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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. Don't wait, it's your golden chance to crack this exam and fulfill your passionate dream.

Team KSG

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ART & CULTURE

KSG

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POLITY

Productivity of Rajya Sabha

News Excerpt

The Vice-President of India after completing his three years in office has highlighted the declining productivity of Rajya Sabha.

Pre-Connect

- The Vice President has revealed that the productivity of the House has been declining over the last 25 years with the House reporting annual productivity of 100% only once in 1999 during the last 20 years.

- The overall productivity of the last eight sessions till 2020 has been 65.50%, despite the intervening election year seriously impacting the functioning of the House for three sessions.

- The productivity of Rajya Sabha was only 28.90% during the 248th session, 27.30% during the 247th and a low of 6.80% during the 248th session. As a result, the annual productivity of Rajya Sabha has been 35.75%, the lowest ever.

- The functioning of the House subsequently was marked by sustained high levels of productivity of 104% during the 249th session, 99% during the historic 250th session and 76% during the last and 251st session.

- The highest productivity of 78.42% was observed during 2019 after 2010.

Reason for Low Productivity:

- Lack of consensus
- Reducing the number of days of sittings
- Politicization of Rajya Sabha
- Less attendance
- Excessive discussion on certain topics

Rajya Sabha:

- The Rajya Sabha came into being on April 3, 1952 and held its first session on May 13 the same year.

- The Rajya Sabha is the upper house of the parliament and also called the Council of State.

- For the first time Bicameralism was introduced in the central legislature under the provisions of the Government of India Act 1919.

- Bicameralism is a principle that requires the consent of two differently constituted chambers of Parliament for making or changing laws. Federalism and bicameralism are linked because the federal character of a nation comprising constituent units can be reflected in, and secured by, a bicameral legislature.

Unique events related to Rajya Sabha:

- ❖ **Casting vote by the Chairman:** In 1991, the first and the only time when a Presiding Officer of Rajya Sabha cast his vote was for the Code of Criminal Procedure (Amendment) Ordinance.

- ❖ **President Rule approved only by Rajya Sabha:** It happened only twice in respect of extension of President Rule in Tamil Nadu and Nagaland in 1977 and in case of Haryana in 1991 when Lok Sabha was dissolved.

- ❖ **Removal of a Judge:** The only time Rajya Sabha adopted a motion for removal of a Judge was in 2011.

- ❖ **Bills passed at the joint sittings:** of both the Houses of Parliament (3):
  - The Dowry Prohibition Bill, 1959 was passed on 9.5.1961 at a joint sitting.
  - The Banking Service Commission (Repeal) Bill, 1978 was passed on 16.5.2018 at a joint sitting.
  - The Prevention of Terrorism Bill, 2002 was passed at a joint sitting on 26.3.2002.

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Special Powers of Rajya Sabha

The Rajya Sabha has been given four exclusive or special powers that are not enjoyed by the Lok Sabha:

✓ It can authorise the Parliament to make a law on a subject enumerated in the State List (Article 249).

✓ It can authorise the Parliament to create new All-India Services common to both the Centre and states (Article 312).

> **PEPPER IT WITH**
> Article 100, 108, 110, 249, 312, 243R, Comparison of Rajya Sabha with Lok Sabha, Legislative Councils

✓ It alone can initiate a move for the removal of the Vice President. In other words, a resolution for the removal of the Vice President can be introduced only in the Rajya Sabha and not in the Lok Sabha (Article 67).

✓ If a proclamation is issued by the President for imposing National Emergency or President's rule or Financial Emergency at a time when the Lok Sabha has been dissolved or the dissolution of the Lok Sabha takes place within the period allowed for its approval, then the proclamation can remain effective even if it is approved by the Rajya Sabha alone (Articles 352, 356 and 360).

Conclusion

Thus Rajya Sabha is not just a secondary house of parliament but it plays an important role in protecting the interests of state and has some exclusive power of its own. Thus it is an important second house of the parliament and its efficiency is important in parliamentary democracy which relies on debate, discussions and deliberations.

National Recruitment Agency (NRA)

News Excerpt

The Union Cabinet approved setting up of a National Recruitment Agency (NRA), an independent body to conduct examinations for government jobs.

Pre-Connect

- In the Union Budget 2020, the government has announced the establishment of a National Recruitment Agency.

- The NRA has been envisaged by the government to work as a single nodal agency for all government job recruitment at the central level.

- The NRA will be a society registered under the **Societies Registration Act, 1860**.

- The NRA has its headquarters in Delhi-NCR and is an autonomous and self-reliant body to conduct the computer-based **Common Eligibility Test (CET)** to shortlist candidates for vacancies of Group B non-Gazetted posts, Group B Gazetted posts which are exempted from consultation with the UPSC, and Group C and equivalent posts in the government.

> **PEPPER IT WITH**
> Art. 312, 315; *Specialists vs. Generalists*, National Testing Agency,

- Though the Centre envisages to use the CET score for all recruitments in the future, initially this will be implemented only in three government agencies, i.e. Railway Recruitment Board, Staff Selection Commission and Institute of Banking Personnel Selection.

Composition of NRA:

➢ The chairman of the NRA will be of the rank of **Secretary to the Government of India**. He will be appointed by the government.

➢ Besides the chairman, the NRA will have eight members – a secretary of the Department of Personnel and Training (DoPT) or his representatives, representatives of the Ministry of Railways and the Department of Financial Services, chairmen of the Staff Selection Commission (SSC), the Railway Recruitment Board (RRB) and the Institute of Banking Personnel Selection (IBPS), and two experts from the field of academics.

> It will also have a Secretary and Controller of Examinations and the post will be held by an officer at the level of joint secretary to the government of India. The officer will be appointed on deputation basis.

Salient features of the NRA:

- ✓ NRA to conduct online **CET twice in a year**.
- ✓ Registration of applicants, generation of roll number/admit cards, display of marks, merit list, etc, will be done online.
- ✓ The CET would be available in 12 languages.
- ✓ The CET will be based on multiple choice objective type question papers.
- ✓ The CET **score of a candidate will be valid for three years**.
- ✓ Every district of the country will have an examination centre, including **the 117 aspirational districts.**
- ✓ CET to be conducted at over 1,000 centres.
- ✓ Examination centres in every district of the country would greatly enhance access to the candidates located in far-flung areas.
- ✓ A single examination would reduce the financial burden on candidates to a large extent.
- ✓ No restriction on number of attempts by the candidate, subject to upper age limit prescribed.
- ✓ Relaxation in upper age limit to be given to candidates of SC/ST/OBC/PwD, etc.
- ✓ Candidates would have the facility of registering on a common portal and give a choice of centres.
- ✓ NRA to ensure better access to rural, underprivileged candidates and women.
- ✓ The NRA will facilitate employment generation.
- ✓ CET scores can be shared with the Central government, State government, Union Territories, Public Sector Undertakings and private sector.
- ✓ NRA shall conduct **a separate CET each for the three levels** of graduate, higher secondary (12th pass) and the matriculate (10th pass) candidates for those non-technical posts to which recruitment is presently carried out by the SSC, RRBs and by IBPS.
- ✓ Based on the **screening done at the CET score leve**l, final selection for recruitment shall be made through separate specialised Tiers (II, III etc) of examination which shall be conducted by the respective recruitment agencies.
- ✓ The curriculum for this test would be common as would be the standard.
- ✓ This would greatly ease the burden of candidates who are at present required to prepare for each of the examinations separately as per different curriculum.
- ✓ The Government has sanctioned a sum of Rs 1,517.57 crore for the NRA.
- ✓ The expenditure will be undertaken over a period of three years.
- ✓ Apart from setting up the NRA, costs will be incurred for setting up examination infrastructure in the 117 aspirational districts.

Conclusion

The NRAwould actually help the recruiting agencies including the state and union territory governments to save the cost and time spent on recruitment, while at the same time also be convenient and cost-effective for the young job aspirants.

Women's Coparcenary Rights

News Excerpt

The Supreme Court held that daughters, like sons, have an equal right to inherit ancestral property *'by birth'*.

Pre-Connect

- Coparcenary property is named because the co-ownership is marked by "unity of possession, title and interest".
- A Hindu joint family consists of lineal descendants of a common ancestor. In simple, a male head and his descendants, including their wives and unmarried daughters.
- The judgment given by the Supreme Court is related to the **Hindu Succession (Amendment) Act, 2005.**

> **PEPPER IT WITH**
> Right to Equality, Rule of Law, Art. 14, 15, 16, Hindu Succession Amendment Act, 2005, Sec. 6, 6A, 8 14, 15,16; Testamentary and Intestate

Hindu Succession Act, 1956

- The Mitakshara school of Hindu law codified as the Hindu Succession Act, 1956 governed succession and inheritance of property but only recognised males as legal heirs.
- The law applied to everyone who is not a Muslim, Christian, Parsi or Jew by religion. Buddhists, Sikhs, Jains and followers of Arya Samaj, Brahmo Samaj are also considered Hindus for the purposes of this law.
- In a Hindu Undivided Family, several legal heirs through generations can exist jointly. Traditionally, only male descendants of a common ancestor along with their mothers, wives and unmarried daughters are considered a joint Hindu family. The legal heirs hold the family property jointly.

Hindu Succession (Amendment) Act, 2005:

- Women were recognised as coparceners or joint legal heirs for partition after the amendment act of 2005.
- Section 6 of the Act was amended that year to make a daughter of a coparcener also a coparcener by birth "in her own right in the same manner as the son".
- The law also gave the daughter the same rights and liabilities "in the coparcenary property as she would have had if she had been a son".
- The law applies to ancestral property and to intestate succession in personal property — where succession happens as per law and not through a will.
- The 174th Law Commission Report had also recommended this reform in Hindu succession law.

School of Hindu Law

Dayabhaga School
- Father is the sole owner and the exculsive possessor of the joint family property
- No member can enforce the partition of the HUF so long as the father lives
- It is less popular and is prevelant in: West Bengal and Assam

Mitakshara School
- Law-property vests in the Hindu Unified Family (HUF) itself and not in any individual member of the family.
- It can be partitioned within the lifetime of the father.
- It is widely popular in the rest of the country

✓ Even before the 2005 amendment, Andhra Pradesh, Karnataka, Maharashtra and Tamil Nadu had made this change in the law, and Kerala had abolished the Hindu Joint Family System in 1975.

Contemporary Developments

▪ In August 2020, a three-judge Bench of Supreme Court headed by Justice Arun Mishra ruled that a Hindu woman's right to be a joint heir to the ancestral property is by birth and does not depend on whether her father was alive or not when the law was enacted in 2005.

▪ The Hindu Succession (Amendment) Act, 2005 gave Hindu women the right to be coparceners or joint legal heirs in the same way a male heir does.

▪ "Since the coparcenary is by birth, it is not necessary that the father coparcener should be living as on 9.9.2005".

Government's Stance

The Solicitor General argued in favour of an expansive reading of the law to allow equal rights for women. He referred to the objects and reasons of the 2005 amendment. "The Mitakshara coparcenary law not only contributed to discrimination on the ground of gender but was oppressive and negated the fundamental right of equality guaranteed by the Constitution of India."

Conclusion

The apex court's recent verdict has upheld the stand that coparcenary status of daughters is created by birth, and is not dependent on whether the father was alive or not on the date on which it came into force — a daughter has the same status as a son as soon as she is born. The significance of this verdict is that it has put an end to all doubts about when the amendment comes into force, and whether some women could be left out of it on the ground that it can only have prospective application.

Domicile-Based Job Quota

News Excerpt

Madhya Pradesh government's decision to reserve all government jobs for *"children of the state"* raises questions relating to the fundamental Right to Equality.

Pre-Connect

- **Article 16 of the Constitution**, which guarantees equal treatment under law in matters of public employment, prohibits the state from discriminating on grounds of place of birth or residence.

- **Article 16(2)** states that "no citizen shall, on grounds only of religion, race, caste, sex, descent, place of birth, residence or any of them, be ineligible for, or discriminated against in respect or, any employment or office under the State".

- **Article 16(3)** of the Constitution provides an exception by saying that Parliament may make a law "prescribing" a requirement of residence for jobs in a particular state. This power vests solely in the Parliament, not state legislatures.

> **PEPPER IT WITH**
> Exceptions to the Right of Equality, Caste based Reservation system in India, Art. 330, 335, 93rd Constitutional Amendment Act, 2005, 103rd Constitutional Amendment Act, 2019, Public Employment (Requirement as to Residence) Act, 1957, Mandal Commission

- In India, **all citizens irrespective of the state** in which they are born or reside enjoy the **same political and civil rights of citizenship** all over the country and no discrimination is made between them.

Analytica

Constitution forbids reservation based on domicile:

➢ When the Constitution came into force, India turned itself into one nation from a geographical unit of individual principalities and the idea of the universality of Indian citizenship took root.

➢ As India has common citizenship, which gives citizens the liberty to move around freely in any part of the country, the requirement of a place of birth or residence cannot be a qualification for granting public employment in any state.

Reservations granted on other grounds

➢ Equality enshrined in the Constitution is not mathematical equality and does not mean all citizens will be treated alike without any distinction.

➢ To this effect, the Constitution underlines two distinct aspects which together form the essence of equality law — non-discrimination among equals, and affirmative action to equalise the unequals.

Supreme Court view on reserving jobs for locals

➢ The Supreme Court has ruled against reservation based on place of birth or residence.

➢ In *Dr Pradeep Jain v. Union of India, 1984* the issue of legislation for "sons of the soil" was discussed.

➢ In *Sunanda Reddy v. State of Andhra Pradesh, 1995* the Supreme Court affirmed the observation in Pradeep Jain to strike down a state government policy that gave 5% extra weightage to candidates who had studied with Telugu as the medium of instruction.

➢ In 2002, the Supreme Court invalidated appointment of government teachers in Rajasthan in which the state selection board gave preference to "applicants belonging to the district or the rural areas of the district concerned".

➢ In 2019, the Allahabad High Court struck down a recruitment notification by the UP Subordinate Service Selection Commission which prescribed preference for women who are "original residents" of the UP alone.

State laws that reserve jobs for locals

➢ Exercising the powers, it has under Article 16(3), Parliament enacted the Public Employment (Requirement as to Residence) Act, 1957 aimed at abolishing all existing residence requirements in the states and enacting exceptions only in the case of the special instances of Andhra Pradesh, Manipur, Tripura and Himachal Pradesh.

➢ Constitutionally, some states also have special protections under Article 371. Andhra Pradesh under Section 371(d) has powers to have "direct recruitment of local cadre" in specified areas.

➢ In Uttarakhand, class III and class IV jobs are reserved for locals. A domicile certificate proving the applicant is resident of the state for at least 15 years is necessary.

➢ Some states have gone around the mandate of Article 16(2) by using language.
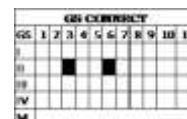
Other States on domicile-based job reservation

✓ In April, the Centre issued a notification reserving jobs for J&K domiciles expanding the definition to central government employees who had served in the erstwhile state for over 10 years.

✓ Before the abrogation of the special status of J&K in 2019, state government jobs were reserved exclusively for state subjects as per Article 370 of the Constitution.

✓ In Assam, a committee has submitted its report for implementation of a key provision of the 1985 Assam Accord, recommending reservation in jobs for those who can trace their ancestry in the state before 1951.

National Panchayat Awards

News Excerpt

Union Minister of Panchayati Raj, Rural Development and Agriculture & Farmers Welfare, has said that Sarpanchs and elected representatives of Panchayats should perform their responsibility for the overall development of villages.

Pre-Connect

- The Ministry of Panchayati Raj, Government of India has been incentivizing the best performing Panchayats recommended by the State Governments/UT Administrations since 2011-12.
- The awards are given on the National Panchayati Raj Day celebrated on 24th April every year.
- The National Panchayati Raj Day (NPRD) has been celebrated on 24 April since 2010.
- The Ministry of Panchayati Raj commemorates the National Panchayati Raj Day on 24th April 2020.

Prominent Panchayat Awards

- **Deen Dayal Upadhyay Panchayat Sashaktikaran Puraskar (DDUPSP):** These awards are given to best performing Panchayats (District, Intermediate and Gram Panchayat) across the States/UTs in recognition for improving delivery of services and public goods.

- **Nanaji Deshmukh Rashtriya Gaurav Gram Sabha Puraskar (NDRGGSP)**: These awards are given to Gram Panchayats only for their outstanding contribution to the socio-economic development by involving Gram Sabhas.

> **PEPPER IT WITH**
> 73rd and 74th Constitutional Amendment Act, Article 40, 243 I, 243 K, Ashok Mehta Committee, G.V.K. Rao Committee, L M Singhvi Committee, Thungon Committee, Gadgil Committee

- **Gram Panchayat Development Plan (GPDP) Award:** It was introduced during 2018, with a view to encourage the GPs which have developed their GPDPs according to the State/UT specific guidelines prepared in line with the models guidelines issued by the Ministry of Panchayati Raj. The award is to be given to give one GP in each State/UTs.

- **Child-friendly Gram Panchayat Award (CFGPA):**This award was announced on 1st March, 2019 for the best performing Gram Panchayats (GPs)/Village Councils (VCs) (one in each State/UT) for adopting child-friendly practices.

- **E-PanchayatPuraskar:** The main aim of this award is to encourage the Panchayats for the use of information and communication technology and to incentivize those States/UTs, which have made dedicated efforts in adopting and implementing the e-Panchayat Applications and enabling electronic delivery of services through Panchayats & equivalent rural bodies.

Gram Manchitra: It is a Spatial Planning Application launched by the Ministry of Panchayati Raj in 2019, for facilitating and supporting GP users to perform planning at Gram Panchayat level with the use of geo-spatial technology. It provides a single/unified GeoSpatial platform to better visualize the various developmental works to be taken up across the 29 sectors and provide a decision support system for GPDP.

Panchayati Raj Institutions (PRIs):

- ✓ In January 1957, the Government of India appointed a committee to examine the working of the Community Development Programme (1952) and the National Extension Service (1953) and to suggest measures for their better working. The chairman of this committee was **Balwant Rai G Mehta**.

- ✓ The committee submitted its report in November 1957 and recommended the establishment of the scheme of 'democratic decentralisation', which ultimately came to be known as Panchayati Raj.

- ✓ Panchayati Raj was constitutionalised through the **73rd Constitutional Amendment Act, 1992.**

- ✓ **Rajasthan** was the **first** state to establish Panchayati Raj on October 2, 1959, in Nagaur district.

- ✓ Rajasthan was followed by Andhra Pradesh, which also adopted the system in 1959.
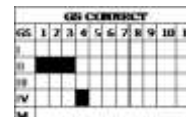
Conclusion

Even after conferring the constitutional status and protection through the 73rd Constitutional Amendment Act (1992), the performance of the Panchayati Raj Institutions has not been satisfactory and not up to the expected level. The recognition of work through the PRI awards gives a feeling to serve at the grassroot level better.

Contempt of Court

News Excerpt

The Supreme Court deferred the hearing in a 2009 contempt-of-court case against a senior lawyer and reserved its verdict on the quantum of sentencing in the contempt case initiated this year.

Pre-Connect

- **Contempt of Court:** It is a concept that seeks to protect judicial institutions from motivated attacks and unwarranted criticism, and as a legal mechanism to punish those who lower its authority.

- **Types of Contempt:**
    - The Contempt of Courts Act, 1971 divides contempt into civil and criminal contempt.
    - Civil contempt is fairly simple. It is committed when someone wilfully disobeys a court order, or wilfully breaches an undertaking given to court.
    - Criminal contempt is more complex. It consists of three forms: (a) words, written or spoken, signs and actions that "scandalise" or "tend to scandalise" or "lower" or "tends to lower" the authority of any court (b) prejudices or interferes with any judicial proceeding and (c) interferes with or obstructs the administration of justice.

> **PEPPER IT WITH**
> Contempt of a legislature, Court of Records, Art. 124, 129, 214, 215; Judicial Review, Judicial Activism, Doctrine of Prospective Overruling, Contempt of Courts Act, 1971

- It is a legal mechanism to punish those who lower the authority of judicial institutions.

- The punishment for contempt of court is simple imprisonment for a term up to six months and/or a fine of up to ₹. 2,000.

- The Supreme Court has power to punish for contempt not only of itself but also of high courts, subordinate courts and tribunals functioning in the entire country.

Constitutional and Legal provisions:

➤ The Constitution of India, under Article 19(2), has made contempt of court as one of the restrictions on freedom of speech and expression.

➤ **Article 129 and Article 215** conferred on the Supreme Court and the High Court the power to punish the guilt for contempt of Court.

➤ The Contempt of Courts Act, 1971, gives statutory backing to the concept of Contempt of Court. The act was later amended in 2006 to introduce truth as a valid defence, if it was in public interest and was invoked in a bona fide manner.

➤ The Act under Section also empowers the High Court to punish in order to contempt of subordinate courts.

Related Issues

✓ Under Article 19(2), only "reasonable restrictions" may be imposed on Article 19(1)(a) freedom by a legislature by enacting legislation. Restrictions cannot be imposed on Article 19(1) (a) freedoms directly by the judiciary or the executive. The judiciary is only to interpret and apply the restrictions imposed by the legislature.

✓ Accordingly, pursuant to Article 19(2), Parliament enacted the Contempt of Courts Act, 1971, imposing, inter alia, "reasonable restrictions" on speech and expression that

amounts to criminal contempt. Therefore, under Article 19(2), any restriction on speech and expression on the grounds of criminal contempt may be imposed only under the Contempt of Courts Act.

✓ As a result, when the Supreme Court is not acting under the Contempt of Courts Act, it has no power to restrict contumacious speech or expression. The Supreme Court may punish other acts of contempt under its Constitutional contempt power, but not 'speech and expression'.
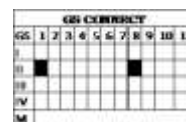
Conclusion

Paradigm of an all-powerful judiciary sending down bolts of righteous wrath on a cowering populace needs to be set aside and the emerging complex issues involving free speech, restriction on liberty, truth as defence and inclusion of *mens rea*, need to be debated in the arena of criminal contempt jurisprudence in India.

Sixth Schedule of the Constitution

News Excerpt

The revival of the demand for two autonomous councils has made political parties and community-based groups call for bringing the entire Arunachal Pradesh under the ambit of VI Schedule or Article 371A.

Pre-Connect

- At present, Arunachal Pradesh is under the V Schedule that "does not provide special rights for the indigenous communities" unlike the VI Schedule.

- Both the Fifth Schedule and Sixth Schedule in the Constitution of India are made in order to protect the interests of Scheduled Tribes.

- **Fifth Schedule:** It deals with the administration and control of Scheduled Areas as well as of Scheduled Tribes residing in any State other than the States of Assam, Meghalaya, Tripura and Mizoram. Tribal habitations in the states of Kerala, Tamil Nadu, Karnataka, West Bengal, Uttar Pradesh and Jammu & Kashmir have not been brought under the Fifth or Sixth Schedule.

> **PEPPER IT WITH**
> Inner Line Permit, Salient features of the Citizenship (Amdt.) Bill, 2019; V Schedule, North Eastern Council, Article 244, 370, 371, 371A, 371B, 371C, 371D, 371E. 371F, 371G, 371H, 371I, 371J, Bengal Eastern Frontier Regulation, 1873

- **Sixth Schedule:** It consists of provisions for the administration of tribal areas in Assam, Meghalaya, Tripura and Mizoram, according to Article 244 of the Constitution. These provisions are provided under Article 244(2) and Article 275(1) of the Indian Constitution. It currently includes 10 autonomous district councils in four north-eastern States — Assam, Meghalaya, Mizoram and Tripura.

Analytica

Reason for demand:

➢ The **Sixth Schedule** was passed by the Constituent Assembly in 1949, it seeks to safeguard the rights of tribal population through the formation of Autonomous District Councils (ADC).

➢ ADCs are bodies representing a district to which the Constitution has given varying degrees of autonomy within the state legislature.

➢ The governors of these states are empowered to reorganise boundaries of the tribal areas.

➢ In simpler terms, the governor can choose to include or exclude any area, increase or decrease the boundaries and unite two or more autonomous districts into one. They can also alter or change the names of autonomous regions without a separate legislation.

➢ Nagaland is governed by **Article 371A**, which says that no Act of Parliament shall apply in the State in several areas unless the Nagaland Assembly so decides by a resolution.

> These include administration of civil and criminal justice involving decisions according to Naga customary law and ownership and transfer of land and its resources.

Autonomous Districts and Regional Councils

✓ Along with ADCs, the Sixth Schedule also provides for separate Regional Councils for each area constituted as an autonomous region.

✓ In all, there are 10 areas in the Northeast that are registered as autonomous districts – three in Assam, Meghalaya and Mizoram and one in Tripura. These regions are named as district councils and regional councils.

✓ Each autonomous district and regional council consist of not more than 30 members, of which four are nominated by the governor and the rest via elections. All of them remain in power for a term of five years.

ADCs empowered with Civil and Judicial powers

▪ The ADCs are empowered with civil and judicial powers, and can constitute village courts within their jurisdiction to hear trials of cases involving the tribes.

▪ Governors of states that fall under the VI Schedule specifies the jurisdiction of High Courts for each of these cases.

▪ The councils are also empowered to make legislative laws on matters like land, forests, fisheries, social security, entertainment, public health, etc. with due approval from the governor.

▪ The roles of the central and state governments are restricted from the territorial jurisdiction of these autonomous regions.

▪ Acts passed by Parliament and state legislatures may or may not be levied in these regions unless the President and the governor gives her or his approval, with or without modifications in the laws for the autonomous regions.
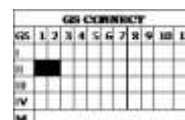
Conclusion

The VI Schedule provides tribal communities considerable autonomy in the lines of Assam, Tripura, Meghalaya and Mizoram which are autonomous regions. Likewise, inclusion of Arunachal Pradesh under VI Schedule would enable the state to own the legitimate ownership rights over its own natural resources and make it self-sufficient without having too much dependency on central grants.

Parliamentary Committees

News Excerpt

Lok Sabha speaker Om Birla said India's strong Parliamentary Committee system works to ensure public participation in legislative oversight work.

Pre-Connect

• Parliament is assisted by a number of committees in the discharge of its duties.

• The Constitution of India makes a mention of these committees at different places, but without making any specific provisions regarding their composition, tenure, functions, etc.

• All matters regarding the Parliamentary Committees are dealt by the rules of the two Houses of the Parliament.

• Accordingly, a parliamentary committee means a committee that:
  o is appointed or elected by the House or nominated by the Speaker/Chairman.
  o works under the direction of the Speaker/Chairman.
  o presents its report to the House or to the Speaker/Chairman.
  o has a secretariat provided by the Lok Sabha/Rajya Sabha.
  o the consultative committees, which also consist of members of Parliament, are not parliamentary committees as they do not fulfil above four conditions.

- Parliamentary Committees are of two kinds:
  - o **Standing Committees:** They are permanent, constituted every year or periodically and work on a continuous basis.
  - o **Ad Hoc Committees:** They are temporary and cease to exist on completion of the task assigned to them.

Working Procedure of Parliamentary Committees

➢ Committees hold meetings in the Parliament House or in the Parliament House Annexe, but in special cases with the permission of the Speaker /Chairman, meetings may be held outside also.

➢ A Committee has the power to take oral or written evidence. It may send for persons, papers and records provided that if any question arises whether the evidence of a person or the production of a document is relevant for the purposes of the Committee, the question is referred to the Speaker whose decision is final.

➢ Sub-committees may also be appointed by the main Committee toexamine matters referred to them. The report of the Sub-committeeis submitted to the main Committee.

➢ The sittings of a Committee are held in camera. Thereare no public hearings.

➢ Theproceedings in Committees arelargely conducted in the same manner as in the House butin a more intimate and informal atmosphere and on non-partylines.

➢ When a Committee is deliberating, a membercan speak more than once on a question under the consideration.

➢ All questions are determined by a majority of votesof the members present and voting.

➢ In case of an equal divisionof votes on any matter, the Chairman has a secondor casting vote.

➢ The Committee drafts a report thereafter,on the basis of the minutes of the sittings of the Committeecontaining the substance of deliberations of the Committeetogether with the recommendations.

➢ Reports may be eitherpreliminary or final. It may make a special report on anymatter that comes to light in the course of its work which itmay consider necessary to bring to the notice of the presiding officer, or the House, even if such matter does not fall within theterms of reference.

➢ The report of a Committee is presented to the House by the Chairman of the Committee or any member of the Committee so authorised.

➢ Until a report is presented to the House, it is treated as confidential; it becomes a public document only after its presentation to the House.

Way forward

✓ A robust lawmaking process requires thorough scrutiny by Parliament. Such scrutiny should not be impacted by either the strength of numbers in Parliament or political agreement on issues.

> **PEPPER IT WITH**
> Parliamentary Forums, Departmental Standing Committees, Committees to Inquire, Consultative Committees, Ministry of Parliamentary Affairs

✓ This robustness can be ensured by requiring that all Bills be referred to Parliamentary committees.

✓ Exceptions to this rule should be strictly defined and the exceptions explained to Parliament.

✓ In addition, the committees should be strengthened to scrutinise and present their reports in a timely fashion. These mechanisms will ensure that all bills passed by Parliament, irrespective of the party in power, go through a well laid-out process of debate.

Conclusion

There is no doubt that the Committees of Parliament have proved a helpful adjunct to the Indian political system. By their constant vigilance and fair and constructive appraisalsof the functioning of government departments, the Committees have made a distinct contribution to the effective working of the Parliament and have played a significant role in generally strengthening parliamentary institutions in the country.

Appointment of Election Commissioners

News Excerpt

The President appointed former Finance Secretary Rajiv Kumar as the new Election Commissioner in a three-member Election Commission of India (ECI). Kumar is presently holding the office of chairperson Public Enterprises Selection Board (PESB).

Pre-Connect

- Article 324 of the Constitution has made the following provisions with regard to the composition of election commission:

  - The Election Commission shall consist of the chief election commissioner and such number of other election commissioners, if any, as the president may from time to time fix.

> **PEPPER IT WITH**
> Article 76, 165, 148, 315, 324, 326, 243I, 243K, 279A, 280, 338, 338A, 338B, 350,

  - The appointment of the chief election commissioner and other election commissioners shall be made by the president.

  - When any other election commissioner is so appointed, the chief election commissioner shall act as the chairman of the election commission.

  - The president may also appoint after consultation with the election commission such regional commissioners as he may consider necessary to assist the election commission.

  - The conditions of service and tenure of office of the election commissioners and the regional commissioners shall be determined by the president.

- The chief election commissioner and the two other election commissioners have equal powers and receive equal salary, allowances and other perquisites, which are similar to those of a judge of the Supreme Court.

- They hold office for a term of six years or until they attain the age of 65 years, whichever is earlier. They can resign at any time or can also be removed before the expiry of their term.

Analytica

➢ The Election Commission is a formidable institution which has led the world in electoral efficiency since its inception. But in the 2019 general election, it has come under the scanner like never before in the wake of incidents involving a breach of the Model Code of Conduct, particularly those by the ruling party. There were concerns raised regarding the weak conduct of the EC by many retired bureaucrats.

➢ A PIL was also filed in the Supreme Court calling for a "fair, just and transparent process of selection by constituting a neutral and independent Collegium/selection committee.

➢ Besides the manner of appointment, the system of removal of Election Commissioners also needs correction. Only the Chief Election Commissioner (CEC) is protected from being removed except through impeachment.

➢ The genesis of the problem lies in the flawed system of appointment of election commissioners, who are appointed unilaterally by the government of the day. This debate can be settled once and for all by depoliticising appointments through a broad-based consultation, as in other countries.

➢ In its 255th report, the Law Commission recommended a collegium, consisting of the Prime Minister, the Leader of the Opposition and the Chief Justice of India.But successive ruling governments have ducked the issue, not wanting to let go of their power. It is obvious that political and electoral interests take precedence over the national interest.

Way forward

Elections are the bedrock of democracy and the EC's credibility is central to democratic legitimacy. Hence, the guardian of elections itself needs urgent institutional safeguards to protect its autonomy. It is time that action is taken to depoliticise constitutional appointments and the EC empowered to de-register parties for electoral misconduct. It is a step needed towards restoring all-important public faith in the institution.
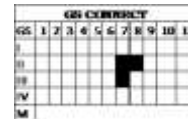
SOCIAL ISSUES, SCHEMES, REPORTS & INDICES

National Cancer Registry Programme Report 2020

News Excerpt

Indian Council of Medical Research (ICMR) released National Cancer Registry Programme Report 2020.

Pre-Connect

- Cancer is a genetic disease, caused by changes to genes that control the way our cells function, especially how they grow and divide.
- Genetic changes that cause the cancer can be inherited from our parents.
- Genetic changes can also arise during a person's lifetime as a result of errors that occur as cells divide or because of damage to DNA caused by certain environmental exposures.
- Cancer-causing environmental exposures include substances, such as chemicals in tobacco smoke, and radiation, such as ultraviolet rays from the sun.
- Report is released by ICMR and National Centre for Disease Informatics and Research (NCDIR), Bengaluru.

Highlights

➢ Report estimates that there will be 13.9 lakh cases of cancer in India by 2020 and likely to rise to 15.7 lakh by 2025.

➢ Estimates are based on data retrieved from 28 Population-Based Cancer Registries (PBCRs) and 58 Hospital-Based Cancer Registries (HBCRs) across India, from 2012 to 2016.

➢ PBCRs measure the incidence rates of cancer for a defined population, while HBCRs provide data on the clinical presentation, diagnosis and care of cancer.

➢ ICMR set up the National Cancer Registry Programme (NCRP) in 1982.

➢ NCRP is overseen by ICMR National Centre for Disease Informatics & Research (NCDIR), Bengaluru.

➢ As per the report, tobacco-related cancers will account for 27.1% of India's cancer burden in 2020, followed by gastrointestinal cancer (19.7%) and cervix uteri cancer (5.4%).

Issue: So far, only nine States in India have declared cancer as a notifiable disease.

Solution: Make cancer a notifiable disease to increase coverage by registries and establishment of registries in areas hitherto uncovered regions to get a more comprehensive national picture. It will help in better cancer screening, early detection, referral, treatment and palliative care services. Sikkim was the only state to show a decrease in cancer prevalence, reflecting good public health system and aware citizenry.

➢ Cancer incidence rate for male population ranges from 269.4 in Aizawl district (highest in India) to 39.5 in Osmanabad and Beed district per 1,00,000 population.

