, but it also showed that this prediction does not apply uniformly to every coastline everywhere.
- As NASA put it, “There’s nothing new or dangerous about the wobble; it was first reported in 1728. What’s new is how one of the wobble’s effects on the moon’s gravitational pull — the main cause of Earth’s tides — will combine with rising sea levels resulting from the planet’s warming.

Source of Wobble

- High tides on this planet are caused mostly by the pull of the moon’s gravity on a spinning Earth. The moon also revolves around the Earth about once a month, and that orbit is a little bit tilted.
- The moon’s orbital plane around the Earth is at an approximate 5-degree incline to the Earth’s orbital plane around the sun.
- Because of that, the path of the moon’s orbit seems to fluctuate over time, completing a full cycle — sometimes referred to as a nodal cycle — every 18.6 years.
- At certain points along the cycle, the moon’s gravitational pull comes from such an angle that it yanks one of the day’s two high tides a little bit higher, at the expense of the other. This does not mean that the moon itself is wobbling, nor that its gravity is necessarily pulling at our oceans any more or less than usual.
- High-tide flooding related to climate change is expected to break records with increasing frequency over the next decade, and people who want to accurately forecast that risk have to work with a lot of noisy data, including weather patterns, astronomical events and regional tidal variation.
- The moon wobble is part of that noise, but it has always maintained its own slow, steady rhythm. It’s just acting in the background as sea levels rise.
- During its most rapid upward phase, it acts to enhance the effective sea level, and during its most rapid downward phase it acts to suppress the effective sea level.
- It is not part of sea level rise projections because it’s not sea level rise; it’s just an oscillation.

PEPPER IT WITH
 Red Tide, Climate change, arctic melting, Flash Floods

Impact of Wobble

- ✓ Other variables aside, since every region is different, the effect of the wobble could generally cause high tide levels at a beach to oscillate by 1 or 2 inches over the course of its long cycle. That may sound small. But in certain situations, it can matter quite a bit.

- ✓ It just kind of raises the baseline. And the more baseline is raised, the smaller weather event one needs to cause a flooding event.
- ✓ It's important to realize that at the mid-2030s point, where the switch flips and the natural cycle seems to amplify the rate of sea level rise, then we are going to see a rapid change.

Nauka Laboratory Module

News Excerpt

Russia upgraded its capabilities on the International Space Station (ISS) after its new Nauka module, set to serve as a research lab, storage unit and spacewalk airlock, successfully docked with it after a neryv journey from Earth.

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Nauka Module

- Nauka, which is 43 feet long and weighs 20 tonnes, was supposed to be launched as early as 2007, as per the ISS's original plan. However, due to a range of technical issues, the launch kept getting postponed.
- Nauka — meaning “science” in Russian — is the biggest space laboratory Russia has launched to date, and will primarily serve as a research facility. It is also bringing to the ISS another oxygen generator, a spare bed, another toilet, and a robotic cargo crane built by the European Space Agency (ESA).
- On the ISS, Nauka will be attached to the critical Zvezda module, which provides all of the space station's life support systems and serves as the structural and functional centre of the Russian Orbital Segment (ROS) — the Russian part of the mammoth floating laboratory. According to reports, it will take up to 11 Russian spacewalks over seven months to fully integrate Nauka with the ISS.
- The module that exited the Zvezda to make way for Nauka was called Pirs, meaning “pier” in Russian, a considerably smaller structure that was only used as a docking port for Russian spacecraft and allowed for cosmonauts to enter or leave the ISS for spacewalks. Pirs was pulled away from the ISS using a Progress MS-16/77P cargo ship, which had remained docked to the module since February.
- Both Pirs and its cargo ship will get burned up as they enter the Earth's atmosphere, and are expected to fall harmlessly into the Pacific Ocean.

PEPPER IT WITH
Space Diplomacy, ISRO, Space Force

Analytica

International Space Station

- A space station is essentially a large spacecraft that remains in low-earth orbit for extended periods of time.
- It is like a large laboratory in space, and allows astronauts to come aboard and stay for weeks or months to carry out experiments in microgravity.
- For over 20 years since its launch, humans have continuously lived and carried out scientific investigations on the \$150 billion ISS under microgravity conditions, being able to make breakthroughs in research not possible on Earth.
- As per NASA, 243 people from 19 countries have so far visited the ISS. The floating laboratory has hosted more than 3,000 research and educational investigations from researchers in 108 countries and areas, carrying out cutting edge research in various disciplines, including biology, human physiology, and physical, material and space science.

Project Pegasus

Why in News?

A global collaborative investigative project has discovered Israeli spyware Pegasus was used to target thousands of people across the world. According to various media reports, in India, at least 300 people are believed to have been targeted, including two serving Ministers in the present government, three Opposition leaders, one constitutional authority, several journalists and business persons.

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What is Pegasus?

- Built and marketed by Israeli company NSO, Pegasus is a spyware that infects devices and spies on the victim by transferring data to a master server in an unauthorised manner. The Company claims to sell it only “Authorised Governments” worldwide.
- Pegasus, in a very basic form, can infect devices that are connected to internet. Experts claim that some updated versions can also infect phones even without the victim clicking on any links and messages.
- Most spyware and stalkerware apps disguise themselves as anti-theft applications that can be used to track stolen or lost devices.
- While viruses and malware can be detected by anti-virus software, spyware and stalkerware apps disguise themselves as useful and send out stolen data to central servers without the knowledge of users.

A zero-click attack

- ❖ It is a remote cyber-attack which does not require any interaction from the target to compromise it. To put it simply, zero-click attacks can take place without the target clicking on a malicious website or an app.
- ❖ Pegasus spyware eliminates the need for human errors to compromise a device and instead relies on software or hardware flaws to gain complete access to a device.
- ❖ Typically, cyber-attacks infect a target’s mobile device through some form of social engineering trick i.e. sending a malicious link to the target, which when clicked can make the mobile device vulnerable.
- ❖ But such attempts can raise the victim’s suspicions and potentially provide a way to identify the perpetrator.
- ❖ Therefore, Pegasus spyware has been specially designed to bypass the need of any social engineering tactics. These attacks give threat actors the ability to take over a smartphone in real time without any interaction with the target.

Pegasus: Evolution Over the Years







- Pegasus was first detected in 2016 and used spear phishing methods to infect a smartphone
- But, after three years, in 2019, WhatsApp blamed Pegasus for infecting more than 1,400 phones through a simple WhatsApp missed call. This was done using zero-click vulnerability
- Reports suggest that NSO Group is using servers managed by cloud-computing providers like Amazon Web Services to deliver Pegasus to phones

How does it infect device?

- ✓ For spyware apps, the easiest method is to disguise the spying code inside the unauthorised versions of the premium apps.
- ✓ On the other hand, stalkerware apps seek explicit permissions at the time of their installations.
- ✓ Such stalkerware applications, once installed, hide themselves in the background, from where they continue functioning.
- ✓ Similarly, Pegasus infects phones and computers of victims either through vulnerabilities in most commonly used apps such as Whatsapp, iMessage or SMS.
- ✓ Software tries to gain “root privileges” so that they can become device administrators.

