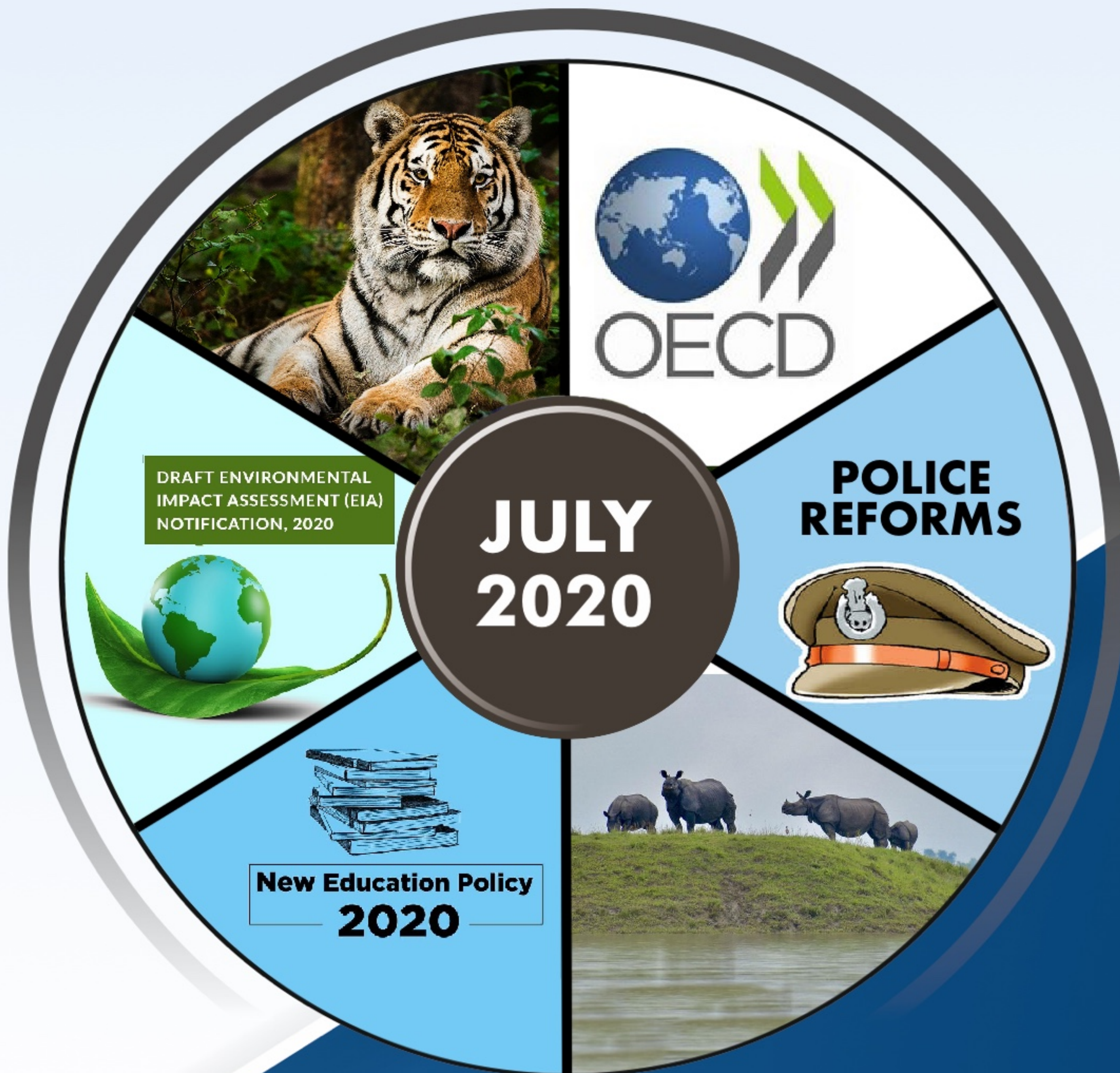


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It gives us immense pleasure to present an innovative approach to master current affairs. Current is a passing wind and diverse issues happen at the same time. It is to an extent chaotic. Newspapers, magazines and various other sources report the chaos 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.

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GS - II	Indian constitution- Amendments, acts and bills.	Legislative, executive and judicial processes.	Constitutional, non-constitutional, judicial, quasi-judicial, administrative and other types of bodies.	Federal structure and local bodies. Their powers and functions.	Government policies and various governance issues like transparency, accountability and – governance	Committees and schemes.	Non-government issues, self-help groups and role of civil society	Vulnerability sections of our society and social sector issues and initiatives	International Relation -India and other countries, various Indian and international agreements, effects of other countries on		
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POLITY

Padmanabhaswamy Temple Verdict

News Excerpt

Reversing the 2011 Kerala High Court decision, the Supreme Court upheld the right of the Travancore royal family to manage the property of deity at Shree PadmanabhaSwamy Temple in Thiruvananthapuram.

Pre-Connect

In 1949, the princely state of Travancore had signed a covenant with the Union of India that the rulers of Travancore, BalaramaVarma and his legitimate successors, could control the management of the temple.

What is the case about?

- The central legal question was whether UtradamThirunalMarthan daVarma, the younger brother of ChithiraThirunalBalarama Varma, the last Ruler of Travancore, could claim to be the “Ruler of Travancore” after the death of the ruler in 1991.
- The court examined this claim within the limited meaning of that term according to the Travancore-Cochin Hindu Religious Institutions Act, 1950 to claim ownership, control and management of the ancient Shree PadmanabhaSwamy Temple.

Details

Who had the ownership, control and management of the Padmanabhaswamy temple before 1991?

- All the temples which were under the control and management of the erstwhile Princely States of Travancore and Cochin were under the control of the Travancore and Cochin Devaswom Boards before 1947.
- However, as per the **Instrument of Accession** signed between the princely states and the Government of India, since 1949, the administration of the Padmanabhaswamy Temple was “**vested in trust**” in the Ruler of Travancore.
- The state of Kerala was carved out in 1956 but the temple continued to be managed by the erstwhile royals.
- In 1991, when the last ruler’s brother took over the temple management, it created a furore among devotees who moved the courts leading to a long-drawn legal battle.

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More Info

- The State shall not deny to any person equality before the law or equal protection of the laws (Article 14).
- The State shall not discriminate against any citizen on the ground of religion (Article 15).
- Equality of opportunity for all citizens in matters of public employment (Article 16).
- All persons are equally entitled to freedom of conscience and the right to freely profess, practice and propagate any religion (Article 25).
- Every religious denomination or any of its section shall have the right to manage its religious affairs (Article 26).
- No person shall be compelled to pay any taxes for the promotion of a particular religion (Article 27).
- No religious instruction shall be provided in any educational institution maintained by the State (Article 28).
- Any section of the citizens shall have the right to conserve its distinct language, script or culture (Article 29).
- All minorities shall have the right to establish and administer educational institutions of their choice (Article 30).
- The State shall endeavour to secure for all the citizens a Uniform Civil Code (Article 44).
- In 1971, the 26th Amendment to the Constitution had abolished all royal titles.
- The term ‘secular’ was added to the Preamble of the Indian Constitution by the 42nd Constitutional Amendment Act of 1976.