➢ Cancer incidence rate for women population ranges from 219.8 (Papumpare district) to 49.4 (Osmanabad & Beed district) per 100,000 population.

➢ A significant increase in the incidence rates of breast cancers in women. Lung, head and neck cancer in both men and women was observed in most of the registries.

➢ Cancers of lung were diagnosed at a stage of spread to distant sites, while cancers of head and neck, stomach, breast and cervix were in higher proportions with loco-regional spread.

➢ Report finds that highest incidence of cancer was observed in the North-eastern region — one out of four persons between 0 and 74 years in Arunachal Pradesh's Papumpare district had the possibility of developing cancer in their lifetime.

➢ Lung, mouth, stomach and oesophagus cancer were the most common among men, while breast and cervix uteri cancer were the most common among women.

➢ The incidence of breast cancer is on the rise while cervical cancer is on the decline.

- Highest burden of breast cancer was observed in metropolitan cities such as Hyderabad, Chennai, Bengaluru and Delhi.
- World Cancer Day falls on 4th February every year, is the global uniting initiative led by the Union for International Cancer Control (UICC).
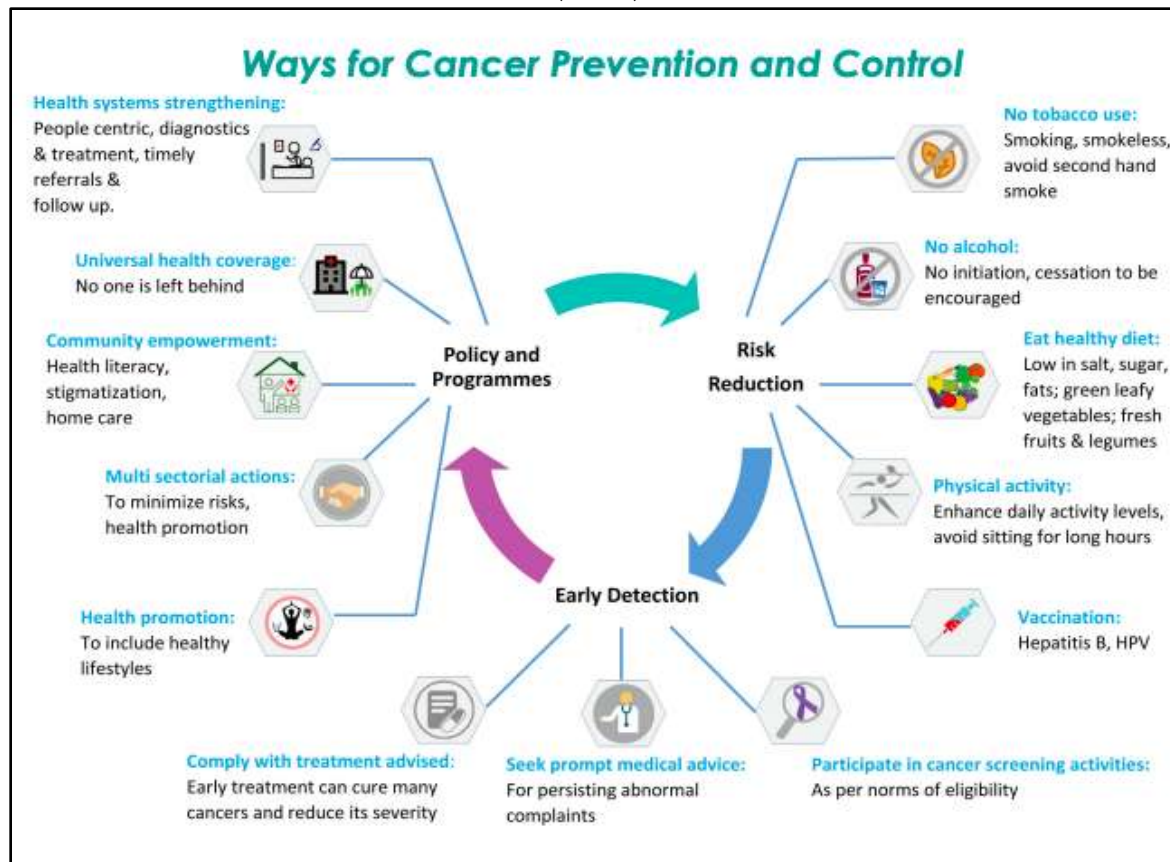
Conclusion

Cancer treatment has seen significant improvement over the years and now we have targeted therapies. Precision medicine available that has led to improved treatment.

Minimum Age of Marriage

News Excerpt

The Prime Minister has announced that the Centre will decide on the recommendations of a committee set up to reconsider the minimum age of marriage for women.

Pre-Connect

- Indian Penal Code, while enacted in 1860 criminalised sexual intercourse with a girl below the age of 10.
- The provision of rape was amended in 1927 through The Age of Consent Bill, 1927, which declared that marriage with a girl under 12 would be invalid.
- A legal framework for the age of consent for marriage in India only began in the 1880s.
- In 1929, The Child Marriage Restraint Act set 16 and 18 years as the minimum age of marriage for girls and boys respectively.
- The Sarda Act, popularly known after its sponsor Harbilas Sarda, a judge and a member of Arya Samaj, was amended in 1978 to prescribe 18 and 21 years as the age of marriage for a woman and a man respectively.
- Union Ministry for Women and Child Development set up a task force to examine the age of motherhood, imperatives of lowering Maternal Mortality Ratio and the improvement of nutritional levels among women.

- The task force will examine the correlation of age of marriage and motherhood with health, medical well-being, and nutritional status of the mother and neonate, infant or child, during pregnancy, birth and thereafter.

The Hindu Marriage Act, 1955

- The persons getting married must be unmarried and must not have a living spouse from their previous marriage.
- The legal age for a woman is 18 years and for a man is 21 years.
- The sanity of mind is necessary for both the parties and they must be capable to give their consent to the marriage freely.
- The persons getting married must be mentally fit for the marriage i.e. they must not be suffering from any mental illness.

The Special Marriage Act, 1954

- The provisions of the act are applicable to all the citizens of India irrespective of their religion, caste or culture.
- Under provisions of the Act, people from different religion, caste or community are allowed to get married, provided certain conditions must be met.
- Marriage registration in India is compulsory to solemnize a marriage under this Act.
- The age of both bride and groom must be 18 and 21 years respectively.
- Both of them must be of sound mind.
- Both the bride and groom cannot share common ancestors or be blood relatives.
- Total 37 relations are forbidden under the act in which no wedding can be performed.

> **What are the grounds on which the law was challenged?**
>
> ❖ Article 14 and 21, which guarantees the right to equality and the right to live with dignity, were violated by having different legal ages for men and women to marry.
>
> ❖ In *National Legal Services Authority v. Union of India, 2014*, the Supreme Court, while recognising transgenders as the third gender, said that justice is delivered with the *"assumption that humans have equal value and should, therefore, be treated as equal, as well as by equal laws"*.
>
> ❖ In *Joseph Shine v Union of India, 2019*, the Supreme Court decriminalised adultery, and held that *"a law that treats women differently based on gender stereotypes is an affront to women's dignity"*.

Indian Christian Marriage Act, 1872

- The solemnization of the wedding takes place in the presence of priests, clergymen or ministers in a church and as per the regulations of the Indian Christians community.
- The age of bridegroom and bride should be 21 years and 18 years respectively.
- Both bride and groom must give their consent voluntarily and under no compulsion.
- Both the parties should not have an existing partner from any former marriage.

> **Fact box**
>
> ❖ The United Nations Population Fund (UNFPA) said that while child marriages were almost universally banned, "yet they happen 33,000 times a day, every day, all around the world".
> ❖ An estimated 650 million girls and women alive today were married as children, and by 2030, another 150 million girls under the age of 18 will be married.
> ❖ Although advances in India have contributed to a 50% decline in child marriage in South Asia, the region still accounts for the largest number of child marriages.
> ❖ In India, an analysis of child marriage data show that among girls married by 18, 46% were in low income bracket.
> ❖ UNICEF estimates suggest that each year, at least 1.5 million girls under the age of 18 are married in India, which makes the country home to the largest number of child brides — accounting for a third of the global total.
> ❖ Nearly 16% adolescent girls aged 15-19 are currently married.

Why minimum age for marriage?

➢ The law prescribes a minimum age of marriage to essentially outlaw child marriages and prevent the abuse of minors.

➢ Personal laws of various religions that deal with marriage have their own standards, often reflecting custom.

➢ However, child marriages are not illegal — even though they can be declared void at the request of the minor in the marriage.

➢ In Islam, the marriage of a minor who has attained puberty is considered valid.

➢ Additionally, sexual intercourse with a minor is rape, and the 'consent' of a minor is regarded as invalid since she is deemed incapable of giving consent at that age.
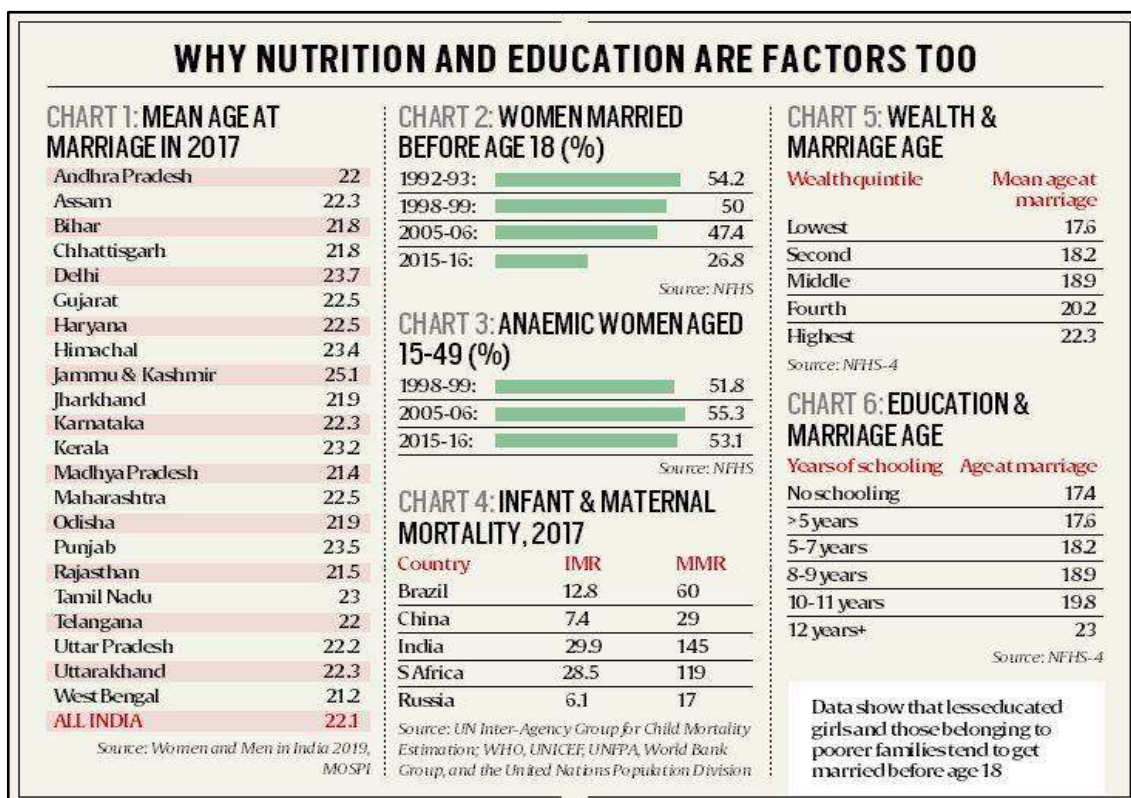
> **PEPPER IT WITH**
> Article 14, 21, Vinoba Bhave's Brahma Vidya Mandir, Jyotiba Phule and his wife SavitriBai Phule's work for Women Emancipation

How prevalent is underage marriage?

✓ Majority of women in India marry after the age of 21.

✓ The latest National Family Health Survey (NFHS-4) found that about 26.8% of women aged 20-24 were married before becoming legally adult.

How does the age of marriage correlate with health?

✦ Preventing early marriage can reduce the Maternal Mortality Ratio (MMR) and Infant Mortality Ratio (IMR).

  o MMR — the number of maternal deaths for every 100,000 children born — has declined to 113 in 2016-18 from 122 in 2015-17 and 130 in 2014-2016.

  o India's IMR shows that 32 of every 1,000 (in 2018) children born in a year die before the age of one.

  o Both, MMR and IMR in India are the highest among the BRICS economies.

✦ Young mothers are more susceptible to anaemia.

  o More than half the women of reproductive age (15-49 years) in India are anaemic. The prevalence of anaemia among women has consistently been high over the last 20 years.

✦ The 2015-16 NFHS report shows that trends in education and employment are influenced by cultural norms around marriage.

WHY NUTRITION AND EDUCATION ARE FACTORS TOO

CHART 1: MEAN AGE AT MARRIAGE IN 2017

State	Age
Andhra Pradesh	22
Assam	22.3
Bihar	21.8
Chhattisgarh	21.8
Delhi	23.7
Gujarat	22.5
Haryana	22.5
Himachal	23.4
Jammu & Kashmir	25.1
Jharkhand	21.9
Karnataka	22.3
Kerala	23.2
Madhya Pradesh	21.4
Maharashtra	22.5
Odisha	21.9
Punjab	23.5
Rajasthan	21.5
Tamil Nadu	23
Telangana	22
Uttar Pradesh	22.2
Uttarakhand	22.3
West Bengal	21.2
ALL INDIA	22.1

Source: Women and Men in India 2019, MOSPI

CHART 2: WOMEN MARRIED BEFORE AGE 18 (%)

Year	%
1992-93	54.2
1998-99	50
2005-06	47.4
2015-16	26.8

Source: NFHS

CHART 3: ANAEMIC WOMEN AGED 15-49 (%)

Year	%
1998-99	51.8
2005-06	55.3
2015-16	53.1

Source: NFHS

CHART 4: INFANT & MATERNAL MORTALITY, 2017

Country	IMR	MMR
Brazil	12.8	60
China	7.4	29
India	29.9	145
S Africa	28.5	119
Russia	6.1	17

Source: UN Inter-Agency Group for Child Mortality Estimation; WHO, UNICEF, UNFPA, World Bank Group, and the United Nations Population Division

CHART 5: WEALTH & MARRIAGE AGE

Wealth quintile	Mean age at marriage
Lowest	17.6
Second	18.2
Middle	18.9
Fourth	20.2
Highest	22.3

Source: NFHS-4

CHART 6: EDUCATION & MARRIAGE AGE

Years of schooling	Age at marriage
No schooling	17.4
>5 years	17.6
5-7 years	18.2
8-9 years	18.9
10-11 years	19.8
12 years+	23

Source: NFHS-4

Data show that less educated girls and those belonging to poorer families tend to get married before age 18

Conclusion

We need to do for women is to make sure that they get adequate nutrition and proper education. We need to make sure they get through the 12 years of schooling; and we need to make sure that marriage is not made the only important thing in a woman's life. This involve much more work on the part of the society not the government.

National Digital Health Mission

News Excerpt

The Union Government has launched the National Digital Health Mission(NDHM). It will come under the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana.
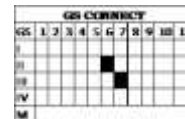
Pre-Connect

- The origin of the NDHM goes back to the National Health Policy, 2017, which proposed a new National Digital Health Authority.
- In July 2019, the National Digital Health Blueprint was released by a committee headed by former UIDAI.
- According to the blueprint, the objective of the digital mission is to achieve a citizen-centric, universal health coverage that provides quality healthcare, with better accessibility and inclusivity by leveraging the power of the digital technologies.
- The National Digital Health Blueprint recommended the setting up of the NDHM, a governmental organisation with complete functional autonomy on the lines of UIDAI and Goods and Services Network.

Digital Health Records

➢ The health records in India is as fragmented as its healthcare market.

➢ Public and private hospitals often have varying technological capacity. The government has been trying to get hospitals to voluntarily adopt digital health records by notifying standards and recommendations under existing legal frameworks, such as the Clinical Establishment Act, 2010, with limited gains.

> **PEPPER IT WITH**
> AYUSH, DGHS, Article 41, 42, 47, National Health Policy, 2017, National Health Portal

➢ The issue of inadequate record-keeping in public hospitals has been documented in the reports of the Comptroller and Auditor General.

➢ A typical government hospital is unable to keep a uniform record for services received by the patient during their treatment.

➢ The lack of health information leads to inconvenience, duplication of diagnostic and consultation services, delays in treatment, and increase in expenditure.

➢ Loss of records and delays can even lead to misdiagnosis and other harms.

National Digital Health Mission

✓ Under the mission, every Indian will get a new Aadhar-like health ID that will store the individual's medical records, doctor visits, diseases, the line of treatment and drugs taken.

✓ It will map every citizen's health with a unique ID.It will also be integrated with the facility of telemedicine, e-pharmacy, and national health registry.

✓ From a doctor's appointment to hospitalisation, it will be essential.

✓ It will leverage upon digital systems to provide high-quality healthcare for all.

✓ It will integrate various digital health services to create an ecosystem which can assimilate existing health information systems.

NDHM at a glance

- Complete digital health ecosystem with HealthID, DigiDoctor, Health Facility Registry, personal health records, e-pharmacies and telemedicine
- Ability to securely store and access medical records, such as prescriptions, diagnostic reports, and discharge summaries
- Pilots rolled out in six Union Territories: Andaman & Nicobar Islands, Chandigarh, Dadra & Nagar Haveli Daman & Diu, Lakshadweep, Ladakh and Puducherry
- Enrolling in the NDHM is voluntary; data can only be shared after approval from individuals
- DigiDoctor will allow doctors from across the country to register on the platform; this helps in providing telemedicine services

Global Instances

❖ In 2005, the UK's National Health Service started deployment of an electronic health record systems with a goal to have all patients with a centralised electronic health record by 2010.

❖ While several hospitals acquired electronic patient records systems as part of this process, there was no national healthcare information exchange.

❖ The program was ultimately dismantled after a cost to the UK taxpayer more than £12 billion, and is considered one of the most expensive healthcare IT failures.

❖ The project had been beset by changing specifications, technical challenges and clashes with suppliers, which left it years behind schedule and way over cost.

Health ID

✓ The health ID will be in the form of a mobile application. Patients can create a health ID, allowing them to share their data between hospitals and doctors digitally.

✓ They can choose for how long or what specific documents they would like to share with whom. If individuals are looking to benefit from government schemes, then they will be required to connect their ID to their Aadhaar.

✓ One copy of a patient's records is stored in their doctor's files and one is stored in their own individual locker (which can be owned by a company or by the government).

✓ Other than the registry of doctors, professionals, and institutions, this allows for decentralised storing.

Analytica

Why this mission could be a game changer?

Once rolled out nationwide, the programme has the potential to be a game changer. But much depends on implementation, and the laws surrounding it.

✦ The health scheme will provide choice to individuals to access both public and private health services, according to the strategy plan, and ensure transparency in the pricing of services.

✦ It has created access to patient records without owning their records. That means there is no repository and related costs associated with it. It will provide a platform to contribute to the treatment and speed up the control management of non-communicable diseases such as diabetes and hypertension.

✦ With telemedicine also being brought within the ambit, the programme ensures that doctors will be able to provide direct access to remote areas across the country.

✦ In case of diseases such as diabetes and hypertension, it will become easy to monitor the health of the patient and provide remedial measures instead of responding to it at a critical stage, which can be an expensive affair. That means the scheme has a huge role in disease management.

Problems (Data protection and role of NHA)

India has been debating on the requirements under its Draft Personal Data Protection Bill for the past two years. Under the bill, data relating to health, finance, genetics etc. is considered 'sensitive personal data' as its disclosure can cause serious harm to individuals and institutions.

✦ The imminent adoption of NDHM in the absence of a data protection law has led for the policymakers to plan for two policies — security of health systems and privacy of personal health records.

- These policies will adopt globally accepted norms such as privacy by design, risk management and fiduciary principles framework for building the upcoming digital health records ecosystem.
- As a government regulator for NDHM, it would be responsible for regulating the healthcare market while ensuring consumer protection.
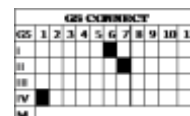
Way forward

It would need to adhere to principles of transparency and accountability while functioning as the de-facto regulator for digital health records in India. Its experience in working with the healthcare ecosystem for the AB-PMJAY scheme can guide the agency in formulating future steps for NDHM. For instance, the NHA has been forthcoming in initiating public disclosure of data, hospital accreditation protocol and fraud reports for the AB-PMJAY scheme.Looking ahead, issues related to the protection of fundamental rights, such as the right to privacy of individuals, as well as the need for the government to assess and analyse India's disease burden, will have to guide the legal and regulatory framework.

From Locker Rooms to Classrooms

News Excerpt

Recent cases such as the 'Bois Locker Room' and other examples of non-consensual sharing of images online to threaten and shame the fair sex, have given a disturbing glimpse into the minds of some of our youth and the challenges we still face in these COVID times.

How big is the problem?

- These instances have raised serious questions about the mindsets of not only of boys but of all youngsters, and their use of social media.
- Public opinion has pointed the finger at the nefarious influence of technology.
- A quick fix of deactivating social media handles or deleting so called 'provocative pictures' is often the most common response to such situations.
- COVID-19 has exacerbated the challenges that women continue to face and this has shown that the glass ceiling remains far from being shattered.
- While women are holding up more than their half of the sky during the pandemic, the National Commission for Women has reported a surge in domestic violence and cybercrimes, which has made the fair sex more vulnerable as they struggle to fight another pandemic of violence and abuse inside their homes and online.

Steps taken so far

- For those looking to prevent and counter cyberbullying, UNESCO's information booklet on Safe Online Learning in Times of COVID-19 can also be a useful reference.
- The booklet, developed in partnership with NCERT, supports the creation of safe digital spaces and addresses nuances of privacy, especially in the current context.
- UNESCO, UNICEF, UN Women, UNFPA and the South Asia Foundation joined hands to support Nandita Das in the production and launch of the short film "Listen to Her".

PEPPER IT WITH
Salient features of the Indecent Representation of Women (Prohibition) Act, 1986

- 'Action for Equality' programme driven by Equal Community Foundation, has already trained over 130 educators across India on how to engage boys to achieve gender equality through educational interventions.
- At the core of this initiative is a community based behavioural change program designed to provide young boys with the skills and knowledge, they need to challenge existing gender norms and take action to end violence and discrimination against the fair sex.

What need to be done?

- ✓ Young minds are malleable and therefore a concerted effort must be made to shape positive mindsets at this very critical age.As the boundary between the real and the virtual world becomes increasingly blurred, the perceived risks increase.

- ✓ We also need to engage with school communities, civil society organizations and governments to define alternatives for pre-existing norms of masculinities.

- ✓ Many more schools should adopt 'School-Related Gender-based Violence' programmes and curriculums, so that conversations can move out of the locker-room and emerge as healthy discussions in the classroom.

- ✓ The new National Education Policy (NEP) 2020, provides historic opportunities to shape the educational response to these challenges for decades to come.

- ✓ Ultimately, societies across the world must sensitize children and young women and men towards understanding the repercussion of their choices and guide them to actualization of their own individualities.

Conclusion

It is fairly evident that the global movements towards gender equality and the eradication of violence against women are here to stay and hopefully to grow. One of the most important lessons to be drawn from these movements is that change can be affected through peaceful means when people from different walks of life come together in unison to confront the dominant social norms.

International Labour Organisation

News Excerpt

For the first time in the International Labour Organisation's (ILOs) history, an International Labour Convention has been ratified by all the member States.

Pre-Connect

- Convention No. 182 on the 'Worst Forms of Child Labour' achieved universal ratification, following ratification by the Kingdom of Tonga.

- It calls for the prohibition and elimination of the worst forms of child labour, which includes slavery, forced labour and trafficking.

- It forbids the use of children under18 years of age in armed conflict, prostitution, pornography, illicit activities such as drug trafficking, and in hazardous work.

- The convention was adopted by ILO member states meeting in Geneva in 1999.

- The Convention complements the ILO's efforts under the 1973 Minimum Age Convention to prevent the employment of children below a lower age threshold.

- Under the influence of both these ILO standards, millions of young boys and girls have been rescued from hazardous conditions of work. Concomitantly, these have resulted in significant increases in enrolments in primary education.

About ILO

- ➢ It is a specialized agency of the United Nations (UN) dedicated to improving labour conditions and living standards throughout the world.

- ➢ Established in 1919 by the Treaty of Versailles as an affiliated agency of the League of Nations, the ILO became the first affiliated specialized agency of the UN in 1946. In recognition of its activities, the ILO was awarded the Nobel Prize for Peace in 1969.

> **PEPPER IT WITH**
> International Labour Organisation, League of Nations, For more info on labour issues refer Current Connect May, 2020, Kingdom of Tonga

- ➢ The functions of the ILO include the development and promotion of standards for national legislation to protect and improve working conditions and standards of living.

- ➢ The ILO also provides technical assistance in social policy and administration and in workforce training; fosters cooperative organizations and rural industries; compiles labour

statistics and conducts research on the social problems of international competition, unemployment and underemployment, labour and industrial relations, and technological change; and helps to protect the rights of international migrants and organized labour.

➢ At present the ILO has 186 Members.

➢ India is a founder member of the International Labour Organization, which came into existence in 1919.

➢ There are 47 ILO conventions and 1 protocol ratified by India. Out of those, 39 are in force, 5 Conventions and 0 Protocol have been denounced; 4 instruments abrogated.

"8"Fundamental Conventions of ILO

1. Freedom of Association and Protection of the Right to Organise Convention, 1948

2. Right to Organise and Collective Bargaining Convention, 1949

3. Forced Labour Convention, 1930

4. Abolition of Forced Labour Convention, 1957

5. Minimum Age Convention, 1973

6. Worst Forms of Child Labour Convention, 1999

7. Equal Remuneration Convention, 1951

8. Discrimination (Employment and Occupation) Convention, 1958

Indian Constitutional Provisions

Article 21: The State shall provide free and compulsory education to all children of the age of 6 to 14 years in such manner as the State, by law, may determine.

Article 24 Prohibition of Employment of Children's in Factories: No child below the age fourteen years shall be employed in work in any factory or mine or engaged in any other hazardous employment.

Article 39 The state shall in Particular direct its policy towards securing, that the health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age or strength.

Conclusion

An estimated 152 million are trapped in child labour and 72 million of them are engaged in hazardous work. Current efforts would have to be stepped up significantly to achieve the ambitious goal of total abolition of the scourge of child labour by 2025.

'eSanjeevani' Telemedicine Service

News Excerpt

The Central government's 'eSanjeevani' digital platform has provided two lakh tele-consultations.

Pre-Connect

• The top five states which have been utilising the e-health services being offered through this platform are Tamil Nadu (56,346 consultations), Uttar Pradesh (33,325), Andhra Pradesh (29,400), Himachal Pradesh (26,535) and Kerala (21,433).

• National Teleconsultation Service of Ministry of Health and Family Welfare(MoH&FW) is first of its kind onlineOPD service offered by a national government to its citizens.

• National Teleconsultation Service aims to provide healthcare services to patients in their homes.

PEPPER IT WITH

National Health Portal, Hospital Information System, Online Registration System, MeraAspataal application

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• Safe & structured video based clinical consultations between a doctor in a hospital and a patient in the confines of his home are being enabled.

e-Sanjeevani

➢ This e-Sanjeevani platform has enabled two types of telemedicine services viz. Doctor-to-Doctor (e-Sanjeevani) and Patient-to-Doctor (e-Sanjeevani OPD) Tele-consultations.

➢ The former is being implemented under the Ayushman Bharat Health and Wellness Centre (AB-HWCs) programme.

- It is planned to implement tele-consultation in all the 1.5 lakh Health and Wellness Centres in a 'Hub and Spoke' model, by December 2022.
- The MoH&FW launched the second tele-consultation service enabling patient-to-doctor telemedicine through 'e-SanjeevaniOPD'.
- Offered at no cost, this e-health service is rapidly gaining popularity as citizens in around 20 States are now consulting doctors without having to go to the hospital physically.
- Around 2800 doctors have been trained and on-boarded at e-SanjeevaniOPD and every day around 250 doctors and specialists across the country provide eHealth services despite the lockdown has been relaxed in phases.
- This service is available as an Android mobile application as well. This has made it convenient for the people to avail of the health services without having to travel. It also ensures that the patient gets to see the doctor in around five minutes after logging in.

> **Salient features of e-SanjeevaniOPD**
> 1. Patient Registration
> 2. Token Generation
> 3. Queue Management
> 4. Consultation with Doctor
> 5. ePrescription
> 6. SMS/Email Notifications
> 7. Serviced by State's Doctors
> 8. Free Service
> 9. Fully Configurable (no. of daily slots, no. of doctors/clinics, waiting room slots, consultation time limit etc.)

Telemedicine

✓ Telemedicine a term framed in the 1970s, which literally means "healing at a distance".

✓ It signifies the use of ICT to improve patient outcomes by increasing access to care and medical information.

✓ According to the WHO, telemedicine is defined as *'the delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities'.*

Way forward

- Telemedicine has shown substantial growth recently both in terms of financial volume and numbers of people served. It also holds promise for even more growth in the future, driven by both epidemiological conditions and technological advancements.

- The spread of the mobile telephony into the remotest parts of the developing nations, combined with its multiple applications in health and mobile financial services will extend telemedicine to vast swathes of the globe.

- However, some challenges, primarily in dealing with the regulatory environment, will need to be overcome.

Privatisation via graded autonomy

News Excerpt

The Union Cabinet approved the National Education Policy (NEP) 2020, despite vehement opposition to several of its provisions that were earlier circulated as a draft policy document.
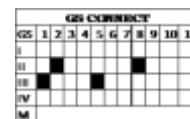
Pre-connect

- Among several unique features of the NEP 2020, one of the best provisions is to grant autonomy to the educational institutions, especially those that are providing quality education. This will help rewarding institutions that aspire towards excellence.

> In its report, the **Mahajani Committee on Colleges (1964)** took the position that one way of improving the standard of higher education in India was by selecting a few colleges on the basis of past work, influence, traditions, maturity and academic standards and give them what might be called for want of a better phrase an 'autonomous' status".

- Among these provisions is the phasing out of the system of affiliated colleges and the grant of greater autonomy in academic, administrative and financial matters to premium colleges, and essentially, to the top ranked universities of the country.

Evolution of India's Education Policy

❖ University Education Commission (1948-49) also known as the 'Radhakrishnan Commission' (led by Sarvepalli Radhakrishnan) was focused on higher education.

❖ The Secondary Education Commission (1952-53) was focused on education after primary school and before university begins.

❖ The Education Commission (1964-66), also known as the 'Kothari Commission', as it was led by Dr. D. S. Kothari. This commission had a holistic approach and advised the government on the national pattern of education and general policies, taking into account each stage from primary to post graduate.

❖ The National Policy on Education, 1968: Based upon the recommendations of the Kothari Commission, the government announced a policy which called for equal educational opportunities in order to achieve national integration and greater cultural and economic development.

❖ The 42nd Constitutional Amendment Act, 1976, which included education in the IIIrdList of VIIth Schedule of the Constitution, i.e. Concurrent List, so as to be considered by both the states as well as the union government (earlier it was on the State List, which gave the state governments precedence in terms of law making).

❖ The objective of the National Policy on Education (NPE), 1986 was a "special emphasis on the removal of disparities and to equalise educational opportunities," especially for women, Scheduled Tribes (ST) and Scheduled Caste (SC) communities. The NPE of 1986 was modified in 1992.

❖ In 2009, the Right of Children to Free and Compulsory Education (RTE) Act was passed, which made elementary education a fundamental right for every child.

❖ The Committee for Draft National Education Policy, or Dr. K. Kasturirangan Committee, submitted its report on May 31, 2019. It sought to address the challenges of: (i) access (ii) equity (iii) quality (iv) affordability (v) accountability faced by the current education system.

Concern with the autonomy

➢ This measure has drawn on the long-standing anxieties about the perils of politico-bureaucratic interference in the internal functioning of the universities.

➢ The substantial burden on universities which have to regulate admissions, set curricula and conduct examinations for a large number of undergraduate colleges.

➢ Long existed about over-centralisation, namely, the constraints imposed on the potential for premium affiliated colleges to innovate and evolve.

➢ Even while solutions to apprehensions about over-centralisation were being discussed by stakeholders, these came to be used by successive governments to build a case for the model of graded autonomy. This model has adverse ramifications for accessibility, equity and quality for the higher education sector.

➢ Correspondingly, there has been a serious lack of development of educational infrastructure to meet the rapidly increasing demand for higher education.

➢ Its corollary, the persistent decline in per-capita government allocation of funds towards education.

➢ Consequently, private colleges and universities have grown in number, and there has been a rapid expansion of the open and distance learning (ODL) education.

> **The National Knowledge Commission (2005)** stated that "undergraduate colleges are constrained by their affiliated status... the problem is particularly acute for undergraduate colleges that are good, for both teachers and students are subjected to the 'convoy problem' insofar as they are forced to move at the speed of the slowest... In fact the design of courses and examinations needs to be flexible".

➢ In line with these developments, recommendations of recent education commissions have promoted the already existing unequal structure of funding for higher education, and perpetuated the prevailing hierarchy in higher education along the lines of "centres of excellence" or metropolitan Central government-funded universities, provincial Central government-funded universities, regional universities and colleges funded by State governments, etc.

Other Issues

✓ The issue of autonomy is the key to unravelling the inherent problem with NEP 2020 in matters of higher education.

✓ By engaging with the multi-fold ramifications of this provision, a lot can be gleaned on the heavy cost that the common masses will pay in terms of growing inaccessibility of higher education.

✓ The model of graded autonomy is not based on universalisation of educational resources and equal access to quality higher education, but on furthering the prevailing hierarchy that exists between different colleges within a public-funded university, and between different universities across the country.

✓ It is estimated that affiliated colleges with lower rankings and less than 3,000 students face the threat of mergers and even closure.

✓ A shrinking of the number of public-funded colleges will only further push out marginalised sections and relegate them to low-grade private colleges and/or to informal education in the ODL and online modes.

> **PEPPER IT WITH**
> Salient features of the New NEP, 2020; Article 21-A, 45, SarvaSikshaAbhiyaan

Conclusion

It is evident that NEP 2020 provides a fresh canvas to paint on and opens up avenues for home-schooling and foreign universities alike, in India. For the new policy to succeed a combination of a staunch intent to move out of comfortable doldrums and facilitate involvement of foreign universities and increased literacy levels is a must.