- ✓ The software can, based on instructions from remote server, automatically turn on camera and the microphone and look into the chats, contacts and data back-up.
- ✓ It can also record speech, access the calendar and read messages and emails.
- ✓ The spyware software continues sending signals to the controlling server till the time it is detected.
- ✓ The spyware is designed to evade forensic analysis, avoid detection by anti-virus software, and can be deactivated and removed by the attacker, when and if necessary.
- ✓ Thus, once infected, a phone becomes a digital spy under the attacker's complete control.
- ✓ A worrying aspect that has been revealed is the ability of the spyware to infect a device by a 'zero-click' attack, which does not require any action from the phone's user. This is an upgrade from earlier spear-phishing methods using text links or messages.

DIFFERENT TYPES OF MALWARE PROGRAMS:

 VIRUSES These bugs normally are attached to an email.	 RANSOMWARE Encrypts your files, and then demands a ransom to return the data to the user.	 SCAREWARE The user would be taken to a page to purchase a fake program.
 SPYWARE It can monitor all forms of communication and interaction on a device	 TROJANS This application is actually stealing personal data, spying, or even crashing your computer.	 ADWARE Will pepper the user with unwanted ads to attempt to get them to part with their money.

What precautions must be taken?

- Theoretically, astute cyber hygiene can act as a safeguard against such attacks. But, when Pegasus exploits vulnerability in one's phone's operating system, there is nothing one can do to stop a network injection. Worse, one will not even be aware of it unless the device is scanned at a digital security lab.
- Switching to an archaic handset that allows only basic calls and messages will certainly limit data exposure, but may not significantly cut down infection risk. Also, any alternative devices used for emails and apps will remain vulnerable unless one forgoes using those essential services altogether.
- Therefore, the best one can do is to stay up to date with every operating system update and security patch released by device manufacturers, and hope that zero-day attacks become rarer. And if one has the budget, changing handsets periodically is perhaps the most effective, if expensive, remedy.
- Since the spyware resides in the hardware, the attacker will have to successfully infect the new device every time one changes. That may pose both logistical (cost) and technical (security upgrade) challenges. Unless one is up against unlimited resources, usually associated with state power.

PEPPER IT WITH
 Right to Privacy, Cyber Attacks,
 Puttaswamy Judgement

SECURITY

Anti-Drone System in India

News Excerpt

DRDO has developed anti-drone system to neutralize enemy drone attack.

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Pre-Connect

- The Jammu attack was the first such instance in India where a drone was weaponised, the most high-profile incident in recent times involving a drone.
- **Connect to Middle East:** Targeted assassinations in 2020 of Iranian general who was killed in a US drone strike in Iraq. Not to forget the targeted bombing of two key oil facilities inside Saudi Arabia by Yemen’s Houthi rebels in 2019.
- Companies, predominantly based in Israel, US, and even China, have developed anti-drone systems using existing technologies such as radars, frequency jammers, optic and thermal sensors etc.

What are the existing anti-drone systems?

- **Rafael** →The Drone Dome. Similar to Iron Dome, identifies and intercepts drones.
- **Fortem Technologies(US)**→ Uses an interceptor drone — aptly called the ‘DroneHunter’ — to pursue and capture hostile drones.
- **DroneShield(Australia)**→ Offers a drone gun that can be used to point and ‘shoot’.
- **Israeli anti-drone SMASH 2000 Plus systems** are fitted on a rifle and can target drones flying at high speeds

Highlights

- ✓ The Defence Research and Development Organisation (DRDO) has developed an ‘Anti Drone System’ which uses a **laser-based kill mechanism** to detect and destroy the drones in the air.
- ✓ **Capabilities**→A radar detection range of four kilometres, a jamming range of more than two kilometres and a kill range of more than one kilometre.It has the capability of detecting and neutralizing UAVs, and the radar system offers 360-degree coverage.
- ✓ The Indigenous Drone Technology is **capable of counter attacks** including detection, Soft Kill (for jamming the communication links of Drone) and Hard Kill (Laser based hard kill to destroy the Drone) of enemy Drones.
- ✓ Bharat Electronics Limited and three private Indian companies have signed transfer of technology agreements with the government agency to mass-produce the system.
- ✓ Since 2020, the DRDO system has been deployed during Independence Day 2020, Republic Day Celebrations 2021 and was also used when the former US President Donald Trump visited Ahmedabad in March 2020.

Jamming by an anti-drone system refers to the disruption of the communication signals of a rogue drone and its control station. Spoofing means engaging with all classes of drones and taking active control of them to either make them forcibly crash land or to abandon their mission.

PEPPER IT WITH

About DRDO and Israel' Iron Dome Air Defence Missile System, and the Drone Dome

Analytica

- It could provide Forces an advantage in intercepting, detecting and destroying the enemy drones.
- **Emerging New Threats:**The Pakistan-based terror groups are increasing use of unmanned drones to target, drop and supply weapons, explosives and ammunition across the western borders to their terror network within India, particularly in Jammu and Kashmir and Punjab.
- **The New Theatrics and the Old Borders :** India has to be prepared with such defence systems as a threat of Two Front war looks more of a reality today.

- **Drone as Suppliers** :there have been numerous attempts by terrorists to send arms and ammunition across the border, and defence grip must be updated to stop these.
- **Preference Factor** : Their low price and ease of use drones

Way Forward

In spite of a suitable number of options available, India’s own capabilities to detect drones/UAVs have not yet been developed successfully. The government needs to review the status of the development of drones, the means of detection and the methods of engagement. There needs to be an urgency to establish a counter to the drone threat which has manifested itself as a potent force to destabilise our strategic assets. Technologies to track using optical or infra-red means or multi-sensors including sound are available. Artificial intelligence could also be used to fine-tune a counter to this threat. Efforts need to be accelerated to ensure detection, immobilisation and destruction of this new menace to mankind.

7th Indian Ocean Naval Symposium (IONS)

News Excerpt

Recently, the 7th edition of Indian Ocean Naval Symposium (IONS), a **biennial event**, was hosted by the French Navy at **La Réunion, France**. (6th IONS and CoC was conducted by Iran Navy in April 2018 at Tehran.)

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Highlights

- IONS, conceived by **the Indian Navy in 2008**, seeks to enhance maritime cooperation among Navies of the littoral states of the IOR by providing an open and inclusive forum for discussion of regionally relevant maritime issues.
- IONS Conclave of Chiefs (CoC) is the decision-making body at the level of Chiefs of Navies, which meets biennially.
- The chairmanship of IONS has been held by India (2008-10), UAE (2010-12), South Africa (2012-14), Australia (2014-16), Bangladesh (2016-18) and Islamic Republic of Iran (2018-21). France has assumed the Chairmanship on 29 Jun 21 for a two-year tenure.