PEPPER IT WITH

MadhavRaoScindia vs. Union of India, 1971; Schedule IX of the Indian Constitution, 25th Constitutional Amndt. Act,

- The government joined in; supporting the claims of the petitioner that MarthandaVarma had no legal right to claim the control or management of the temple.

Is the temple the property of the royal family?

- No it's not the royal family's property. The argument is that the temple management would vest with them for perpetuity, as per custom.
- Even though the last ruler BalaramaVarma executed a detailed will bequeathing his personal properties, he had not included the Shree Padmanabhaswamy Temple as his personal property or dealt with it in his will.
- Despite being a secular country that separates religion from the affairs of the state, Hindu temples, its assets are governed through statutory laws and boards heavily controlled by state governments.
- This system came into being mainly through the development of a legal framework to outlaw untouchability by treating temples as public land; it has resulted in many legal battles.
- It also turned on the metaphysically interesting claim that the royal family was not royal by virtue of its particular title, but because it was a particular family.
- So, in this sense the case was not about a title to property. It was about whether kingship could have a role when there were no kings.

The Impact of the ruling

- ✓ **The Supreme Court held that it was the family lineage, not the title, that made this family royal.**
- ✓ The court said that, as per customary law, **the shebait rights** (right to manage the financial affairs of the deity) survive with the members of the family even after the death of the last ruler.
- ✓ The ruling ends the legal battle the temple and members of the royal family have fought with the government for decades over control of one of the richest temples in the world.

Conclusion

In the Padmanabhaswamy verdict, the court has tried a fine line. While it invokes the hereditary principle to secure the royal family's rights, it still retains the mechanism of an Administrative Committee where state functionaries have a role. Given its specific features, it is not clear that the Padmanabhaswamy case sets, in legal terms, a precedent for radically reconstituting the governance of temples as the Right supposes. But then temples, as we know, are never about the law. The idols in the temple are meant to be pathways to a luminous consciousness; the management of temples is always a pathway to murky politics.

Plea Bargaining

News Excerpt

Several accused of violating visa conditions walked free after pleading guilty to minor offences and paying the fines imposed by the court. These cases have brought the focus on plea bargaining as a practice by which time consuming trials can be avoided. Even though plea bargaining is available to those accused of criminal offences in India for over a decade, it is not yet common.

Pre-Connect

- Plea bargaining refers to a person charged with a criminal offence negotiating with the prosecution for a lesser punishment than what is provided in law by pleading guilty to a less serious offence.
- It is common in the United States, and has been a successful method of avoiding protracted and complicated trials. As a result, conviction rates are significantly high there.
- It primarily involves pre-trial negotiations between the accused and the prosecutor. It may involve bargaining on the charge or in the quantum of sentence.
- There has always been a provision in the Cr. P. C. for an accused to plead 'guilty' instead of claiming the right to a full trial, but it is not the same as plea bargaining.
- The Law Commission of India, in its 142nd Report, mooted the idea of "concessional treatment" of those who plead guilty on their own volition, but was careful to underscore that it would not involve any plea bargaining or "haggling" with the prosecution.

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- Plea bargaining was introduced in 2006 as part of a set of amendments to the Cr.P.C. as Chapter XXI-A, containing Sec. 265A to 265L.
- Cases for which the practice is allowed are limited. Only someone who has been charge sheeted for an offence that does not attract the death sentence, life sentence or a prison term above seven years can make use of the scheme under Chapter XXI-A.

PEPPER IT WITH
Sec. 306 of Cr. P. C.: Tender of Pardon to accomplice;

Three types of Plea Bargains

1. **Charge Bargaining:** This is used when a defendant pleads guilty to a less serious crime than the one originally imposed.
2. **Count Bargaining:** This is used when the defendant pleads guilty to a fewer number of the charges.
3. **Sentence Bargaining:** This is used when the defendant pleads guilty knowing what sentence will be given.

In what circumstances is it allowed? How does it work?

- Unlike in the U.S. and other countries, where the prosecutor plays a key role in bargaining with the suspected offender, the Indian code makes plea bargaining a process that can be initiated only by the accused; further, the accused will have to apply to the court for invoking the benefit of plea bargaining.
- It is also applicable to private complaints of which a criminal court has taken cognisance.
- The cases that cannot be disposed of through plea bargaining are those that involve offences affecting the “socio-economic conditions” of the country, or committed against a woman or a child below the age of 14.
- The applicant should approach the court with a petition and affidavit stating that it is a voluntary preference and that he has understood the nature and extent of punishment provided in law for the offence.
- The court would then issue notice to the prosecutor and the complainant or victim for a hearing.
- The voluntary nature of the application must be ascertained by the judge in an in-camera hearing at which the other side should not be present.
- The court may permit the prosecutor, the investigating officer and the victim to hold a meeting for a “satisfactory disposition of the case”.
- The outcome may involve payment of compensation and other expenses to the victim by the accused.
- Once mutual satisfaction is reached, the court shall formalise the arrangement by way of a report signed by all the parties and the presiding officer.
- The accused may be sentenced to a prison term that is half the minimum period fixed for the offence. If there is no minimum term prescribed, the sentence should run up to one-fourth of the maximum sentence stipulated in law.

What is the rationale for the scheme? What are its benefits?

- ✓ The Justice Malimath Committee on reforms of the criminal justice system endorsed the various recommendations of the Law Commission with regard to plea bargaining.
- ✓ Some of the advantages it culled out from earlier reports are that the practice would ensure speedy trial, end uncertainty over the outcome of criminal cases, save litigation costs and relieve the parties of anxiety.
- ✓ It would also have a dramatic impact on conviction rates. Prolonged incarceration of undertrials without any progress in the case for years and overcrowding of prisons were also other factors that may be cited in support of reducing pendency of cases and decongesting prisons through plea bargaining.
- ✓ It may help offenders make a fresh start in life.

Conclusion

Case law after the introduction of plea bargaining has not developed much as the provision is possibly not used adequately. However, earlier judgments of various courts in cases in which the accused enter a ‘guilty’ plea with a view to getting lesser sentences indicate that the judiciary may have reservations. Some verdicts disapprove of bargaining with offenders, and

point out that lenient sentences could be considered as part of the circumstances of the case after a regular trial. Courts are also very particular about the voluntary nature of the exercise, as poverty, ignorance and prosecution pressure should not lead to someone pleading guilty of offences that may not have been committed.