Swasthya Portal for Tribal

News Excerpt

A series of initiatives were announced by the Union Ministry of Tribal Affairs, which included the Tribal Health and Nutrition Portal 'Swasthya' and e-newsletter, 'ALEKH' on health and nutrition.

Swasthya Portal

• Swasthya is the first of its kind comprehensive platform for health and nutrition related information of the tribal population. It has a dashboard, knowledge repository, partner segment, Sickle Cell Diseases (SCD) support corner.

• The dashboard presents data curated from multiple sources for the 177 identified high priority tribal districts.

• In addition, the Portal also has research studies, innovations and best practices on tribal community curated from multiple sources related to tribal health and nutrition.

• In addition, the SCDSupport Corneravailable in the Portal encourages people with Sickle Cell disease or trait to register themselves.

• It is hoped that this Portal will bridge the existing knowledge, drive evidence-based policy making and catalyse a series of actions which will ultimately lead to overall improvements in the health and nutrition status of the tribal population in India.

> **Sickle cell disease** is a group of disorders that affects hemoglobin, the molecule in red blood cells that delivers oxygen to cells throughout the body. People with this disease have atypical hemoglobin molecules called hemoglobin S, which can distort red blood cells into a sickle, or crescent, shape.

- The Portal will be managed by the Centre of Excellence (CoE) for Knowledge Management inHealth and Nutrition, established by the Ministry of Tribal Affairs in collaboration with Piramal Swasthya Management and Research Institute.
- This CoE works towards consolidating data for tribal health & nutrition, facilitating evidence-based policy making, documenting successful models, best practices and innovative solutions, disseminating and facilitating exchange of knowledge, creating networks and collaborating with stakeholders to improve tribal health & nutrition outcomes.

Tribal Welfare Initiatives

➤ *"ALEKH', a quarterly e-newsletter. Emphasizing on the commitment of the Ministry of Tribal Affairs to improve the health and wellbeing of the tribal communities.*

➤ It willenable us to showcase the work of all our stakeholders and encourage us to learn from each other's successes and failures.

➤ The GOAL programme, MoTA and Facebook are jointly reaching the ST youth, and specially ST girls, through digital platform for developing entrepreneurial skills among them.

➤ Ministry of Tribal Affairs has been recently awarded the 66th SKOCH Gold Award for *'Empowerment of Tribals through IT enabled Scholarship Schemes'* under guidance of DBT Mission.

➤ It was informed that the national evaluation of Centrally Sponsored Schemes focused on social inclusion by KPMG has recognised the Direct Benefit Transfer (DBT) Portal of Ministry of Tribal Affairs as a best practice in e-governance; leading to greater transparency, accountability and radical improvement in service delivery to Scheduled Tribe students.

> **PEPPER IT WITH**
> Article 17, 338, 338A, 338B, The Protection of Civil Rights Act,1955, The Scheduled Castes and the Scheduled Tribes (Prevention of Atrocities) Act, 1989.

➤ National Fellowship and Overseas Scholarship Portal will bring greater transparency and easy information to the ST students.

➤ Through the 'Going Online as Leaders (GOAL)' Programme, the Ministry aims to mentor 5000 Tribal Youth across India and enable them to become village-level digital young leaders for their communities.

Eat Right India

News Excerpt

The Union Minister of Health and Family Welfare (MoH&FW) launched FSSAI's 'Eat Right India' Handbook and the website eatrightindia.gov.in to help various stakeholders.

Pre-Connect

- *'Eat Right India'* movement initiated by FSSAI under the aegis of MoH&FWhas been creating awareness amongst the people about safe, healthy and sustainable dietary habits.
- To achieve this end and to convert the program into a people's movement, FSSAI announced the Eat Right Challenge, an annual competition for 197 Districts and Cities in a unique way to strengthen the food safety and regulatory environment, build awareness among the consumers and urge them to make better food choices.

Salient Feature

➤ **Robust food regulatory system:** The food authority has taken informed steps to formulate new and strengthen the existing food standards in the country. This includes setting globally-benchmarked standards, credible food testing, surveillance and various enforcement activities. Through the Challenge, the aim is to broaden the reach of registration/licensing, enforcement, surveillance, among other core regulatory activities of FSSAI.

➢ **Self-compliance of food businesses and capacity building:** Food may be contaminated with a variety of microorganisms at various stages across the supply chain – post-harvesting, storing, processing or during handling operations. Through training and certification of both big and small businesses, and unorganized vendors, self-compliance to regulations and standards set by the Authority can be achieved through a graded approach.

➢ **Changing food environments:** Preventive healthcare is critical and lowers the burden of disease on the country and hence boosts productivity of its people. As food is a common thread linking citizens everywhere, the food authority's approach is to transform the 'food environment' in the country to provide safe, healthy, nutritious, and sustainable diets to all. While doing so, engagement with both the consumers and the food industry is strengthened.

PEPPER IT WITH
FSSAI, UN's 2021 Food System Summit, Malnutrition, Under nutrition, TPDS, National Food Security Act, 2013

➢ **Mass mobilization:**To make Eat Right India a people's movement, the authority is planning to organise large-scale citizen-centric campaigns to bring about social and behavioural change. This includes awareness generation about reduction in the consumption of High Fat, Trans-fat, Salt and Sugar foods, while promoting consumption of local, seasonal and fortified foods for better health outcomes. This will create an environment of opting for informed healthier choices.

Advantages of 'Eat Right India'

✓ Food play an important role in building immunity because those people are getting more infected by COVID-19 whose immunity is not strong.

✓ Diet helps in building one's resilience and immunity towards various kinds of diseases, he emphasised "61.8% deaths from non-communicable like diabetes, hypertension, cardiovascular complications etc., are directly or indirectly related to faulty diet. Even communicable diseases like tuberculosis disproportionately affect people who are undernourished.

✓ It targets people across ages, gender, regions, and socioeconomic groups.

✓ It brings together food-related mandates of the agriculture, health, industry and environment ministries, with a *'whole of government'* approach.

✓ As a platform for collective action of stakeholders such as consumers, food businesses, community organisations, experts and professionals, and the government. It is in fact a *'whole of society'* approach.

✓ It connects with other flagship programs like Ayushman Bharat, Swachh Bharat Abhiyan, PoshanAbhiyaan, Fit India movement etc., to institutionalise preventive health care as a way of life.
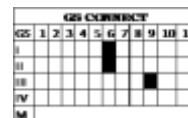
Conclusion

FSSAI is gradually transitioning from enforcer to enabler and reformer. This integrative approach is unique for an emerging economy like India, with its challenges in size, complexity, food diversity and the large unorganised sector. Eat Right India will be a good template for collective attention in the UN's 2021 Food System Summit.

Swachh Survekshan 2020

News Excerpt

The results of Swachh Survekshan 2020 was announced by the Ministry of Housing and Urban Affairs.

Pre-Connect

• Urban development is a state subject and the 74th Constitution Amendment Act, 1992 enjoins upon the state governments to delegate many functions to urban local bodies.

• Swachh Survekshan was launched by the Prime Minister Narendra Modi in 2016.

- Mysuru was chosen as the cleanest city of India in that edition of the survey.

- Swachh Survekshan is meant to monitor the performance of Swachh Bharat Abhiyan, which was launched on October 2, 2014, on the occasion of the150[th] birth anniversary of Mahatma Gandhi.

- It aims to make India open-defecation free by 2019.

- The extensive sanitation survey is commissioned by the Union Ministry of Housing and Urban Affairs and carried out annually by the Quality Council of India.

- The survey was introduced by the government with the objective of generating large-scale participation in Swachh Bharat Abhiyan. It was also aimed at inculcating a spirit of healthy competition among cities towards becoming India's cleanest cities.

> ❖ Prime Minister on August 8, launched a week-long campaign to free India of garbage and waste. The campaign will continue till 15 August.
> ❖ The district level authorities need to construct toilets in the villages and to repair the existing ones.
> ❖ Areas where the migrant workers have been residing should be prioritized.

Highlights

- Swachh Survekshan 2020 covered 4,242 cities, 62 cantonment boards and 92 Ganga towns. This survey was carried out in 28 days.

- Fourth edition of the survey in 2019 covered 4,237 cities. It was the first-of-its-kind completely digital survey completed in a record time of 28 days.

- In 2020, Indore retained its position as the cleanest city for the fourth consecutive year.

- While Gujarat's Surat bagged the second spot, Maharashtra's Navi Mumbai ranked third. Varanasi was adjudged the 'best Ganga town' in the central government's cleanliness survey.

Gender Inequality in Research & Development

News Excerpt

According to 'Science and Technology Indicators (STI), 2018', a periodic compendium of the state of scientific research in India, India's private sector research companies employ a larger proportion of women in core research and development activities than government-funded major scientific agencies.

Pre-Connect

- STI is prepared by National Science and Technology Management Information System (NSTMIS), a division of the Department of Science and Technology.

- STI is based on data provided by a range of scientific establishments across the country.

- NSTMIS has been entrusted with the task of building the information base on a continuous basis on resources devoted to scientific and technological activities for policy planning in the country.

> **PEPPER IT WITH**
> Department of Science & Technology, Science, Technology and Innovation Policy, SRISHTI, SERB, ECRA, TARE Scheme, INSPIRE, KIRAN Scheme

- NSTMIS has been conducting periodically national surveys to collect data on resources devoted to Science & Technology activities, mainly Research & Development in the country.

- Based on survey data, a number of Science & Technology reports are published, providing vital information on national Research & Development indicators which serves as an evidence-base for S&T assessment and policy formulation.

Women in Research & Development

- Of the 20,351 women employed in private R&D companies, 15,011 — or about three in four — were involved in "R&D activities" and the rest in "auxiliary or administrative activities".

> However, of the 23,008 women in "major scientific agencies", fewer than half — or 10,138 — were in the same 'R&D activities' category.

> Private sector companies had a greater commitment to ensuring that women scientists were fairly represented in recruitment, promotions and appraisal processes than in many scientific organisations.

> In private sector, managers have to answer why women in their teams are not promoted or why, for instance, are women dropping out of their workforces.

> The 2018 indicators reiterate the historic trend of India's scientists being overwhelmingly men.

> For every one of the 15,011 women counted earlier, there are six male scientists in private sector R&D establishments, or about 92,000.

> Study says private research entities perform better than government-funded major agencies in scientific research.

> However, that proportion improves to about one in four in major scientific agencies where there are 43,753 male scientists in 'R&D' for the 10,138 women equivalent.

> Overall, India had 3,41,818 scientists in R&D with nearly 2,03,759 employed by government institutions or in the higher education sector.

> The bulk of scientists, in private and publicly funded organisations included, were in 'Engineering Technology' (1,21,531) followed by the Medical Sciences (32,143) and Natural Sciences (32,092).

> In the previous instances as well, inquiries have been launched by independent commissions and NITI Aayog to ascertain causes for the inadequate representation of women scientists.

> Department of Science and Technology launched several initiatives for women in science under its flagship scheme namely Knowledge Involvement in Research Advancement through Nurturing **(KIRAN)**.

> Through KIRAN, DST provides opportunity to women scientists who had break in their career, primarily due to family reasons, to pursue research in physical and mathematical sciences, chemical sciences, life sciences, earth and atmospheric sciences and engineering technology.

Analytica

✓ The Scientific and Technological (S&T) activities play a vital role in the economic, social and physical development of a country.

✓ Scientific and technological research needs huge investments and calls for a judicious utilization of scarce resources like finance, trained manpower, raw materials etc.

NATIONAL R&D EXPENDITURE AND ITS PERCENTAGE WITH GDP
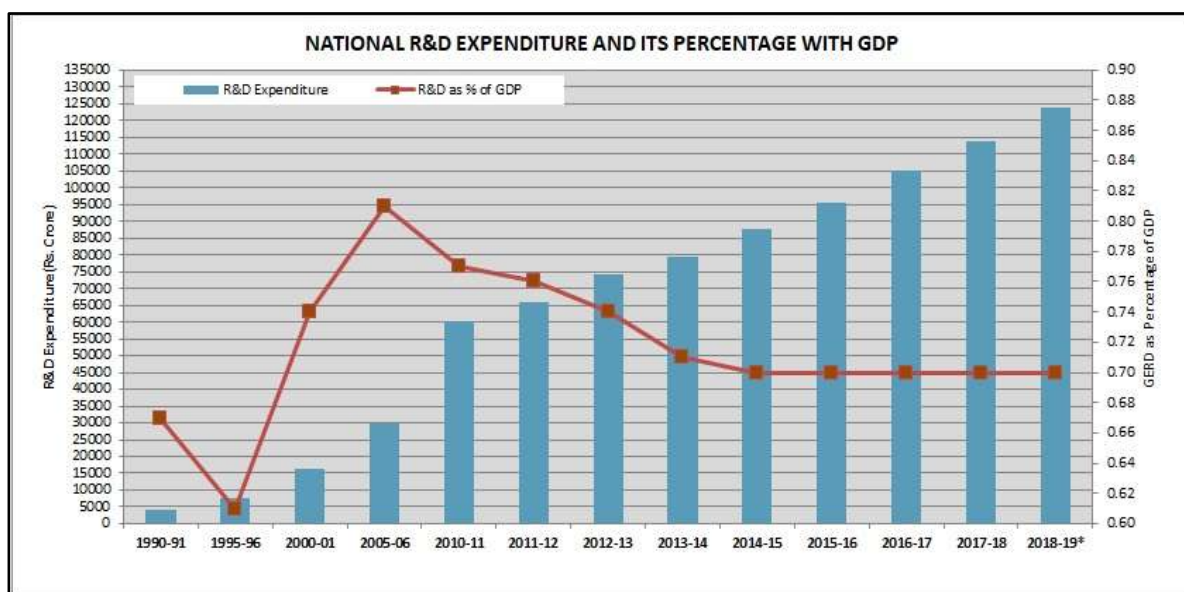
✓ Data collection and analysis pertaining to resources, devoted to S&T, therefore, assumes significant importance.

✓ The growth of S&T, its performance and impact on society and economy are indicators to assess the effectiveness of planning and policy formulation.

✓ The large drop in the number of women between the doctoral and professional stages appears to be in part due to social pressure on women to have a family which is seen as incompatible with a professional career.

✓ There are also patriarchal attitudes in hiring practices, so many women are discriminated against at this stage as well, with managers deciding that women 'should' be opting for family over a career.

✓ India needs to improve the situation by reviewing the main factors to explain gender inequalities in recruitment, retention, and promotion in STEM disciplines and by providing evidence of the scope and results of policies directed to obtain a better gender balance in the sector.

Conclusion

Skill gaps are a key constraint to innovation, hindering productivity growth and economic development. In particular, shortages in the supply of trained professionals in disciplines related to Science, Technology, Engineering, and Mathematics (STEM) may weaken the innovation potential of a society. A wide gender gap has persisted over the years at all levels of STEM disciplines throughout the world. Although the participation of women in higher education has increased, they are still under represented. The untapped potential of fully trained and credentialed women represents an important lost opportunity not only for women themselves but also for the society as a whole.

ECONOMY

Shrinking of Core Sector Output

News Excerpt

Data released by the industry department showed that in the output of eight core sector industries shrank for the fourth straight month in June 2020.

Pre-Connect

- The core sector industries constitute 40.27% of the **Index of Industrial Production (IIP).**
- There are **eight core sector industries, namely** coal, crude oil, natural gas, refinery products, fertilizer, steel, cement and electricity.
- The decreasing order of their weightage: Refinery Products> Electricity> Steel> Coal> Crude Oil> Natural Gas> Cement> Fertilizers.
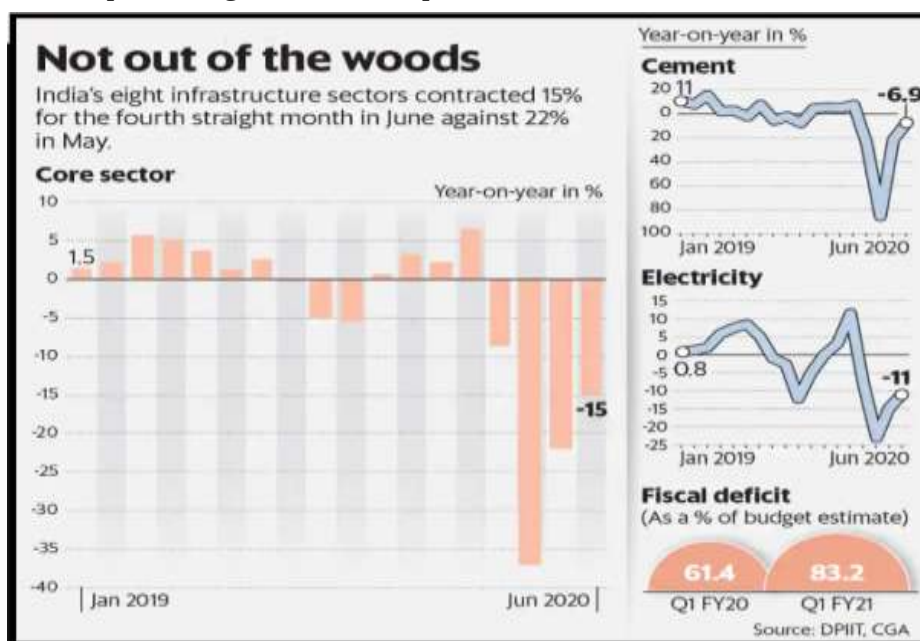
Analytica

- During April-June FY21, the total output of core sector's output fell 24.6% as compared to a positive growth of 3.4% in the same period previous year.
- The core sector industries shrunk 15% in June, against 22% in May, with cement (-6.9%), refinery products (-8.9%) and steel (-33.8%) recording an improvement from the previous month, even as electricity (-11%), natural gas (-12%) and crude oil (-6%) displayed muted pickup.
- Of the eight core sectors, the fertilizer industry was the only one which saw actual growth in June, with output rising 4.2% in comparison to June 2019. This, however, is lower than the May 2020 growth of 7.5%, but reflects the positive outlook in the agriculture sector where a normal monsoon is leading to expectations of a bumper kharif crop.
- The International Monetary Fund (IMF) has estimated Indian economy to contract by 4.5% in FY21, while Goldman Sachs expected the June quarter to be the worst, with GDP

> **Index of Industrial Production**
> The Index of Industrial Production (IIP) is an index which shows the growth rates in different industry groups of the economy in a stipulated period of time. **The IIP index is computed and published by the Central Statistical Organization (CSO) on a monthly basis.** IIP is a composite indicator that measures the growth rate of industry groups classified under:
> - Broad sectors, namely, Mining, Manufacturing and Electricity.
> - Use-based sectors, namely Basic Goods, Capital Goods and Intermediate Goods.
>
> The **base year** for calculation has been **shifted to 2011-12 from 2004-05.**

Not out of the woods
India's eight infrastructure sectors contracted 15% for the fourth straight month in June against 22% in May.

Core sector — Year-on-year in %

Cement — Year-on-year in % : -6.9
Electricity : -11
Fiscal deficit (As a % of budget estimate): 61.4 Q1 FY20, 83.2 Q1 FY21

Source: DPIIT, CGA

shrinking by 45% as business activity came to a standstill for at least two months due to stringent lockdown measures.

➢ Data released by the Controller General of Accounts (CGA) showed the Centre exhausted 83.2% of fiscal deficit in the first quarter (April-June) of FY21 against 61.4% during the same period a year ago.

Conclusion

The core sector overall shrunk sharply for the fourth straight month but the pace of slowdown has also reduced. This shows an uneven return to normal manufacturing activity since the lifting of the nationwide lockdown on 1 June. But, to overcome the issue government officials should announce a new fiscal stimulus package as soon as possible.

Disinvestment of state-owned banks

News Excerpt

The government has drawn a list of four PSU banks, namely, Punjab & Sind Bank, Bank of Maharashtra, UCO Bank, and IDBI Bank, in which it directly or indirectly holds majority stakes, and wants to disinvest equity.

Pre-Connect

In recent years, the Indian banking system has seen many mergers and acquisitions:

- In March 2020, the Union Cabinet had approved the merger of 10 public sector banks into four, paving the way for the largest consolidation among state-owned lenders.
  - o Punjab National Bank took over the Oriental Bank of Commerce and the United Bank;
  - o Canara Bank took over Syndicate Bank;
  - o Union Bank of India took over Andhra Bank and Corporation Bank;
  - o Indian Bank was to be merged with Allahabad Bank.
- In 2018, it was decided to merge Bank of Baroda with Vijaya Bank and Dena Bank.
- The government also allowed Life Insurance Corporation of India to take over 51 percent equity of IDBI Bank Ltd.
- In 2017, five associate banks and BhartiyaMahila Bank were merged into State Bank of India.

Analytica

➢ India is looking to privatize more than half of its state-owned banks to reduce the number of government-owned lenders to just five as part of an overhaul of the banking industry.

➢ The government is working on a privatization plan to help to raise money by selling assets in non-core companies and sectors when the country is strapped for funds due to lack of economic growth caused by the coronavirus pandemic.

➢ Several government committees and the Reserve Bank of India have recommended that India should have not more than five state-owned banks.

➢ The union government has stated that it is considering designating the banking sector as a strategic under the new privatization policy- announced as a part of the **'Atmanirbhar Bharat'** package.

Benefits of disinvestment

✓ **Non-performing assets (NPAs):** The majority of the non-performing assets lies in the public sector banks.

✓ **Need of time:** Indian economy is suffering a lot due to COVID-19 crisis and the governmentneeds funds for that and disinvestment could help a lot.

✓ **Autonomy:** Due to government interference in PSUs board appointments (as the Bank Bureau board is not fully functional) creates an issue of politicization and interference in the normal functioning of Banks which can be solved by disinvestments.

✓ **Reducing inequality:** There is a major difference between the incentives of public and private sectors banks. Also there is a huge gap between approaches of two types of banks which can be reduced by disinvestment.

Issues with disinvestment of PSBs

✓ **Unfavourable market conditions:** Banks may face rising bad loans later this financial year because of the fallout from the Covid-19 crisis. India expects bad loans at its banks could double after the crisis brought the economy to a standstill. Indian banks already had 9.35 trillion rupees ($124.38 billion) of soured loans, equivalent to about 9.1% of their total assets at the end of September 2019.

✓ **Governance Issues:** Private Banks are prone to malpractices in the wake of serving the interest of its promoters.

✓ **Regulation Issues:** RBI control on Private Banks is not at par with PSBs as RBI the power to revoke a banking license, merge a bank, shut down a bank, or penalize the board of directors which is not true for private banks.

✓ **Social justice:** Unlike private banks, PSBs through their welfare policies like farm loan waiver, education loan, financial inclusion etc. act as an instrument for social justice.

Way Forward

Though privation of PSBs can help the government in this time of crisis but also the public in general need PSBs for welfare schemes in this time too. So the government must make a good judgment of the value of the company it decides to disinvest from and if the market conditions are not favourable for the move it must wait for the opportune moment. In fact, in this time of crisis the government should pump money into its state-owned banks and when they plan to disinvest PSBs then the money received must be utilized strictly for new asset creation only.

RBI's framework for retail payments entity

News Excerpt

The Reserve Bank of India (RBI) recently released a framework for setting up of a pan-India new umbrella entity (NUE) for retail payments systems in the country including net and Aadhar-based payments and remittances as well as ATMs and point of sale payment services.

Pre-Connect

● Currently, only the National Payments Corporation of India (NPCI), a not-for-profit company, performs this role.

● The RBI's move is a bid to reduce the risk of having just one player handling such a vast area of finance as the central banker is worried that this could lead to monopolistic behaviour.

> ### Current Account Norms Tighten By RBI
> **The Reserve Bank of India (RBI)** has proposed sterner rules on opening and running of current accounts of corporate borrowers, a move to tackle fund diversion.
>
> ❖ RBI suspects that many corporates run collection accounts (which are used for holding sale proceeds and other receipts) with other banks so that the consortium leader cannot impound the fund or push the borrower to fork out interest on loans. This is particularly true for stressed accounts.
> ❖ Banks having collection accounts will have to transfer funds at the end of the day to the current account with the consortium leader. Current accounts, according to a draft circular shared by the regulator with the banking industry, can "only be opened" with the lead bank in a lending consortium.
> ❖ The draft circular further suggests that while customers (with Rs 5-50 crore credit) may open current accounts with any lending bank (which is not a consortium leader), only collection accounts can be run with non-lending banks.

Analytica

➢ The NUE is to be a company incorporated under **the Companies Act, 2013** and may be a 'for-profit' or Non-profit company as decided by it.

➢ The formation of the umbrella entity has been authorized under the **Payment and Settlement Systems Act, 2007.**

➢ The entity will have minimum paid-up capital of Rs 500 crore with no single promoter group holding over 40% investment in the capital.

➢ The new entity will have to abide by corporate governance norms along with 'fit and proper' criteria for persons to be appointed on its board.

National Payments Corporation of India

❖ It is an umbrella organisation for operating retail payments and settlement systems in India.

❖ It is an initiative of **Reserve Bank of India (RBI)** and **Indian Banks' Association (IBA)** under the provisions of the Payment and Settlement Systems Act, 2007.

❖ It is for creating a robust Payment & Settlement Infrastructure in India.

❖ The Company is focused on bringing innovations in the retail payment systems through the use of technology for achieving greater efficiency in operations and widening the reach of payment systems.

Working

➢ The umbrella entity **will set up, manage and operate new payments systems in the retail space** comprising ATMs, white label PoS, Aadhaar-based payments and remittance services.

➢ The entity will operate clearing and settlement systems for participating banks and non-banks, identify and manage relevant risks, monitor retail payments system developments and related issues in the country and internationally.

➢ It will be the responsibility of the entity to frame necessary rules and the related processes **to ensure that the system is safe and sound, and that payments are exchanged efficiently.**

➢ The entity will be permitted to participate in Reserve Bank's payment and settlement systems, including having a current account with Reserve Bank, if required.

➢ The **regulator can nominate a member to the board** and will also have the right to approve appointment of directors as it does in the case of banks.

➢ It is expected to interact and be interoperable, to the extent possible, with the systems operated by NPCI.

Conclusion

The new umbrella entity assumes significance as it will challenge the monopoly of the National Payments Corporation of India (NPCI), with the central bank now looking to reduce concentration risks in the vast area of finance.

FDI in Coal Mining

News Excerpt

The Government has clarified that any FDI in the commercial coal mining should also comply with the recent amendments made in the applicable laws.

Pre-Connect

• The government announced the nationalization of the coal blocks in two phases between 1971 and 1973.

• In 2014, the Supreme Court cancelled the coal block allocations made to the private sector by the government.

• In 2015 by the Coal Mines (Special provisions) Act of 2015, these coal blocks were returned to the private sector through auctions.

- There had been end-use restrictions and the private sector was not allowed to trade into the market making it unattractive for the private sector.
- Further in 2018, private sector firms were allowed to sell upto 25 per cent of the output in the market, but this also saw a lukewarm response from the private sector.
- In 2019, the government for sale of coal has allowed 100 per cent FDI under automatic route for coal mining, activities including associated processing infrastructure.
- The Government in early 2020 has approved promulgation of Mineral Laws (Amendment) Ordinance 2020 to amend Mines and Minerals (Development and Regulation) Act 1957 and Coal Mines (Special Provisions) Act 2015 which aims to attract investment in coal mining.

> **Foreign direct investment (FDI)**
> ❖ It is an investment made by a firm or individual in one country into business interests located in another country.
>
> Routes for FDI:
> i. **Automatic Route -** No approval or prior permission is required by the private foreign investor (for both non-resident and the Indian company) either from the RBI or GOI.
> ii. **Government Route -** Through this route no investment can come forth without first undertaking the prior approval of the GOI.
>
> **Some facts about FDI in India**
> ❖ FDI equity inflow in India stood at US$ 49.97 billion in 2019-20.
> ❖ Data for 2019-20 indicates that **service sector attracted the highest FDI**, followed by computer software and hardware, telecommunications sector, and trading.
> ❖ During 2019-20, India received the maximum FDI equity inflow from Singapore (US$ 14.67 billion), followed by Mauritius (US$ 8.24 billion), Netherlands (US$ 6.50 billion), USA (US$ 4.22 billion) and Japan (US$ 3.22 billion).
> ❖ FDI rates are not uniform in India. Certain industries have been allowed 100% FDI and some other common rates vary from 26%, 49%, 51% and 74%.

Analytica

➢ The government recently modified its FDI policy according to which any entity of a country, which shares land border with India or where the beneficial owner of an investment into India is situated in or is a citizen of any such country, could invest only under the Government route.

➢ The new policy further states that a citizen of Pakistan or an entity incorporated in Pakistan can invest, only under the Government route, in sectors and activities other than defense, space and atomic energy.

➢ Even for the sectors which are prohibited for foreign investment, Government route has been made mandatory for all such entities.

➢ India imports nearly 250 million tonnes of coal from other countries despite having the world's fourth largest coal reserve.

➢ Restricting the entry of Chinese players into the Indian infrastructure space has taken precedence amid heightened tensions between the two countries, following the Galwan Valley stand-off.

THE CHANGES

- ■ **In April,** the Centre had permitted 100% FDI under the automatic route for coal mining activity
- ■ **Ministry issued a notification** on Monday, asking foreign investors to take approval before participating

■ **The aim is to restrict entry** of Chinese players into Indian infrastructure space amid tensions between the two countries

- ■ **Govt has already banned Chinese firms** from participating in bids for government procurement without approval
- ■ **Bidding terms have been liberalised** to attract foreign players, non-mining entities and large miners

➤ After the stand-off, the government had restricted Chinese firms from participating in bids for government procurement without approval from relevant authorities, on grounds of defense and national security.

➤ The government has also launched the auction process of coal blocks for commercial mining, under which private players are allowed to extract coal without any restrictions on end use of the fossil fuel.

➤ The bidding terms were also liberalised to attract foreign players.

➤ The Centre also amended the Coal Mines Special Provisions Act, 2015 to simplify the auction process and attract more investors.

Conclusion

The recent decision taken by the government to restrict Chinese firms from participating in the auction of coal mines for commercial extraction by the private sector is unlikely to affect India. As, the coal block auction has so far received good response with a lot of inquiries from both Indian and global mining, metal and energy companies. The mines on offer are attractive to investors as they are largely fully explored ones and can be brought to production in no time. According to the government, participation of more private players will bring efficiency to the coal sector and lead to competitive pricing of the fuel.

Business Responsibility Reporting

News Excerpt

The Ministry of Corporate Affairs (MCA) has recently released the 'Report of the Committee on Business Responsibility Reporting (BRR)' in New Delhi.

Pre-Connect

• **Business Responsibility Report (BRR)** is a disclosure of adoption of responsible business practices by a listed company to all its stakeholders.

• At a time and age when enterprises are increasingly seen as critical components of the social system, they are accountable not merely to their shareholders from a revenue and profitability perspective but also to the larger society which is also its stakeholder.

• As per clause (f) of sub regulation (2) of regulation 34 of Listing Regulations, the annual report shall contain a business responsibility report describing the initiatives taken by the listed entity from an environmental, social and governance perspective

Growth of BRR in India:

• The Corporate Voluntary Guidelines were came up in 2009.

• Endorsement of United Nations Guiding Principles on Business & Human Rights by India in 2011.

• MCA issued 'National Voluntary Guidelines on Social, Environmental and Economical Responsibilities of Business' which encourages reporting on environment, social and governance issues in 2011.

• SEBI mandates top 100 listed companies by market capitalization to file BRR based on NVGs in 2012.

• SEBI extends BRR reporting to top 500 companies by market capitalization in 2015.

• In 2018, a committee proposed that the BRR should be called the Business Responsibility and Sustainability Report (BRSR).

• National Guidelines on Responsible Business Conduct (NGRBC) released in 2019.

Highlights

➤ MCA will work closely with capital markets regulator SEBI for implementation of the 'Business Responsibility and Sustainability Report (BRSR)'.

➤ The panel has recommended that the BRSR could be integrated with MCA 21 portal as that would ensure that all information already filed on the portal by companies would be automatically filled while filing the BRSR.

> The committee recommended two formats for disclosures: one **'comprehensive format'** and the second a **'Lite version'**.

> It recommended that the implementation of the reporting requirements should be done in a gradual and phased manner.

> MCA 21 is used for submitting requisite filings to the ministry under the companies' law.

> One of the proposals is for having a guidance note on BRSR to enable companies to disclose their actions on the principles in a more meaningful manner.

The BRR framework is divided into five sections:

a) Section A: General Information about the Organisation – Industry Sector, Products & Services, Markets, other general information

b) Section B: Financial Details of the Organisation – Paid up capital, Turnover, Profits, CSR (Corporate Social Responsibility) spend.

c) Section C: Other Details – BR initiatives at Subsidiaries and Supply-chain Partners

d) Section D: BR Information – Structure, Governance & Policies for Business Responsibility

e) Section E: Principle-wise Performance – Indicators to assess performance on the 9 Business Responsibility principles as envisaged by the National Voluntary Guidelines (NVGs)

> As per the report, reporting may be done by top 1,000 listed companies in terms of their market capitalisation or as prescribed by markets regulator SEBI.

> As a long-term measure, the Committee envisions that the information captured through BRSR filings be used to develop a Business Responsibility-Sustainability Index for companies.

Transparent Taxation Platform

News Excerpt

The 'Transparent Taxation' platform aims at bringing more transparency in official communication through the newly introduced Document Identification Number.

Pre-Connect

- In the past few years, the Central Board of Direct Taxes (CBDT) has carried out major tax reforms in the country in the direct taxes.

- In 2019, the Corporate Tax rates were reduced from 30 per cent to 22 per cent and for new manufacturing units; the rates were reduced to 15 per cent. Dividend distribution Tax was also abolished.

- India is one of the lowest tax consuming countries in the world when it comes to corporate taxes.

❖ **Corporate Tax:** It is a levy placed on a firm's profit by the government. The money collected from corporate taxes is used as a nation's source of income.

❖ **Minimum Alternate Tax (MAT)** is a tax effectively introduced in India to facilitate the taxation of '**zero tax companies**' i.e., those companies which show zero or negligible income to avoid tax. Under MAT, such companies are made liable to pay to the government, by deeming a certain percentage of their book profit as taxable income.

❖ **Tax buoyancy** is one of the key indicators to assess the efficiency of a government's tax system. It explains this relationship between the changes in government's tax revenue growth and the changes in GDP.

❖ **Dividend Distribution Tax:** It is a **tax** levied on **dividends** that a company pays to its shareholders out of its profits. DDT is taxable at source, and is deducted at the time of the company distributing **dividends**.