Members

IONS includes **24 nations** that permanently hold territory that abuts or lies within the Indian Ocean Region (IOR), and **8 observer nations**: China, Germany, Italy, Japan, Madagascar, the Netherlands, Russia and Spain. The members have been geographically grouped into the following 4 sub-regions-

1. South Asian Littorals: Bangladesh, India, Maldives, Pakistan, Seychelles, Sri Lanka and United Kingdom (British Indian Ocean Territory)
2. West Asian Littorals: Iran, Oman, Saudi Arabia and United Arab Emirates
3. East African Littorals: France (Reunion), Kenya, Mauritius, Mozambique, South Africa, and Tanzania.
1. South East Asian and Australian Littorals: Australia, Indonesia, Malaysia, Myanmar, Singapore, Thailand and Timor-Leste.

Analytica

- **Security Architecture Reinforcement**: The forum helps to preserve peaceful relations between nations, and thus is critical to building effective maritime security architecture in the Indian Ocean Region and is also fundamental to our collective prosperity.
- **Unique And Prospective**:It is the only multinational construct that has succeeded in the 21st century, would gradually grow into a very big medium for addressing even conflicts within the Indian Ocean Region (IOR).
- It has three main working groups on **humanitarian assistance and disaster relief (HADR), maritime domain awareness and maritime security.**

PEPPER IT WITH
Indian Ocean Rim Association (IORA) and SAGAR.

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- Unlike the Pacific or the North Atlantic, which have certain homogeneity in terms of language and culture, the IOR is diverse and vast with a majority of humanity in it.

SPARSH System

News Excerpt

Recently, Ministry of Defence has implemented SPARSH (System for Pension Administration Raksha).

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Highlights

- It is an integrated system for automation of sanction and disbursement of defence pension. Processes pension claims and credits pension directly into the bank accounts of defence pensioners **without relying on any external intermediary**.
- A Pensioner Portal is available for pensioners to view their pension related information, access services and register complaints for redressal of pension grievances.
- It will be launched in a phased-wise manner for all the pensioners of the Army, the Indian Navy and the Indian Air Force.
- It envisages establishment of Service Centres to provide last mile connectivity to pensioners who may be unable to directly access the SPARSH portal.
- The two largest banks dealing with defence pensioners – **State Bank of India (SBI) and Punjab National Bank (PNB)** – have been co-opted as Service Centres.

Analytica

- **Right of The Pensioner:** Payment to the right pensioner at the right time through digital processing of over 30 lakh pensioners.
- It will address the current challenges in the pension sanctioning and disbursement process such as decentralised solutions existing in silos, manual intervention in processing, lack of centralised information for addressing pensioner queries, among others.
- **Incentivizing the personnel:** It might act as morale boosters and feeling of security

PEPPER IT WITH
About the One Rank One Pension (OROP)

Indigenously developed MPATGM

News Excerpt

Recently, the Defence Research & Development Organisation (DRDO) successfully flight-tested indigenously developed - Man Portable Anti-Tank Guided Missile (MPATGM) for minimum range.

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Highlights

- It is an indigenously developed low weight, fire and forget **Man Portable Antitank Guided Missile (MPATGM)**.
- The missile is incorporated with state-of-the-art Miniaturized Infrared Imaging Seeker along with advanced avionics.
- The missile hit the target in direct attack mode and destroyed it with precision. The test has validated the minimum range successfully.

Analytica

- ✓ **Operational Gap:** Army has a striking 60% shortage in its authorized holding of ATGM and big operational gap exists on the western front with Pakistan.
- ✓ The test paves the way for the Army to develop 3rd generation man portable Anti Tank Guided Missile indigenously.
- ✓ Major boost to Army and AatmaNirbhar Bharat (self-reliant India) campaign.

PEPPER IT WITH
Integrated Guided-Missile Development Programme

EXERCISE INDRA-21 + Exercise Cutlass Express 2021

• EXERCISE INDRA-21

The 12th Edition of Indo-Russia joint military Exercise INDRA 2021 held at Volgograd, Russia from 01 to 13 August 2021.

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Highlights

- The exercise will entail conduct of counter terror operations under the United Nations mandate by a joint force against international terror groups.
- The INDRA exercises are being regularly held since 2003, initially being a bilateral single service exercise between India and Russia.
- The first-ever Joint Tri Services Exercise was held in the Eastern Military District of Russia in Oct 2017.
- The last joint, tri services exercise (Exercise INDRA) between India and Russia was conducted in India in December 2019 simultaneously at Babina (near Jhansi), Pune, and Goa.

Analytica

- ✓ Exercise INDRA-21 will further strengthen mutual confidence and interoperability between the Indian & Russian Armies and enable sharing of best practices between the contingents of both the countries.
- ✓ The exercise will be yet another milestone in strengthening security cooperation and will serve to reinforce the longstanding bond of friendship between India and Russia.

• Exercise Cutlass Express 2021

Recently, Indian Naval Ship Talwar participated in Exercise Cutlass Express 2021, conducted along the East Coast of Africa.

Highlights

- The exercise is an annual maritime exercise conducted to promote national and regional maritime security in East Africa and the Western Indian Ocean.
- The 2021 edition of the exercise involves participation of 12 Eastern African countries, US, UK, India and various international organisations like International Maritime Organisation (IMO), United Nations Office on Drugs and Crime (UNODC), Interpol, EurEuropean Union Naval Force (EUNAVFOR), Critical Maritime Routes Indian Ocean (CRIMARIO) and EUCAP Somalia.
- The exercise is designed to assess and improve combined maritime law enforcement capacity, promote national and regional security and increase interoperability between the regional navies.
- India's participation is in accordance with India's stated policy towards maritime cooperation in the Indian Ocean region and vision SAGAR (Security and Growth for All in the Region).
 - India's Information Fusion Centre – Indian Ocean Region (IFC-IOR) would contribute in achieving the same.

Analytica

- ✓ The Western Indian Ocean is strategically important not just owing to the energy and resource potential of the region but also because of the ongoing geopolitical contest.
- ✓ Western Indian Ocean is part of the Indo-Pacific region and major global power have demonstrated interest in this region.
 - Military forces of France, China, Japan, Britain, Germany, Italy, Spain and South Korea enjoy some sort of permanent or semi-permanent presence in the Western Indian Ocean. Russia has now joined these powers.
 - Indian Navy is a major player in this region as well.

PEPPER IT WITH
Indian Ocean Rim Association
and Western Indian Ocean (WIO)

CORPAT

News Excerpt

The 36th edition of Coordinated Patrol (CORPAT) between India and Indonesia was recently conducted from 30 to 31 July 2021.

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Highlights

- India and Indonesia have been carrying out Coordinated Patrols along the International Maritime Boundary Line (IMBL) twice a year since 2002, with an aim of keeping this vital part of the Indian Ocean Region safe and secure for commercial shipping, international trade and conduct of legitimate maritime activities.
- CORPATs help build understanding and interoperability between navies, and facilitate institution of measures to prevent and suppress Illegal Unreported Unregulated (IUU) fishing, drug trafficking, maritime terrorism, armed robbery and piracy.
- As part of Government of India’s vision of SAGAR (Security And Growth for All in the Region), Indian Navy has been proactively engaging with countries in the Indian Ocean Region to enhance maritime security in the region.
- The 36th edition of IND-INDO CORPAT seeks to bolster the maritime cooperation between the two navies and forge strong bonds of friendship across the Indo Pacific.
 - INS Saryu, an indigenously built Offshore Patrol Vessel is undertaking Coordinated Patrol (CORPAT) with Indonesian Naval Ship KRI Bung Tomo.
 - It will also witness the participation of Maritime Patrol Aircraft from both nations.