91st Constitutional Amendment Act, 2003

News Excerpt

The Opposition in Madhya Pradesh has said that they will move the court as the strength of the Council of Ministers in Madhya Pradesh reportedly exceeds the prescribed limit.

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Pre-Connect

- As per the rule, the number of Ministers in the state can't exceed 15% of the Assembly's strength. Madhya Pradesh can have a maximum of 34 ministers.
- In MP's case, the actual strength of Vidhan Sabha presently is only 206 (total strength of the house is 230), which means the number of members in the council of ministers cannot exceed 30.9. But after recent cabinet expansion, the total strength of the council of ministers, including the CM is 34, which violates 15% criteria laid down by constitution.
- While Constitution mentions the lower limit of 12 ministers, the Supreme Court had ruled in 2008 that there is no violation of the law if a CoM has less members than the lower limit because the Act was enacted to put a cap on the huge expenditure incurred by states because of jumbo cabinets.

PEPPER IT WITH

Schedule 10 of the Constitution, Art.75, 164, 102, 191, Minimum and Maximum Strength of the State legislative Assemblies, Quorum of the House.

91st Constitutional Amendment Act, 2003:

Made the following provisions to limit the size of Council of Ministers, to debar defectors from holding public offices, and to strengthen the anti-defection law:

- The total number of ministers, including the Prime Minister, in the Central Council of Ministers shall not exceed 15% of the total strength of the Lok Sabha.
- A member of either house of Parliament belonging to any political party who is disqualified on the ground of defection shall also be disqualified to be appointed as a minister.
- The total number of ministers, including the Chief Minister, in the Council of Ministers in a state shall not exceed 15% of the total strength of the legislative Assembly of that state. But, the number of ministers, including the Chief Minister, in a state shall not be less than 12.
- A member of either House of a state legislature belonging to any political party who is disqualified on the ground of defection shall also be disqualified to be appointed as a minister.
- A member of either House of Parliament or either House of a State Legislature belonging to any political party who is disqualified on the ground of defection shall also be disqualified to hold any remunerative political post. The expression "remunerative political post" means
 - any office under the central government or a state government where the salary or remuneration for such office is paid out of the public revenue of the concerned government; or
 - any office under a body, whether incorporated or not, which is wholly or partially owned by the central government or a state government and the salary or remuneration for such office is paid by such body, except where such salary or remuneration paid is compensatory in nature.

Art. 164 (1A): The total number of Ministers, including the Chief Minister, in the Council of Ministers in a State shall not exceed fifteen per cent of the total number of members of the Legislative Assembly of that State.

Provided that the number of Ministers, including the Chief Minister in a State shall not be less than twelve.

6. The provision of the Tenth Schedule (anti-defection law) pertaining to exemption from disqualification in case of split by one-third members of legislature party has been deleted. It means that the defectors have no more protection on grounds of splits.

No Lower Cap

The era of jumbo ministries may have ended after the 2003 constitutional amendment put a cap on the number of members in a council of ministers, but there is no violation of the law if a council of ministers has less members than the lower limit, the Supreme Court held it after hearing a PIL filed in 2008.

The Bench further said that the Constitutional 91st Amendment Act, 2003, was enacted to put a cap on the huge expenditure incurred by states because of jumbo cabinets. "The intention was to reduce pressure on the state exchequer."

Conclusion

The introduction of the 91st Constitutional Amendment Act, 2003 in the Indian Constitution was aimed to put a cap on the huge expenditure incurred by states because of jumbo cabinets. Though the law has succeeded in a reasonable way but due to some of its loopholes, it has not been able to achieve the best it can.

Extra Judicial Killings

News Excerpt

On 10th July 2020, a dreaded gangster was gunned down by the Uttar Pradesh police in an encounter.

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Pre-Connect

- Extra-judicial killings in the form of fake encounters are an attack on the Fundamental Rights guaranteed under Article 14 which grants the right to equality, and Article 21 that protects life and personal liberty.
- Every person is entitled to a fair investigation and trial under Article 14 and Article 21 of the Constitution.
- It has been held by the apex court in the year 1978 that any state action which is against principles of natural justice is violative of Article 21.
- When the police force arbitrarily resorts to encounters without any fair justification, it denies the accused the protection of law that he is entitled to under Article 14.

Highlights

- Extrajudicial killings are acts of violence carried out by law enforcement agencies without any judicial authorization.
- This is usually done by the state to enforce what may be called '**instant justice**' by circumventing the elaborate procedure established through the criminal justice system.
- Even though it must be seen as an aberration to the well-entrenched principle of rule of law, public consciousness is often unmoved by such brazen misuse of state power.
- The Supreme Court has ruled against extrajudicial killings in many cases in view of the increasing incidents.
- It even went to the extent of prescribing death sentences against those policemen who were involved in fake encounters.
- In a 2012 landmark judgment, the Supreme Court termed these killings as '**state-sponsored terrorism**'.
- In the case of E. P. Royappa, the Supreme Court had categorically held that arbitrary acts of the State are in stark contravention of Article 14.
- In fake encounters, the police assume the role of the judiciary and the executioner without giving a proper chance to the accused to be heard at an appropriate judicial forum, thereby violating the principle of *audi alteram partem*.
- **In a 2009 Supreme Court judgment, it was held that fairness, justice, and reasonableness constitute the essence of the guarantee of life and liberty as enshrined in Article 21 of the Indian Constitution.**
- In our criminal justice system, the accused is an individual who is pitted against the might of the state.

- The investigating agencies, adjudicating authority and jail authorities are all institutions of the state.
- Therefore, an accused should be punished only after he has gone through the entire legal process and has been proven guilty beyond a reasonable doubt.

Analytica

- ✓ Far from criticizing these incidents as heinous crimes, people usually celebrate when such high-profile encounters take place.
- ✓ The politicians forming part of the government have also sensed this, and therefore they advertise such encounters as '**badges of honor**'.
- ✓ This might very well be an indication that the public is losing trust in our judicial system and in the principle of rule of law.
- ✓ There is no doubt that the police have the right to defend themselves while being fired upon by an accused.
- ✓ It is within the purview of their powers to use all means possible to arrest a person if he resists his arrest. Therefore, if the police account is true, then the court no longer remains obliged to intervene.
- ✓ Nonetheless, many have questioned the veracity of these claims, thus bringing back into focus the extrajudicial and extra-constitutional means that are sometimes employed by the state while dealing with criminals.

PEPPER IT WITH

Sec. 197 of the Cr. P. C., Art. 14, 21, P.U.C.L. vs. State of Maharashtra, 2014, National Human Rights Commission, State Human Rights Commission, Central Vigilance Commission

Reward to Kill

- It has been noticed that the policemen indulge in encounter killings to get monetary rewards from the government or bribes from the rivals of the victims.
- In 2017, the U.P. government had permitted a reward of upto Rs. 1 lakh to police teams that carry out encounters against suspected criminals.
- This is a blatant violation of the Supreme Court guidelines which, among other things, prohibit out of turn promotion or rewards until the inquiry has absolved the accused policemen of all allegations.