- **In 2019 there was a reduction in Minimum Alternate Tax (MAT) rate from 18.5% to 15%** to provide relief to the companies which continue to avail exemption and pay tax under MAT.
- **Government in 2019 provided exemption from income-tax to individuals earning income up to Rs. 5 lakh and increase in standard deduction from Rs. 40,000 to Rs. 50,000.**
- **The Dividend Distribution Tax (DDT)** was also abolished in 2019.
- The Finance Act, 2020 has provided an option to individuals and co-operatives for paying income-tax at concessional rates if they do not avail specified exemption and incentive.
- The Finance Act, 2020 removed the Dividend Distribution Tax in order to increase the attractiveness of the Indian Equity Market.
- The Income Tax Department has also introduced '**Vivad se Vishwas Act, 2020**' for settling pending tax disputes. To reduce taxpayers' grievances, monetary thresholds for filing of departmental appeals in various appellate Courts have been raised. Also, digital transactions and electronic modes of payment are promoted.

Analytica

- The '**Transparent Taxation' platform** is aimed at bringing more transparency in official communication through the newly-introduced Document Identification Number (DIN).
- Every communication with the Department will now carry a unique document identification number.
- **Transparent Taxation-** Honoring the Honest will have faceless assessments, faceless appeal and taxpayer charter. The faceless assessments and taxpayer charter came in effect on the day of announcement while the faceless appeal will come into effect from September 25.
- **Faceless assessment:** The aim of this scheme is to eliminate the face-to-face interactions between taxpayers and Income Tax Department officers.
  - Under faceless assessment, a central computer picks up tax returns for scrutiny based on risk parameters and mismatch and then allots them randomly to a team of officers.
  - This allocation is reviewed by officers at another randomly selected location and only if concurred, a notice is sent by the centralised computer system. All such notices need to be responded to electronically.
  - Income tax surveys to collect information for scrutiny assessment will be undertaken only by the investigation wing.
- **Faceless appeal:** It will be launched as part of the process to reduce physical interface between tax officers and taxpayers.
  - Appeals will be allotted at random to officers, taxpayers will not need to visit offices or meet any officials, the identities of the officers deciding the appeal will remain unknown, and the appellate decision will be team-based and reviewed.
- **Taxpayer charter:** The charter, listing the Income Tax Departments' duties to taxpayers and in turn highlighting the taxpayers' responsibilities, commits to providing fair and reasonable treatment, treating the taxpayer as honest, setting up a mechanism for appeal and review, reducing cost compliance and making timely decisions.

Direct Tax Issues

- ✓ The tax rate in India is quite high for both individuals as well as corporate.
- ✓ In India, the assessment process is physical which leads to the allegation of harassment by tax officials often referred to as tax terrorism.
- ✓ In the taxation system, there have been a huge number of tax litigations, which makes the whole tax dispute resolving mechanism unviable.
- ✓ There are a plethora of exemptions in direct tax code which makes the filling process more complex and reduces the effective tax rate.
- ✓ Low tax collection and less population in tax giving slab.

Reasons for low taxation

According to the Central Board of Direct Taxes (CBDT), the gross direct tax collections for the financial year (FY) 2019-20 fell by almost 5% compared to FY 2018-19. Reasons for low taxation in India are:

- Recent reduction in corporate tax rate.
- **High Refunds:** In FY 2019-20, the total refunds given was Rs. 1.84 lakh crore as compared to Rs. 1.61 lakh crore in FY 2018-19 which is a 14% increase year-on-year.
- Low tax buoyancy

Khadi AgarbattiAtmaNirbhar Mission

News Excerpt

Recently, the Union Government approved the **Khadi AgarbattiAtmaNirbhar Mission** to generate employment and make India self-reliant in agarbatti production.

Objectives of Scheme

- The Khadi AgarbattiAtmaNirbhar Mission has been launched mainly due to the **import restriction** imposed on raw Agarbatti.
- It aims to **increase import duty** on Bamboo sticks.
- It aims to enable the private Agarbatti manufacturers to increase their production without any major capital investment.

Analytica

- The **Khadi AgarbattiAtmaNirbhar Mission** has been designed by the Khadi and Village Industries Commission on PPP mode.
- Under the mission, the KVIC will provide **powder mixing machines** and **automatic Agarbatti making machines** to the workers through the successful private Agarbatti manufacturers, who will sign the agreement as business partners.
- The KVIC will only procure locally-made machines by Indian manufacturers with the aim of encouraging local production.
- The Commission will provide a 25 percent subsidy on the cost of the machines and recover the remaining 75 percent of the cost from the workers in small installments every month.
- The business partners will provide the artisans with the raw material for making Agarbatti and will pay those wages on a job work basis.
- The cost of the workers' training will be shared between KVIC and the private business partner, where KVIC will bear 75% of the cost while private business partners will bear 25% of the cost.
- Each of the automatic Agarbatti making machines is expected to make approximately 80 kg Agarbatti each day, which will provide direct employment to 4 persons.
- On the other hand, one powder mixing machine, which will be given on a set of 5 Agarbatti making machines, will provide employment to 2 people each.

Benefits

- This scheme will benefit the artisans and enhance the production of Agarbatti.
- It will also provide necessary training, machine and raw material to artisans.
- It will boost local production and generate new employment opportunities.
- Scheme will develop the domestic Agarbatti industry as a whole and thereby will reduce the import.

Production Linked Incentive Scheme for Large Scale Electronics Manufacturing

News Excerpt

The government recently announced that a total of 22 companies have filed their application under the Production Linked Incentive Scheme (PLI scheme).

About Scheme

- The PLI scheme for large scale electronics manufacturing was notified on April 01 and it was open for filing applications till July 31. The incentives are applicable under the scheme from August 01.

- PLI scheme extends an **incentive of four per cent to six per cent** on incremental sales (over base year) of goods under target segments that are manufactured in India to eligible companies, for a period of five years subsequent to the base year (FY2019-20).

- According to the scheme, companies that make mobile phones which sell for Rs 15,000 or more will get an incentive of up to 6 per cent on incremental sales of all such mobile phones made in India.

- In the same category, companies which are owned by Indian nationals and make such mobile phones, the incentive has been kept at Rs 200 crore for the next four years.

- The Scheme will be implemented through a Nodal Agency which shall act as a **Project Management Agency (PMA)** and be responsible for providing secretarial, managerial and implementation support and carrying out other responsibilities as assigned by MeitY from time to time.

Tenure of Scheme

- The PLI scheme will be active for five years with the financial year (FY) 2019-20 considered as the base year for calculation of incentives.

- All investments and incremental sales registered after FY20 shall be taken into account while computing the incentive to be given to each company.

- The total incentives over five years have thus been kept at Rs 40,951 crore.
    - For the first year, the total incentive to be given has been capped at Rs 5,334 crore.
    - For the second and third year it has been kept at Rs 8,064 and Rs 8,425 crore respectively.
    - In the fourth year, the incentive will be hiked substantially to Rs 11,488 crore.
    - In the fifth and final year, the incentive to be distributed has been capped at Rs 7,640 crore.

Advantages of Scheme

- The scheme will attract big foreign investment in the sector.
- It will encourage the domestic mobile phone makers to expand their units and presence in India.

Government e-Marketplace (GeM) 4.0

News Excerpt

The new version of the government **procurement platform Government e-Marketplace (GeM)** will be launched by September with the portal having powerful features and availability of "big ticket" items to attract large buyers like PSUs, Railways and Defence.

Pre-Connect

- Government e-Marketplace owes its genesis to the recommendations of two Groups of Secretaries made to the Prime Minister in January 2016.

- It is a one-stop **National Public Procurement Portal** to facilitate online procurement of common use **Goods & Services** required by various Central and **State** Government Departments / Organizations /Public Sector Undertakings (PSUs).

- The Finance Minister in his Budget speech for FY 2016-17, announced setting up of a technology driven platform to facilitate procurement of goods and services by various Ministries and agencies of the Government.

- **Directorate General of Supplies and Disposals (DGS&D)** with technical support of **National e-Governance Division (Ministry of Electronics and Information Technology)** has developed GeM portal for procurement of both Products & Services.

- The aim of GeM is to transform the way in which procurement of goods and services is done by the Government Ministries and Departments, Public Sector Undertakings and other apex autonomous bodies of the Central Government.

> ❖ **National Public Procurement** refers to the process by which governments and state-owned enterprises purchase goods and services from the private sector. As public procurement utilises a substantial portion of taxpayers' money, governments are expected to follow strict procedures to ensure that the process is fair, efficient, and transparent and minimizes wastage of public resources.
>
> ❖ **Government e-Marketplace (GeM)** is an online procurement platform for government ministries and departments, and the most widely used channel for public procurement in India. MSMEs, DPIIT recognised startups and other private companies can register on GeM as sellers and sell their products and services directly to government entities.

- The portal was launched in August 2016 by the Commerce & Industry Minister.

- Procurement on GeM has been authorized by General Financial Rules by making necessary changes in government rules.

- GeM is a completely paperless, cashless and system driven e-market place that enables procurement of common use goods and services with minimal human interface.

About GeM 4.0

➢ It will be more dynamic, transformational and vibrant by adding advanced features such as powerful search engine, revamped brand and product approval process and faster creation of categories for goods and services through tender analysis

➢ Unified Public Procurement System for the country would mean bringing the functionalities of a number of government e-Procurement portals (publishing portals) on GeM to reduce duplicity and enable a unified and streamlined approach to procurement.

➢ GeM will prompt buyers to publish a bid on GeM itself if the products or services that a buyer is looking for is not available on the platform.

➢ This will provide a single user flow for government buyers, consolidating all government procurement onto a single platform leading to economies of scale, better price discovery and sharing of best practices.

➢ It can analyse patterns of behaviour of buyers and sellers to improve buyers and sellers journeys on the platform, facilitate effective and efficient search, introduce hyper ledger for traceability and distributed trust and smart contracts and carry out marketplace enhancements for fast, easy and transparent procurement with cost savings.

➢ The Voice of the Customer initiative in GeM will have a virtual assistant to provide on the spot assistance and hand holding to buyers and sellers.

➢ The transformational portal will have a host of advanced features and functionalities ranging from demand aggregation to price variation clauses besides a number of enhancements for the marketplace, improvements in the catalog management system and a revamped bidding and rating system of sellers where ratings of sellers can be used as a filter by buyers.

> GeM aims to uplift the marginalised and underprivileged sections of society and be part of their growth story with a special focus on MSMEs, self-help groups, artisans, weavers, craftsmen and TRIFED products.

> GeM aims to uplift the marginalised and underprivileged sections of society and be part of their growth story with a special focus on MSMEs, self-help groups, artisans, weavers, craftsmen and TRIFED products.

GeM Facilities:

o Listing of products for individual, prescribed categories of Goods/ Services of common use

o Look, estimate, compare and buying facility on dynamic pricing basis.

o Market place buying of majority of common User Items.

o Buying Goods and Services online, as and when required.

o Single window system for aggregating demands and ordering

o Transparency and ease of buying

o Useful for low value buying and also for bulk buying at competitive price using Reverse Auction/ e-bidding.

o Continuous vendor rating system.

o User friendly dash board for buying and monitoring supplies and payments

o Return policy

Partial credit guarantee scheme 2.0

News Excerpt

Recently, the Finance Ministry announced plans to extend and modify the Partial Credit Guarantee Scheme (PCGS) 2.0. It has been decided to extend the scheme for three more months to build up the portfolio. The Ministry had expanded the scope of the partial credit guarantee scheme (PCGS) to provide greater flexibility to state-owned banks in purchasing bonds and CPs of Non-banking financial companies (NBFCs).

Pre-Connect

• The Central government had announced the PCGS in July 2019, allowing public sector banks to purchase high-rated pooled assets from financially sound NBFCs and Housing finance companies (HFCs).

• As a part of its AtmaNirbhar initiative, the Finance Ministry had extended the scheme in May to cover primary market issuance of bonds by NBFCs, HFCs and micro finance institutions (MFIs) with low credit ratings.

• The idea was to provide liquidity support to institutions with low credit ratings and ensure continuity of credit support to small businesses, which were the worst hit during the COVID- 19 outbreak.

Analytica

> Under PCGS 2.0, the Centre provided 20% first loss sovereign guarantee to public sector banks, resulting in liquidity infusion of Rs. 45,000 crore into the system.

> The scheme covered papers with ratings of AA and below, including unrated papers, aimed at providing access to fresh liquidity support to non-bank lenders.

> The maximum headroom permissible for purchase of bonds and CPs rated AA/AA- was a fourth of the total portfolio at Rs. 11,250 crore.

> According to the ministry, this will be extended to 50%, as the 25% ceiling for AA/AA- rated bonds and CPs was nearly met, while the appetite for low-rated papers is inching towards saturation, considering its lower ticket size.

> The Cabinet also approved **a special liquidity scheme** worth Rs 30,000 crore, under which the Reserve Bank of India will indirectly purchase debt sold by non-banking financial

companies (NBFCs), housing finance companies (HFCs) and micro-finance institutions (MFIs)

Issues

✓ This is a step towards increased funding for bigger NBFCs which have higher ratings, while the actual objective was to provide greater funding to small and medium NBFCs.

✓ The government needs to expand the scope so as to extend the guarantee cover to term loans of banks and financial institutions given to NBFCs.

✓ Less than 100 NBFCs have been covered under the scheme.

✓ A majority of small and medium NBFCs turn to term loans, instead of raising funds via bonds or CPs.

> **Commercial paper** is a short-term debt instrument issued by companies to raise funds generally for a time period up to one year. It is an unsecured money market instrument issued in the form of a promissory note and was introduced in India for the first time in 1990.
>
> A **Non-Banking Financial Company** (NBFC) is a company registered under the Companies Act, 1956 engaged in the business of loans and advances, acquisition of shares, stocks, bonds, debentures or securities issued by Government or local authority or other marketable securities of a like nature, leasing, hire-purchase, insurance business, chit business but does not include any institution whose principal business is that of agriculture activity, industrial activity, purchase or sale of any goods (other than securities) or providing any services and sale/purchase/construction of immovable property.

Way Forward

NBFCs play a crucial role in sustaining consumption demand as well as capital formation in the small and medium segment, thus it is essential that they continue to get funding without disruption, and the extended PCGS is expected to systematically enable the same. The government can further expand the scope of the Scheme so as to extend the guarantee cover to term loans of banks and financial institutions given to NBFCs.

RBI's Loan Recast Scheme

News Excerpt

In its monetary policy review the **Reserve Bank of India (RBI)** gave green signal to a loan restructuring scheme for stressed borrowers. A special window providing one-time loan restructuring to companies and individuals, it will provide relief specifically to those impacted by the COVID-19 pandemic.

Feature of Scheme

• The intent of the scheme is to help those borrowers who were on track to repay loans but are unable to because of the adverse impact of the Covid-19 lockdown on their businesses.

• A number of checks and balances have been introduced to prevent a repeat of the previous episodes of loan restructuring, which did not succeed in addressing the NPA crisis but instead led to a widespread strategy of 'extend and pretend', where banks kept on extending fresh loans to ailing companies, even as they struggled to repay old debts.

• Only those companies and individuals whose loans accounts are in default for not more than 30 days as on March 1, 2020, are eligible for one-time restructuring.

> A **non-performing asset** (**NPA**) is a loan or advance for which the principal or interest payment remained overdue for a period of 90 days.
>
> An **Inter creditor Agreement**, commonly referred to as an inter-creditor deed, is a document signed between two or more creditors, stipulating in advance how their competing interests are resolved and how to work in tandem in service to their mutual borrower.

- For corporate borrowers, banks can invoke a resolution plan till December 31, 2020 and implement it till June 30, 2021.
- Such loan accounts should continue to be standard till the date of invocation. The one-time restructuring window is available across sectors.

Comparison to previous schemes

- Unlike the previous scheme, the current scheme has an entry barrier as it is available only for companies facing COVID-related stress, as identified by the cut-off date of March 1.
- Strict timelines for invocation of the resolution plan and its implementation have been defined in the scheme, unlike in the past when this was largely open-ended.
- The structuring of the scheme makes the signing of the ICA largely mandatory for all lenders once the resolution plans have been majority-voted for; otherwise, they face twice the amount of provisioning required.
- Independent external evaluation, process validation and specific post-resolution monitoring are further safeguards.

Implementation

- The RBI has set up a five-member expert committee headed by K V Kamath, former Chairman of ICICI Bank, which will make recommendations on the financial parameters required.
- While the RBI has given the broad contours, the panel will recommend the sector-specific benchmark ranges for such parameters to be factored into each resolution plan for borrowers with an aggregate exposure of Rs 1,500 crore or above at the time of invocation.
- The committee will also undertake a process validation of resolution plans for accounts above a specified threshold. The RBI will notify this along with modifications in 30 days.
- The RBI will have the last word on who will be eligible and the parameters.
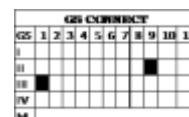
Analytica

- It is expected to provide relief to companies that were servicing loan obligations on time but could have found it difficult after March, as the pandemic affected their revenues.
- Companies that were already in default for more than 30 days as on March 1, however, cannot avail this facility.
- This could affect revival plans of companies that were about to regain profitability but got hit when the lockdown was imposed.
- For personal loans, the resolution plan can be invoked till December 31, 2020 and will be implemented within 90 days thereafter. This too is for accounts classified as standard, but not in default for more than 30 days as on March 1.
- The banks will be able to check the rise in **(NPAs)** to a great extent.
- Banks will have to maintain additional 10% provisions against post-resolution debt, and lenders that do not sign the **Inter creditor Agreement (ICA)** within 30 days of invocation of the plan will have to create a 20% provision.

Export Preparedness Index

News Excerpt

Recently, **NITI Aayog** in partnership with the **Institute of Competitiveness** has released the first Export Preparedness Index (EPI) that is EPI 2020 to examine export preparedness and performance of Indian states.

About Index

- EPI intends to identify challenges and opportunities; enhance the effectiveness of government policies**;** and encourage a facilitative regulatory framework.
- The structure of the EPI includes 4 pillars –
  1) **Policy:** A comprehensive trade policy provides a strategic direction for exports and imports.

2) **Business Ecosystem:** An efficient business ecosystem can help states attract investments and create an enabling infrastructure for individuals to initiate start-ups.

3) **Export Ecosystem:** This pillar aims to assess the business environment, which is specific to exports.

4) **Export Performance:** This is the only output-based pillar and examines the reach of export footprints of States and Union Territories.

- It also has 11 sub-pillars –Export Promotion Policy; Institutional Framework; Business Environment; Infrastructure; Transport Connectivity; Access to Finance; Export Infrastructure; Trade Support; R&D Infrastructure; Export Diversification; and Growth Orientation.

- The Export Preparedness Index is a data-driven effort to identify the core areas crucial for export promotion at the sub-national level.

- All the states and union territories have been assessed on crucial parameters that are critical for any typical economic unit to achieve sustainable export growth.

- The Index would be a helpful guide for the state governments to benchmark regional performance with respect to export promotion and thus deliver key policy insights on how to improve and enhance the same.

Highlights of Report

➢ Overall, most of the Coastal States are the best performers. Gujarat, Maharashtra and Tamil Nadu occupy the top three ranks, respectively. Six of eight coastal states feature in the top ten rankings, indicating the presence of strong enabling and facilitating factors to promote exports.

➢ In the landlocked states, Rajasthan has performed the best, followed by Telangana and Haryana. Among the Himalayan states, Uttarakhand is the highest, followed by Tripura and Himachal Pradesh. Across the Union Territories, Delhi has performed the best, followed by Goa and Chandigarh.

➢ EPI has shown that most Indian states performed well on average across the sub-pillars of Exports Diversification, Transport Connectivity and Infrastructure. The average score of Indian states in these three sub-pillars was above 50%.

➢ It also given the low standard deviation in Export Diversification and Transport Connectivity, the averages are not skewed to the higher side by a few over-achievers.

➢ According to the report, the export orientation and preparedness are not just restricted to prosperous states. Even emerging states can undertake dynamic export policy measures, have functioning promotional councils, and synchronize with national logistical plans to grow their exports.

➢ Chhattisgarh and Jharkhand are two landlocked states that had initiated several measures to promote exports. Other states facing similar socio-economic challenges can look at the measures taken by Chhattisgarh and Jharkhand and try to implement them to grow their exports.

Challenges

Based on the finding of the report, export promotion in India faces three fundamental challenges:

✓ Intra- and inter-regional disparities in export infrastructure;

✓ Poor trade support and growth orientation among states; and

✓ Poor R&D infrastructure to promote complex and unique exports.

Way Forward

There is a need to emphasize on key strategies to address these challenges:

- A joint development of export infrastructure;

- Strengthening industry-academia linkages; and

- Creating state-level engagements for economic diplomacy.

These strategies could be supported by revamped designs and standards for local products and by harnessing the innovating tendencies to provide new use cases for such products, with adequate support from the Centre. To achieve the target of making India a developed economy by focusing on '**AtmaNirbhar Bharat'**, there is a need to increase exports from all the states and union territories. The EPI provides invaluable insights on how states can attain this goal.

Participatory Notes

News Excerpt

Investments through **participatory notes (P-notes)** in the domestic capital market soared to Rs 63,288 crore till July-end, making it the fourth consecutive monthly rise.

Trends in P-notes

- According to **the Securities and Exchange Board of India (SEBI)**, the value of P-note investments in Indian markets -- equity, debt, hybrid securities and derivatives -- stood at Rs 63,288 crore till July-end, while the same was at Rs 62,138 crore at the end of June.

- Prior to that, investment level was at Rs 60,027 crore and Rs 57,100 crore at the end of May and April, respectively.

- The investment level had fallen to an over 15-year-low of Rs 48,006 crore at the end of March.

- The figure at March-end was the lowest level of investment since October 2004, when the total value of P-note investments in the Indian markets stood at Rs 44,586 crore.

- The lower figure in March came amid significant volatility in broader markets on concerns over the coronavirus-triggered crisis.

Securities and Exchange Board of India (SEBI)

- ❖ It was established on April 12, 1992 in accordance with the provisions of the Securities and Exchange Board of India Act, 1992.
- ❖ The basic functions of the Securities and Exchange Board of India is to protect the interests of investors in securities and to promote and regulate the securities market.
- ❖ SEBI Board consists of a Chairman and several other whole time and part time members.
- ❖ SEBI also appoints various committees, whenever required to look into the pressing issues of that time.
- ❖ A **Securities Appellate Tribunal (SAT)** has been constituted to protect the interest of entities that feel aggrieved by SEBI's decision.

About P-notes

- ➢ These are issued by registered foreign portfolio investors (FPIs) to other foreign investors, willing to invest in the Indian stock market without going through the process of registering themselves.

- ➢ In a report published by SEBI, the regulator disclosed that P-note participation has increased in all the segments of equity, debt, hybrid securities, and derivatives.

- ➢ P-notes are used by foreign investors to invest in stock derivatives which have Indian stocks as underlying assets.

- ➢ P-Notes are among the group of investments considered to be Offshore Derivative Investments (ODIs).

- ➢ It allows them to skip the registration process, which is placed by the government for FPI investors.

- ➢ It enables investors to stay anonymous while leveraging profit by engaging in speculations.

Advantages of P-Notes

- ✓ Participatory notes are easily traded overseas through endorsement and delivery.

- ✓ They are popular because investors anonymously take positions in Indian markets, and hedge funds may anonymously carry out their operations.

✓ Some entities route their investments through participatory notes to take advantage of tax laws that are available in certain countries.

Disadvantages of P-Notes

✓ Because of the anonymity it possesses, Indian regulators face difficulty determining a participatory note's original owner and end owner.

✓ A substantial amount of unaccounted money enters the country through participatory notes.

✓ This flow of untracked funds has raised some red flags.

Sin goods and sin tax

News Excerpt

During revision of GST rates Finance Minister of India stated that the two-wheelers are neither a luxury nor sin goods and so, merit a GST rate revision. Two-wheelers currently attract 28% GST but now a rate revision proposal would be taken up by the GST Council.

Pre-Connect

Last year, the country's largest two-wheeler maker Hero MotoCorp had urged the government to consider a phase-wise reduction in GST on the segment, starting with bringing bikes up to 150 cc into the 18% slab.

Sin Goods and Sin Tax

- A **sin tax** is levied on specific goods and services (Sin goods) at the time of purchase.

- These Sin good items receive the excise tax due *to their ability, or perception, to be harmful or costly to society.*

- Applicable items include tobacco products, alcohol, and gambling ventures. Sin taxes seek to deter people from engaging in socially harmful activities and behaviors, but they also provide a source of revenue for governments.

- Sin taxes are typically added to liquor, cigarettes, and goods that are considered morally hazardous. Because they generate enormous revenue, state governments favor sin taxes.

- Society accepts sin taxes because they affect only those who use sin taxed products or engage in sin taxed behaviors. When individual states run a deficit, a sin tax is generally one of the first taxes recommended by lawmakers to help fill the budget gap.

- A sin tax is a type of **Pigovian tax,** which is levied on companies which create negative externalities with their business practices. Sin tax proponents maintain that the targeted behaviors and goods produce negative externalities.

- Sin taxes are typically **regressive taxes**, meaning the less money a person makes, the more significant is the percentage of their income these taxes consume.

Contingency Fund of RBI

News Excerpt

The Reserve Bank of India (RBI), the government's banker, has retained a amount of Rs 73,615 crore within the RBI by transferring it to the Contingency Fund (CF) of the central bank, thus leading to a sharp fall in the transfer of surplus to the government in the current year. As a result, the CF has swelled to a new high of Rs 264,034 crore, according to the Annual Report of the RBI.

The central bank's main risk provision accounts – **Contingency Fund, Currency and Gold Revaluation Account (CGRA), Investment Revaluation Account Foreign Securities (IRA-FS) and Investment Revaluation Account-Rupee Securities (IRA-RS)** — together now amount to Rs 13.88 lakh crore.

Contingency Fund (CF)

- It is a fund set apart for meeting the unforeseen contingencies, including depreciation in the value of securities, risks arising out of monetary/exchange rate policy operations, systemic risks and any risk arising on account of the special responsibilities enjoined upon the Bank.

- The purpose of the fund is to improve financial security by creating a safety net of cash or other highly liquid assets that can be used to meet emergency expenses.

- This amount is retained with the Reserve Bank of India.

RBI'S CONTINGENCY FUND (In ₹ crore)	
2020	2,64,034
2019	1,96,344
2018	2.32,108
2017	2,28,207
2016	2,20,183
2015	2,21,614
2014	2,21,652
2013	2,21,652
2012	1,95,405

Currency and Gold Revaluation Account (CGRA)

- CCRA is maintained by the Reserve Bank to take care of currency risk, interest rate risk and movement in gold prices.

- Unrealised gains or losses on valuation of foreign currency assets (FCA) and gold are not taken to the income account but instead accounted for in the CGRA.

- Net balance in CGRA varies with the size of the asset base, its valuation and movement in the exchange rate and price of gold.

- CGRA provides a buffer against exchange rate/ gold price fluctuations.

- It can come under pressure if there is an appreciation of the rupee vis-à-vis major currencies or a fall in the price of gold.

- When CGRA is not sufficient to fully meet exchange losses, it is replenished from the CF.

During 2019-20, the balance in CGRA increased from Rs 664,480 crore as on June 30, 2019 to Rs 977,141 crore as on June 30, 2020 mainly due to depreciation of rupee and the rise in the international price of gold.

Investment Revaluation Account Foreign Securities (IRA-FS)

Investment Revaluation Account Foreign Securities (IRA-FS) records the unrealized gains or losses on revaluation in foreign dated securities. The balance in IRA-FS increased from Rs 15,735 crore as on June 30, 2019 to Rs 53,834 crore as on June 30, 2020.

Investment Revaluation Account-Rupee Securities (IRA-RS)

The unrealized gains or losses on revaluation are accounted for in Investment Revaluation Account-Rupee Securities (IRA-RS). The balance in IRA-RS increased from Rs 49,476 crore as on June 30, 2019 to Rs 93,415 crore as on June 30, 2020 due to increase in portfolio of rupee securities and decline in yields on government of India securities held by the Reserve Bank during the year.

National Strategy for Financial Education

News Excerpt

The Reserve Bank of India came out with a '5-Core Actions' approach for promoting financial education, which among other things include development of relevant content for school children and adults, community participation and collaboration among various stakeholders.

Pre-Connect

- Since the launch of the first National Strategy for Financial Education(NSFE) in 2013, various stakeholders have undertaken several measures to improve the financial literacy of the cross-section of the population in the country.

- Based on the review of progress made under the strategy and keeping in view the various developments that have taken place over the last 5 years, the National Centre for Financial Education (NCFE) has prepared the revised NSFE (2020-2025).

- Financial literacy is defined as a combination of financial awareness, knowledge, skills, attitude, and behaviour necessary to make sound financial decisions and ultimately achieve individual financial well-being.

Highlights

➢ The 'National Strategy for Financial Education 2020-2025' (NSFE), has suggested a multi-stakeholder-led approach for creating a financially aware and empowered India.

➢ **The five Cs, outlined by the strategy paper, are: Content, Capacity, Community, Communication and Collaboration.**

➢ According to NSFE, Financial literacy supports the pursuit of financial inclusion by empowering the customers to make informed choices leading to their financial well-being.

> **PEPPER IT WITH**
> PMJDY, Rupay Debit Card, Jan Dhan to JanSuraksha, PMJJBY, PMSBY, APY, Pradhan Mantri Mudra Yojana, Stand Up India Scheme, Pradhan Mantri Vaya Vandana Yojana

➢ To achieve the vision of creating a financially aware and empowered India, NSFE has laid down strategic objectives, like inculcate financial literacy concepts among the various sections of the population through financial education to make it an important life skill, and encourage active savings behaviour.

➢ Other strategic objectives are encouraging participation in financial markets to meet financial goals and objectives, developing credit discipline and encourage availing credit from formal financial institutions as per requirement, and improving usage of digital financial services in a safe and secure manner.

➢ Managing risk at various life stages through relevant and suitable insurance cover and plan for old age and retirement through coverage of suitable pension products are the other key objectives laid down in the document.

➢ NSFE stresses on development of financial literacy content for school children (including curriculum and co-scholastic), teachers, young adults, women, new entrants at workplace/entrepreneurs (MSMEs), senior citizens, persons with disabilities, illiterate people.

➢ NSFE (2020-25) ask for updating the content of financial education in school curriculum for students of classes VI to X.

➢ It also makes a case for integrating financial education in courses like B.Ed./M.Ed. besides other teachers' training courses to create a cadre of financially educated teaching professionals.

➢ It also calls for development of a financial literacy mobile app, and leverage social media.

➢ NSFE further said the Technical Group on Financial Inclusion and Financial Literacy (TGFIFL) would be responsible for periodic monitoring and implementation of National Strategy for Financial Education.

➢ There would also be periodic monitoring of the activities undertaken by various stakeholders for dissemination of basic, sector-specific, and process literacy.

➢ The document says that it was prepared in consultation with the four financial sector regulators and other relevant stakeholders.

Benefits

✓ Financial education will help in promoting knowledge and skills which a relatively youthful population needs to avoid the pitfall of reckless spending through, say, the indiscriminate use of credit cards, a habit vigorously promoted by irresponsible marketing schemes.

✓ The national level financial education programme starting at the primary school level will make up for the shortfalls in the sector specific programmes.

✓ Financial education will have a positive, multiplier effect as ordinary citizens get to know the nuances of savings and investment. In turn, there will be a welcome deepening of the financial markets.

Conclusion

The NSFE document intends to support the Vision of the Government of India and financial sector regulators by empowering various sections of the population to develop adequate

knowledge, skills, attitude and behaviour which are needed to manage their money better and plan for their future. The strategy recommends adoption of a multi-stakeholder approach to achieve financial well-being.There is a need for a joint effort by all the banking, financial services and insurance companies as well to be able to achieve noticeable changes in the perceptions that an average Indian has about financial management.

INTERNATIONAL RELATIONS

A Self-reliant Foreign Policy

News Excerpt

Self-reliance is the theme of India's 74th Independence Day.

Pre-Connect

- The concept of self-reliance is commonly associated with the economy and production of key goods and services within the country in light of the global 'supply shock' caused by the pandemic.

- But it also has a parallel dimension in the domain of foreign policy. If the domestic goal is to reduce dependence on imports for critical commodities, the foreign policy corollary is to recalibrate the time-tested axiom of 'strategic autonomy'.

- India has historically prided itself as an independent developing country which does not take orders from or succumb to pressure from great powers. Whether the world order was bipolar (1947 to 1991), unipolar (1991 to 2008) or multipolar (present times), the need for autonomy in making foreign policy choices has remained constant.

Flexibility in the self-reliance policy

- Strategic autonomy has often been adjusted in India's history as per the changing milieu. In moments of crisis, India has reinterpreted freedom and shown flexibility for survival.

> **Non-Aligned Movement (NAM)**
>
> ❖ NAM was formed during the Cold War, largely on the initiative of then-Yugoslav President Josip Broz Tito, as an organization of States that did not seek to formally align themselves with either the United States or the Soviet Union, but sought to remain independent or neutral. India was one of the founding members of NAM.
>
> ❖ NAM has sought to create an independent path in world politics that would not result in member States becoming pawns in the struggles between the major powers.
>
> ❖ It identifies the right of independent judgment, the struggle against imperialism and neo-colonialism, and the use of moderation in relations with all big powers as the three basic elements that have influenced its approach.

- During the 1962 war with China, Prime Minister Jawaharlal Nehru, had to appeal to the U.S. for emergency military aid to stave off the Chinese.

- In the build-up to the 1971 war with Pakistan, Prime Minister Indira Gandhi had to enter a Treaty of Peace, Friendship and Cooperation with the Soviet Union to ward off both China and the U.S.

> **PEPPER IT WITH**
> Panchsheel, Cold War, NATO, BRICS, AtmaNirbhar Bharat, Defence Procurement policy, Neighbourhood First Policy

- In Kargil in 1999, India welcomed a direct intervention by the U.S. to force Pakistan to back down.

- In all the above examples, India did not become any less autonomous when geopolitical circumstances compelled it to enter into de facto alliance-like cooperation with major powers. Rather, India secured its freedom, sovereignty and territorial integrity by manoeuvring the great power equations and playing the realpolitik game.

- Today, in the wake of China's incursions across the Line of Actual Control, India is at an inflection point with regard to strategic autonomy and is getting closer to the U.S.