PEPPER IT WITH
 Garud Shakti and
 Samudra Shakti

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ART & CULTURE

UNESCO World Heritage listing

UNESCO World Heritage sites

- A World Heritage Site is a place that **is listed by UNESCO** for its special cultural or physical significance. The list of World Heritage Sites is maintained by the international 'World Heritage Programme', administered by the UNESCO World Heritage Committee.
- The United Nations Educational, Scientific and Cultural Organization (UNESCO) seeks to encourage the identification, protection and preservation of cultural and natural heritage around the world considered to be of outstanding value to humanity.
- This is embodied in an international treaty called the Convention concerning the Protection of the World Cultural and Natural Heritage, adopted by UNESCO in 1972.
- Today there are more than 1,100 listed sites in 167 Member States from Afghanistan to Zimbabwe.

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Significance

- ✓ This inscription of heritage sites is expected to give boost to domestic and international tourism leading to increased employment generation, creation of world-class infrastructure and augmentation of sale of local handicrafts, handlooms and heritage memorabilia.
- ✓ The heritage label gives historic sites access to UN conservation funding as well as featuring in tourist guidebooks across the world.

Criteria for World Heritage sites

Until the end of 2004, World Heritage sites were selected on the basis of six cultural and four natural criteria. But with the adoption of the revised Operational Guidelines for the Implementation of the World Heritage Convention, only one set of ten criteria exists.

For a property to be included on the World Heritage List, the World Heritage Committee must find that it meets one or more of the following criteria:

1. to represent a masterpiece of human creative genius;
2. to exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;
3. to bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared;
4. to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;
5. to be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;
6. to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria);
7. to contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance;
8. to be outstanding examples representing major stages of earth's history, including the record of life, significant on-going geological processes in the development of landforms, or significant geomorphic or physiographic features;
9. to be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal and marine ecosystems and communities of plants and animals;

10. to contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of outstanding universal value from the point of view of science or conservation.

Delisting of Liverpool: Recently, the English city of Liverpool has been removed from UNESCO's list of world heritage sites.

Highlights

- It has been removed from UNESCO's list of world heritage sites after the United Nations' cultural agency found new buildings, including a football stadium, undermined the attractiveness of its Victorian docks.
- The city is only the third place to be removed from the prestigious list.
 - The first venue to be delisted by the UNESCO panel was the Arabian Oryx Sanctuary in Oman, in 2007, after concerns over poaching and habitat degradation.
 - Second to be removed from the World Heritage list in 2009 was Elbe Valley in Dresden, Germany, after the construction of the Waldschlosschen road bridge across the Elbe river.

Rudreswara Temple (Ramappa Temple), Telangana: Recently, India's nomination of Rudreswara Temple, (also known as the Ramappa Temple) at Palampet, Mulugu district, near Warangal in the state of Telangana has been inscribed on UNESCO's World Heritage list.

The decision was taken at the 44th session of the World Heritage Committee of UNESCO in Fuzhou, China.

Pre-Connect

- Ramappa temple, a 13th century engineering marvel named after its architect, Ramappa, was proposed by the government as its only nomination for the UNESCO World Heritage site tag for the year 2019.
- The temple has been in UNESCO's tentative list since 2014.



Highlights

- The Rudreswara temple was constructed in **1213 AD during the reign of the Kakatiya Empire by Recherla Rudra, a general of Kakatiya king Ganapati Deva.**
 - **The presiding deity here is Ramalingeswara Swamy.**
- It is also known as the Ramappa temple, after the sculptor who executed the work in the temple for 40 years.
- The foundation is built with the **“sandbox technique”**, the flooring is granite and the pillars basalt. The lower part of the temple is red sandstone while the white gopuram is built with light bricks that reportedly float on water.
- The temple stands on a **6 feet high star-shaped platform** with walls, pillars and ceilings adorned with intricate carvings that attest to the unique skill of the Kakatiyan sculptors.
- The building features decorated beams and pillars of carved granite and dolerite with a distinctive and pyramidal Vimana (horizontally stepped tower) made of lightweight porous bricks, so-called 'floating bricks', which reduced the weight of the roof structures.
- The temple's sculptures of high artistic quality illustrate regional dance customs and Kakatiyan culture.

PEPPER IT WITH
UNESCO World Heritage sites in India

Dholavira, Gujarat

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Dholavira, the archaeological site of a Harappan-era city, received the UNESCO world heritage site tag. Dholavira became the fourth site from Gujarat and 40th from India to make the list.

Pre-Connect

- The site had been on UNESCO's tentative list since 2014 and India had submitted its dossier in January 2020.
- Dholavira, a village with a population of around 2,000, is the nearest human settlement at present. Near the ancient city is a fossil park where wood fossils are preserved.
- Though it was excavated recently, the Dholavira site has remained free from encroachment in historical periods as well as in the modern era.

Highlights

- ✓ The ancient city of Dholavira is one of the most remarkable and well-preserved urban settlements in **South Asia dating from the 3rd to mid-2nd millennium BCE.**
 - It was **discovered in 1968 by archaeologist JagatPati Joshi.**
 - It is the **first site of the ancient Indus Valley Civilisation (IVC) in India to get the tag.**
- ✓ The site's excavation between 1990 and 2005 under the supervision of archaeologist **Ravindra Singh Bisht** uncovered the ancient city, which was a commercial and manufacturing hub for about 1,500 years before its decline and eventual ruin in 1500 BC.
- ✓ After Mohen-jo-Daro, Ganweriwala and Harappa in Pakistan and Rakhigarhi in Haryana of India, Dholavira is the fifth largest metropolis of IVC.
- ✓ The site has a fortified citadel, a middle town and a lower town with walls made of sandstone or limestone instead of mud bricks in many other Harappan sites.
- ✓ While unlike graves at other IVC sites, no mortal remains of humans have been discovered at Dholavira.
- ✓ The site is set apart by its unique characteristics, **such as its water management system**, multi-layered defensive mechanisms, extensive use of stone in construction and special burial structures.
- ✓ A range of artefacts of copper, shell, stone, jewellery, terracotta and ivory had been found at the site.
 - It is believed that traders of Dholavira used to source copper ore from present-day Rajasthan and Oman and UAE and export finished products. It was also a hub of manufacturing jewellery made of shells and semi-precious stones, like agate and used to export timber.
- ✓ **Its decline also coincided with the collapse of Mesopotamia, indicating the integration of economies.**
- ✓ Harappans, who were maritime people, lost a huge market, affecting the local mining, manufacturing, marketing and export businesses once Mesopotamia fell.
- ✓ From 2000 BC, Dholavira entered a phase of severe aridity due to climate change and rivers like Saraswati drying up.
 - Due to a drought-like situation, people started migrating toward the Ganges valley or towards south Gujarat and further beyond in Maharashtra.
- ✓ In those times, Bisht says, the Great Rann of Kutch, which surrounds the Khadirisland on which Dholavira is located, used to be navigable, but the sea receded gradually and the Rann became a mudflat.
- **Other Harappan sites in Gujarat**
- Before Dholavira was excavated, Lothal, in Saragwala village on the bank of Sabarmati in Dholkataluka of Ahmedabad district, was the most prominent site of IVC in Gujarat.
 - It was excavated between 1955 and 1960 and was discovered to be an important port city of the ancient civilisation, with structures made of mud bricks.