The observations of the office of the High Commissioner for Human Rights

- The Office of the High Commissioner for Human Rights (OHCHR) has also observed that the reluctance of the police to inform the families of the victims about the killings and withholding the post mortem reports from them, stands in complete defiance of the Supreme Court guidelines.
- The Supreme Court guidelines give the victims' families the right to move to court if they are dissatisfied with the police investigation.
- However, their voices are easily quashed by implicating them in false cases and harassing them with death threats.
- The investigations carried out in cases of encounter killings are usually biased and partial in their approach.

Independent Probe by Criminal Investigation Department (CID)

- The Supreme Court guidelines mandate that an investigation on allegations of fake encounters has to be carried out by a separate team of C.I.D. or by a police station other than the one involved in the said encounter.
- In cases where the authorization of such fake encounters comes from the people in power, the investigation is usually tampered with because the C.I.D. and the other police stations come under the State Government, which thwarts a fair investigation in such cases.
- The police have also been seen to be protecting its officers by not initiating proceedings against them.

Section 197 of the Criminal Procedure Code, 1973

- Sec. 197 requires the sanction of the competent authority before initiating a criminal case against any public servant.

- However, the Supreme Court in 2006 made it very clear that there is no need to take prior sanction for prosecuting a public servant where the act has been carried out for personal benefit.
- The police officers have often been found to conduct such killings by taking money from rival gangs or on the orders of their political bosses.
- The immunity that is provided in Sec. 197 is only applicable to acts done in pursuance of official duty.
- In 2019, a three-judge bench of the Supreme Court differentiated between official acts and acts which are done under the garb of official duty for personal benefit.
- The Court went on to hold that acts done for personal benefit do not warrant a prior sanction under Sec. 197 to initiate criminal proceedings against a public servant.

Police Complaints Authority (PCA)

- The apex court in the case of Prakash Singh had directed all the states to establish a Police Complaint Authority, which would be an independent institution to look into the complaints of misconduct in cases of custodial death and torture.
- A retired judge of the Supreme Court or High Court is appointed as the chairman of the PCA at State level by the State Government upon recommendation from the Chief Justice of the High Court of that particular State.
- Other members are selected by the State Government from among the names suggested by Lokayukta, State Human Rights Commission, and State Public Service Commission.
- The Chairman and members at the district level are also selected through the same procedure.
- Till now only 12 States have set up PCAs, and even these States have not done it in accordance with the selection procedure mandated by the Supreme Court directive.

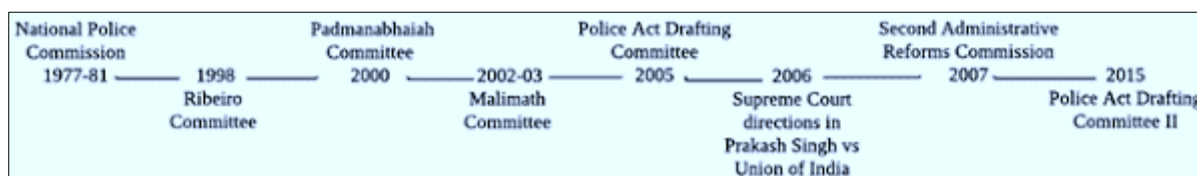
Prohibition of Handcuffing

- The most common excuse given by the police for carrying out such killings is that the accused had snatched the pistol of one of the policemen and opened fire.
- At this juncture, it is worth rethinking the relevance of the 1995 apex court order which prohibited the handcuffing of undertrial prisoners without judicial consent in order to protect their rights.
- However, the same is now being used against them, thereby threatening their lives.
- Thus, if it is made mandatory to handcuff all undertrials with their hands behind their back, then it would be difficult for the police to cook up a fake narrative of '**shooting in self-defense**'.

What is the need for Police Reforms?

- To enhance the quality of Criminal Justice System in the country.
- To secure professional independence.
- **24% vacancies in state forces; 7% in central forces.**
 - To enable the Government to oversee the police performance.
 - Transparent procedure for the appointment.
 - To reflect the democratic aspirations of the people.
 - To strengthen the intelligence gathering ability.
 - To separate investigation work from law and order.
 - To modernize the police force.
 - Most importantly to make police people friendly.

**TIME NOW FOR
POLICE REFORMS**



Need for a separate Anti-Torture Law

- Torture is not defined in the Indian Penal Code, but the definitions of 'injury', 'death', 'hurt' and 'grievous hurt' are clearly laid down.
- Though the definition of 'hurt' does not include mental torture, judiciary have included psychic torture, environmental coercion, tiring interrogative prolixity, and overbearing and intimidatory methods, among others, in the ambit of torture.
- Voluntarily causing hurt and grievous hurt to extort confession are also provided in IPC with enhanced punishment.
- Under Cr. P. C., a judicial magistrate inquires into every custodial death.
- The NHRC has laid down specific guidelines for conducting autopsy under the eyes of the camera.
- The SC verdict in *D.K. Basu v. State of West Bengal* was a turning point in the evolving jurisprudence on custodial torture.
- The Court's decision in *Nilabati Behera v. State of Orissa* made sure that the state could no longer escape liability in public law and had to be compelled to pay compensation.
- There is neither a dearth of precedents nor any deficiency in the existing law to deal with custodial torture.

Features of the Prevention of Torture Bill, 2017

- ❖ The Bill was not only vague but also very harsh for police to discharge its responsibilities without fear of prosecution and persecution.
- ❖ It included 'severe or prolonged pain or suffering' as a form of torture but that was left undefined.
- ❖ Death penalty for custodial deaths.
- ❖ Registration of every complaint of torture as FIR.
- ❖ Blanket denial of anticipatory bail to an accused public servant.

Conclusion

The phenomenon of fake encounters and custodial torture brings great disrepute to the image of a country that is a constitutional democracy and claims to uphold the principles of the rule of law and natural justice. Judicial institutions must win back the trust of the people. The policeman involved in the commission of such offenses should not be let off the hook and an example should be set in order to deter such acts of barbarism in the future.

National Financial Reporting Authority (NFRA)

News Excerpt

The audit regulator, National Financial Reporting Authority (NFRA), has constituted a Technical Advisory Committee (TAC) under the Chairmanship of R. Narayanaswamy, Professor, IIM, Bengaluru.

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Pre-Connect

- The NFRA was constituted in 2018 by the central government under sec. 132(1) of the Companies Act, 2013.
- It keeps vigil on the listed and unlisted entities having paid-up capital of no less than 500 crore or annual turnover of no less than Rs 1,000 crore.

PEPPER IT WITH

Institute of Chartered Accountants of India (ICAI), Salient features of the Companies Act, 2013. Competition Commission of India, Maharatana Companies, Navratana Companies, Listed and Non listed Entities.