Way Forward

✔ India should stay as an independent power centre by means of intensified cooperation with middle powers in Asia and around the world.

✔ Placing all its eggs in the U.S. basket to counterbalance China would be an error, as that can constrict India's options in other theatres of national interest such as its ties with Iran and Russia and efforts to speed up indigenous defence modernisation.

✔ Diversification is the essence of self-reliance. A wide basket of strategic partners, including the U.S., is the only viable diplomatic way forward.

Conclusion

We are free and self-reliant not through isolation or alliance with one great power, but only in variable combinations with several like-minded partners. India is familiar with the phrase 'multi-vector' foreign policy. It is time to maximise its potential.

BRICS Anti-Drug Working Group

News Excerpt

The 4th Session of the BRICS Anti-Drug Working Group comprising Brazil, Russia, China, South Africa and India was held recently.

Pre-Connect

● BRICS is an informal group of states comprising the Federative Republic of Brazil, the Russian Federation, the Republic of India, the People's Republic of China and the Republic of South Africa.

● The growing economic might of BRICS countries, their significance as one of the main driving forces of global economic development, their substantial population and abundant natural resources are the driving forces behind the grouping.

● Among other areas of collaboration, matters pertaining to drug trafficking is an important area of cooperation among the BRICS member states.

Highlights

➢ The common points emerged during the discussions include need for real time information sharing among the member states and need to curb increased drug trafficking through maritime routes.

➢ India raised the "misuse" of darknet and modern technology being used for drug trafficking

> ### Dark net
> ❖ The dark net, also known as the "dark web," is a component of the greater "deep web," a network of encrypted Internet content that is not accessible via traditional search engines.
>
> ❖ The dark net is most often used for illegal activities such as black markets, illegal file sharing, and the exchanging of illegal goods or services (including stolen financial and private data), and the anonymity of the darknet attracts drug-dealers, hackers, and child pornography peddlers.
>
> ❖ Dark net markets have been instrumental in the development of cryptocurrencies because transactions completed on dark net markets using cryptocurrency protect both the buyer and seller.

by the international criminals.

➢ The anti-drugs enforcement agencies of five BRICS nations also discussed steps to keep a check on smuggling of drugs through maritime routes.

Israel-UAE Pact

News Excerpt

Israel and the United Arab Emirates, helped by the US, have arrived at an important peace agreement that has the potential to change the geopolitics of West Asia and beyond.

Highlights

- As per the deal, the UAE will establish diplomatic relations with Israel in return for Israel committing to give up a stated plan to annex the West Bank, the main territory of a state that the Palestinians want.
- The UAE became the third Arab nation to recognise Israel after Egypt (in 1979) and Jordan (1994).
- On priority, Israel and UAE will work together to find a treatment and a vaccine for Covid-19.
- President Mahmoud Abbas of the Palestinian Authority, which seeks a two-state solution, lashed out against the deal as a "betrayal" by the UAE.

Analytica

➢ For the Palestinians, the Israeli commitment that it will not pursue its plan to annex the West Bank, is an empty concession – the deal does not address the Palestinian demand for statehood.

PEPPER IT WITH
Two Nation Theory, Golan Heights, Gaza Strip, West Bank, Hamas, Jerusalem as new capital

➢ If the Arab states do fall in line, it would dramatically bring all Sunni nations in the region in an anti-Iran alliance with Israel that they have secretly wished for all these years.

➢ The deal will put Pakistan in a bind. Pakistan is unlikely to be seen as joining an Arab alliance that has effectively abandoned another "Islamic" cause dear to Pakistan, that of Palestine.

➢ Even if the UAE-Israel agreement does not bring Israel-Palestine peace, the new equations that it will give rise to, including the isolation of Iran, are already being heralded in the US as an achievement.

Initiatives undertaken on Israel-Palestine issue
❖ 1967 – UN Security Council Resolution 242
❖ 1978 – Camp David agreement
❖ 1979 – Israeli-Egyptian peace treaty
❖ 1991 – Madrid summit
❖ 1994 – Israel-Jordan agreement
❖ 1993-1995 – Declaration of Principles/Oslo Accords
❖ 2000 – Camp David summit
❖ 2002-2003 – Bush Declaration/Arab peace initiative
❖ 2007 – Annapolis summit
❖ 2009 – Netanyahu's Bar-Ilan address
❖ 2013 – 2014 – Washington peace talks/negotiations collapse
❖ June 2019 – Trump economic plan announced
❖ August 2020-Israel-UAE pact

Conclusion

The agreement could fast-track the changes that are already under way in the region. The Saudi bloc, consisting of Egypt, the UAE, Bahrain and others, see their interests being aligned with that of the U.S. and Israel and their support for Palestine, which Arab powers had historically upheld, is dwindling, while Turkey and Iran emerge as the strongest supporters of the Palestinians in the Muslim world. This tripolar contest is already at work in West Asia. The UAE-Israel thaw could sharpen it further.

Turkey-Greece Conflict

News Excerpt

NATO allies Turkey and Greece have locked horns over who gets to explore hydrocarbons in the Eastern Mediterranean.

Pre-Connect

- For centuries, Turkey and Greece have shared a chequered history.
- Greece won independence from modern Turkey's precursor, the Ottoman Empire, in 1830.
- In 1923, the two countries exchanged their Muslim and Christian populations – a migration whose scale has only been surpassed in history by the Partition of India.
- The two nations continue to oppose each other on the decades-old Cyprus conflict, and on two occasions have almost gone to war over exploration rights in the Aegean Sea.
- Both countries are, however, part of the 30-member NATO alliance, and Turkey is officially a candidate for full membership of the European Union, of which Greece is a constituent.

Highlights: The recent Turkey-Greece conflict

➢ **The Hagia Sophia row**

- o The Hagia Sophia was originally a cathedral in the Byzantine Empire before it was turned into a mosque in 1453.
- o In the 1930s, however, Mustafa Kemal Ataturk, the founder of the Republic of Turkey, shut down the mosque and turned it into a museum in an attempt to make the country more secular.
- o Many Greeks continue to revere the Hagia Sophia, and view it as a key part of Orthodox Christianity. So, when Turkish President RecepTayyip Erdogan ordered the structure open to Muslim worship last month, tensions escalated.

➢ **The Eastern Mediterranean dispute**

- o For 40 years, Turkey and Greece have disagreed over rights to the Eastern Mediterranean and the Aegean Sea, which covers significant oil and gas deposits.
- o In July this year, Turkey announced that the drilling ship Oruc Reis would be exploring a disputed part of the sea for oil and gas. Greece responded by placing its air force, navy and coastguard on high alert.
- o French President Emmanuel Macron expressed support for Greece, and said that Turkey should be "sanctioned" for its violations in the Aegean.
- o After German Chancellor Angela Merkel intervened, Turkey halted the drilling operation, and that it became easy to discuss the issue with Greece.

Analytica

✔ The highly complicated issue now has the potential to involve Europe, West Asia and North Africa.

✔ It is difficult to demarcate the maritime boundaries in the eastern Mediterranean, which is dotted with Turkish and Greek islands.

✔ France, the EU's most powerful military force, has thrown its weight behind Greece and Cyprus. Now, an alliance is emerging among Greece, Cyprus, Italy and France, which is backed by Egypt, Israel and the UAE.

✔ Turkey stands almost isolated, but remains a key power in the Mediterranean, which requires the EU to tread cautiously. If the EU wants to transport gas from the coast of Israel to Europe via Cyprus and Italy, an open conflict with Turkey cannot help.

Way forward

It is in everybody's interest to dial down tensions and find a diplomatic and mutually acceptable solution to the gas contest. Excluding Turkey, which has a long Mediterranean coast, is unwise. Allowing a resurgent Turkey to bully smaller powers in the region would be strategically disastrous. The EU has to strike a balance between these two options.

Eat Out to Help Out (EOHO)

News Excerpt

The EOHO Scheme is an economic recovery measure by the UK government to support hospitality businesses as they reopen after the COVID-19 lockdown in the country.

Pre-Connect

Since the lockdown began in India, different bodies representing the country's hospitality sector have asked the government for financial assistance to help tide over the crisis. Recently, the UK's popular Eat Out to Help Out (EOHO) Scheme has been cited as an example of the kind of intervention the Indian government could make.

Highlights

● Under the EOHO Scheme, the British government subsidised meals at restaurants by 50 per cent, from Monday to Wednesday every week in the month of August.

● The discount was capped at GBP 10 per head and did not apply to take-away or event catering.

● There was no minimum spend and no limit on the number of times customers could avail the offer, since the whole point of the scheme was to encourage a return to dining in restaurants.

● EOHO was only one of the schemes in the UK designed to help the food services sector. Other financial support measures include a furlough scheme for workers, cutting VAT to 5 per cent from the standard 20 per cent, besides temporary changes to licensing laws and outdoor seating laws, etc.

Analytica

➢ All over the world, the food services sector is one of the worst affected by the pandemic.

➢ The top two concerns were customers avoiding restaurants for fear of contracting the virus and customers having less disposable income for dining out.

➢ It is the second of these concerns that the EOHO scheme addressed, because, instead of delivering a financial package to operators, it made eating out more affordable for consumers directly and helped restore demand. Restoring consumer demand is being seen as crucial to the UK's economic recovery.

➢ While the scheme has been welcomed by the hospitality sector, some reservations have been expressed about the efficacy of EOHO.

➢ It has been argued that the scheme may have been introduced too early, since it was not yet clear whether the problem was on the demand side, with people being reluctant to go out and eat, or on the supply side, with restaurants unable to serve enough people, thanks to social distancing.

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BRICS Innovation Base

News Excerpt

China is considering establishing a BRICS innovation base.

Highlights

- China is considering establishing a BRICS innovation base to strengthen cooperation among the five-country bloc including India in sectors like 5G, AI and digital economy, industry and information technology.
- China is actively considering setting up the base in China in order to strengthen practical cooperation among the members, which include Brazil, Russia, India, China, and South Africa (BRICS).

Analytica

- China's interest in promoting 5G within the BRICS bloc could be part of its interest in pushing tech giant Huawei internationally – Huawei's name has come up as a contender to build the network in Brazil and South Africa even as it is embroiled in controversies in other countries.

- Huawei has a big presence in India, it's been here for 20 years making up 30% of Bharti Airtel Network and 40% of Vodafone ideas network. So, to pressurize India, China recently proposed this BRICS 5G innovation base.

> **PEPPER IT WITH**
> BRICS, New Development Bank, Shanghai Cooperation Organization, IBSA, BASIC, AIIB, NEST Division of MEA

- Calling it the BRICS innovation, it wants the five nations to have practical cooperation in the areas of 5G and AI. This poses a question towards India which has excluded China's involvement in its 5G network.

- A high-level committee on 5G is opposed to including Chinese vendors including Huawei and 5G trails. Indian intelligence also had reservations on the possible direct or indirect links of several Chinese companies including Huawei, with the Chinese military. India has banned 59 Chinese apps citing national security concerns and it is also tightening Chinese investments following the border skirmish at LAC.

- India's policy has not been very clear regarding its foreign policy on China. On the one hand, it faces the risk of escalation near LAC and at the same time, it is a party to many trades and diplomatic engagements with China like RCEP, RIC grouping, BRICS and SCO.

> ### BRICS
> ❖ BRICS is the group composed by the five major emerging countries - Brazil, Russia, India, China and South Africa -, which together represent about 42% of the population, 23% of GDP, 30% of the territory and 18% of the global trade.
>
> ❖ The acronym BRIC was coined by Goldman Sachs in 2001 to indicate the emerging powers that would be, alongside the United States, the five largest economies of the world in the 21st century.
>
> ❖ In 2006, BRIC countries started their dialogue, which since 2009 takes place at annual meetings of heads of state and government.
>
> ❖ In 2011, with South Africa joining the group, the BRICS reached its final composition, incorporating a country from the African continent.

Conclusion

India should not allow its critical infrastructure to be managed by an openly hostile nation like China. The government in India is yet to decide Huawei's fate in the country but all and all, India needs to ban entities which pose serious challenges to its security.

Transport Initiative for Asia (TIA)

News Excerpt

NITI Aayog has launched the India Component of the Nationally Determined Contributions (NDC)–Transport Initiative for Asia (TIA).

Pre-Connect

- India has a massive and diverse transport sector that caters to the needs of billion people. It has the world's second-largest road network, which contributes to maximum greenhouse gas (GHG) emissions through all means of transportation.
- With increasing urbanisation, the fleet size i.e. the number of sales of vehicles is increasing rapidly. It is projected that the total number of vehicles will be doubled by 2030.
- The NDC–TIA India Component will focus on establishing a multi-stakeholder dialogue platform for decarbonizing transport in India.

> ### NDCs
> ❖ 2015 was a historic year in which 196 Parties came together under the Paris Agreement to transform their development trajectories so that they set the world on a course towards sustainable development, aiming at limiting warming to 1.5 to 2 degrees C above pre-industrial levels.
> ❖ Nationally determined contributions (NDCs) are at the heart of the Paris Agreement and the achievement of the long-term goals.
> ❖ NDCs embody efforts by each country to reduce national emissions and adapt to the impacts of climate change.
> ❖ The Paris Agreement requires each Party to prepare, communicate and maintain successive nationally determined contributions (NDCs) that it intends to achieve.
> ❖ Parties shall pursue domestic mitigation measures, with the aim of achieving the objectives of such contributions.

Highlights

➢ NDC–TIA is a joint programme, supported by the International Climate Initiative (IKI) of the German Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and implemented by a consortium of seven organisations such as International Transport Forum, World Resources Institute, etc.

➢ The aim is to promote a comprehensive approach to decarbonize transport in India, Vietnam, and China.This will contribute towards achieving their NDCs and increasing their ambition in the transport sector of 2025 NDCs.

➢ On behalf of the Government of India, NITI Aayog, the country's premier policy think tank, will be the implementing partner.

➢ Ultimately, the programme intends to support the development of policies and regulations to promote electric vehicle charging infrastructure uptake and smooth wide scale adoption of EVs in India.

Analytica

✔ The NDC–TIA programme team needs to work in close cooperation and coordination with India's government agencies, local decision-makers, researchers, industry experts, think tanks, and civil society organisations.

✔ The programme aims at high ambition in the transport sector directly supporting the country's NDC targets.

✔ Successful implementation of these activities requires the political will and interest of political partners and relevant stakeholders in the target countries.

✔ Interaction of consortium members with relevant stakeholders in the course of existing programmes and discussions conducted during the scoping mission indicate a high commitment to programme objectives.

Teesta River Dispute

News Excerpt

Bangladesh is discussing an almost $1 billion loan from China for a comprehensive management and restoration project on the Teestariver. The project is aimed at managing the river basin efficiently, controlling floods, and tackling the water crisis in summers.

Pre-Connect

- India and Bangladesh have been engaged in a long-standing dispute over water-sharing in the Teesta.
- Bangladesh's discussions with China come at a time when India is particularly wary about China following the standoff in Ladakh.
- India and Bangladesh were on the verge of signing a water-sharing pact in September 2011, when Prime Minister Manmohan Singh was going to visit Bangladesh. But, West Bengal Chief minister Mamata Banerjee objected to it, and the deal was scuttled.
- After NarendraModi came to power in 2014, he visited Dhaka in June 2015 — accompanied by Mamata Banerjee — and told Bangladesh PM Sheikh Hasina that he was confident they could reach a "fair solution" on the Teesta through cooperation between central and state governments.

> **PEPPER IT WITH**
> Comprehensive Integrated Border Management System, Border Haats, CAA, NRC, NPR, Assam Accord

- Five years later, the Teesta issue remains unresolved.

Highlights: Teesta River Dispute

- Sikkim has constructed some hydro-power projects across the Teesta, but these do not cause any impact on the flow downstream.
- However, there are two irrigation projects on the Teesta, a barrage at Gajoldoba in West Bengal and another at Dalia in Bangladesh, which draw water from the river to meet irrigation needs. The dispute about Teesta waters arose mainly because of the shortage of water during the dry months.
- Since 1972, Bangladesh has been insisting that a 50 per cent share of Teesta waters be made available to the lower riparian country to meet its requirement.

> **Recent India-Bangaldesh relation**
> - New Delhi has had a robust relationship with Dhaka, carefully cultivated since 2008, especially with the Sheikh Hasina government at the helm.
> - India has benefited from its security ties with Bangladesh, whose crackdown against anti-India outfits has helped the Indian government maintain peace in the eastern and Northeast states.
> - Bangladesh has benefited from its economic and development partnership. Bangladesh is India's biggest trade partner in South Asia.
> - Bilateral trade has grown steadily over the last decade: India's exports to Bangladesh in 2018-19 stood at $9.21 billion, and imports from Bangladesh at $1.04 billion.
> - India also grants 15 to 20 lakh visas every year to Bangladesh nationals for medical treatment, tourism, work, and just entertainment.
> - A weekend shopping trip to India by Bangladesh' elite is quite common — when the film Bahubali was released, a group of Bangladesh nationals came to India in chartered flights to watch it in Kolkata.
> - For India, Bangladesh has been a key partner in the neighbourhood first policy — and possibly the success story in bilateral ties among its neighbours.
> - However, there have been certain irritants in the relationship such as Teesta dispute, Border firings, NRC, CAA, etc.

- India has been examining many parameters for arriving at a workable solution. A possible option considered was that — since the regeneration of flow in the river channel between

the Gajoldoba and Dalia barrages is about 25 per cent, which would be available at the downstream barrage — the additional 25 per cent demanded by Bangladesh could be released by West Bengal from the upstream barrage.

➢ However, West Bengal did not want to commit to releasing water from the upstream barrage. Thus, the water-sharing arrangement got embroiled in domestic hydro-politics, stalling further action to find an acceptable solution to the dispute.

Analytica: Growing China-Bangladesh relations

✔ China is the biggest trading partner of Bangladesh and is the foremost source of imports.

✔ Recently, China declared zero duty on 97% of imports from Bangladesh.

✔ China has promised around $30 billion worth of financial assistance to Bangladesh.

✔ Additionally, Bangladesh's strong defence ties with China make the situation complicated. China is the biggest arms supplier to Bangladesh. Recently, Bangladesh purchased two Ming class submarines from China.

✔ In the wake of the Ladakh standoff, India has become more sensitive to Chinese defence inroads into Bangladesh.

✔ While the Teesta project is important and urgent from India's point of view, it will be difficult to address it before the West Bengal elections due next year.

✔ Now, the test will be if India can implement all its assurances to Bangladesh such as visa issue, TablighiJamaat issue, border killings, etc.in a time-bound manner.

✔ Or else, the latent anti-India sentiment in Bangladesh — which has been revived after India's CAA -NRC push — threatens to damage Dhaka-New Delhi ties.

India-Pakistan Map Issue

News Excerpt

A new map has been issued by Pakistan that lays claim to the Union Territories of Jammu & Kashmir and Ladakh, and Junagadh in Gujarat state, on the eve of the first anniversary of the scrapping of J&K's special status.

Highlights

- Pakistan's new map includes the whole of the UT of Jammu & Kashmir as part of the country's territory, describing it as "Indian illegally occupied Jammu and Kashmir" and a "disputed territory" whose final status is to be decided in line with UN Security Council resolutions.

- The boundary of Himachal Pradesh is depicted as the international border.

- In a nod to China's sensitivities, the map does not depict the Ladakh region, with a legend stating "frontier undefined".

Indus Waters Treaty

❖ The 1960 Indus Waters Treaty gives India full control over the waters of the three Eastern rivers, Beas, Ravi and Sutlej — 'Eastern' because they flow east of the 'Western' rivers — while letting the waters of the three Western rivers of Indus, Jhelum and Chenab flow "unrestricted" to Pakistan.

❖ India is allowed to make some use of the waters of the Western rivers as well, including for purposes of navigation, power production and irrigation, but it must do so in accordance with the provisions of the Treaty.

❖ Historically, India has never made full use of its rights, neither on the Eastern nor on the Western rivers.As a result of India's under-utilisation of its share of waters, Pakistan has over the years benefited more than it is entitled to under the Treaty.

❖ Despite this, Pakistan has often complained that it was being denied its due share of waters, and that India had violated the provisions of the Indus Waters Treaty in the manner it had designed and implemented many of its projects on the Indus rivers. It has argued that the Treaty has failed to protect the interests of Pakistan, and that India has managed to manipulate the provisions in its favour.

- An annotation on the map states the boundary in this area will be decided by "sovereign authorities concerned after the final settlement of the Jammu & Kashmir dispute"

- The map also depicts the Junagadh and Manavadar region of India's Gujarat state as part of Pakistan.

Junagadh

The nawab of Junagadh had opted to accede to Pakistan in September 1947, before fleeing from India with his family the following month.

Junagadh voted overwhelmingly to stay with India in a plebiscite held in the region in 1948. Experts believe Pakistan has no legal ground for claiming the region.
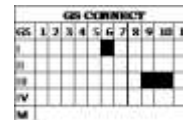
ENVIRONMENT

Shrinking Water bodies and Urban Floods

News Excerpt

Urban water bodies have been a victim of unplanned urbanisation in India. Many of the urban water bodies have been encroached in major urban centres of the country. Shrinking of water bodies is interconnected to the urban floods.

About

- Lakes and wetlands are an important part of urban ecosystem. Unplanned and unregulated rapid urbanization has increased the pressure on adjacent water bodies.

- Burgeoning human population coupled with the increased urban concentration has escalated both the frequency and severity of disasters like urban floods. Eventually, shrink in water bodies cause risk of urban floods.

- The number of water bodies is on the verge of declining For instance- Bangalore had 262 lakes in the 1960s; now only 10 of them hold water. At least 137 lakes were listed in Ahmedabad in 2001; construction work started on 65 of them.

- Urbanization is the principal cause that have cascaded impact on other reasons as well, such as river flood encroachment, disposal of sewage, groundwater decline leading to fall in the level of water, unplanned tourism and absence of administrative framework.

Losing base

Loss of water bodies to urbanisation is increasing the number of flood events

Population in urban India

2011	2031
377 million	600 million

Metropolitan cities

2011	2031
52	87

Population in metropolitan area

2011	2031
160 million	255 million

Level of urbanisation

2011	2031
31%	50%

Major Reasons and Interconnections with floods

o **Pollution**: There has been an exponential increase in the urban population without corresponding expansion of civic facilities such as infrastructure for the disposal of waste.As more people are migrating to cities, the urban civic services are becoming less adequate. As a result, most urban water bodies in India are suffering because of pollution.Sometimes excessive solid waste in water blocks the drain andaffects the channels during rainy seasons which subsequently causes flood.

> For instance-the water bodies have been turned into landfills in several cases. Guwahati's Deeporbeel, for example, is used by the municipal corporation to dump solid waste since 2006. Even the Pallikarni marshland in Chennai is used for solid waste dumping.

o **Encroachment**: This is another major threat to urban water bodies. As more people have been migrating to cities, availability of land has been getting scarce.Encroachment led to decrease in catchment areas and reduce overall capacity of water body to hold water. So, excess water possess residential areas and consequently urban flooding take place.Charkop Lake in Maharashtra, Ousteri Lake in Puducherry, Deeporbeel in Guwahati are well-known examples of water bodies that were encroached.

> **PEPPER IT WITH**
> Sponge City, Smart City Urban Fringe, Wetland Rules, 2016

o **Illegal mining activities**: Illegal mining for building material such as sand and quartzite on the catchment and bed of the lake have extremely damaging impact on the water body.

> For example, the Jaisamand Lake in Jodhpur, once the only source of drinking water for the city, has been suffering from illegal mining in the catchment area for the last 20 years despite a court order to stop mining in 1999.

Page 66

o Waste disposal in water bodies and drainage restrict the hydro logical flow of water causes water logging and consequently, urban floods taken place.
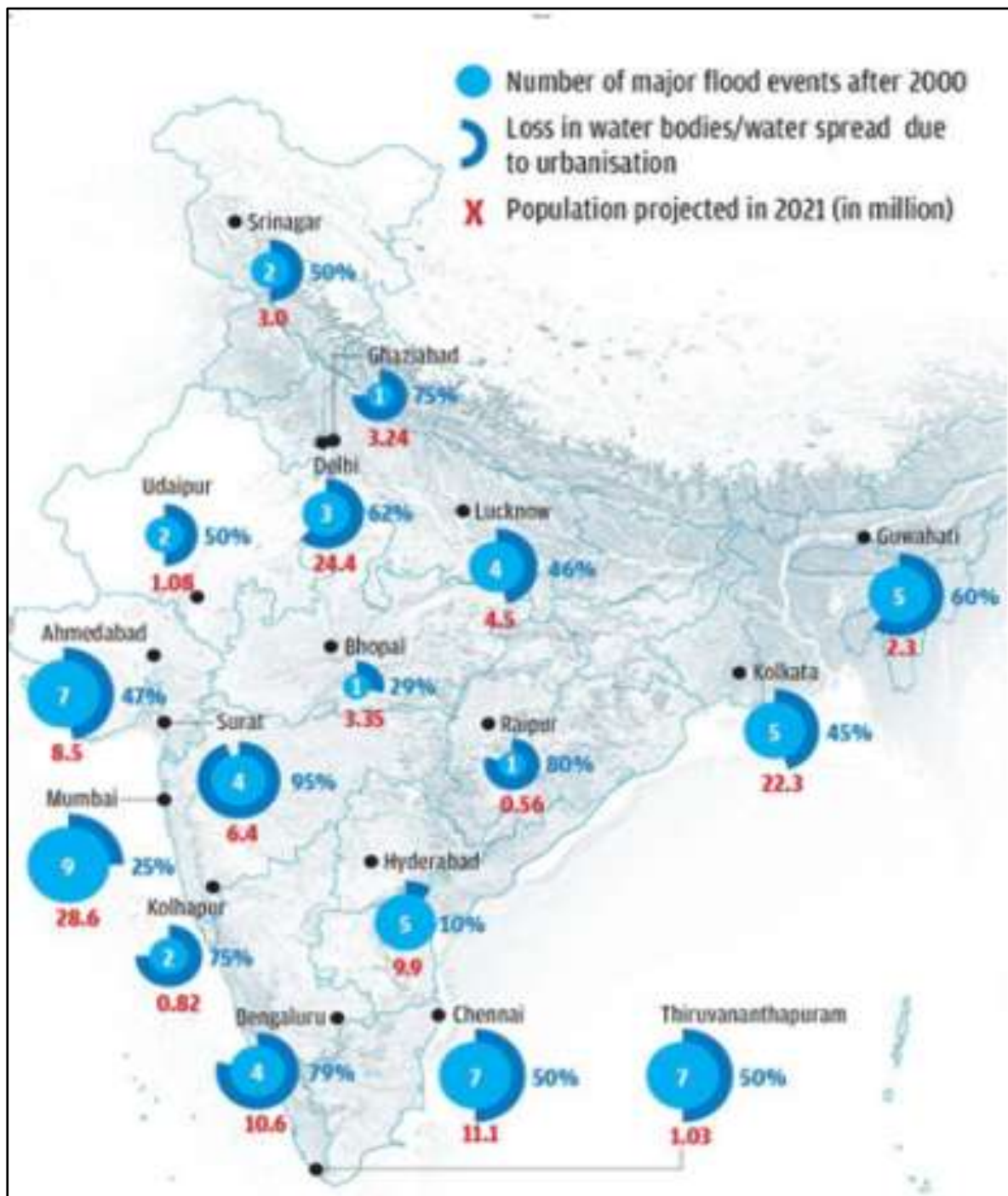
o Concretisation further added to water-logging, Due to high population density lack of maintenance of drainage cause choking during monsoonal period. This resulted into excess water and causes flood.A water body have well connected drainage pattern, now a days in most urban areas pressure is on both drainage branches as well as on water body. This makes residential and unplanned region prone to be a victim of urban flood.

Analytica

➢ According to the Union Ministry of Urban Development (MoUD), 31 per cent of the country was urbanised in 2011. The ministry says almost 50 per cent of the country will be urbanised by 2050. Thus there is dire need to adopt the sustainable development oriented towards management of urban water bodies, and legally enforceable urban planning law.

> Water bodies have become even more critical in current times when cities are facing the challenge of rapid, unplanned urbanization.
> Natural streams and watercourses, formed over thousands of years due to the forces of flowing water in the respective watersheds, have been altered because of urbanisation. This cause irreversible damages to the local ecosystem and affect the water index of the region.

Way Forward

✓ **Flood Mitigation**: It should be the early strategic stages in order to reduce and manage the flood risks, especially those associated with development. The drainage system should also be part of the strategic approach to flood management.

✓ **Wetland Survey**: Detailed survey of the wetlands should be done toMinimise the risk of flooding.

✓ **Comprehensive urban planning** with proper study of topography, drainage, rainfall, soil lithology with improved flood water disposal system. Also vibrant flood forecasting system should be inducted.

Mauritius Declares Environmental Emergency

News Excerpt

The Indian Ocean island of Mauritius has declared a "state of environmental emergency" after anOil leak in Indian Ocean by Japanese-owned ship that ran aground offshore days ago.

Pre-Connect

- Mauritius's 1.3 million people relies heavily on tourism. It is an island country surrounded by beautiful lagoon and coral reefs. Which are the main attraction of tourist.
- The COVID-19 has already broke the spine of Mauritius's Economy and now oil spill could further aggravate it.

About Oil leak Incident

o A Japanese vessel carrying 4000 tonnes of crude oil started leaking into the Indian Ocean and in territorial water.

o It deviated from its course and headed towards Mauritius instead of the regular shipping lanes several nautical miles south of it.

> **India's Efforts in Containing Damage**
> ❖ Indian marine disaster management personnel have joined their local counterparts in containing the damage.
> ❖ India has delivered 30 tons of equipment and material for use in oil spill containment and salvage operations.
> ❖ A ten-member team from the Indian Coast Guard has been deployed for the purpose.

o More than 1000 tonnes of oil leaked from the cracked vessel polluting the coral reefs, beaches and lagoons of the island nation.

o The government also sought international help to contain the damage.

o Locals are also actively involved in the cleanup efforts. Environmentalists are concerned about the impact of the oil spill on the fragile ecosystem.

Impacts

o Mauritius is under-equipped to deal with environmental and economic disasters the marine accident has brought upon the nation

o Thousands of species around the lagoons are at risk of drowning in a sea of pollution, with dire consequences for Mauritius's economy, food security and health.

o Coral reefs are under severity of being wiped out, Thus oil spill may cause significant impact on lagoon and ultimately to the economy in long run.

o There is no guaranteed safe way to extract, transport and store fossil fuel products. This oil leak is not a twist of fate, but the choice of our twisted addiction to fossil fuels.

For Broad Coverage on 'Oil Spill', Refer KSG Current Connect, June 2020, Page No-76-77.

Leopard Poaching and Endangered Species in News

News Excerpt

A recent study by TRAFFIC India on 'common leopards' revealed that of the total of 747 leopard has been died between 2015-2019 in India.

Pre-Connect

- **TRAFFIC** is a leading wildlife trade monitoring network across the world. It is a leading NGO working globally on trade in wild animals and plants in the context of both biodiversity conservation and sustainable development.

- **Leopard census**: The last formal census on India's leopards was conducted in 2014, which estimated the population between 12,000 and 14,000. The results of a recent census of leopard sightings are likely to be released soon by the Wildlife Institute of India.

- The conservation status of common leopards is 'Vulnerable' in 2015 designated by the International Union of Conservation of Nature (IUCN).

Leopards and poaching

o The paper titled **''SPOTTED' in Illegal Wildlife Trade:** A Peek into Ongoing Poaching and Illegal Trade of Leopards in India' also said that the highest numbers of poaching incidents were reported from the States of Uttarakhand and Maharashtra.

o Leopards have the highest protection under India's wildlife laws but are facing threats of poaching, habitat loss and conflict with humans.

PEPPER IT WITH
Wildlife protection Act, Biodiversity act, National Parks, CITES, National Tiger Conservation Authority, IUCN

o During the period 2015 to 2019, there were more than 140 cases of seizures of leopard body parts in Uttarakhand, and about 19 incidents where the deaths of these cats could be directly linked to poaching.

o Among all the derivatives found in illegal wildlife trade, skin remained the most in-demand product, accounting for 69% of all seizures, while derivatives like claws, teeth and bones were also traded.

o It is also believed that bones of the leopard are possibly traded as tiger bones as they have a larger international demand for traditional medicines

African Cheetah

- The Supreme Court has directed the National Tiger Conservation Authority (NTCA) to introduce African cheetahsinto the Indian habitats.

- **IUCN Status**: According to the International Union for the Conservation of Nature's (IUCN) Red List, cheetah's population is 'vulnerable' witnessing a decreasing trend with only less than 7,000 of them left in the wild globally.

- **Status in India**: The Asiatic Cheetah was declared extinct in India in 1952. According to reports, the last Indian cheetah died around 1948.The Asiatic cheetah is the only large mammal to go extinct in the country since Independence.

- **Reason for Extinction**: Cheetahs became extinct due to various reasons like hunting, destruction of habitat and human intervention. Wildlife experts say that for cheetahs to survive, a large area of grassland and a prey base are required. Around 7,000 cheetahs are now left in the wild, most of them in Africa. Being the mildest of the wild cats, cheetahs need special attention and care.

- **Key Concern**: The lack of enough area and prey base for the African cheetahs in Indian habitats. Low survival rates of cubs, animal-human conflict, are some of the other challenges ahead.
- If the cheetah is reintroduced, India would become probably the only country in Asia to have all the major big cats in the wild – lions, tigers and leopards included.

DholeDogs

- Dhole wild dogs are one of the India's top predators, found in Central Indian Highlands and the Western and Eastern Ghats. Indian wild dogs occurs in most of South Indian forest,Central India and also in the north east states of India.
- Dhole is a highly social animal and listed as Endangered, fewer than 2,500 adults left in the wild forest of India including Bandhavgarh National Park, Pench National Park,Mudumalai National Park,Indravati National Park and DibruSaikhowa National Park of Assam.
- India has the highest Dhole population in the world, in three key landscapes: the Western Ghats, Central India and Northeast India.

Human-Elephant Conflict Management

News Excerpt

On the eve of World Elephant day which falls on 12th August every year, a compendium on Best practices of Human-Elephant Conflict Management in India launched by the Ministry of Environment, Forest and Climate Change.

Pre-Connect

- **Population**: India has the largest number of wild Asian Elephants, estimated at 29,964 according to 2017 census by Project Elephant, i.e. about 60% of the species' global population.

- **Reason for Human-Animal Conflict**: Loss of natural habitat and fragmentation have been bringing wild elephants closer to human habitations, sparking these conflicts. Over 500 humans are killed in encounters with elephants annually, and crops and property worth millions are also damaged. Many elephants are also killed in retaliation due to conflict.