- From a graveyard in Lothal, 21 human skeletons were found.
 - Foundries for making copperware were also discovered.
 - Ornaments made of semi-precious stones, gold etc. were also found from the site.
- Besides Lothal, Rangpur on the bank of Bhadarriver in Surendranagar district was the first Harappan site in the state to be excavated. Rojdi in Rajkot district, Prabhas near Veraval in GirSomnath district, Lakhabaval in Jamnagar, and Deshalpar in Bhujtaluka of Kutch are among other Harappan sites in the state.

PEPPER IT WITH
The Indus Valley Civilisation

Swami Vivekananda

News Excerpt

Every year, July 4 is observed as the death anniversary of Swami Vivekananda, who is regarded as a one of the finest spiritual leaders and intellects India has produced.

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Highlights

- Vivekananda was born in Kolkata on January 12, 1863, as NarendraNathDatta.
 - **National Youth Day is celebrated on January 12, every year in India to honor the birth anniversary of Swami Vivekananda.**
- From an early age, he nurtured an interest in Western philosophy, history, and theology, and went on to meet the religious leader **Ramakrishna Paramhansa, who later became his Guru.**
 - He remained devoted to Ramakrishna until the latter’s death in 1886.
- In 1893, he **took the name ‘Vivekananda’ after Maharaja Ajit Singh of the Khetri State requested him to do so**, changing from ‘Sachidananda’ that he used before.
 - NetajiSubhas Chandra Bose had called Vivekananda the “maker of modern India.”

Contributions

- He played an important role in introducing the philosophies of yoga and Vedanta to the West.
- He preached **‘neo-Vedanta’**, an interpretation of Hinduism through a Western lens, and believed in combining spirituality with material progress.
- He is best known for his speech at the World Parliament of Religion in Chicago in 1893.
- Swami Vivekananda spelt out the four pathways of attaining moksha from the worldly pleasure and attachment in his books — Raja-yoga, Karma-yoga, Jnana-yoga and Bhakti-yoga.
- He **formed the Ramakrishna Mission** in 1897 “to set in motion a machinery which will bring noblest ideas to the doorstep of even the poorest and the meanest.”
 - In **1899, he established the Belur Math**, which became his permanent abode.
- His health deteriorated and the end came quietly on the night of 4 July 1902.

PEPPER IT WITH
About Ramakrishna Mission

Lord Jagannath’s Puri Rath Yatra

News Excerpt

Recently, the Vice President greeted the people on the eve of RathYatra of Lord JagannathPuriOdisha.

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Pre-Connect

- The history of this festival of RathYatra in Puri is quite ancient and it was started by the Ganga Dynasty in 1150 AD.
- The festival of RathYatra has started from JagannathPuri itself. After this, the festival started being celebrated all over India.

Highlights

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- The RathYatra Festival or the Chariot Festival, commemorated in honour of Puri's Lord Jagannath is one of the biggest and major festivals of not only Odisha but of India too.
- The festival is celebrated on the second day of ShuklaPaksha of Ashadh, the third month, according to the traditional Oriya calendar.
- Lord Jagannath, Lord Balabhadra and their sister Subhadra – the three deities of the Jagannath Temple – travel in three different chariots. That is why RathaYatra is also called the Festival of Chariots.
- The Chariot of the Lord Jagannath is called 'Nandighosh', the Chariot of Lord Balabhadra is called 'Taladvaja', the Chariot of Goddess Subhadra is called 'Padmadhvaja'.
 - The chariots of the deities are newly built every year.
- It is a nine-day-long event and marks the return of Lord Krishna to Vrindavan with his brother Balabhadra and sister Subhadra.
- The festival commemorates Lord Jagannath's annual visit to the Gundicha Temple via the Mausimaa or the maternal aunt's Temple near Saradha Bali in Puri.

Jagannath Temple

- ✓ The temple was constructed by a famous king of **Ganga Dynasty AnantaVarmanChodaganga Deva** dating back to 12th century at the seashore Puri.
 - It is one of the Dhamas (Holiest of the holy place) out of four Dhamas i.e. Puri, Dwarika, Badrinath&Rameswar, in India.
- ✓ The main temple of Jagannath is an impressing and amazing structure constructed in **Kalinga architecture**, with a height of 65 meters placed on an elevated platform.
 - The **main temple is constructed in such a way that no shadow of the temple falls on the ground at any time of the day.**
- ✓ Unlike the ornate, carefully crafted metal idols everywhere else, these three deities are fashioned from wood, cloth and resin. They are malformed with large heads and no arms.
- ✓ The Arunastambha- the 33 ft monolith structure pillar in front of the Singhadwar or the main entrance of the temple was originally located at the Sun Temple, Konark.
- ✓ JagannathPuri temple is called 'YamanikaTirtha' where, according to the Hindu beliefs, the power of 'Yama', the god of death has been nullified in Puri due to the presence of Lord Jagannath.
- ✓ The Jagannath Temple of Odisha is one of the few orthodox Hindu temples in India where only the followers of Hinduism are allowed to enter the premises and offer prayers. However, the door of the PuriJagannath Temple is open to all, irrespective of caste and religion, during the RathYatra Festival.

PEPPER IT WITH

About Sun Temple, Konark and Lingaraj Temple

Bal Gangadhar Tilak & Chandra Shekhar Azad birth anniversaries

- **Bal Gangadhar Tilak**

News Excerpt

Vice President pays tributes to Bal Gangadhar Tilak on his birth anniversary, 23rd July.

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Highlights

- He was born on 23 July 1856 in Ratnagiri district in Maharashtra.
- He was an Indian social reformer and freedom activist. He was one of the prime architects of modern India and probably the strongest advocates of **Swaraj or Self Rule for India**.
- His famous declaration “**Swaraj is my birthright, and I shall have it**” served as an inspiration for future revolutionaries during India's struggle for freedom.