- It is a regulating agency for the enforcement of auditing standards and ensuring the quality of audits so as to enhance investor and public confidence in financial disclosures of companies.
- It can even investigate professional misconduct committed by members of the Institute of Chartered Accountants of India (ICAI) for prescribed class of body corporate or persons.
- The Technical Advisory Committee, which comprises seven members, including the Chairman, would, among other things, aid and advise the Executive Body of the NFRA on issues related to the drafts of accounting standards and auditing standards.
- The TAC will also provide inputs from the perspectives of users, preparers and auditors of financial statements.
- The terms of reference of TAC include advise on development of measures of audit quality; advise on suitable methods for promoting awareness:
 - i. relating to compliance with accounting and auditing standards.
 - ii. of the role of the NFRA in protecting investors through independent auditor regulation.

Functions and Duties:

As per sec. 132(2) of the Companies Act, 2013, the duties of the NFRA are to:

- Recommend accounting and auditing policies and standards to be adopted by companies for approval by the central government;
- Monitor and enforce compliance with accounting standards and auditing standards;
- Oversee the quality of service of the professions associated with ensuring compliance with such standards and suggest measures for improvement in the quality of service;
- Perform such other functions and duties as may be necessary or incidental to the aforesaid functions and duties.
- Rule 4(1) of the NFRA rules, 2018, provides that the authority shall protect the public interest and the interests of investors, creditors and others associated with the companies or bodies corporate governed.

Companies and bodies governed by NFRA

As per rule 3, NFRA shall have power to monitor and enforce compliance with accounting and auditing standards, oversee the quality of service under sec. 132(2) or undertake investigation under sec. 132(4) of the auditors of the following class of companies and bodies corporate, namely:-

- a. Companies whose securities are listed on any stock exchange in India or outside India;
- b. Unlisted public companies having paid-up capital of not less than ₹five hundred crores or having annual turnover of not less than ₹ 1000 crores or having, outstanding loans, debentures and deposits of not less than ₹ 500 crores as on the 31st March of immediately preceding financial year;
- c. Insurance companies, banking companies, companies engaged in the generation or supply of electricity, companies governed by any special Act for the time being in force or bodies incorporated by an Act in accordance with clauses (b), (c), (d), (e) and (f) of sec. 1(4) of the Act;
- d. Any class of bodies, corporate or companies or persons, on a reference made to the NFRA by central government in public interest; and
- e. A body incorporated or registered outside India, which is a subsidiary or associate company of any company or body incorporated or registered in India as referred to in clauses (a) to (d), if the income or net worth of such subsidiary or associate company exceeds 20% of the consolidated income or net worth of such company or the body corporate, as the case may be, referred to in clauses (a) to (d).

Highlights

- The government is quite clear that the need for such a body is all the more important after several financial accounting scams, the most recent of which was the IL&FS scam.
- The idea for an NFRA came following the Satyam Scam in 2009, following which the Standing Committee on Finance recommended the creation of an audit regulator.

- Most of the major economies of the world have independent audit regulators, and over the last decade or so, umbrella bodies have come up that have provided an element of cohesion to these regulators.
- The International Forum of Independent Audit Regulators (IFIAR) was set up in 2006, and now it has more than 52 independent audit regulators worldwide as members.
- While many provisions of the Companies Act, 2013 came into force on April 1, 2014, the setting up of the NFRA, a key recommendation, was delayed.
- The decision appears to have been prompted by the ₹12,636 crore Punjab National Bank fraud that went undetected by auditors.
- The Institute of Chartered Accountants of India (ICAI) had initially voiced its discontent with the idea of a regulator for the sector, saying the existing structure was adequate.
- The government had clarified that the roles of the new regulator and those of the ICAI will not overlap.
- While announcing the decision to create the body, the then Finance Minister Late Arun Jaitley said that the NFRA would cover all listed companies and large unlisted companies and the small unlisted companies would continue to be audited by the ICAI.

Conclusion

While the ICAI had voiced its reservations about an independent regulator, several individual accountants have said such a regulator is a good idea. The audit profession had become very complacent in the idea that there would be no oversight. This is not to say that there is always wrongdoing, but a lot of the bending of the rules that used to happen is now hopefully become more difficult.

Domestic Violence: Istanbul Convention

News Excerpt

In the month of July Polish government planned to withdraw from the Istanbul Convention on prevention and combating of home violence against women.

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Pre-Connect

- Istanbul Convention also known as The Council of Europe Convention on preventing and combating violence against women and domestic violence.
- It is based on the understanding that violence against women is a form of gender-based violence that is committed against women because they are women.
- It is the obligation of the state to fully address it in all its forms and to take measures to prevent violence against women, protect its victims and prosecute the perpetrators.

Violence against women in India

- The National Family Health Survey (NFHS) data show that 24% of women faced domestic violence in 2015-16 not seeing any reduction since 2005-06.
- Compared to the survey results, the actual reports of domestic violence to the police are negligible at 58.8/ one lakh women.
- The disparity between the crimes reported in a survey and registered with the police highlights how women are unlikely to seek help.
- The more telling statistic from the NFHS data is perhaps that 52% of the surveyed women and 42% of the surveyed men think there is at least one valid reason for wife-beating.
- This attitude highlights how ingrained and normalized the idea is such that an abused woman should not expect support from others.
- The NFHS data also highlight how the proportion of women reporting violence is increasing among families with lower wealth.
- The lockdown due to the pandemic is leading to a substantial negative income shock for everyone.
- The NFHS data also show a high correlation between alcohol intake and domestic violence.

PEPPER IT WITH

Salient Features of the Domestic Violence Act, 2005,

'No country can ever truly flourish if it stifles the potential of its women and deprives itself of the contributions of half of its citizens.' – Michelle Obama

Analytica

- ✓ The World Health Organization says domestic violence has surged this year in Europe during months of lockdown aimed at fighting the coronavirus.
- ✓ The French government has extended monetary support to organizations fighting against domestic violence.
- ✓ British activists have requested their government to release emergency funds to support organisations that are dealing with domestic violence-related issues.
- ✓ The call helps to highlights the plight of many silent sufferers of domestic violence across the world in these times.
- ✓ In China, France, the U.K. and other countries, there have been reports of a significant increase in domestic violence cases since the imposition of lockdowns.
- ✓ These reports highlight the need for Indian authorities to take this issue seriously too.
- ✓ The literature on domestic violence suggests that when men and/or women get employed, domestic violence tends to fall as interactions between couples reduce.
- ✓ Under a lockdown, interaction time has increased and families have been left without access to the outside world.
- ✓ The studies also suggest that violence is a way for the man to assert his notion of masculinity.
- ✓ The current atmosphere of fear, uncertainty, food insecurity, and unemployment may create feelings of inadequacy in men.
- ✓ All these factors are only likely to aggravate tensions at home and make women victims of those tensions.
- ✓ The lack of access to friends, family and support organisations is expected to aggravate the situation for abused women further.