> **PEPPER IT WITH**
> Project Elephant, Zoological Survey of India, Forest Survey of India, PISFR, Wildlife Crime Control Bureau, Central Zoo Authority

- There are about 30 elephant reserves across the country covering about 65,000 sq. km. but the reserves and corridors have poor legal protection.

Conflict Management Practices in India

o To tackle the incidents of conflict and avoid losses on both sides, it is important to strengthen the human-elephant coexistence through by active management interventions.

o A variety of management strategies and practices has been developed and customized are implemented at different scales by stakeholders.

Key Factor	Reason	Evolved Best Practices (As per Compendium)
1. **Retaining Elephants in Their Natural Habitat**	o Elephant often leave natural habitat due to emerging of extreme climatic factors, some of them induced by climate change	o To improve system availability of water, Waterholes are created and filled with water naturally or artificially. o Due to extreme dry conditions in certain ranges, adequate water availability in forest is a big issue. Solar powered bore wells have been established to tackle this issue. o Water management and distribution is largely done by leveraging gravitational force to channelize the flow of water.
2. **Habitat Management Activities**	o Due to rapid habitat losses because of forest fires, elephants ingresses in human settlements that cause conflict.	o Creation of in-situ fodder. o Pro-Active fire management and control. o Collection and sowing of Grass seeds. o Weed removal etc.
3. **Restricting Elephants in their natural habitat**	o Due to widespread incidents of human-animal conflict	o Construction of elephant trenches, Rubble wall, Solar powered high electric fences will be utilized to limit the movement of elephant.
4. **Others**		o Removal of elephants from human areas. o Creation of Bio-fencing, iron Fencing etc. to limit the movement of elephants. o Establishment of community channel for any kind of elephant ingression. o Use of technology to mitigate elephant conflict

Analytica

➢ The government's approach to minimise human-elephant conflict by restricting the movement of elephant is not a prudent way of conservation.

➢ The document lists out the use of concrete and iron fences among the best practices to stop the movement of elephants, even as there are examples of these measures proving fatal for India's national heritage animal, such so-called best practices' will be detrimental to the protection of elephants.For instance, in 2018, an elephant died in Karnataka's Nagarhole National Park while it was trying to leap over an iron fence made using old railway tracks.

➢ *Elephant corridors have a poor legal protection that means forest land in such areas can easily be diverted for any non-forest purpose like Infrastructure development project etc.* This aspect is largely unaddressed in Compendium.

➢ It is essential that elephant–human conflict mitigation becomes an integral part of the national elephant conservation policy. Currently there is an inordinate stress on conflict mitigation measures such as erecting electric fences, while little is done to consolidate elephant habitat or formulate land-use plans.

➢ Trans-border cooperation is needed to manage elephant populations across India's international borders with Nepal, Bhutan and Bangladesh. Development of a rigorous decision-making framework will require the participation of social scientists and economists.

➢ In several areas, it is small isolated populations of elephants causing conflict. They are sinks for conservation resources and may provide no long-term benefits for the species – conservation action plans for populations based on their long-term viability is a necessity.

Way Forward

There is a need for a clear policy and strategic planning. In the absence of policy, there is an inordinate focus on the symptoms rather than the causes of the problem. The current approach to dealing with conflict is largely ad hoc, and predisposed to failure because of inappropriate application of methods, lack of involvement of local people, lack of monitoring of conflict and conflict mitigation measures, and inadequate understanding of elephant ecology in deploying mitigation strategies.

> ### Some Facts:
>
> ❖ The MoEFCC has launched a portal on Human-Elephants Conflict called **"Surakhsya"** for collection of real time information & also for managing the conflicts on a real time basis will help to set the data collection protocols, data transmission pipelines and data visualization tools to enable policy-makers to leverage HEC data for policy formulation and for preparation of Action Plans for mitigation of conflicts.
>
> ❖ **World Elephant Day** is celebrated on August 12 is an international **annual event.**
>
> ❖ Asian elephants are listed as "**Endangered" on the IUCN Red List of threatened species**. The current population estimates indicate that there are about 50,000 -60000 Asian elephants in the world. More than 60 % of the population is held in India.
>
> ❖ Indian Elephant has also been listed in the Appendix I of the Convention of the Migratory species in the recently concluded Conference of Parties of CMS 13 at Gandhi Nagar, Gujarat in February 2020.

Delhi's Electric Vehicles Policy 2020

News Excerpt

Delhi Government has announced the Electric Vehicle Policy 2020.

Pre-Connect

• India has turned itself to electric vehicle to beat pollution.

• By 2030, the government aims to make India a 100-per cent electric-vehicle nation.

• The central is also focusing on the initiatives taken, which are Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India)and National Electric Mobility Mission Plan (NEMMP) 2020.

NEMMP 2020:

- It targets to achieve 6-7 million sales of hybrid and electric vehicles by the year 2020.

- The NEMMP 2020 is a National Mission document providing the vision and the roadmap for the faster adoption of electric vehicles and their manufacturing in the country.

- This plan has been designed to enhance national fuel security, to provide affordable and environmentally friendly transportation and to enable the Indian automotive industry to achieve global manufacturing leadership.

FAME II scheme:

- To boost electric vehicle in India the government has announced an outlay of ₹10,000 crore for FAME II.

- ₹1,000 crore has been earmarked for setting up charging stations for electric vehicles in India. Under the scheme the government will offer the incentives for electric buses, three-wheelers and four-wheelers to be used for commercial purposes.

Salient Features of Delhi's Electric Vehicle Policy 2020

- Initially, the policy lays the maximum weight on replacement of two-wheelers, public transport.

- Policy also focuses on the replacement of the existing auto rickshaws and State-run buses with e-autos and e-buses respectively.

- Policy would also ensure that delivery-based services operating in the city are powered by e-mobility.

- Currently, the share of EVs is negligible in Delhi. Within the next one year, the Delhi government aims to induct at least 35,000 EVs across segments and the five-year plan envisages induction of 5 lakh EVs.

- The policy which will remain valid for a period of three years seeks to drive the rapid adoption of Battery Electric Vehicles (BEVs) so that they contribute to 25%of all new vehicle registrations by 2020.

- The fiscal incentives being offered would be in addition to the demand incentives available in the central government's FAME II scheme.

- One of the key provisions of this ecosystem for EVs in Delhi are incentives on the purchase of new vehicles. According to 2020 Delhi EV policy, the Delhi government now offers a subsidy of ₹5,000/kWh or up to ₹1.5 lakh for electric four-wheelers and ₹30,000 for electric two-wheelers.

- The Delhi government's new EV policy also includes waiving off of road tax and registration fee on all new EV, setting up a solid charging infrastructure, etc. Besides that, the policy intends to fund its incentives via charges such as congestion charge, etc.

- The Delhi government will offer 100% subsidy for the purchase of charging equipment costing up to ₹6,000 per charging point. This has been capped for the first 30,000 charging points set up at homes/workplaces. This subsidy to be routed through DISCOMS who will be in-charge of charger installations.

Provisions for Different Segments			
Policy focuses attention on incentivising different segments.			
Electric Cars	**Electric Two-Wheelers**	**Goods Carriers**	**Electric Buses**
• **A purchase incentive of ₹ 10,000 per kWh of battery capacity will be provided per electric four-wheeler (subject to a maximum incentive of ₹1.5 lakh per vehicle) to the registered owner of the first 1000 e-cars to be registered in Delhi after issuance of the policy.**	• The demand generation incentives offered for two-wheelers will be based on battery capacity. It will be available only for electric two-wheelers with advancedbatteries. • A purchase incentive of ₹5000 per kWh of battery capacity will be provided per vehicle to the registered owner and subject to a maximum incentive of ₹30,000 per vehicle.	• Light Commercial Vehicles used as goods carriers will get a purchase incentive of ₹ 30,000 to the first 10,000 e-carriers to be registered in Delhi after issuance of policy in addition to interest subvention of 5% on loans availed from DFC. • The purchase of e-carriers will also be eligible for a scrapping incentive for scrapping and de-registering of old ICE goods carriers.	• The state government will be looking at the substantial addition of buses to the public transport fleet in the period 2019-2022. • The policy seeks pure electric buses to constitute at least 50% of all new stage carriage buses procured for the city fleet, starting with the induction of 1000 pure electric buses by 2020.

Analytica

➢ Fueling with electricity offers some advantages not available in conventional internal combustion engine vehicles.

➢ The rise of electric vehicles is inevitable around the world and India alike. While several manufacturers have rolled EVs, there are several challenges that need addressing and a government intervention is one of the plausible ways to go about it.

Challenges of EV in India

o Despite lack of specific pointers towards electrification, the EV Industry in India will still take another few year to evolve. The primary concerns have been around range anxiety (kms on a single charge) and the lack of charging infrastructure.

o **Incentive**: EVs worldwide constitute a very small niche and remain dependent on incentives. Adoption in India will also be heavily dependent on Government incentives. Thus the government efforts play a big role here.

o **Cost of the battery:** The cost of the battery and power electronics constitute almost two-thirds of the cost of an EV. Multiple factors like demand-supply gaps, uneconomically low volumes etc., lead to the high cost of manufacturing EVs. Thus, may not attract the automobile industries.

o **Price multiple**: The biggest hurdle for buyers looking to go electric is the high price of EVs.

o **Challenges from the Grid side**: In next few years the electricity demand for household and industries would going to surge. Introduction of new EV infrastructure will have impact on the supply side. Even assuming that renewables and newer, cleaner sources of thermal or nuclear power come on stream within the next few years. Projections for 2030 show that even with a fair penetration of EVs (two, three, four-wheelers, and intra-city buses), the increase in demand for electricity is likely to be about 100 TWh (Tera watt-hours) or about 4% of the total power generation capacity. So, ramping up power generation should be possible to meet that growth in demand.
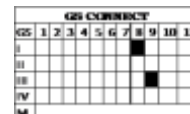
Way Forward

There is a need to create an integrated policy to nurture this technology. An eco-system approach is what will help achieve India's progress on electric mobility. Besides the end-users or customers, the key stakeholders could play a transformable role in India's transition towards EVs.

✓ **Government**: By rationalizing the regulations on emissions and fuel efficiency, clarifying aspirations, strategic intent and direction, exploring incentives and subsidies, it can support EV adoption and focus on developing a supportive ecosystem.

✓ **Role of power, fuel, and charging infrastructure companies**: By laying down a foundation of support, innovating on business models (e.g., leasing of batteries, swapping infrastructure, deploying fast chargers), making the economics of charging infrastructure work, providing stable power supply and grid stability, they can enable easy and rapid charging and drive EV adoption.

✓ **Automotive industry**: By changing the product and component mix bringing EV components and vehicles to life, building the right talent pool and skill set, improving the performance of batteries and electric vehicles and building scale, the industry can drive the EV disruption in India.

Boreal Summer Intra Seasonal Oscillation (BSISO)

News Excerpt

Researchers at the Indian National Centre for Ocean Information Services (INCOIS), Hyderabad have found a method to improve wave prediction and BSISO linked oceanic activity that affects behavior monsoon.

Pre-Connect

- Intra-seasonal oscillation (ISO) plays an important role in the onset and northward movement of the Asian summer monsoon, which is regulated regionally by rainy seasons.

- The Madden-Julian oscillation (MJO), is known as the intra-seasonal oscillation (ISO). It is the foremost method of intra-seasonal variability in the tropical climate system. It is a planetary scale, eastward-moving disturbance with a broad spectral peak around 40–60 days, which modulates the tropical deep convection, and hence the tropical precipitation.

- Under the Deep Ocean Mission of the Ministry of Earth Sciences, this aspect of monsoon (link with BSISO) would be studied to streamline the evidence-based forecasting.

About BSISO

o BSISO is stated as the movement of convection from Indian Ocean to western Pacific Ocean roughly every 10-50 days during the monsoon.

o The BSISO is known to affect climate variability, including the summer monsoon onset the active/break phases of the summer monsoon, extreme wet and dry events and climate predictability for precipitation.

o Active phase of BSISO induce high wave activity in north Indian Ocean and Arabian Sea. (Both water bodies affect monsoon at

> **PEPPER IT WITH**
> Indian Ocean Dipole, Movement of ITCZ, Monsoon Trough, Monsoon 'Break', Pseudo Monsoonal Tendency

large- i.e.- Indian ocean Dipole) Waves induced by active phases of BSISO are nearly 0.5 meters higher than those which occur during other phases of BSISO. Wave forecast advisories based on the BSISO would be more useful for efficient coastal and marine management.

o An important feature of the BSISO is its northward propagation in the Asian summer monsoon region, which has an important impact on regions which are under influence of Monsoonal Rainfall.

Analytica

1. BSISO's Relevance with India's Monsoon

➢ The BSISO exhibits more complex features-it involves interactions between Asian summer Monsoon circulation and convectively coupled equatorial waves. The BSISO tends to have a northward propagation over the Indian summer monsoon (ISM) region.

➢ Northward propagation of the boreal summer intra-seasonal oscillation (ISO) has profound impacts on Northern Hemisphere extreme weather events. Monsoon is also a northern-ward movement of wet air that resulted into rainfall.

➢ **BSISO represents the monsoon's 'active' and 'break' periods**, in which weeks of heavy rainfall give way to brilliant sunshine before starting all over again. The active phase also enhances monsoon winds and hence the surface waves. The cooling and warming of Indian Ocean could be linked with the **'active' and 'break' periods of monsoon**.

➢ The active phases of BSISO occur between June and August which are the monsoon summer months. This finding has a great significance in developing seasonal and climate forecast service for waves and coastal erosion for India.

2. BSISO and ENSO

➢ BSISO activity over the western Pacific is significantly weakened in El Niño decaying summer. Northward propagation (NP) of BSISO (equator to the north of 25° N) attributed to La Niña decaying summer, while the intensity of BSISO NP is rapidly weakened to the north of 15° N in El Niño decaying summer.

➢ ENSO modulates BSISO activity by regulating circulation and moisture anomalies. Large-scale atmospheric circulation undergoes radical changes between El Niño and La Niña decaying summer.
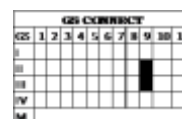
Conclusion

India's monsoon is uncertain due to various complex climatic factors and inter relationship among them, predictability is still a practical problem in absence of reliable information and data. This undermine the approach to handle extreme weather events. Such research will give impetus to reliability of monsoonal forecasting. To a greater extend it would be going to help to improve wave predictions along India's coasts, coastal management and mitigation of adverse impacts of high waves (coastal flooding, erosion, etc). Sea-navigation routes can also be better planned.

World Solar Technology Summit

News Excerpt

The International Solar Alliance (ISA) has announced to organise the First World Solar Technology Summit on a virtual platform in next month.

Pre-Connect

- **The International Solar Alliance**: It is an action-oriented organization, aims at lowering the cost of technology and finance and thereby facilitate deployment of over 1,000 GW of solar energy and mobilize more than USD 1,000 billion into solar power by 2030 in Member countries.

- The ISA envisions to enable the full ecosystem for availability and development of technology, economic resources, and development of storage technology, mass manufacturing and innovation.

Key highlights

o The objective of this summit is to bring the spotlight on state-of-the-art technologies as well as next-generation technologies which will provide impetus to the efforts towards harnessing the solar energy more efficiently.

o The World Solar Technology summit event will help to serve the objective and drive the necessary growth of solar energy around the world through innovations. The event will hold four technical sessions that would be available to the participants in different languages namely English, Spanish, French & Arabic.

World Solar Bank (ISA)

- India will propose a World Solar Bank at the World Solar Technology Summit organized by the International Solar Alliance (ISA)
- The likely capital size of the World Solar Bank would be U.S. $10 billion.
- The country that would request to host the headquarters of the bank would have to contribute 30% of the proposed capital.
- One of the aims of the World Solar Bank is to bring together global resources to fund solar power projects in ISA member countries.
- The bank will help set up solar projects in member countries and aims to disperse $500 billion over 10 years and act as a concrete financial instrument of ISA.

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1. **Session -1**: **Vision 2030 & Beyond:**

   The overall context of Photovoltaic (PV) technology development and its future, on its way towards becoming the first source of energy worldwide, with PV technologies supplying 70% of the world's electricity generation.

2. **Session -2**: **Towards a De-carbonized Grid**:

   The most recent advances (conversion efficiency improvements and declining costs) regarding key components such as PV modules and storage technologies.

3. **Session -3**: **Disruptive Solar Technologies**:

   On-grid applications, whether ground-mounted, floating, or integrated in residential and commercial rooftops.

4. **Session -4: Solar Beyond the Power Sector**:

   Innovative applications where PV is used to move, heat, cool, and drive eco-friendly industrial processes and produce fuels as well as off-grid applications, to provide universal access to energy.

PEPPER IT WITH

One Sun-One World-One Grid, Solar Off-Grid, Paris Agreement, PM KUSUM scheme

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o ISA would also be launching the **ISA Journal on Solar Energy (I JOSE)** that would help authors from across the globe to publish their articles on solar energy, during the event.

o Nobel Laureate Dr. M. Stanley Whittingham will be presenting the Keynote Address during the Inaugural Ceremony. He was awarded the Nobel Prize in Chemistry (2009) for the revolutionizing discovery of the lithium ion batteries.

India's Effort for Solar Energy

➤ The National Action Plan on Climate Change (NAPCC) was launched by Government of India. It aims at creating awareness among the representatives of the public, different agencies of the government, scientists, industry and the communities on the threat posed by climate change and the steps to counter it.

➤ National Solar Mission is part of key pillars under NAPCC.

➤ Under intended nationally determined contribution installing of 100 GW grid-connection was targeted by GOI.

➢ India has set a target to achieve about 40% cumulative electric power installed capacity from non-fossil fuel-based energy resources and to reduce the emission intensity of its GDP by 33 to 35% from 2005 level by 2030.

Note: TWh – Terawatt Hour, GW- Gigawatt
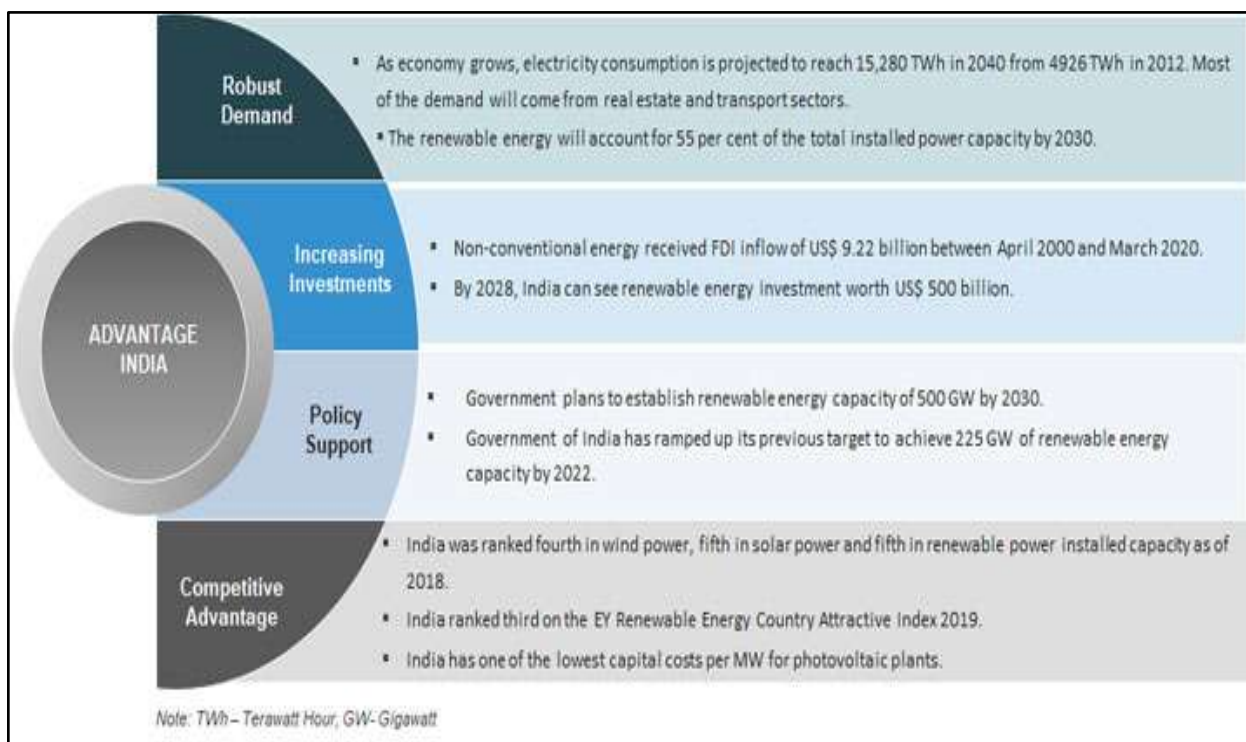
Analytica

➢ Streamlining the organization's structure and setting up a financial institution will add heft to India's credentials as a clean energy champion.

➢ India is the fifth largest coal producer in the world, with about 412.1 million tons of coal produced. Coal currently meets 55% of India's energy needs. In a rapidly developing country such as India, the tendency is for these countries to rely on coal due to the relatively inexpensive cost to produce coal. Consequently, the main challenge to the solar power initiative is the high cost associated with solar projects.

Conclusion

The Government is dedicated to increase the use of clean energy sources and is already undertaking various large-scale sustainable power projects and promoting green energy heavily. In addition to that renewable energy has the potential to create employment opportunities, especially in rural areas. This sector is expected to attract investment worth US$ 80 billion in the next four years.

Landslides in India

News Excerpt

With the advent of monsoon, the incidents of landslides are triggered across the country. States along Western Ghats (Kerala, Goa, Maharashtra etc.) and Himalayan region are more prone to landslides causes by excess rainfall.

Pre-Connect

Landslide-Prone Areas: In India the hilly areas in 16 States and in two Union Territories in the Himalayan region, sub-Himalayan parts of the northeast and in Western Ghats are landslide-prone region. These areas comprise about 12.6% or 4.2 lakh sq km of India's landmass spreading over 159 districts. For Instance-during June-July this year, the Geological Survey of India recorded 20 landslides in Arunachal Pradesh, Assam, Meghalaya and Sikkim that killed at least 36 people.

Reasons

1. Geological Reasons: Landslides can be initiated by volatile slopes already on the verge of movement by rainfall, snowmelt, changes in water level, stream erosion, changes in ground water, earthquakes, volcanic activity, or any combination of these factors.

2. Anthropogenic Reasons: A slew of human activities besides geological factors such as weathering of underlying bedrock, activities include unplanned excavation of slopes for road and railway projects, rampant dumping of slope-excavated material, quarrying, mining and building construction besides 'modification' of and encroachment on natural drainage systems pose threat of landslide. For Instance- Unusually high rainfall and unscientific land use cause landslides year after year in Idukki - the hill districts of Kerala.

Impacts of Landslides

Landslides have devastating impact socially as well as environmentally. Property damages, injuries, and death are inevitable during a heavy landslide. The damages remain constant even after its occurrence, for instance-water supplies, sewage disposal systems, forests, dams, and roadways can be affected for years after a slide event.

What needs can to be done

- ➢ There is need to adopt the structural measures that involve engineering works for slope stabilisation and control of artificial landslides.

National Landslide Susceptibility Mapping

- The landslide susceptibility map spatially categorizes the landslide-prone areas into- high, moderate or low degrees of proneness.
- National Landslide Susceptibility Mapping is done in 18 states, including West Bengal, spanning approximately 4.27 lakh sq. km. of land and forest areas.
- The GSI has said that over 12% of India's land area is susceptible to landslides.
- The information detailing area-wise particulars, causes including Slope, Soil type and impact of the flow of water in an area, past incidents, their magnitude and responsible factors is then fed into a GIS-based National LandslideInventory along with satellite images and geological maps.
- This vital geo-information can be used for safe land-use zoning regulations and landslide mitigation.
- **BHUKOSH** section of the GSI Portal is open for public use where detailed information can be obtained.

INDIA

Landslide Prone Regions

State Boundary
Snow cover

Western/Eastern Ghats Konkan Hills
Maharashtra
Karnataka and Goa
Kerala
Tamil Nadu
Andhra Pradesh

NW Himalayas
J & K
Himachal Pradesh
Uttarakhand

NE Himalayas
Sikkim
Arunachal Pradesh
Assam
Nagaland
Manipur
Mizoram
Tripura
Meghalaya
West Bengal
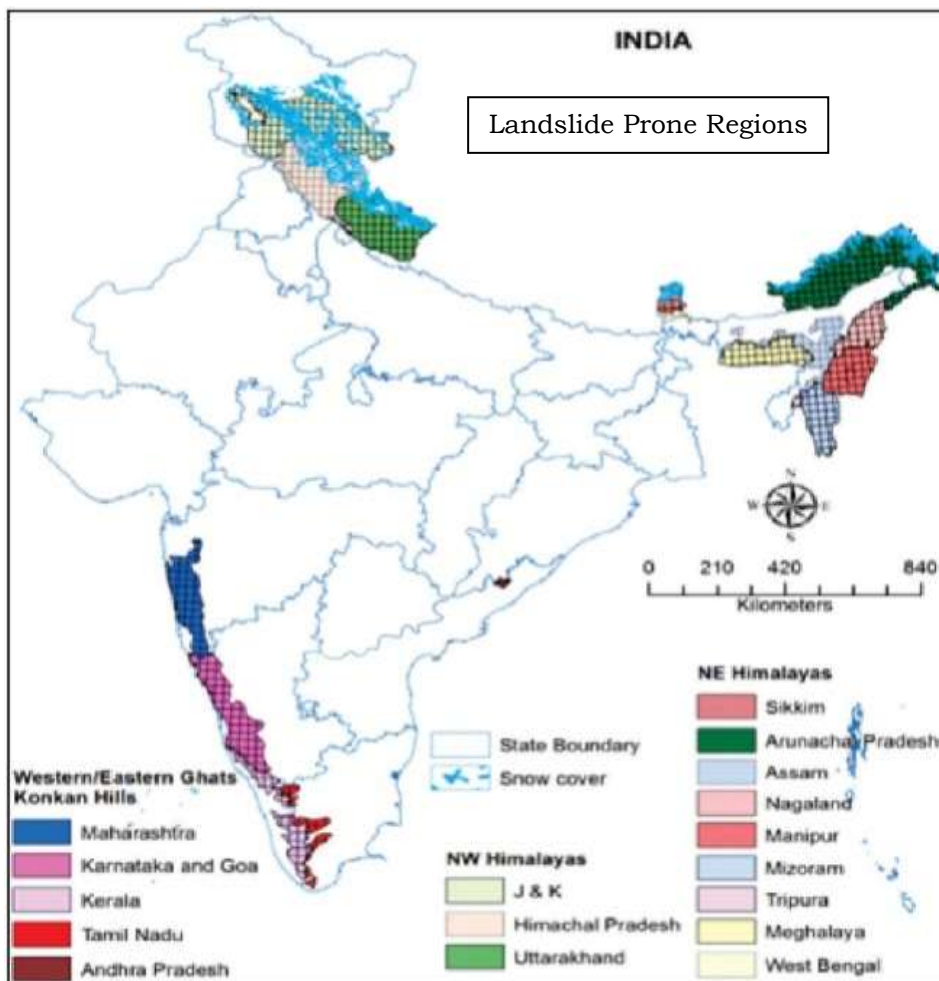
- Additional measures such as-the identification and avoidance of landslide-prone areas through monitoring and warning systems should be inducted to mitigate the risk of landslide in India.

- Integration of EIA and National Landslide Susceptibility Mapping with infrastructure development and planning in hilly or mountainous areas in the country can help avoid disasters and human fatalities.

> | PEPPER IT WITH |
> | :---: |
> | National Disaster Management Authority, Sendai Framework, Bhukosh Portal |

Conclusion

Natural disasters may never be prevented entirely, but at least can be avoided. By adopting the sustainable practices natural disasters can be prevented to turn into man-made ones. Landslides are one such example—and as rain and weather patterns get increasingly unstable, the time to act is clearly now. There is need to deploy the tech led early warning system throughout the country.

Himalayan Geothermal Springs

News Excerpt

A study conducted by Wadia Institute of Himalayan Geology has revealed that the Himalayas host hundreds of geothermal springs and release a huge amount of CO_2 in the atmosphere.

Pre-Connect

- Himalaya is tectonically active. It covers about 10,000 square kms in the Garhwal region of the Himalayas in Uttarakhand. Garhwal region is known for geothermal springs.

- The Himalayan geothermal springs which cover about 10,000 square km in the Garhwal region of Himalaya, show a significant discharge of Carbon dioxide (CO_2) rich water.

- **Geothermal springs**: A hot spring is produced by the emergence of geothermally heated groundwater that rises from the Earth's crust.

- **Geothermal energy** is heat derived within the sub-surface of the earth. Water and/or steam carry the geothermal energy to the Earth's surface. Depending on its characteristics, geothermal energy can be used for heating and cooling purposes or be harnessed to generate clean electricity.

Keyfindings of Study

- Geothermal springs cover around 10,000 square kms in the Garhwal region of the Himalayas in Uttarakhand.

- The Himalayas host hundreds of geothermal springs and they release a huge amount of carbon dioxide in the atmosphere.

- CO_2 in these thermal springs are sourced from metamorphic decarbonation of carbonate rocks present deep in the Himalayan core along with magmatism and oxidation of graphite.

- Most of the geothermal water is dominated by evaporation followed by weathering of silicate rocks.

- Carbon outflux from Earth's interior to the exosphere through volcanic eruptions, fault zones, and geothermal systems contribute to the global carbon cycle that effects short- and long-term climate of the Earth.

Hot Water Springs in India

- Thermal springs or hot water springs are formed due to geothermally heated water emerging onto the earth's surface through cracks.This heat comes from deep inside the earth's surface.

- In north India, Jammu and Kashmir, Uttarakhand, Himachal Pradesh and Haryana and western states such as Gujarat and Rajasthan contain multiple hot water springs.

- In eastern India, West Bengal, Sikkim, Arunachal Pradesh, Assam and Meghalaya are the states that house thermal springs.
- These hot water springs may contain different kinds of minerals. The most common mineral that is present in the thermal springs of India is Sulphur. India used to be a hotbed of active volcanoes millions of years ago.
- India has a geothermal power potential of 10,000 MW or 10 GW.
- Chief geothermal provinces in India include Himalayas, Naga-Lushai province, Sohana, West coast, Andaman-Nicobar Islands, Cambay, Son-Narmada-Tapi (SONATA), Godavari and Mahanadi valleys. Of all the locations, Puga valley in Ladakh is the most promising.
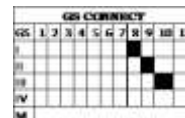
Way Forward

Geothermal energy is an inexhaustible source of energy and is available from earth crust. It is that renewable energy source which doesn't need any fuel to generate electricity, and the emissions connected with geothermal energy are very low and negligible compared to emissions that result from fossil fuels burning. Geothermal energy is gaining importance as alternate source of energy. There is dire need to expedite the harnessing technology in order to utilize the clean energy source.

Tsunami Ready Recognition to Odisha Communities

News Excerpt

UNESCO's Intergovernmental Oceanographic Commission granted "Tsunami Ready" recognition to the first communities in the Indian Ocean region.

Tsunami Ready

- Since 2015, UNESCO implements the Tsunami Ready ("Tsu Ready") programme with villages in vulnerable coastal areas.
- The main objective of the programme is to improve coastal community preparedness for tsunami emergencies and minimise loss of life and property.
- Two villages of Odisha have been designated as 'Tsunami Ready' for their preparedness by the United Nations Educational, Scientific and Cultural Organization (UNESCO).
- Venkatraipur (Boxipalli) in Ganjam and Noliasahi in Jagatsinghpur district has received the certificate of recognition in a virtual event. The Odisha State Disaster Management Authority (OSDMA) implemented the 'Tsunami Ready Programme' in the two villages.
- India has become the first country to implement 'Tsunami Ready' in the Indian Ocean Region.
- The recognition for both the villages adhering to the **11 point indicators**

> **UNESCO's Intergovernmental Oceanographic Commission (IOC)** promotes international cooperation and coordinates programmes in marine research, services, observation systems, hazard mitigation, and capacity development in order to understand andeffectively manage the resources of the ocean and coastal areas.

> **India Water Resources Information System**
> - India has taken an initiative for developing a centralised platform to act as a repository of water resources and related data at National level with administrative granularity up to the smaller units of governance at state level as well as hydrological level such as basin and sub basins.
> - Water information in Public domain (WRIS) - Initiative of India-WRIS Project with the aim of dissemination of data in public domain constitute the most important aspects of the water resources management.
> - It focuses on ensuring increase in public and stakeholders awareness about the present status of water resources and the need for its effective management by attracting their interest in leading towards the holistic goal of water security.
> - New technologies like GIS and Remote sensing together with Water resources domain skills has proven its application in successful mapping, evaluation and management strategizing of the asset.

to claim to be tsunami ready like: Community tsunami risk reduction plan, designated and mapped tsunami hazard zones, public display of tsunami information, easily understood tsunami evacuation maps, outreach and public education materials, three outreach or educational activities annually, conduct an annual tsunami community exercise, address tsunami hazards in the community's emergency operations plan, supporting the emergency operations centre during a tsunami, reliable means for a 24-hour warning point to receive official tsunami threats and issue round the clock tsunami alerts to the public.

Analytica

➢ Such initiatives are likely to be promoted the early risk mitigation practices. Early preparedness can yield out positive impact on human fatalities.

➢ People awareness and engagement with people may Minimise the catastrophic impacts of Tsunami.

> **PEPPER IT WITH**
> Sendai Framework, National Disaster Management Authority

Implementation in India

➢ Tsunami Ready in India is implemented by the National Board (Ministry of Earth Sciences-MoES) under the Chairmanship of Director, Indian National Centre for Ocean Information Centre (INCOIS) with members drawn from MoES, National Disaster Management Authority (NDMA), Ministry of Home Affairs (MHA), Odisha State Disaster Management Authority (OSDMA), Andaman & Nicobar Islands Directorate of Disaster Management (DDM) and INCOIS.

SCIENCE & TECHNOLOGY

Krishi Megh

News Excerpt

Union Minister of Agriculture & Farmers Welfare has virtually launched the Krishi Megh (National Agricultural Research & Education System -Cloud Infrastructure and Services) along with the KVC ALUNET and Online Accreditation System for Higher Agricultural Educational Institutions (HEI).