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- He was called "The father of the Indian unrest", conferred with the title of Lokmanya, which means "accepted by the people as a leader".
 - **The father of our nation, Mahatma Gandhi, called him "The Maker of Modern India".**
- He started the **Deccan Educational Society (1884)** with college batchmates, Vishnu Shastry Chiplunkar and Gopal Ganesh Agarkar for the purpose of inspiring nationalist education among Indian students.
- He supported the Swadeshi (**Indigenous**) **movement and Boycott of British goods.**
- He founded two **newspapers 'Kesari' in Marathi and 'Mahratta' in English.**
- He joined the Indian National Congress in 1890.
- Due to this fundamental difference in outlook, Tilak and his supporters came to be known as the extremist wing of Indian National Congress Party.
- Tilak's endeavours were supported by fellow nationalists Bipin Chandra Pal of Bengal and Lala Lajpat Rai of Punjab.
 - The trio came to be popularly referred to as the Lal-Bal-Pal.
- He openly supported the revolutionaries Khudiram Bose and Prafulla Chaki's efforts to assassinate Chief Presidency Magistrate Douglas Kingsford in 1908.
- In the 1907 national session of the Indian National Congress, a massive trouble broke out between the moderate and extremist sections of the Indian National Congress Party. As a result of which, the Congress split into two factions.
- The **British authorities charged Tilak with sedition and he was imprisoned from 1908 to 1914 in Mandalay, Burma.**
- He founded the **All India Home Rule League in 1916** with Joseph Baptista, Annie Besant and Muhammad Ali Jinnah.
- **The Atmanirbhar Bharat is the legacy of Tilak which is taken forward.**
- Books: Gita Rhasya and Arctic Home of the Vedas.
- He passed away on August 1, 1920

PEPPER IT WITH
India Home Rule League,
Surat split, and Indian
National Congress.

Social Reforms

- He was a great reformer and throughout his life he advocated the cause of women education and women empowerment.
- Tilak proposed Grand celebrations on 'Ganesh Chaturthi' and 'Shivaji Jayanti'. He envisioned these celebrations inciting a sense of unity and inspiring nationalist sentiment among Indians.

- **Chandra Shekhar Azad**

News Excerpt

Vice President pays tributes to Chandra Shekhar Azad on his birth anniversary, 23rd July.

Highlights

- Chandra Shekhar Azad was born on July 23, 1906 in Bhabhra village in the present-day Alirajpur district of Madhya Pradesh.
- When Mohandas Karamchand Gandhi launched the Non-Cooperation Movement in December 1921, Chandra Shekhar Azad, who was then 15 and still studying, joined the movement. As a result, he was arrested.
- When asked his name, residence and that of his father, he replied to the authorities, that his name was **'Azad' (free), his father's name 'Swatantrata' (Freedom) and his residence as the prison cell.**
 - It was after this incident that Chandra Shekhar assumed the title of Azad and came to be known as Chandra Shekhar Azad.
- He died at Azad Park in Allahabad on February 27, 1931.

Contribution to Freedom Movement

- After Gandhi suspended the non-cooperation movement in 1922, **Chandra Shekhar Azad joined the Hindustan Republican Association (HRA), a revolutionary organisation formed by Ram Prasad Bismil, Sachindra Nath Sanyal and others.**
- He took charge of HRA after Ram Prasad Bismil, Ashfaqulla Khan, RajendraLahiri and ThankurRoshan Singh were sentenced to death in the Kakori train robbery case.
- After the capture of the main leaders of the HRA, Chandra Shekhar Azad and Bhagat Singh secretly reorganised the HRA as the HSRA (Hindustan Socialist Republic Army) in September 1928.
 - The **HSRA planned the killing of John P. Saunders, an Assistant Superintendent of Police in 1928 to avenge the killing of LalaLajpatRai.**
- As a freedom fighter, he was involved in the Kakori Train Robber of 1925, in the attempt to blow up the Viceroy of India’s train in 1926, and in the shooting of British police officer JP Saunders at Lahore in 1928.

PEPPER IT WITH
Hindustan Socialist Republic Army and Kakori Conspiracy

AshadhaPurnima and a Dhamma Chakra Day programme

News Excerpt

Recently, the International Buddhist Confederation (IBC) under the aegis of Ministry of Culture, Govt of India, observed one of its annual flagship eventsAsadhaPoornima on 24th July, 2021.

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The day is also observed as Guru Poornima by both Buddhists and Hindus as a day to mark reverence to their Gurus.

Highlights

- It marks the day when **Buddha gave his first sermon to his first five ascetic disciples**, after attaining enlightenment, at the 'Deer Park', Rṣipatana in the current day Sarnath, near Varanasi, India.
 - It is the second most sacred day for Buddhists after the Buddha Poornima or Vesak.
 - It is also known as EsalaPoya in Sri Lanka and AsanhaBucha in Thailand.
- This teaching of DhammaCakka- PavattanaSutta (Pali) or Dharma chakra Pravartana Sutra (Sanskrit) is also known as the First Turning of Wheels of Dharma and comprised of the Four Noble Truths and Noble Eightfold Path.
 - Four noble truths as preached by Buddha are that the life is full of suffering (Duhkha), that there is a cause of this suffering (Duhkha-samudaya), it is possible to stop suffering (Duhkha-nirodha), and there is a way to extinguish suffering (Duhkha-nirodha-marga).
 - Eight fold Path (astangika-marga) as advocated by Buddha as a way to extinguish the sufferings are right views, right resolve/aspiration, right speech, right action/conduct, right livelihood, right effort right mindfulness and right concentration.

Buddhism’s Relevance in Covid-19

- Lord Buddha is all the more relevant in today’s times of corona pandemic. India has shown how we can face even the most difficult challenges by following the path of the Buddha.
- Today all the countries are moving in solidarity and becoming each other’s strength by following the teachings of the Buddha.
 - The ‘care with prayer’ initiative of the International Buddhist Confederation is praiseworthy.
- Lord Buddha gave us an eight-fold path to achieve this harmony.

PEPPER IT WITH
International Buddhist Confederation (IBC)and Schools of Buddhism.

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Contribution of Buddhism to Indian Culture

- ✓ The doctrine of ahimsa, so strongly stressed, devoutly preached and sincerely practised by the Buddhist, was incorporated bodily in their teachings by the Brahmins of later days.
- ✓ The finest contribution of Buddhism to Indian life was made in the realm of architecture and sculpture.
 - The stupas at Sanchi, Bharhut and Amravati, the stone pillars of Asoka and the cave temples of Kanheri (Bombay), Karle (Pune) and Nasik are considered the best specimens of Buddhist art.
- ✓ It had also promoted the spread of Indian Culture to other parts of Asia.

Miscellaneous

Dalai Lama

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- Dalai Lama is a title given by the Tibetan people to the foremost spiritual leader of the Gelug or "Yellow Hat" school of Tibetan Buddhism, the newest of the classical schools of Tibetan Buddhism.
- The 14th and current Dalai Lama is Tenzin Gyatso.
- The Dalai Lamas are believed by Tibetan Buddhists to be manifestations of Avalokiteshvara or Chenrezig, the Bodhisattva of Compassion and the patron saint of Tibet.
- Bodhisattvas are realized beings, inspired by the wish to attain complete enlightenment, who have vowed to be reborn in the world to help all living beings.