Way Forward

- The most important thing that we can do is to acknowledge and accept that domestic violence happens and work to reduce the stigma attached to the victims of such violence.
- Such support may prompt abused women to seek at least informal means to redress their issues.
- The NCW has appealed to women to reach out to their nearest police stations or call the State Women's Commission for support.
- While this is the least that can be done, there are some other formal means by which we can extend help to women right now.
- The provision of cash transfers and ration support are likely to sustain the family and also reduce stress in the household leading to lower violence against women.
- Since the lockdown began, the amount of TV viewing, particularly of news, has increased. Coupled with a lack of other activity, this is an opportune time to improve messaging.
- The NCW could increase its advertising expenditure on TV to relay messages requesting women to contact the police station for help.
- The government could also send mass SMS messages as it did during the onset of the COVID-19 crisis as most women have access to at least a basic phone.
- Indian government should also extend monetary support to such organisations in India rather than rely entirely on ASHA workers on whom the burden of community welfare is already very high.
- The staff of such organisations should be allowed to travel without being stopped by the police.

Conclusion

Studies show that women more than men tend to be affected adversely during epidemics. We need to take these advisories seriously to prevent further widening of the rift between men and women in our society.

New Education Policy

News Excerpt

Union Cabinet approved the New National Education Policy 2020, paving the way for transformational reforms in school and higher education sector in the country.

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Pre-Connect

- Draft was prepared by a panel of experts led by a former Indian Space Research Organisation (ISRO) chief K Kasturirangan.
- The HRD Ministry has been renamed as Education Ministry.
- After over 34 years this change has been brought, last time education policy was released in the year 1986.

PEPPER IT WITH

NIOS, CBSE, NCERT, AICTE, Bar Council of India, Medical Council of India, Nursing Council of India, Distance Education

Highlights

- More focus on vocational studies in school- level
 - Every child to learn at least one vocation and exposed to several more.
 - Sampling of important vocational crafts, such as carpentry, electric work, metal work, gardening, pottery making, etc., as decided by states and local communities during Grades 6-8.
 - By 2025, at least 50% of learners through the school and higher education system shall have exposure to vocational education.
 - Vocational courses through online mode will also be made available.
- Use of schools/ school complexes beyond school hours and public library spaces for adult education courses which will be ICT-equipped.
- NIOS will develop high-quality modules to teach Indian Sign Language, and to teach other basic subjects using Indian Sign Language.
- Pre-school sections covering at least one year of early childhood care and education will be added to Kendriya Vidyalayas and other primary schools.
- Under the aegis of the Ministry of Defence, State Governments may encourage opening NCC wings in their secondary and higher secondary schools.
- Free boarding facilities will be built - matching the standard of JawaharNavodayaVidyalayas particularly for students who from socio-economically disadvantaged backgrounds.
- A dedicated unit for the purpose of orchestrating the building of digital infrastructure, digital content and capacity building will be created in the MHRD.
- A comprehensive set of recommendations for promoting online education consequent to the recent rise in epidemics and pandemics in order to ensure preparedness with alternative modes of quality education.
- Efforts will be made to incentivize the merit of students belonging to SC, ST, OBC, and other SEDGs.
- The National Scholarship Portal will be expanded to support, foster, and track the progress of students receiving scholarships.
- Private HEIs will be encouraged to offer larger numbers of free ships and scholarships to their students.
- A new and comprehensive National Curriculum Framework for Teacher Education, NCFTE 2021, will be formulated by the NCTE in consultation with NCERT.
- By 2030, the minimum degree qualification for teaching will be a 4-year integrated B.Ed. degree.
- Higher Education Commission of India (HECI) will be set up as a single overarching umbrella body for the entire higher education, excluding medical and legal education.
- HECI to have four independent verticals - National Higher Education Regulatory Council (NHERC) for regulation, General Education Council (GEC) for standard setting, Higher Education Grants Council (HEGC) for funding, and National Accreditation Council (NAC) for accreditation.

- Children with disabilities will be enabled to fully participate in the regular schooling process from the foundational stage to higher education.
- Every state/district will be encouraged to establish “*BalBhavans*” as a special daytime boarding school, to participate in art-related, career-related, and play-related activities.
- Bagless days will be encouraged throughout the year for various types of enrichment activities involving arts, quizzes, sports, and vocational crafts.
- The three-language learned by children will be the choices of States, regions, and of the students, so long as at least two of the three languages are native to India.
- Wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language.
- Indian Sign Language (ISL) will be standardized across the country, and National and State curriculum materials developed, for use by students with hearing impairment.
- Students will be given increased flexibility and choice of subjects to study, particularly in secondary school - including subjects in physical education, the arts and crafts, and vocational skills
- There will be no hard separation among ‘curricular’, ‘extracurricular’, or ‘co-curricular’, among ‘arts’, ‘humanities’, and ‘sciences’, or between ‘vocational’ or ‘academic’ streams.
- Subjects such as physical education, the arts and crafts, and vocational skills, in addition to science, humanities, and mathematics, will be incorporated throughout the school curriculum.
- Each of the four stages of school education may consider moving towards a semester or any other system that allows the inclusion of shorter modules.
- Curriculum content will be reduced in each subject to its core essentials, and make space for critical thinking and more holistic, inquiry-based, discovery-based, discussion-based, and analysis-based learning.
- The nutrition and health (including mental health) of children will be addressed, through healthy meals and regular health check-ups, and health cards will be issued to monitor the same.
- A National Mission on Foundational Literacy and Numeracy will be set up by the Ministry of Human Resource Development (MHRD) on priority.
- The planning and implementation of early childhood care and education curriculum (ECCEC) will be carried out jointly by the Ministries of HRD, Women and Child Development (WCD), Health and Family Welfare (HFW), and Tribal Affairs.
- Prior to the age of 5 every child will move to a “Preparatory Class” or “Balavatika” (that is, before Class 1), which has an ECCE-qualified teacher.
- Quality technology-based options for adult learning such as apps, online courses/modules, and ICT-equipped libraries, etc. will be developed.
- The National Testing Agency (NTA) will offer a high-quality common aptitude test, as well as specialized common subject exams in the sciences, humanities, languages, arts, and vocational subjects, at least twice every year for university entrance exams.
- Students will get 360-degree holistic report card, which will not only inform about the marks obtained by them in subjects, but also their skills and other important points.
- In order to reduce the importance and stress of board exam, exam will be conducted in two parts: Objective and descriptive. Exam can be conducted twice a year.
- Students of class 6 and onwards will be taught coding in schools as a part of 21st century skills.
- A National Curricular and Pedagogical Framework for Early Childhood Care and Education (NCPFECCE) for children up to the age of 8 will be developed by NCERT.
- There will e-content in regional language apart from English and Hindi. E-courses to be in eight major languages not just English and Hindi
- National Education Policy aims at 50% gross enrolment ratio by 2035.
- New Education Policy proposes the setting up of an Indian Institute of Translation and Interpretation (IITI) while also laying significant emphasis on Sanskrit and other Indian languages.
- A National Research Foundation (NRF) will be established.