Indian Council of Agricultural Research (ICAR)

- It is an autonomous organisation under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare.

- It was established on 16 July 1929 as a registered society under the Societies Registration Act, 1860 in pursuance of the report of the Royal Commission on Agriculture.

- The ICAR, headquarter at New Delhi, is the apex body for co-ordinating, guiding and managing research and education in agriculture including horticulture, fisheries and animal sciences.

- With 101 ICAR institutes and 71 agricultural universities nationwide, this is one of the largest national agricultural systems in the world.

> **ICAR-Indian Agricultural Statistics Research Institute (IASRI)**
> - It is a pioneer institute of ICAR undertaking research, teaching and training in Agricultural Statistics, Computer Application and Bioinformatics.
> - It is responsible for conducting research in Agricultural Statistics and Informatics to bridge the gaps in the existing knowledge.
> - It has also been providing education/ training in Agricultural Statistics and Informatics.
> - The research and education are used for improving the quality and meeting the challenges of agricultural research in emerging areas.
> - It has made several important contributions in strengthening National Agricultural Statistics System, which has a direct impact on the national policies.

- ICAR has played a pioneering role in ushering Green Revolution and subsequent developments in agriculture in India through its research and technology development that has enabled the country to increase the production of food grains by 5.6 times, horticultural crops by 10.5 times, fish by 16.8 times, milk by 10.4 times and eggs by 52.9 times since 1950-51 to 2017-18, thus making a visible impact on the national food and nutritional security.

- It is engaged in cutting edge areas of science and technology development and its scientists are internationally acknowledged in their fields.

Highlights

➢ Krishi Megh has been set up under the National Agricultural Higher Education Project (NAHEP), funded by both the government and the World Bank.

➢ The NAHEP is designed for strengthening the national agricultural education system in the country with the overall objective to provide more relevant and high-quality education to the agricultural university students that are in tune with the New Education Policy - 2020.

➢ There is a need to save and preserve the important research-based data in a prompt digitized form to enable its access anywhere.

➢ The data recovery centre has been set up at National Academy of Agricultural Research Management (NAARM), Hyderabad.

➢ The Krishi Megh as a step forward towards digital agriculture of New India.

Key Advantages

✓ For meeting the services and infrastructure needs of Digital Agriculture of National Agricultural Research and Education System (NARES). The existing Data Centre (ICAR-DC) built during 2012 shall be strengthened with cloud computing infrastructure.

✓ NARES-Cloud Infrastructure and Services with its constituents ICAR-DC and ICAR-Krishi Megh provide a robust and dynamic platform to meet the growing IT needs of the NARES system with the deployment of mission critical applications such as e-Office, ICAR-ERP, Education Portal, KVK Portal and mobile apps, ICAR institute websites, Academic Management System, Alumni Portal, e-Courses of UG and PG level etc.

> **PEPPER IT WITH**
> Cloud Computing, Agricultural Infrastructural fund, Kisan Call Centre, NABARD, PM-KMY, Model Village Programme, SHC Scheme

✓ Under NAHEP, the outreach of existing ICAR DC is broadened to cover the Agriculture Universities enabling them to host websites and IT solutions.

✓ In the present COVID-19 situation, 24x7 availability of IT applications made it possible to work from home as well as to collaborate with fellow scientists through video conferencing.

✓ ICAR-Krishi Megh, synchronized with ICAR-DC has been built to mitigate the risk, enhance the quality, availability and accessibility of e-governance, research, extension and education in the field of agriculture in India.

✓ NAARM, Hyderabad has been chosen as it lies in different seismic zone with respect to ICAR-DC at ICAR-IASRI, New Delhi.

✓ Hyderabad is also suitable as skilled IT manpower is available along with other suitable climatic conditions such as low humidity level which is controllable in the data center environment.

✓ This new Centre has latest AI/Deep learning software/tools kits for building and deploying of deep learning-based applications such as disease and pest identification using image analysis, detection of maturity and ripening of fruits through image analysis, disease identification in livestock etc.

Fluorosis

News Excerpt

Scientists from the Institute of Nano Science and Technology (INST), an autonomous institute of the Department of Science and Technology, Government of India, have developed an equipment, 'free fluoride ion detection and quantification in drinking water with the naked-eye'.

What is Fluorosis?

1. Fluorosis is a crippling disease resulting from deposition of fluorides in the hard and soft tissues of body due to excess intake of fluoride through drinking water/food products/industrial pollutants over a long period.

2. It results in dental fluorosis, skeletal fluorosis, and non-skeletal fluorosis. Easy detection of fluorides in water can help preventing the public health hazards.

Highlights

➢ The equipment can be operated by laymen to evade Fluorosis-based disorders.

➢ The technology involves a push-pull chromophore based on 2,3-disubstituted 1,1,4,4-tetracyano-1,3-butadienes (TCBDs) that changes colour upon exposure to fluoride ion.

➢ The researchers designed urea as an unusual donating moiety instead of traditional donor moieties, such as amines, to obtain better optoelectronic properties.

➢ The charge-transfer (CT) property that arises through-bond in aniline donor is usually quenched due to photoinduced electron transfer (PET) mechanism.

➢ Whereas upon introducing urea as an electron donor, the CT exhibited both spaces as well as through bond due to "Field-effect". Thus, partial overcoming of PET process, which led to white light emission.

➢ Later, they extended its applicability in sensing of biologically relevant fluoride, as it is well known that fluoride can bind with urea via H-bonding interaction.

➢ Furthermore, the design and synthesis can be slightly modulated to increase the sensitivity from 3 ppm to less than 1 ppm. Currently, the INST team is working in this direction.

➢ The major cost involves only the synthesis of the chromophore, making it affordable and accessible.

➢ Currently available, commercial kits for F– detection need analytical methods, mainly spectrometers (mobile or static).

➢ Some colorimetric detection kits are available, but they have some handling issues like work only with pH<1 (use of HCl), etc. The kit developed by the INST scientists' scores above these in its ease of usage.

➢ The non-planar push-pull chromophores sense fluoride ion with the naked eye in both solutions- as well as solid-phases.

Global magnetic field of Sun's atmosphere

News Excerpt

An international team of solar physicists led by those from Peking University, China, and National Center for Atmospheric Research of the United States has measured the global magnetic field of the Sun's corona, or outer atmosphere, for the very first time.

Highlights

➢ The Sun is a magnetized star, and its magnetic field plays a critical role in shaping the solar atmosphere.

➢ The magnetic field governs many aspects of the Sun's behaviour, leading to an 11-year solar cycle, spectacular solar eruptions, and the heating of the hot gas (plasma) in the solar corona to millions of degrees Celsius.

➢ There are two main puzzles about the Sun which this advancement will help address.

➢ First is the coronal heating problem. Though the core of the Sun is at a temperature of about 15 million degrees, its outer layer, the photosphere is a mere 5700 degrees hot. However, its corona, which stretches up to several million kilometres beyond its surface, at a temperature of one million degrees or more.

➢ Popular attempts to explain this puzzle invoke the magnetic field of the corona. Hence the present work will help understand and verify these theories better.

➢ The other set of questions pertain to the mechanisms of eruptions of the Sun, such as solar flares and coronal mass ejections. These are driven by magnetic reconnections happening in the Sun's corona.

Aditya L1 mission

❖ It is India's first mission to explore the sun.

❖ It is placed in the halo orbit around the Lagrangian point 1 (L1) of the Sun-Earth system which has the major advantage of continuously viewing the Sun without any occultation/ eclipses.

❖ It will provide observations of Sun's Corona (soft and hard X-ray, Emission lines in the visible and NIR), Chromosphere (UV) and photosphere (broadband filters).

❖ In addition, particle payloads will study the particle flux emanating from the Sun and reaching the L1 orbit, and the magnetometer payload will measure the variation in magnetic field strength at the halo orbit around L1.

PEPPER IT WITH
Photosphere, corona, Sunspot, Earth magnetism

- Magnetic reconnection is a process where oppositely polarity magnetic field lines connect and some of the magnetic energy is converted into heat energy and kinetic energy which leads to the generation of heating, solar flares, solar jets, etc.

- The team used an existing technique known as coronal seismology or magneto-seismology to measure the coronal magnetic field.

- This method requires the measurement of the properties of magnetohydrodynamic (MHD) waves and the density of the corona simultaneously.

- The team used the improved measurements of the Coronal Multi-channel Polarimeter (CoMP) and advanced data analysis to measure the coronal magnetic field.

- CoMP is an instrument operated by High Altitude Observatory, of the U.S. It is located at Mauna Loa Solar Observatory, near the summit of that volcano on the big island of Hawaii.

- It is very important to measure the corneal magnetic fields regularly since the solar corona is highly dynamic and varies within seconds to a minute time scale.

- While photospheric magnetic fields are measured regularly from space, the measurement of global coronal magnetic fields was missing in the past since the coronal magnetic fields are very weak.

- While ground-based measurements pose challenges, Aditya-L1 satellite will aim to measure the solar coronal magnetic fields regularly. This will help understand the spectacular solar eruptions and predictions of space weather and many more things.
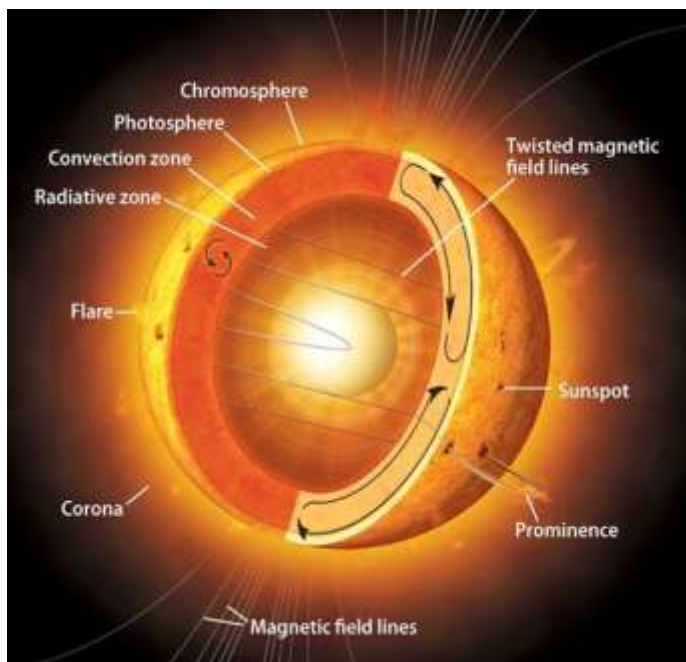
Waves
- The properties of waves depend on the medium in which they travel.
- Waves can be longitudinal waves (e.g. sound waves) or transverse waves (e.g. ripples on a lake surface).
- The waves that propagate through magnetic plasma are called magnetohydrodynamic (MHD) waves.
- There are different types of MHD waves, and one of these is the transverse MHD wave.
- From the theoretical calculation, it can be shown that the properties of the transverse MHD wave are directly related to the strength of magnetic fields and the density of the corona.

Abscisic Acid

News Excerpt

A team of researchers at the Indian Institute of Science Education and Research (IISER), Bhopal, has conducted a study on seed germination that could have a major impact on agriculture in the long run by helping determine the optimum timing of seed germination and thus ensure high plant yields.

Pre-Connect

- Abscisic acid (ABA) is one of the "classical" plant hormones, that regulates many aspects of plant growth and development.

- It is a sesquiterpene, which has important roles in seed development and maturation, in the synthesis of proteins and compatible osmolytes, which enable plants to tolerate stresses due to environmental or biotic factors, and as a general inhibitor of growth and metabolic activities.
- ABA is derived in higher plants from a C40 carotenoid, 9′-cis-neoxanthin, which is oxidatively cleaved to give xanthoxin (C15) and an apoaldehyde (C25).

Highlights

➤ The work focused on the interplay between plant hormones like abscisic acid (ABA) which inhibit the sprouting of the seed and environmental cues like light (which promotes the sprouting process) and darkness.

➤ Although ABA, a ubiquitous plant hormone, was discovered almost 80 years ago, there is scant knowledge about the mechanisms controlled by ABA for arresting the post-germination growth in response to environmental cues.

➤ All plants, depending on their external environment, make the decision to open its embryonic leaves after sprouting or to enforce a growth arrest.

➤ Being 'sessile', plants have an extraordinary sensing mechanism to allow them assess environmental conditions before a seed decides to open up and establish as a young seedling.

➤ Like humans, plants, too, have hormones like ABA that modulate their growth and development.

➤ Just after sprouting, the young seed must take a crucial decision on whether to go ahead with the 'seedling establishment' process (the critical stage of plant growth) or not.

➤ The 'right decision' taken by the young seed ultimately allows it to secure its independence and take care of itself as it matures into an adult plant.

➤ Stress defence is analogous to the baby steps in humans before a child can stand on its own feet and walk. Making the right decision in the allocation of resources to growth or stress responses is critical for the successful establishment of seedlings.

➤ If seeds germinate in adverse environmental conditions, seedlings ultimately risk expediting precious energy in 'stress defence' rather than growth.

➤ Understanding the complex factors that modulate ABA sensitivity is vital to developing economically important plant varieties that have better tolerance to stress conditions.

➤ The results of the study, though in its elementary phase, are vital. Over the past two months, more than one lakh farmers in Maharashtra have lodged complaints against seed companies, prompting the State Agriculture department to lodge over 75 FIRs against seed companies for giving soybean seeds to farmers which failed to germinate.

➤ 'The protein acts as a 'master regulator' of the seed's growth by controlling several aspects of plant development, including seed dormancy and germination, as well as controlling growth under adverse conditions such as drought or salinity.

➤ COP1, which is a highly conserved protein (protein which undergoes fewer amino acid replacements), may play similar roles in different crop plants.

➤ COP1, which is more active in dark and less active in light, is responsible for this relatively higher ABA sensitivity in dark conditions.

Cobotics

News Excerpt

The Department of Science of Technology has sanctioned ₹170 crore under the National Mission on Interdisciplinary Cyber Physical Systems to set up a Technology Innovation Hub on Cobotics at IIT-Delhi.

What is Cobotics?

- Cobotics is a neologism formed by the collaborative and robotics. It has been used for the first time in 1999 by Peshkin and Colgate to conceptualize the direct interaction between a robot and a human on a dedicated workstation.

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- In the present study, a cobot is defined as a robot that has been designed and built to collaborate with humans.
- A workstation including a robot and a human collaborating is called a cobotic system.
- Cobotics is defined by the science and techniques of designing, building, studying and evaluating cobotic systems.
- A robot may have all mechanical and hardware characteristics for a possible collaboration with humans but if it is used in full autonomy, it is not part of a cobotic system even if it can be called a cobot.
- Cobotics is a new application in industrial automation. These robots are equipped with sensors that give the feelings one need.

Advantages of cobots

- Cobots are small and can therefore be used anywhere in a production process.
- They are lightweight and easy to move.
- Built-in safety measures such as a safety stop and sensors.
- Cobots can be stopped by people with one arm.
- Easy to assemble.
- Easy to program with software and apps.
- Able to perform different tasks.
- Can continue day and night.
- Consistent in quality.

Highlights

➢ The I-Hub Foundation for Cobotics (IHFC) will not only perform research in Cobotics, but also proactively translate the outcomes into products for the benefit of the humanity.

➢ The four verticals that will be covered under the IHFC at IIT-Delhi are medical robotics, agriculture and disaster management, defense, and smart manufacturing.

➢ The focus will be the technologies where robots should be able to work together with humans for maximising the benefit of human intelligence with robots' precision and ability to work tirelessly in an environment where the humans cannot work.
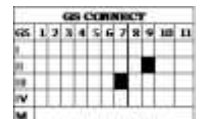
Conclusion

The initiative of the Government is in the right direction to take the lead in the fourth industrial revolution.

Digital Quality of Life (DQL) Index 2020

News Excerpt

India ranks among the lowest in the world in terms of Internet quality, according to a global research released by online privacy solutions provider Surf Shark.

Pre-Connect

- The Digital Quality of Life (DQL) index is published annually based on research conducted by the privacy protection company Surf shark.
- The DQL research examined more than 6.3 billion people in terms of twelve indicators grouped into five pillars- internet quality, affordability, e-security, online government services, and e-infrastructure.
- The study is based on information provided by the United Nations, the World Bank, Freedom House, the International Communications Union, and other public data sources.

Highlights

➢ As per the index, which researches on the quality of a digital wellbeing in 85 countries, India ranked 57th.

- In terms of e-infrastructure, India occupies 79th place, ranking below countries including Guatemala and Sri Lanka.

- India makes it into the top 10 in terms of Internet affordability. With a ranking of nine, it outperforms countries such as the U.K., the U.S. and China.

- Additionally, when it comes to e-governnance, India occupies the 15th place globally, just below countries like New Zealand and Italy.

- India's Internet quality is one of the lowest across 85 countries analysed in the research.

- In position 78, India is at the bottom of the pillar with unstable and slow mobile Internet dragging it down in the overall Internet quality index.

- This year's DQL Index found that 7 of the 10 countries with the highest DQL are in Europe, with Denmark leading among 85 countries.

- Canada stands out as a country with the highest DQL in the Americas, while Japan takes the leading position in Asia.

- Among the countries in Africa, people in South Africa enjoy the highest quality of digital lives whereas New Zealand leads in Oceania, outperforming Australia in various digital areas.

- The COVID-19 outbreak had a significant impact on internet stability. 49 out of 85 countries experienced drops in mobile and 44 in broadband speed.

- High inequality in affordability: people in 75% of the researched countries have to work more than the global average to afford the internet.

- E-security, e-infrastructure, and e-governance have a more significant correlation with the DQL than GDP per capital.

- Any country's digital advancement and people's online experiences have tangible relation to its economic potential and population's overall wellbeing.

- The United Kingdom, France, and Lithuania stand out globally for their e-security while Singapore, the UK, and the US lead in the advancement of e-governance services.

- The last pillar examining the countries by their electronic infrastructure development level ranks the United Arab Emirates, Sweden, and Denmark as global leaders in this area.

- The DQL study showed that none of the researched countries crossed the threshold of 0.8, and no country made it to the top three in all of the pillars, reflecting room for improvement in all digital areas.

Internet Ombudsman

News Excerpt

The Internet and Mobile Association of India has proposed an internet ombudsman model to the Ministry of Information and Broadcasting.

Pre-Connect

- An ombudsman is an official, usually appointed by the government, who investigates complaints against businesses, financial institutions, or government departments or other public entities, and attempts to resolve the conflicts or concerns raised, either by mediation or by making recommendations.

- Depending on the jurisdiction, an ombudsman's decision may or may not be legally binding.

- The Supreme Court has declared access to internet a fundamental right under Article 19. A government cannot deprive the citizens of fundamental rights except under certain conditions explicitly mentioned in the Constitution.

- The Supreme Court ruling is also in sync with the United Nations recommendation that every country should make access to Internet a fundamental right.

- A nine-judge bench of the Supreme Court in the case of Puttaswamy v. Union of India has declared that the right to privacy is a fundamental right protected under Article 21 of the Constitution of India.

- However, the Supreme Court clarified that the fundamental right to privacy is not absolute and will always be subject to reasonable restrictions.

Impact of Internet on society

- The Internet have brought their own revolution in human daily life (science, education, information, entertainment etc) eliminating the distances and offering immediate and easily access to information and communication.

- With the continuous development of new technologies, the Internet users are able to communicate anywhere in the world to shop online, use it as an educational tool, work remotely and carry out financial transactions with various services offered by banks.

- The infinite possibilities that are offered by the Internet can often lead users to abuse it, or to use it for malicious purposes against other users, organizations and public services.

- With the rapid spread and growth of the Internet, they have appeared some social phenomena such as cyber-bullying, internet pornography, grooming through social networks, cyber-suicide, Internet addiction and social isolation, racism on the web.

- Moreover, there is always the risk of any sort of fraud exploitation by the so-called experts of technology systems who use Internet as a mean to carry out illegal acts.

- In the interplay between government, companies and citizens for big data, information asymmetry has become so skewed that it has eroded the very spirit of democracy by limiting the unbiased communication of ideas.

- Governments and private companies are using the Internet as 'a means of control and surveillance, extending from cases of fraud detection, storage and exchange of criminal and financial records to those of political surveillance and control'.

- Citizens who receive a flood of unfiltered information, information with colour but no patterns, information with images that can never add up to the real picture, re-circulate the same back into the infantile world for greater chaos.

Need for ombudsman

- On the privacy front, even after the Supreme Court of India had declared privacy as a fundamental right, the government insisted on affidavit in the top court that informational privacy or data privacy cannot be a fundamental right.

- The Aadhar Act diluted the notion of 'privacy' and the standard of proportionality test set up by the Supreme Court.

- The clear impression is that the government is more interested in 'control' than 'protection' of data.

- A national policy on data privacy of individuals is still a non-starter. People continue to suffer because of the regular incidents of data theft.

- India's cyber security watchdog, CERT-In, reported huge data theft of Facebook and Twitter users by malicious third-party apps.

- Reportedly, more than 1.3 million credit and debit card details from Indian banks and the data of 6.8 million users from an Indian health-care website were stolen in the same year.

- Private data analytics companies have emerged to exploit the electoral process with the sole objective of customising political messaging. While the customisation of political messaging is not per se illegal, it certainly is unlawful to indulge in unauthorised data mining and collection by the industry.

- According to a report by Omidyar Network India and Monitor Deloitte, many private enterprises routinely share the personal data of individuals with third parties including political organisations.

- The fact that there are dedicated IT cells which carry out a digital form of warfare with propaganda and fake news being two powerful weapons is making things more complicated.

- The present legal framework leaves these menaces outside the ambit of election laws as they were framed in a time and space that was primitive when compared to contemporary technological advancements.

- For citizens, digital media are carriers of images and sounds, rather than words and thoughts, and the system where images run faster than thoughts is suitable for the spread of fake news.

- The fake WhatsApp forwards that triggered the primitive "Us v/s Them" group mentality and is manifested in Delhi riots reports, and the forwards on the novel coronavirus which declare COVID-19 a bacteria and the World Health Organization stating that vegetarians cannot be infected with COVID-19, are all reminders of the potency of data, true or false, in a democracy.

- The Personal Data Protection Bill is more about control and surveillance than about promoting privacy and protection of data.

- Section 35, which provides the government with unfettered access to personal data, negates the three tests of legality, necessity and proportionality given by the Supreme Court in Justice K.S. Puttaswamy vs Union of India.

- The Bill also allows State and private parties to process personal data without obtaining consent and such broad exemptions would not only open the floodgates for misuse but also reduce India's prospects of entering into bilateral arrangements for law enforcement access.

- So, there is a need of a gatekeeper to balance appetites for technology, security and privacy. So long as the gate keeper is for regulation, not surveillance, and so long as it is completely and genuinely independent.

- Only an Internet ombudsman with experts on cyber and Internet laws, IT, data management, data science, data security, public administration and national security, and consciously involving eminent sections of civil society, can be an effective antidote to unregulated technological disruptions.
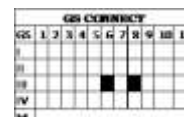
Conclusion

The Internet benefits are numerous and contribute to the progress and prosperity of humans in all areas. However, Internet is provided in abundance and is easily accessible and the illogical use of the Internet makes it be quite dangerous, especially for young users. It is important to understand how government, political parties and citizens are responding to this new triangular interplay between data protection, privacy and a flow of information.

Artificial Intelligence

News Excerpt

According to NASSCOM, Data and Artificial Intelligence (AI) could add $450-$500 billion to India's GDP by 2025 and can contribute to the country's economic recovery and growth.

Artificial Intelligence (AI)

- It refers to the simulation of human intelligence in machines that are programmed to think like humans and mimic their actions.
- The term may also be applied to any machine that exhibits traits associated with a human mind such as learning and problem-solving.
- The ideal characteristic of artificial intelligence is its ability to rationalize and take actions that have the best chance of achieving a specific goal.

Advantages

- Reduction in Error: With Artificial intelligence, the decisions are taken from the previously gathered information applying a certain set of algorithms. So, errors are reduced and the accuracy with a greater degree of precision is a possibility.
- Takes risks instead of Humans: We can overcome many risky limitations of humans by developing an AI Robot which in turn can do the risky things for us. Let it be going to mars, defuse a bomb, explore the deepest parts of oceans, mining for coal and oil, etc.
- Available 24x7: An Average human will work for 4–6 hours a day excluding the breaks. But using AI we can make machines work 24x7 without any breaks and they don't even get bored, unlike humans.
- Repetitive Jobs: Using AI we can productively automate repetitive mundane tasks and can even remove "boring" tasks for humans and free them up to be increasingly creative.
- Faster Decisions: Using AI, we can make machines take quick decisions and carry out actions quicker.
- Daily Applications: Daily applications such as Apple's Siri, Window's Cortana, Google's OK Google are frequently used whether it is for searching a location, taking a selfie, making a phone call, replying to a mail and many more.

Disadvantages

- High Costs of Creation: As AI is updating every day the hardware and software need to get updated with time to meet the latest requirements. Machines need repairing and maintenance which need plenty of costs. It' s creation requires huge costs as they are very complex machines.
- Making Humans Lazy: AI is making humans lazy with its applications automating the majority of the work.
- Unemployment: As AI is replacing the majority of the repetitive tasks and other works with robots, human interference is becoming less which will cause a major problem in the employment standards.
- No Emotions: Machines cannot develop a bond with humans which is an essential attribute when comes to Team Management.
- Lacking Out of Box Thinking: Machines can perform only those tasks which they are designed or programmed to do, anything out of that they tend to crash or give irrelevant outputs which could be a major backdrop.

Highlights

- NASSCOM has released its latest report 'Unlock Value from Data and AI: The Indian Opportunity' which highlights that data and AI could address dual goals of economic and social value creation and recovery.
- According to the report, if India acts quickly, it can become a leader in building a holistic data utilization and AI effort, especially as countries emerge from the pandemic and global economic slowdown.
- According to the report, if India acts quickly, it can become a leader in building a holistic data utilisation and AI effort, especially as countries emerge from the pandemic and global economic slowdown.
- A coordinated programme across five building blocks (strategy, data, technology stack, talent and execution) is required to capture the opportunity.

- AI has become a strategic lever for economic growth across nations and will continue to be one of the most crucial technologies of the future.
- To harness its full potential, India needs to embrace AI innovation and regulation with an open, inclusive and a collaborative mindset.
- Potential actions needed to improve data utilization and AI in India-
    - Launch the National Program for AI and create an apex body
    - Consider finalizing India's Data and AI Action Plan
    - Identify datasets of national importance
    - Kick off work on 3-5 programs of socio-economic importance
    - Increase data utilization by facilitating access to datasets
    - Create schemes to engage the AI ecosystem

> **PEPPER IT WITH**
> Nano Yechnology, IoT, Big Data, Augmented Reality, Virtual Riality.

SECURITY

SRIJAN Portal

News Excerpt

Ministry of Defence launched the SRIJAN portal in pursuance of the Atmanirbhar Bharat programme.

Highlights

- SRIJAN is a 'one stop shop' online portal that provides access to the vendors to take up items that can be taken up for indigenization.

- It will help industry partners to play active role in the goal of self-reliance in defence sector.

- It will give information on items that can be taken up for indigenization by the private sector.

- On this portal, public entities/PSUs can display their items which they have been importing or are going to import which the Indian Industry can design, develop and manufacture as per their capability or through joint venture.

- There are over 3000 unique items with a value of over ₹10,000 Crore that are available through the portal.

> **iDEX (Innovations for Defence Excellence)**
>
> - An innovation ecosystem for Defence titled Innovations for Defence Excellence (iDEX) was launched in April 2018.
> - iDEX aims at creation of an ecosystem to foster innovation and technology development in Defence and Aerospace by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes & academia.
> - And provide them grants/funding and other support to carry out R&D which has good potential for future adoption for Indian defence and aerospace needs.
> - iDEX will be funded and managed by a 'Defence Innovation Organization (DIO)' which has been formed as a 'not for profit' company as per Section 8 of the Companies Act 2013 for this purpose, by the two founder members i.e. Defence Public Sector Undertakings (DPSUs) - HAL & BEL.
> - iDEX will function as the executive arm of DIO, carrying out all the required activities while DIO will provide high level policy guidance to iDEX.

Invisible Shield

News Excerpt

Scientists from the Centre for Nano and Soft Matter Sciences (CeNS), Bengaluru have designed a transparent shield for electromagnetic interference (EMI) which the government calls an 'invisible' shield.

Highlights

- In a novel innovation, Indian scientists have designed a metal mesh structure to construct a transparent shield against EMI.

> **Electromagnetic Interference (EMI)**
> - EMI is an electromagnetic emission that causes a disturbance in another piece of electrical equipment.
> - EMI can be attributed to a wide span of the electromagnetic spectrum including radio, DC and even microwave frequencies.
> - Because anything that carries rapidly changing electrical currents gives off electromagnetic emissions, it is quite common for one object's emissions to "interfere" with another's.
> - EMI compromises the performance of electrical equipment by obstructing and degrading data; sometimes even losing data completely.

- Scientists from Centre for Nano and Soft Matter Sciences(CeNS), Bengaluru, an autonomous institute of the Department of Science & Technologyhave fabricated these transparent and flexible EMI shields made of metal meshes using the crack templating method via spray coating which is pioneered in their laboratory.These can be used instead of a continuous film coating on the desired substrates or surface.

- The CeNS team has developed a copper metal mesh on a polyethylene terephthalate (PET) sheet as its substrate, which is claimed to have exhibited a visible transmittance, a parameter of visible transparency, of about 85%.

- Instead of a continuous film coating of a metal like copper on any transparent substrate such as glass or PET, where transparency can be compromised,CeNS team deposited metal mesh networks on the substrate, which covered only 7%of the substrate's area. This metal mesh can be created on any desired substrates such as acrylic, polycarbonate, glass, etc. without compromising the conductivity of the electrodes.

- This makes metal mesh transparent compared to the continuous metal film that covers the entire area of the substrate. A metal mesh is said to provide better electromagnetic shielding compared to the same thickness of the continuous metal film.

Uses

- This 'invisible' shield can be used in various military stealth applications and can cover electromagnetic wave emitter or absorber devices without compromising aesthetics.

- Besides the physical shape, reducing the electromagnetic signature, which includes radar waves and radio signals, is an important element for enhancing the stealth capability of a weapon platform.

The Naga Peace Process

News Excerpt

For the first time since the signing of the Naga Framework Agreement of 2015, NSCN (I-M) said the Naga flag and constitution were non-negotiable.

Pre-Connect

- The Nagas are not a single tribe, but an ethnic community that comprises several tribes who live in the state of Nagaland and its neighbourhood.

- One key demand of Naga groups has been a Greater Nagalim that would cover not only the state of Nagaland but parts of neighbouring states, and even of Myanmar.

- The British had annexed Assam in 1826, in which they subsequently created the Naga Hills district and went on to extend its boundaries.

- The assertion of Naga nationalism, which began during British rule, has continued after Independence, and even after Nagaland became a state.

Peace talks in recent years

➢ 1975: A peace accord was signed in Shillong in which the NNC leadership agreed to give up arms.

➢ 1997: NSCN (I-M) signed a ceasefire agreement. Key agreement was that there would be no counter-insurgency offensive against NSCN (I-M), who in turn would not attack Indian forces.

> ### The demand of Nagalim: History
> ❖ The earliest sign of Naga resistance dates back to 1918, with the formation of the Naga Club.
> ❖ In 1929, the Club famously told the Simon Commission "to leave us alone to determine for ourselves as in ancient times".
> ❖ In 1946, A Z Phizo formed the Naga National Council (NNC), which declared Naga independence on August 14, 1947.
> ❖ In 1951, it claimed to have conducted a referendum in which an overwhelming majority supported an independent Naga state.
> ❖ By the early 1950s, the NNC had taken up arms and gone underground.
> ❖ The NNC split in 1975, the breakaway group being the NSCN, which split further in later years, most prominently into the NSCN(I-M) and NSCN (Khaplang) in 1988.

> 2015: The Centre signed a framework agreement with the NSCN(I-M). This set the stage for the ongoing peace talks.

> The government and the NSCN (I-M) have failed to agree on issues relating to a separate Naga flag and a constitution.

Analytica

✓ Since 2015, the engagement with other Naga groups has increased, even if the NSCN (I-M) is perceived as the major rebel organisation.

✓ The differences between the Naga National Political Groups (NNPGs) and the NSCN (I-M) are not insignificant.

✓ The NSCN (I-M) still insists on a "Greater Nagalim" beyond the boundaries of Nagaland State besides seeking a flag and constitution.

✓ Most of the NNPGs based in Nagaland on the other hand have sought to settle the issue without disturbing the State boundaries while keeping the "Greater Nagalim" question in abeyance.

✓ Any moves to alter boundaries will intensify ethnic conflicts and insurgencies beyond Nagaland, especially in Manipur.

✓ The Central government needs to take their concerns on board and reiterate its commitment to finalising the Naga accord while seeking to re-engage with the NSCN (I-M) without giving in to its arbitrary demands.
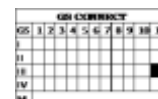
Way forward

The Centre could do well to step back from its rigid position of forcing an agreement that a major political stakeholder is not willing to ink. The government will have to tread cautiously in tackling the situation lest a variant of the pre-1997 militancy returns to the State. That would be a retrograde development, especially given the last 22 years of hard-fought peace.

Militarising Andamans

News Excerpt

India moved to expedite plans for basing additional military forces, including facilities for additional warships, aircraft, missile batteries and infantry soldiers at the strategically-located Andaman Islands.

Pre-Connect

• The Ladakh stand-off with China has catalysed India's efforts to strengthen its military presence at the Andaman and Nicobar Islands (ANI).

• The idea of militarising the Andaman Islands isn't new. Since the 1980s, there have been suggestion of building strategic muscle at the ANI.

• A section of India's diplomatic community has opposed militarising the ANI, arguing that turning the islands into a strategic-military garrison would militarise the littorals.

• When India first began developing the ANI in the mid-1980s, Malaysia and Indonesia had been wary. Jakarta and Kuala Lumpur feared that India would use its military facilities in the ANI to dominate its region, and project power east of Malacca.

• India's willingness to keep its security presence at the strategic islands to a minimum assured many in Asia that its motives were benign.

• Today, amid growing threats from China, New Delhi seems open to the idea of militarising the islands.

Highlights

> The Indian navy's plans to offer logistical support to partner navies does not include its ANI facilities.

> Four years after signing a logistics pact with the United States (US), its navy ships still have no access the ANI.