Dr. Syama Prasad Mookerjee Jayanti

- **Dr. Syama Prasad Mookerjee** (1901-1953), who was a politician, barrister and academician, served as the minister for industry and supply in prime minister Jawaharlal Nehru's cabinet.
 - He was born in Kolkata in 1901.
- He laid the foundation for much of India's industrial policy and our public sector corporations.
- One of the founding fathers of independent sovereign India, he was a great patriot, educationist, parliamentarian, statesman, humanitarian and above all, a campaigner for national unity and integrity.
- In 1934, Syama Prasad became the youngest Vice-Chancellor of Calcutta University, which gave him the opportunity to put his aims and ideals regarding education of his people in practice.
- He quit the Indian National Congress and founded the Bharatiya Jana Sangh, the parent part of the BJP, in 1951.
 - The Jana Sangh was the progenitor of the BharatiyaJanata Party (BJP) which was founded in 1980.
- Mookerjee led a campaign against Article 370, which gave special powers to Jammu and Kashmir, and died under detention in the erstwhile state in 1953.

Taal volcano eruptions

- Taal, one of the world's smallest active volcanoes, sits in the middle of a lake about 70 km south of the centre of the capital, Manila.
 - Taal volcano is in a caldera system located in southern Luzon island and is one of the most active volcanoes in the Philippines.
 - Taal also has the distinction of being the only known volcano in the world within a lake on an island.
- Taal last erupted on January 12, 2020, displacing more than 376,000 people from surrounding towns. Prior to 2020 the most recent eruption was in 1977, on the south flank near Mt. Tambaro.
- Taal has erupted 33 times since 1572.

The Kuvempu Rashtriya Puraskar


- Odia poet Dr. Rajendra Kishore Panda has been selected for the KuvempuRashtriyaPuraskar, the national award instituted in memory of the late poet laureate.
 - Dr. Panda, born in 1944, is a poet and novelist from Odisha.
 - He has published 16 poetry collections and a novel.
 - He was presented the Gangadhar National Award in 2010, and the SahityaAkademi Award in 1985.
 - He was awarded a D.Lit. by Sambalpur University.
- The award carries a cash award of 5 lakh, a silver medal and a citation.
- The award is given annually to a writer who has contributed in any of the languages recognised by the Constitution of India.



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Concept Clearing Assignment

1. Do you believe that India is an attractive investment destination in the global economic landscape? Justify your views. Also, mention the steps taken by the Indian government to boost the investments in India in the recent times.
2. What is Central Bank Digital Currency (CBDC)? Should India Adopt CBDC? Justify your views.
3. The indiscreet and short-sighted withdrawal of America from Afghanistan has turned it into an encouraging ground for the Taliban. Discuss. And also, explain the implication of the move on the region as well as on the global political and security order.
4. Despite being self-sufficient in the production of major food commodities, why the issues of hunger and food insecurity are grave in India? Discuss. And, in this context analyse the performance of food security programme in India. Suggest feasible and sustainable measures to strengthen it.
5. Discuss the features of RBI Retail Direct Scheme in brief.
6. What is “Right to Repair Movement”? Critically analyse its impact and comment on the viability of the movement in India.
7. Discuss the ‘Moon Wobble Effect’? Also, explain the impact of the moon wobble in brief.
8. What is Project Pegasus? Discuss the threats associated with it and suggest precautionary measures to safeguard cyber space of India.
9. Describe briefly about India’s approach for recalibrating its ties with the European Union for the facilitation of movement of agricultural produces?
10. Discuss the laws dealing with surveillance in India. And, critically examine whether the surveillance laws in India are a threat to privacy? Substantiate your views.
11. Why is micro-plastic pollution even more challenging? Explain its implication on the Food Chain and aquatic life. In this context, what measures should be adopted to conserve the entire river ecosystem? Give suitable examples.
12. Discuss the impact of Heat Dome on atmospheric and oceanic circulation? And also, explain the reasons responsible for its formation?
13. The human and wildlife conflict (HWC) is attributed as a threat to the survival of many species, including humans. What are the elements liable for HWC? Suggest the measures to manage HWC in a co-existence approach.
14. Explain how anthropogenic activities increase the instances of Landslide and Flash Flood in India? What steps should be adopted to mitigate the impact of landslides? Give suitable examples.
15. Highlight the contribution of Bal Gangadhar Tilak in the Indian national movement?

PT Oriented Questions

1. With reference to the Unified District Information System for Education Plus (UDISE+) Report, Consider the following statements:
1. It has been released by Education Ministry.
 2. It has find that among government schools around 60% schools had Internet facility in 2019-20, and around 75% schools had functional computer facilities.
 3. It has collected the information from all recognized and unrecognized schools imparting formal education from Pre-primary to XII.
- Which of the statements given above are correct?
- (a) 2 and 3 only (b) 1 and 3 only
(c) 1 and 2 only (d) 1, 2 and 3
2. Consider the following statements about National Initiative for Proficiency in Reading with Understanding and Numeracy (NIPUN Bharat):
1. Ministry of Women and Child Development has launched NIPUN Bharat scheme.
 2. The mission will focus on students of age group of 3 to 20 years including pre-school to Grade 10.
- 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
3. Which among the following can be cited as major objectives of SamagraShiksha Scheme?
1. Bridging Social and Gender Gaps in School Education.
 2. Promoting Vocationalization of education.
 3. Supporting States in implementation of Right of Children to Free and Compulsory Education (RTE) Act, 2009.
- Select the correct answer using the code given below:
- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3
4. A Scheme ‘Support for Marginalized Individual for Livelihood and Enterprise (SMILE)’ is formulated by which of the following?
- (a) The Ministry of Social Justice and Empowerment
 - (b) The Ministry of Labour and employment
 - (c) Ministry of Commerce and Industry
 - (d) NITI Aayog
5. Which of the following statements are correct regarding Zika Virus Disease?
1. The virus is transmitted by Aedes mosquito.
 2. The virus has an incubation period of 14-28 days.
 3. The Virus was first identified in Monkeys.
- Select the correct answer using the code given below:
- (a) 1 and 2 only (b) 1 and 3 only
(c) 2 and 3 only (d) 1, 2 and 3
6. Which among the following is correct regarding the ‘Guillain-Barré syndrome’?
- (a) It is a rare neurological disorder in which the body's immune system mistakenly attacks part of its peripheral nervous system.
 - (b) It is almost rare disorder that affects the blood circulation by directly attacking the human heart and blocks the veins.
 - (c) It is a common disorder which affect people’s kidney who used to live with rodent animals.
 - (d) None of the above
7. Consider the following statements regarding Neutron stars:
1. These are formed when a massive star runs out of fuel and collapses.