- *LokVidya*, i.e., important vocational knowledge developed in India, will be made accessible to students. The Education Ministry, would constitute a National Committee for Integration of Vocational Education (NCIVE).
- High performing Indian universities will be encouraged to set up campuses in other countries. Selected universities like those from among the top 100 universities in the world will be facilitated to operate in India.
- An Academic Bank of Credit (ABC) shall be established which would digitally store the academic credits earned.
- The undergraduate degree courses will be of either 3 or 4- year duration, with multiple exit options. A certificate course after completing 1 year in a discipline or field, including vocational and professional areas, or a diploma after 2 years of study, or a Bachelor's degree after a 3-year programme. The 4-year multidisciplinary Bachelor's programme, however, shall be the preferred option.
- Even engineering institutions, such as IITs, will move towards more holistic and multidisciplinary education with more arts and humanities.
- A university will mean a multidisciplinary institution that offers undergraduate and graduate programmes, with high quality teaching, research, and community engagement.
- NEP aims at setting up at least one large multidisciplinary institution in or near every district by the year 2030.

Conclusion

Education is fundamental for achieving full human potential, developing an equitable and just society, and promoting national development. Providing universal access to quality education is the key to India's continued ascent, and leadership on the global stage in terms of economic growth, social justice and equality, scientific advancement, national integration, and cultural preservation. Universal high-quality education is the best way forward for developing and maximizing our country's rich talents and resources for the good of the individual, the society, the country, and the world. India will have the highest population of young people in the world over the next decade, and our ability to provide high-quality educational opportunities to them will determine the future of our country.

Fundamental Right to Peaceful Protest

News Excerpt

As authorities worldwide grapple with swelling demonstrations over issues like political rights and racial justice, a UN committee reaffirmed that protesting peacefully, online or in person, is a fundamental human right.

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Pre-Connect

- The Preamble of the Indian Constitution ensures to all its citizens the liberty of expression.
- Freedom of the press has been included as part of freedom of speech and expression under the Article 19(1)(a) of the Indian Constitution.
- **Article 19 of UDHR:** Everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers.

International Covenant On Civil And Political Rights (ICCPR)

- ICCPR is a multilateral treaty adopted by the United Nations General Assembly (UNGA).
- The ICCPR is monitored by the United Nations Human Rights Committee.
- The ICCPR is part of the International Bill of Human Rights, along with the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the Universal Declaration of Human Rights (UDHR).
- It became effective in 1976.
- **Article 21 of ICCPR:** The right of peaceful assembly shall be recognized. No restrictions may be placed on the exercise of this right other than those imposed in conformity with the law and which are necessary in a democratic society in the interests of national security or public safety, public order, the protection of public health or morals or the protection of the rights and freedoms of others.

Highlights

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

The independent experts on the Human Rights Committee published a fresh interpretation of the right of peaceful assembly, offering comprehensive legal guidance about where and how it applies and also outlining governments' obligations.

The committee, made up of 18 independent experts, is tasked with monitoring how countries implement the International Covenant on Civil and Political Rights (ICCPR), which under Article 21 guarantees the right to peaceful assembly.

Satyagraha

- ✓ The essence of democracy is the right to have an alternative opinion and to agitate for its acceptance.
- ✓ The term 'Satyagraha' originated in a news-sheet "*Indian Opinion*" in South Africa in 1906.
- ✓ It was an adaptation by Mahatma Gandhi from one of competition entries in South Africa.
- ✓ Satyagraha went beyond the concept of 'passive resistance'.
- ✓ The essence of Satyagraha was not aggression, but non-violence. Its force lay in truth and the ability to struggle for it.
- ✓ India attained its Independence through peaceful struggle.
- ✓ Passive resistance, civil disobedience and Satyagraha are well known instruments of protest.
- ✓ They essentially involve peaceful and non-violent methodologies of protest.

PEPPER IT WITH

The Preamble of ICCPR; **Article 1:** Right of Self-Determination of ICCPR; Universal Declaration of Human Rights; National Human Rights Act, 1993, RamlilaMaidan Case

Peaceful Protest

- If a protester is within his constitutional rights to organize a peaceful protest, he is equally within his rights not to accept an illegal order denying his right to protest.
- He runs the risk of being punished if the order is held to be lawful.
- But when a protester violates sec. 144 of the Code of Criminal Procedure, he is always willing to suffer a punishment.
- The law is that every time his fundamental right to protest is intercepted by the State he must immediately comply with the order or would run the risk of being liable for contributory negligence.
- A citizen cannot be compelled to abdicate his fundamental rights merely because the State decides to restrict his right to protest.

RamlilaMaidan Case

Re-RamlilaMaidan Incident vs. Home Secretary of India And Others, 2012

- This judgement of the Supreme Court lays down a landmark law in as much as it upholds the right to protest as a fundamental right of speech and assemble.
- However, it shakes the foundation of the fundamental right by laying down a highly doubtful proposition that once the right to protest is denied the protester must meekly accept the denial or run the risk of a contributory negligence to the police oppression.

Analytica

- Freedom of speech, right to assemble and demonstrate by holding dharnas and peaceful agitation are the basic features of a democratic system.
- The people of a democratic country like ours have a right to raise their voice against the decisions and actions of the Government or even to express their resentment over the actions of the government on any subject of social or national importance.
- The Government has to respect, and in fact, encourage exercise of such rights.
- It is the abundant duty of the State to aid the exercise of right to freedom of speech as understood in its comprehensive sense and not to throttle or frustrate exercise of such rights by exercising its executive or legislative powers and passing orders or taking action in that direction in the name of reasonable restrictions.
- The right to peacefully protest is subject to just restrictions is now an essential part of free speech and the right to assemble. Additionally, it is an affirmative obligation of the State to make that exercise of this right effective.

Conclusion

The fundamental right enshrined in the Indian Constitution itself being made subject to reasonable restrictions, the laws so enacted to specify certain restrictions on the right to freedom of speech and expression have to be construed meaningfully and with the constitutional object in mind.



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Current Affairs Classes

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Covering most important topics

Prelims 2020

Starting
16 August

The advertisement features a person sitting on a blue sofa, working on a laptop. Surrounding them are various icons: a clock, a target, a bar chart, a pie chart, and a potted plant. The background is a mix of teal and white.



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NEW BATCH

will commence from
21st Sep 7:30 pm

The advertisement features a megaphone with yellow lightning bolts emanating from it. The background is a light pink color.