➢ France, Singapore and Australia — India's other logistics partners — too haven't had their warships repaired or replenished at Indian island facilities.

Analytica

✓ While China's presence in the Indian Ocean is growing, Beijing hasn't so far militarised key Belt and Road Initiative outposts in the Bay of Bengal i.e. Hambantota, Chittagong and Kyaukpyu.

✓ As Indian warships have held exercises with the US and Japanese navy in the Indian Ocean, New Delhi's resolve to counter China in its maritime backyard has been evident.

✓ If New Delhi pushes for greater military presence in the ANI, Beijing could well seek military access in friendly Bay countries.

> **Optical fibre cable in Andaman**
> ❖ The project promises a 2,300-km submarine optical fibre cable network that will connect the islands of Andaman and Nicobar Islands to Chennai.
> ❖ The project aims to provide high-speed internet to boost the island's capabilities in terms of disaster mitigation, relief work and enable access to high-speed internet connectivity.
> ❖ The project has been completed under the Universal Service Obligation Fund (USOF) which was set up under the Indian Telegraph (Amendment) Act, 2003.
> ❖ The move will open up a host of opportunities for India in the ASEAN region, where China provides a majority of the submarine optical fibre.
> ❖ This will open up more opportunities for India to interact with ASEAN countries like Vietnam, Cambodia and Lao.
> ❖ The network will provide a stable connection especially because the islands emerge as an important strategic point in the Indian Ocean Region.
> ❖ India stands to gain politically if 1,925 km of incremental submarine cable can connect three ASEAN countries such as Myanmar, Thailand and Indonesia. This distance is even less than 2,300 km from Chennai to Andaman and Nicobar Islands.

Way Forward

▪ To counter China's expanding footprint in India's sphere of maritime interest, India must permit Japan, Australia and France and US to build strategic capabilities at the ANI.

▪ Strengthening collaboration with Indo-Pacific partners at the ANI is very much an option for Indian decision-makers to consider.

▪ India must also take into account the downsides of offering foreign navies access to its island facilities.

▪ The final decision should be based on a dispassionate weighing of costs and benefits.

Naval Innovation and Indigenisation Organisation (NIIO)

News Excerpt

Defence Minister launched the Naval Innovation and Indigenisation Organisation (NIIO).

Highlights

• The NIIO puts in place dedicated structures for the end users to interact with academia and industry.

• The objective is to foster innovation and indigenisation for self-reliance in defence in keeping with the vision of Atmanirbhar Bharat.

• The NIIO is a three-tiered organisation:

> **Sarthak**
> ❖ An Offshore Patrol Vessels (OPV) for the Indian Coast Guard was launched and re-christened as Indian Coast Guard Ship 'Sarthak'.
> ❖ OPV Sarthak is the 4th in the series of five.
> ❖ It has been designed & built indigenously by Goa Shipyard Limited (GSL) in line with the vision of 'Make in India'.
> ❖ The ship will mainly be deployed for Exclusive Economic Zone(EEZ) surveillance and Coastal Security.

i. Naval Technology Acceleration Council (N-TAC) will bring together the twin aspects of innovation and indigenisation and provide apex level directives.

ii. A working group under the N-TAC will implement the projects.

iii. A Technology Development Acceleration Cell (TDAC) has also been created for induction of emerging disruptive technology in an accelerated time frame.

Defence Production and Export Promotion Policy 2020

News Excerpt

To position India amongst the leading countries in defence and aerospace sectors, Ministry of Defence has formulated a draft Defence Production and Export Promotion Policy 2020 (DPEPP 2020).

Pre-Connect

- India had been a major defence importer for many years. Post-Independence, there was lot of capability for defence manufacturing but it was unfortunate that it did not get the desired attention.

- India now wants to build a major Defence Industrial Base (DIB) for self-reliance in weapon systems and exports to other countries within the next five years.

- A similar draft policy in 2018 had set out similar goals, but nothing much came out of it.

- The new draft is driven by the tenets of Defence Reforms announced as a part of the Atmanirbhar Bharat Abhiyan.

Highlights

- The DPEPP 2020 is envisaged as overarching guiding document of MoD to provide a focused, structured and significant thrust to defence production capabilities of the country for self-reliance and exports.

- The policy has laid out following goals and objectives:

  a) To achieve a turnover of ₹1, 75,000cr (US$ 25Bn) including export of ₹35,000cr (US$ 5 Billion) by 2025.

> **India's Defence Sector**
> - With an annual defence budget of about $70 billion, India is behind only the US ($732 billion) and China ($261 billion) in terms of military expenditure around the globe.
> - It is also the second-largest buyer of foreign weaponry after Saudi Arabia in the world, accounting for 9.2% of the total global arms imports during 2015-2019.
> - The estimated size of the existing Indian defence industry is around ₹80,000 crore, with the public sector's contribution being almost 80% of it.

  b) To develop a dynamic, robust and competitive defence industry to cater the needs of Armed forces with quality products.

  c) To reduce dependence on imports and take forward "Make in India" initiatives through domestic design and development.

  d) To promote export of defence products and become part of the global defence value chains.

Way Forward

- The emergence of evidence of a rise in Indian defence exports, also accompanied by a decline in imports, is a welcome development.

- The period between 2012-19 saw Indian defence exports experiencing a considerable jump sourced from Indian public and private sector enterprises.

- In the last two fiscal years, 2017-18 and 2018-19, exports have witnessed a surge from ₹7,500 crore to ₹11,000 crore, representing a 40% increase in exports.

- Indian defence exports, while showing a promising upward trend, still remain uncompetitive globally.

- It is likely that Indian defence exports will take several years before they are considered attractive by buyers.

- But green shoots are emerging in a sector that has long been devoid of any dynamism and policymakers should make the most of the opportunities this represents.
- India has the capability to become a reliable weapons supplier to friendly nations and it will consolidate its position as the net security provider in the Indian Ocean Region.

ART & CULTURE

Lokmanya Bal Gangadhar Tilak: 100th Death Anniversary

News Excerpt

Lokmanya Bal Gangadhar Tilak's 100th death anniversary was observed on 1st August 2020.

Pre-Connect

- An iconic leader and one of the strongest proponents of *purnaswaraj* or total self-rule, Bal GangadharTilak died on this day in 1920, in Mumbai.

- A part of the Lal-Bal-Pal (LalaLajpat Rai, Bal GangadharTilak and Bipin Chandra Pal) group, he was often called the *"father of the Indian unrest"* by the British Raj.

Highlights

Contributions of Tilak

> **PEPPER IT WITH**
> Theosophical Society, Home Rule League, Honorary Titles of Indian Freedom Leaders, The Arctic Home in the Vedas, Swarajya Sabha, Ghadar Revolt, GoI Act, 1909,

- His ideas of*swaraj* and *swadeshi* were anchored in making every Indian conscious of the insults and injustice meted out by the British. He prepared a fertile ground for swaraj through Home-rule movement.

- For the cultivation of an enlightened mind, he used the media in the form of two newspapers, *Kesari* and *Maratha*, and national education through *Deccan Education Society*, an institute he established.

> **Tilak and Indiaafter Independence**
> - Tilak almost had a blueprint of a post-Independence India in mind.
> - For him, swaraj was also liked to *swa-bhasha* and *swa-bhusha,* i.e. mother tongue and indigenous attire.
> - Perhaps, he was the first national leader who envisioned the formation of linguistic states.
> - He spoke of how we should form one separate state each for Marathi, Telugu and Kanarese provinces.

- His formula for preparing the ground for political activism through culture, education and media was so powerful that later on Mahatma Gandhi, Baba SahebAmbedkar and others adopted this path.

- A master strategist, Tilak adroitly used the two things — constitutionalism and democracy — that the British rulers used to boast about, to his maximum advantage.

- His idea of *Swaraj* was not confined to political freedom. He was conscious of the need for cultural and economic independence too.

- The public celebration of the Ganesh festival and Shivaji Jayanti by Tilak were aimed at cultural assimilation of all caste and community groups.

- Tilak wanted to promote manufacturing in India. To that end, Tilak started collecting funds for a corpus, known as Paisa Fund. Tilak and RatanjiJamshedji Tata came together to open the Bombay Swadeshi Co-operative Stores.
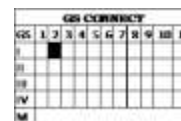
Way Forward

When we talk about Atmanirbhar Bharat, the legacy of Tilak is carried forward. Reviving the spirit of economic nationalism for indigenously manufactured goods and striving for social integration through culture are the features of Tilak's strategy and they continue to be relevanteven today as we observe his 100th death anniversary.

Tribal Freedom Fighters of India

News Excerpt

Government has decided to set up Museums to commemorate the contribution of Tribals in the freedom struggle of India.

Highlights

The museums sanctioned, location of museum and tribal freedom fighters/heroes associated with the museum are as under:

| State	Location	Tribal Freedom Fighters
Chhattisgarh	Raipur	Veer Narayan Singh
Jharkhand	Ranchi	Birsa Munda
Andhra Pradesh	Lammasingi	Alluri Seetha Ram Raju
Madhya Pradesh	Chhindwara	TantyaBheel, BheemaNayak, KhajayaNayak, etc.
Kerala	Kozhikode	ThalakkalChandu
Manipur	Makhal Village	Rani Gaidinliu
Telangana	Hyderabad	Ramji Gond

MISCELLANEOUS

MISCELLANEOUS

BIS certification for two-wheeler

- Union Ministry of Road Transport and Highways has issued a draft notification for bringing **Protective Helmets for two-wheeler riders under compulsory certification as per Bureau of Indian Standards Act, 2016.**

- BIS is the National Standard Body of India established under the **BIS Act, 2016** for the harmonious development of the activities of standardization, marking and quality certification of goods and for matters connected therewith or incidental thereto.

- BIS has been providing traceability and tangibility benefits to the national economy in a number of ways - providing safe reliable quality goods, minimizing health hazards to consumers, promoting exports and imports substitute, control over proliferation of varieties etc. through standardization, certification and testing

- The government has also launched the **BIS-Care app** to check the authenticity of the ISI-marked and hallmarked products and lodge complaints using this app.
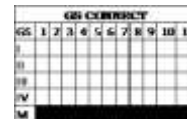
Smart India Hackathon 2020

- Smart India Hackathon (SIH) 2020 is a nationwide initiative to provide students a platform to solve some of the pressing problems we face in our daily lives, and thus inculcate a culture of product innovation and a mindset of problem solving.

- The last edition of the hackathon (SIH 2019) saw over 5 million+ students from various colleges compete for the top prize at 65+ locations.

- **MHRD's Innovation Cell & All India Council for Technical Education (AICTE)organizes the event.**

- The theme of the Smart India Hackathon 2020 is **"No problem is too big… No idea is too small".**

- In SIH 2020, the students would have the opportunity to work on challenges faced within various Ministries, Departments, Industries, PSUs and NGOs to create world class solutions for some of the top organizations including industries in the world, thus helping the Private sector hire the best minds from across the nation.

Sarabhai Crater

- The terrain mapping camera on board **Chandrayaan-2's orbiter has captured the image of Sarabhai crater**, named after '**Vikram Sarabhai' the father of the Indian space programme**, on the moon.

- To the 300km east of this crater lie the landing sites of American Apollo 17 and Soviet-launched Luna 21 missions.

- The Sarabhai Crater has a depth of around 1.7 kmtaken from its raised rim and the slope of crater walls is between 25 to 35 degrees. These findings will help space scientists understand further the process on the lunar region filled with lava.

Vikram Sarabhai and his key contribution

- Vikram Sarabhai was born on August 12, 1919.His vision and commitment led to the establishment of Indian National Committee for Space Research (INCOSPAR) in 1962 during the Nehru government.

- The INCOSPAR was restructured and renamed as Indian Space Research Organisation (ISRO) in 1969. Sarabhai took over an advisory role in ISRO as well.

- He set up India's first rocket launch site in Thumba, a small village near the Thiruvananthapuram airport in Kerala.

- He was responsible for bringing cable television to India. His constant contact with NASA paved a way for the establishment of Satellite Instructional Television Experiment (SITE) in 1975.
- Sarabhai was the mastermind behind building India's first satellite, Aryabhata.
- Vikram Sarabhai received the Padma Bhushan in 1966 for his contribution to India's progress. He was also awarded the Padma Vibhushan in 1972, posthumously.

Bonda Tribe

- The Bondas scattered across 32 remote hilltop villagesin the Eastern Ghats of Malkangiri district (Odisha) are believed to have come to India as part of the first wave of migration out of Africa about 60,000 years ago.
- But now they can be seen not only in other districts of Odisha, but also in neighbouring states such as Andhra Pradesh. They were the first forest settlers in India.
- Census 2011 says there are just 12,000 Bondas left and they are one of the 13 Particularly Vulnerable Tribal Groups (PVTGs) found in Odisha.
- The state government set up the Bonda Development Agency in 1977.
- The Bondas continue to speak in their language, Remo, which comes under the Austroasiatic language belonging to the Mundari group.
- Their children are named after the day on which they born.
- They have a unique dressing style—women are semi clad and wear various types of rings and necklaces around their bodies, while the men carry lethal bows and arrows.
- A matriarchal society, the women prefer to marry men who are younger by at least 5-10 years, so that the men can earn for them when they grow old.
- The tribe is divided into three groups:
  o The Upper Bondas or Bara-Jangar group, who live on the slopes at over 900 meters above sea level;
  o The Lower Bondas, who live at the foothills,
  o The Gadaba-Bondas, who live at the same altitude as the Upper Bondas.

ThumbiMahotsavam 2020

- **Kerala** will host the 3rd edition of annual Dragonfly Festival 'ThumbiMahotsavam 2020'.
- **World Wide Fund for Nature-India** (WWF – India) State unit has joined hands with the **Society for Odonate Studies** (SOS) and Thumbipuranam for the festival.
- The official mascot of this festival is **'Pantalu'**, which is the genus of dragonfly in the family Libellulidae commonly known as rain pool gliders.
- **State Dragonfly festival** is a part of a **national dragonfly festival** being organised by the WWF India, Bombay Natural History Society & Indian Dragonfly Society.
- It is organised in association with the National Biodiversity Board, UNEP, UNDP and IUCN – Centre for Environment Conservation.
- **Dragonfly** is an aerial predator insect most commonly found near freshwater habitats throughout most of the world.
- Dragonflies act as important **bio-indicators** of the ecological health of an area as they feed on mosquitoes and other insects that are vectors to life-threatening diseases like Malaria and Dengue.

World Urdu Conference

- National Council for Promotion of Urdu Language (NCPUL) organised the World Urdu Conference 2020 in New Delhi from 27th-28th August 2020.
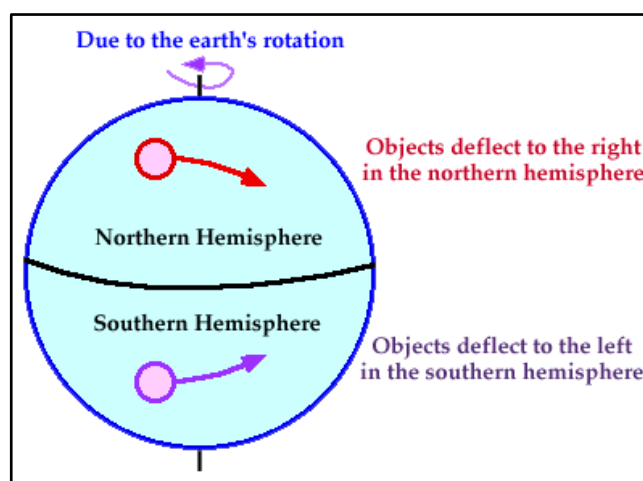
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- It was announced that Urdu writers will be honoured with awards and honours in the name of important personalities of Urdu like Amir Khusrow, MirzaGhalib, Agha Hashar, Ram BabuSaxena and Daya Shankar Naseem to encourage Urdu writers for literary and creative services by the Urdu Council from next year.
- NCPULis an autonomous body under the Ministry of Human Resource Development (HRD), Department of Secondary and Higher Education, Government of India.
- It was set up to promote, develop and propagate Urdu language; Council started its operation in Delhi on April 1, 1996.
- It is the principal coordinating and monitoring authority for promotion of Urdu language and Urdu education.

Warli Painting

- Warli painting is a style of tribal art mostly created by the tribal people. Maharashtra is known for its Warli folk paintings.
- Warli tribesmen shun all influences of modern urbanization.
- Warli is the vivid expression of daily and social events of the Warli tribe, used by them to embellish the walls of village houses.
- Women are mainly engaged in the creation of these paintings. These paintings do not depict mythological characters or images of deities, but depict social life.
- Images of human beings and animals, along with scenes from daily life are created in a loose rhythmic pattern.
- Painted white on mud walls, they are pretty close to pre-historic cave paintings in execution and usually depict scenes of human figures engaged in activities like hunting, dancing, sowing and harvesting.
- Themes are highly repetitive and symbolic. Many of the Warli paintings that represent Palghat, the marriage god, often include a horse used by the bride and groom.
- The painting is sacred and without it, the marriage cannot take place. These paintings also serve social and religious aspirations of the local people. It is believed that these paintings invoke powers of the Gods.
- These days, even men have taken to painting. Warli paintings on paper have become very popular and are now sold all over India.

Coriolis Force

- Coriolis force describes the pattern of deflection taken by objects not firmly connected toground as they travel long distances around Earth.
- The main cause of the Coriolis force is the Earth's rotation. As the Earth spins in a counter-clockwise direction on its axis, anything flying or flowing over a long distance above its surface is deflected.
- Earth rotates faster at the Equator than it does at the poles.
- Coriolis force effect Atmospheric Circulation Patterns, Oceanic Circulation Patterns and Flight Paths. Anything that flies (planes, birds, missiles, space rockets) is affected by the Coriolis Effect.

Due to the earth's rotation

Objects deflect to the right in the northern hemisphere

Northern Hemisphere

Southern Hemisphere

Objects deflect to the left in the southern hemisphere

MahatamaAyankali

- He was born on 28 August 1863 in Perumkattuvila, Thiruvananthapuram and died on 18 June 1941, leaving behind a better and more inclusive world for Keralite lower castes.
- He was a social reformer, who worked for the advancement of deprived untouchable people in the princely state of Travancore, British India.

- His efforts influenced many changes that improved the social well-being of those people who are today referred to as Dalits.
- He faught against caste discrimination and was a leader of an anti-caste movement and who later fought for basic rights including access to public spaces and entry to schools.
- Ayyankali unleashed his first wave of rebellion through folk dance and music laced with dissent at the end of their workday.
- Voicing out sentiments of the downtrodden, the man soon began to be known as *Urpillai* and *Moothapullai.*
- He was instated as a member of the Assembly of Travancore, known as the SreeMoolam Popular Assembly (SMPA) or Praja Sabha.
- He played an instrumental role in establishing community courts, whose local offices functioned in every branch of the SJPS.
- He establishes the Sadhu Jana ParipalanaSangham (Association for the Protection of the Poor), which aimed at uniting members from suppressed communities and campaigned for access to schools along with raising funds to set up Pulayar-operated schools.

Concept Clearing Assignment

1. Critically examine the need for Internet Ombudsmen.How government and citizens have to respond to the new triangular interplay between data protection, privacy and a flow of information?

2. Examine the Inter-connection among urban floods and shrinking of water bodies. Highlight the major reasons responsible for this cascading effect.

3. Do you agree that a single examination would reduce the financial burden on candidates? Discuss in the light of establishment of National Recruitment Agency.

4. Assess the role of Artificial Intelligence with reference to the employment. Give a reason account of impact of AI on key social segments. What significant changes can be expected from this technology?

5. Why there is a need to increase the minimum marriage age for women? Define the constitutional legitimacy of various personal laws. And highlight the role of Uniform Civil Code in this context.

6. Critically analyze the scope of National Digital Health Mission to reach the deprived section of society. How the role of Information and Communication Technology would make a paradigm shift in the public healthcare services?

7. Child labour convention 182 has achieved universal ratification. In this context, explain the ways in which children are exploited. Mention the measures taken by the government of India to deal this menace.

8. Highlights the observations given by Supreme Court with reference to the Domicile-Based Job Quota.What effect on fundamental rights are likely to be noticed due to induction of Domicile –based job Quota by a State?

9. What is the importance of Geo thermal springs in the Himalayan region? How these springs can be used to power up the remotest houses?

10. Explain the unique features of Warli painting. Highlight the changing patterns emerging in this style of painting.

11. In which regions the landslides are frequent in India and why such instances got triggered during rainy season. Explain the role of National Landslide Susceptibility Mapping and National Disaster Management Authority in this context.

12. Discuss the impact of oil spill on marine ecosystem. In the light of Mauritius calamity, explain how this accident can cause permanent damages to the livelihood of people. Highlight India's efforts for containing such damages.

13. Analyze whether the approval of FDI in coal mining would yield out strategic gains or it may be proved as strategic plunder.Suggest measures to achieve energy security.

14. How a sustainable human-elephant coexistence can be attainedthrough active management interventions?Highlight the characteristics of newly evolved management practices in human–elephant conflict management.

15. Explain the key mechanism of boreal summer intra-seasonal oscillation (ISO). Also highlight its relevance to the Indian monsoon and impact on global climatic circulations.

P. T Oriented Questions

1. Which of the following is/are the advantage/s of divestment of public sector banks?
   1. Issue of politicization and interference in the normal functioning of Banks can be solved by disinvestments.
   2. It led to strengthen Reserve Bank of India's hold over them.
   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

2. Consider the following statements regarding the New Umbrella Entity (NUE):
   1. It operate new payments system in the retail space comprising ATMs and Aadhaar-based payments.
   2. The entity permitted to participate in Reserve Bank's payment and settlement systems.
   3. It is an initiative of Reserve Bank of India (RBI) and Indian Banks' Association (IBA).
   Which of the statements given above are correct?
   (a) 1 and 2 only
   (b) 2 and 3 only
   (c) 1 and 3 only
   (d) 1, 2 and 3

3. Consider the following statements regarding Transparent Taxation platform:
   1. It introduced Taxpayer's charter to setting down rights and responsibilities of both tax payers and tax officers.
   2. Under this system, appeals will be randomly allocated to any officer in the country and the identity of officers handling the appeal will remain unknown.
   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

4. With reference to 'Khadi Agarbatti Atma Nirbhar Mission', which of the following statements is/are correct?
   1. It is designed by the Khadi and Village Industries Commission on PPP model.
   2. The machines needed under this programme will be procured only from Indian manufacturers.
   3. Only 25% subsidy will be given for machine purchasing under this mission.
   Select the correct answer using the codes given below:
   (a) 1 and 2 only
   (b) 2 and 3 only
   (c) 3 only
   (d) 1, 2 and 3

5. Consider the following statement regarding the Partial Credit Guarantee Scheme (PCGS) 2.0:
   1. The scheme covered assets which have AA or more ratings.
   2. It aimed at providing access to fresh liquidity support to non-bank lenders.
   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

6. With reference to 'RBI's Loan Recast Scheme', which of the following statements is/are correct?
   1. It is a special window providing one-time loan restructuring to companies and individuals.
   2. The scheme will work under the recommendations of Committee headed by RBI Deputy Governor.
   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

7. With reference to the Export Preparedness Index 2020, consider the following statements:
   1. It was released by the Ministry of Commerce and Industry with Institute of competitiveness.
   2. The report says that most of the coastal states perform well.

   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. Consider the following statements regarding the Participatory Notes:
   1. P-Notes are among the group of investments considered to be Offshore Derivative Investments.
   2. P-notes are used by foreign investors to invest in stock derivatives.
   3. P-Notes are highly transparent in nature.

   Which of the statements given above are correct?
   (a) 1 and 2 only
   (b) 2 and 3 only
   (c) 1 and 3 only
   (d) 1, 2 and 3

9. With reference to the 'Sin goods and Sin tax', consider the following statement:
   1. When states run deficits, Sin tax is generally one of the first taxes recommended by lawmakers to help fill the budget gap.
   2. Sin tax means that the less money a person makes, the more significant is the percentage of their income these taxes consume.

   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

10. With reference to the 'National Cancer Registry Programme Report', consider the following statements:
    1. It is released by the Indian Council of Medical Research.
    2. Lung, mouth, stomach and oesophagus cancer are most common among males.
    3. Breast and Cervix Uteri cancer are most common among females.

    Which of the statements given above is/are correct?
    (a) 1 only
    (b) 1 and 2 only
    (c) 2 and 3 only
    (d) 1, 2 and 3

11. Consider the following statement regarding the 'eSanjeevani Telemedicine Service':
    1. It provides Doctor-to-Doctor (e-Sanjeevani) and Patient-to-Doctor (e-Sanjeevani OPD) Tele-consultations.
    2. It is being implemented under the Ayushman Bharat Health and Wellness Centre (AB-HWCs) programme.

    Which of the statements given above is/are correct?
    (a) 1 only
    (b) 2 only
    (c) Both 1 and 2
    (d) Neither 1 nor 2

12. Consider the following statements regarding the Swachh Survekshan 2020:
    1. Indore retained its position as the cleanest city for the fourth consecutive year.
    2. It is commissioned by NITI Aayog and carried out annually by the Quality Council of India.

    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. Recently, Madhya Pradesh government take a decision to reserve all government jobs for "children of the state", this decision is in violation of which of the following constitutional provisions?
    1. Article 16
    2. Article 16 (2)

3. Article 16 (3)

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

14. Recently a news came that shrinking of water bodies is interconnected to the urban floods. In this context consider the following statements:
1. Urban migration is one of the reasons for the shrinking of water bodies.
2. Illegal mining for building material is leading to shrinking of water bodies.

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

15. With reference to the study by TRAFFIC India on 'common leopards', consider the following statements:
1. Leopards does not have any protection under India's wildlife laws.
2. The leopard are possibly traded as tiger bones as they have a larger international demand for traditional medicines.

Which of the statements given above 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 Boreal Summer Intra Seasonal Oscillation (BSISO):
1. It involves interactions between Asian summer Monsoon circulation and convectively coupled equatorial waves.
2. It is also responsible for the cooling and warming of the Indian Ocean.
3. Active phase of BSISO induced very low wave activity in north Indian Ocean.

Which of the statements given above is/are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 3 only
(d) 1, 2 and 3

17. Consider the following statements regarding Geothermal Springs:
1. It is produced by the emergence of geothermally heated ground water that rises from the Earth's crust.
2. It releases huge amount of CO_2 in the atmosphere.
3. Geothermal water is dominated by evaporation followed by weathering of silicate rocks.

Which of the statements given above are correct?
(a) 1 and 2 only
(b) 2 and 3 only
(c) 1 and 3 only
(d) 1, 2 and 3

18. Consider the following statements regarding the Cobotics:
1. A cobot is defined as a robot that has been designed and built to collaborate with humans.
2. It can be used in situation like wars as they are big in size.

Which of the statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

19. Consider the following statements regarding the Digital Quality of Life (DQL) Index 2020:
1. It was released by the International Digital Organization for Scientific Information (IDOSI)
2. Only in terms of internet affordability India ranked among top 10 countries.

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

20. With reference to 'Dark Net', consider the following statements:
    1. It is most often used for illegal activities such as black markets and illegal file sharing.
    2. Transactions completed on Dark Net markets using cryptocurrency protect both the buyer and seller.

    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

21. Consider the following statements regarding the Transport Initiative for Asia (TIA):
    1. The aim is to promote a comprehensive approach to decarbonize transport in India.
    2. This programme also helps in building Li-ion battery industry in India.

    Which of the statements given above is/are correct?
    (a) 1 only
    (b) 2 only
    (c) Both 1 and 2
    (d) Neither 1 nor 2

22. Recently a new map has been issued by Pakistan in this context consider the following statements:
    1. The new map includes the whole of the UT of Jammu & Kashmir.
    2. In a nod to China's sensitivities, the map depicts the Ladakh region.
    3. The boundary of Himachal Pradesh is depicted as the international border.

    Which of the statements given above are correct?
    (a) 1 and 2 only
    (b) 2 and 3 only
    (c) 1 and 3 only
    (d) 1, 2 and 3

23. Consider the following statements:
    1. He prepared a fertile ground for swaraj through Home-rule movement.
    2. His formula for preparing the ground for political activism

through culture, education and media was so powerful.
    3. He wanted to promote manufacturing in India and started collecting funds for a corpus, known as Paisa Fund.

    Which of the following personalities is best describe the above statements?
    (a) LalaLajpat Rai
    (b) Bal GangadharTilak
    (c) Bipin Chandra Pal
    (d) None of the above

24. Consider the following pairs:

State	Tribal Freedom Fighter
1. Chhattisgarh	Veer Narayan Singh
2. Jharkhand	Birsa Munda
3. Madhya Pradesh	BheemaNayak

    Which of the pairs given above is/are correct?
    (a) 1 and 2 only
    (b) 2 and 3 only
    (c) 3 only
    (d) 1, 2 and 3

25. Consider the following statements regarding the Warli Painting:
    1. Warli painting is a style of tribal art mostly created by the tribal people.
    2. North Eastern States is known for its Warli folk paintings.
    3. Many of the Warli paintings that represent Palghat, the marriage god.

    Which of the statements given above are correct?
    (a) 1 and 2 only
    (b) 2 and 3 only
    (c) 1 and 3 only
    (d) 1, 2 and 3

26. With reference to the election of the President of India, consider the following statements: (UPSC 2018)
    1. The value of the vote of each MLA varies from State to State.
    2. The value of the vote of MPs of the Loksabha is more than thevalue of the vote of MPs of the Rajyasabha.

Which of the following statements given above is/are correct?
(a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

27. The 'Fortaleza Declaration', recently in news, is related to the affairs of: (UPSC 2015)
(a) ASEAN
(b) BRICS
(c) OECD
(d) WTO

28. International Labour Organization's Convention 138 and 182 are related to- (UPSC 2018)
(a) Child labour
(b) Adaptation of agricultural practices to global climate change.
(c) Regulation of food prices and food security.
(d) Gender parity at the workplace.

29. With reference to an initiative called 'The Economics of Ecosystems and Biodiversity (TEEB)', which of the following statements is/are correct?(UPSC 2016)

1. It is an initiative hosted by UNEP, IMF and World Economic Forum.
2. It is a global initiative that focuses on drawing attention to the economic benefits of biodiversity.
3. It presents an approach that can help decision-makers recognize, demonstrate and capture the value of ecosystems and biodiversity.

Select the correct answer using the code given below.
(a) 1 and 2 only
(b) 3 only
(c) 2 and 3 only
(d) 1, 2 and 3

30. In India, if a species of tortoise is declared protected under Schedule I of the Wildlife (Protection) Act, 1972, what does it imply? (UPSC 2017)
(a) It enjoys the same level of protection as the tiger.
(b) It no longer exists in the wild, a few individuals are under captive protection; and now it is impossible to prevent its extinction.
(c) It is endemic to a particular region of India.
(d) Both (b) and (c) stated above are correct in this context.

Answer Key

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

OUR TOPPERS

KSG
KANISHAK KATARIA
(AIR - 1)

TESTIMONIAL

I am highly indebted to Khan Sir and KSG for their guidance and feedback, specially for the interviews. Khan Sir was very motivating and available for one-to-one interactions. His critical analysis and pinpoint identification of my strengths and weaknesses helped me a lot. I also followed his videos on Youtube which were quite beneficial. Thank You Sir for your support & guidance.

Signature:

KSG
AKSHAT JAIN
(AIR - 2)

TESTIMONIAL

I would like to thank KSG and Khan Sir for their guidance and motivation. The mock interview at KSG was particularly helpful in understanding the intricacies of the interview/personality test. It helped me identify my strengths and weaknesses in a timely manner, and work upon them accordingly.

Signature: Akshat

KSG
SRUSHTI JAYANT DESHMUKH
(AIR - 5)

TESTIMONIAL

Thank you so much to the entire team of Khan Study Group! KSG's foundation course has been my starting point. It has helped me a lot. The focus on answer writing from Day-1 really contributed a lot.

A special thanks to Khan Sir, for his motivating aura and good words.

Signature:

KSG
SHUBHAM GUPTA
(AIR - 6)

TESTIMONIAL

Khan Sir,

Thank you so much for always being encouraging and keeping a positive mindset. Your guidance for the personality test has helped me significantly in attaining the success that I have been able to. Your personal interaction with me has always motivated me to keep an inquisitive mindset and optimistic attitude.

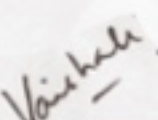Thanks again to you Sir and the entire KSG team.

Signature:

KSG
VAISHALI SINGH
(AIR - 8)

TESTIMONIAL

I cannot thank KSG & Khan Sir enough for their guidance throughout the interview process. It was much needed and it were his words which inspired me to perform well. Thank you so much!

Signature: Vaishali

KSG
GUNJAN DWIVEDI
(AIR - 9)

TESTIMONIAL

KSG played a very important role in my preparation. The excellent guidance I received from Khan Sir helped me achieve my childhood dream. Thankyou for all the support.

Gunjan

Signature:

DELHI NORTH	DELHI CENTRAL	JAIPUR TONK ROAD	BHOPAL M.P NAGAR, ZONE II	PATNA EXHIBITION ROAD	INDORE BHAWAR KUAN	BENGALURU KORAMANGALA	CHANDRA LAYOUT	RANCHI SIRAM TOLI CHOWK
2521, 1st Floor Hudson Lane, Vijay Nagar Chowk, Near GTB Nagar Metro Station Delhi- 110009	56/4, Bada Bazar Marg, Old Rajender Nagar Market, Near Salwan Public School Gate No- 2, Delhi- 110060	403-404, 4th floor Apex Tower, Lal Kothi, Tonk Road Jaipur- 302015	Plot No. 48, 1st & 2nd Floor, Behind Sargam Talkies, Zone II, M.P Nagar Bhopal- 462011	Above Toyota Showroom, CEAT Compound, Exhibition Road, Near Gandhi Maidan, Patna- 800001	232-233, 2nd Floor, Veda Building, Near Apple Hospital, Bhawar Kuan Square Indore- 452001	116/C-1, 3rd Floor, behind Airtel office 2nd Cross Road, KHB Colony, 5th Block, Koramangala Bengaluru- 560095	94, 2nd floor, Kasabha Hobli, Above Domino's Pizza, 4th Main Rd., Maruthi Nagar, Chandra Layout, Bengaluru, Karnataka-560040	3rd floor strawberry Hill New garden Siram Toli Chowk Ranchi - 834001
9717 380 832	9811 293 743	8290 800 441	7509 975 361	7463 950 774	9893 772 941	7619 166 663	7619 136 662	7463 950 774