2. A handful of neutron stars have been found sitting at the centers of supernova remnants quietly emitting X-rays.
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
8. Which of the following statements are correct regarding Suborbital Rockets?
1. These are less expensive to design.
2. These can be made Reusable.
3. These are very huge in size as compared to orbital flights rockets.
Select the correct answer using the code given below:
(a) 1 and 3 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1, 2 and 3
9. With reference to the Indian Ocean Naval Symposium (IONS), Consider the following pairs:
- | Sub-Regional group under IONS | Member Countries |
|--------------------------------------|-----------------------------------|
| 1. South Asian Littorals region | Iran, Oman and Saudi Arabia |
| 2. West Asian Littorals region | Pakistan, Seychelles and Maldives |
| 3. East African Littorals region | Kenya, Mauritius and Mozambique |
- Which of the pairs given above is/are correctly matched?
(a) 3 only (b) 1 and 2 only
(c) 2 and 3 only (d) 1, 2 and 3
10. Which of the following statements are correct regarding SPARSH (System for Pension Administration Raksha)?
1. It has been exclusively implemented by Ministry of Home Affairs.
2. It is an integrated system for automation of sanction and disbursement of defence pension.
3. It will be launched in a phased-wise manner for all the pensioners of the Army.
Select the correct answer using the code given below:
(a) 1 and 2 only (b) 1 and 3 only
(c) 2 and 3 only (d) 1, 2 and 3
11. Consider the following statements about JagannathPuri temple:
1. The temple was constructed by a famous king of Chera dynasty.
2. The main temple is an impressing and amazing structure constructed in Kalinga architecture.
Which of the following statements is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
12. Consider the following statements regarding the Micro-Plastics:
1. It is a non-biodegradable, synthetic and its size ranging from 1 µm to 5 mm.
2. Its pollutant does not affect the quality of ground water.
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
13. With reference to Lowering Emissions by Accelerating Forest finance (LEAF) Coalition, consider the following statements:
1. It aims to monetize the value of carbon locked up in the tropical forest of most developing countries.
2. LEAF is jointly launched by India and U.S.
3. All the funding requires to run this programme is given by U.S. and Canada.
Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 1 only
(c) 2 and 3 only

- (d) 1, 2 and 3
14. Which of the following can be cited as reason responsible for formation of Heat Dome?
1. Atmospheric Pressure and Rising temperature.
 2. Cool water in the eastern pacific and Warm in the western Pacific.
 3. Northeast Shift of the Jet stream.
- Select the correct answer using the code given below:

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

15. Recently, National Green Tribunal had directed the Ministry of Environment, Forest and Climate Change to frame Standard Operating Procedure (SOP) regarding environmental violation. In this context, consider the following statements:

1. Under the new rule, the Projects which are not allowable/permisible for grant of environment clearance (EC) as per extant regulations such projects are to be demolished.
2. As per the new rules, the project which are permisible, but, where prior EC has not been taken as per extant regulations such projects can continues.

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

16. Consider the following statements regarding the Gross Environment Product (GEP):

1. GEP is the total value of final ecosystem goods and services supplied to human well-being in given region annually.
2. GEP is the total economic value of ecosystem provision (EPV), Ecosystem regulating services (ERV) and cultural services (ECV) in the given area annually.

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

17. Recently, Himachal Pradesh and some other hilly states have seen instances of flash floods and landslides, what could be the possible reasons for these instances?

1. Forest fires
2. Cutting and deep Excavation
3. Agriculture practice on steep slopes

Select the correct answer using the code given below:

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

18. The 'Nord Stream 2 pipeline' project is a major gas pipeline between which of the following countries?

1. Russia 2. Finland
3. Sweden 4. Germany

Select the correct answer using the code given below:

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

19. Recently, the government has merged the Department of Public Enterprises (DPE) with which of the following ministry/body?

- (a) Finance Ministry
(b) NITI Aayog
(c) Ministry of corporate affairs
(d) Ministry of rural development

20. With reference to the 'RBI Retail Direct' scheme, Consider the following statements:

1. It will provide a one-stop solution to facilitate investment in government securities (G-secs) by individual investors.
2. Under the Scheme, Retail individual's investors will have the

- facility to open and maintain the 'Retail Direct Gilt Account' (RDG Account) with RBI.
3. The scheme has barred the Non-Resident retail investors.
- Which of the statements given above is/are correct?
- (a) 1 and 3 only
(b) 1 and 2 only
(c) 2 and 3 only
(d) 1, 2 and 3
21. Which of the following statements is/are correct regarding project BOLD?
1. It seeks to create bamboo-based green patches in arid and semi-arid land zones.
2. It has been launched as part of KVIC's "Khadi Bamboo Festival" to celebrate 75 years of independence.
- Select the correct answer using the code given below:
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
22. The Centralised Processing System (CPS) includes Real Time Gross Settlement and National Electronic Funds Transfer systems, owned and operated by the RBI. In this context, which among the following can participate in the CPS as direct members?
1. Non-bank payment system providers
2. Prepaid payment instruments (PPI) issuers
3. White label ATM operators
- Select the correct answer using the code given below:
- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3
23. Which of the following changes has been made in the constitution by 97th Constitutional Amendment Act of 2011?
1. It made the right to form co-operative societies a fundamental right under Article 21.
2. It included a new Directive Principle of State Policy on promotion of co-operative societies under Article 43-B.
3. It added a new Part IX-B in the Constitution which is entitled "The Co-operative Societies" under Articles 243-ZH to 243-ZT.
- Select the correct answer using the code given below:
- (a) 1 and 2 only (b) 2 and 3 only
(c) 1 and 3 only (d) 1, 2 and 3
24. Consider the following statements regarding Inter-State water dispute:
1. Article 262 of the Constitution provides for the adjudication of inter-state water disputes.
2. The Supreme Court have original and exclusive jurisdiction in respect of any Inter-State water dispute.
- 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. In which of the following case, the Supreme Court has declared that the right to privacy is a fundamental right protected under Part III of the Constitution of India.?
- (a) Kesavanandabharati v. state of kerala case
(b) Youth Bar Association of India v. Union of India
(c) Puttuswamy v. Union of India case
(d) Ramnathgoenka v. Union of India
26. The painting of Bodhisattva Padmapani is one of the most famous and often-illustrated paintings at- (UPSC 2017)
- (a) Ajanta
(b) Badami
(c) Bagh
(d) Ellora

27. Consider the following statements (UPSC 2018)

1. The quantity of imported edible oils is more than the domestic production of edible oils in the last five years.
2. The Government does not impose any customs duty on all the imported edible oils a special case.

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

28. Consider the following: (UPSC2019)

1. Deification of the Buddha
2. Treading the path of Bodhisattvas
3. Image worship and rituals

Which of the above is/ are the feature/features of Mahayana Buddhism?

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

29. Who among the following was/were associated with the introduction of Ryotwari Settlement in India during the British rule? (UPSC 2017)

1. Lord Cornwallis
2. Alexander Reed
3. Thomas Munro

Select the correct answer using the code given below:

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

30. Consider the following statements (UPSC 2018)

1. The Fiscal Responsibility and Budget Management (FRBM) Review Committee Report has recommended a debt to GDP ratio of 60% for the general (combined) government by 2023, comprising 40% for the Central Government and 20% for the State Governments.
2. The Central Government has domestic liabilities of 21% of GDP as compared to that of 49% of GDP of the State Governments.
3. As per the Constitution of India, it is mandatory for a State to take the Central Government's consent for raising any loan if the former owes any outstanding liabilities to the latter.

Which of the statements given above is/are correct?

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

ANSWERS

1. B	11. B	21. C
2. D	12. A	22. D
3. D	13. B	23. B
4. A	14. D	24. A
5. B	15. A	25. C
6. A	16. C	26. A
7. C	17. D	27. A
8. B	18. C	28. D
9. A	19. A	29. C
10. C	20. B	30. C