SOCIAL ISSUES, SCHEMES, REPORTS AND INDICES

State of Food Security and Nutrition in the World 2020 (SOFI)

News Excerpt

A report on State of Food Security and Nutrition in the World (SOFI) 2020 suggested that crores of people are likely to go hungry this year due to the economic recession triggered by COVID-19.

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Pre-Connect

- The State of Food Security and Nutrition in the World is an annual flagship report jointly prepared by Food and Agriculture Organization (FAO), the International Fund for Agricultural Development (IFAD), the United Nations Children's Fund (UNICEF), the World Food Programme (WFP) and the World Health Organization (WHO).
- Its objective is to inform on progress towards ending hunger, achieving food security and improving nutrition and to provide in-depth analysis on key challenges for achieving this goal in context of the 2030 Agenda for Sustainable Development.
- The report targets a wide audience, including policy-makers, international organizations, academic institutions and the general public.

Global Hunger Index 2019: India ranked lower than Nepal, Pakistan, and Bangladesh

Key Findings of the Report (Global)

- As per the report, the COVID-19 could push over 130 million more people into chronic hunger by the end of 2020 globally.
- Asia has the highest number of undernourished (38 crore). Africa is second (25 crore), followed by Latin America and the Caribbean (4.8 crore).
- Estimates drawn from data available till March 2020 shows that almost 69 crore people went hungry in 2019 — up by 1 crore in 2018.
- China and India are the two dominated countries in the eastern and southern Asia region that has progressively worked to reduce undernourishment.
- The report highlights that a healthy diet costs more than ₹143 (or \$1.90/ day), which is the international poverty threshold.

For India

- Prevalence of stunting in children under 5 years of age in India declined from 47.8% in 2012 to 34.7% in 2019 or from 62 million in 2012 to 40.3 million in 2019
- The number of undernourished people in India has declined from 249.4 million in 2004-06 to 189.2 million in 2017-19 or 21.7% in 2004-06 to 14% in 2017-19.
- The rate of obesity in India has increased from 2012-2016. Obesity grew from 25.2 million in 2012 to 34.3 million in 2016, growing from 3.1 % to 3.9 % among the adults (18 years and older).
- Women of reproductive age (15-49) affected by anaemia grew from 165.6 million in 2012 to 175.6 million in 2016.
- Breastfed infants grew from 11.2 million in 2012 to 13.9 million in 2019.

PEPPER IT WITH

FAQ, IFAD, WFP, National Food Security Act (NFSA), 2013, Malnutrition in India and Public Distribution System

Food insecurity in India

In Rural and Tribal Areas:

- Mainly due to lack of improvement in agricultural productivity owing to inadequate resources and markets needed to obtain agricultural stability.
- An agrarian crisis is currently being unleashed in India and it has a variety of causes, the prominent being the huge cut in government's developmental expenditure in the nineties, particularly in rural areas.

- Lack of education and job opportunities have aggravated problems.
- Climate change has also an impact on the agricultural productivity.

In Urban Areas:

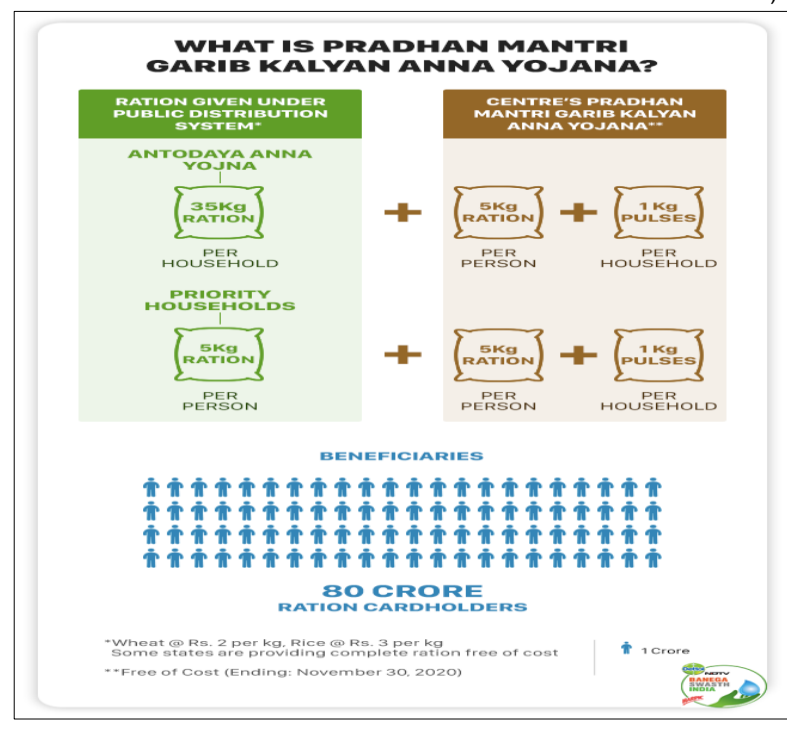
- The emergence of rural origin pockets in the urban areas has resulted in a number of slum settlements characterized by inadequate water and sanitation facilities, insufficient housing and increased food insecurity.
- Dependence of labourer class on daily employment wages which tends to be variable. Thus the food procurement and access is also fluctuating.

Women and Children

- ✓ Children are food insecure because of factors attributed to overpopulation, poverty, lack of education and gender inequality.
- ✓ Poverty is a major cause as it limits the amount of food available to children.
- ✓ Overpopulation is linked to conflict and can lead to under development amongst children.
- ✓ Lack of adequate knowledge regarding nutrition, breast-feeding and parenting is another area of concern.
- ✓ Gender inequality places the female child at a disadvantage compared to males and causes them to suffer more because they are last to eat and considered less important.
- ✓ There is neglect in preventive care (specifically immunization) and delays in seeking health care.
- ✓ Girls have far less opportunity of schooling than boys.
- ✓ Even where women may have access to basic facilities such as primary health care and elementary education, lack of opportunities for higher education, vocational and professional training limits their capacity.

PradhanMantriGaribKalyan Anna Yojana

Prime Minister had announced the extension of the PMGKAY till the end of November 2020 to provide free food to the ration cardholders. Around 80 crore beneficiaries under the National Food Security Act are provided an additional ration of 5 kg of wheat or rice per person and one kg of pulses per household every month. (For further information refer KSG Current Connect March).



Faulty Food Distribution System

- Inadequate distribution of food through PDS is also a reason for growing food insecurity in the country.
- Targeted Public Distribution System (TPDS) has the disadvantage in the sense that those who are deserving the subsidy are excluded on the basis of non-ownership of BPL status.
- It's because of the baseless and arbitrary criteria, for identifying a household as BPL.

Government Programmes and Initiatives

National Food Security Mission: Government has launched this Centrally Sponsored Scheme, 'National Food Security Mission' in October 2007. The Mission met with an overwhelming success and achieved the targeted additional production of rice, wheat and pulses. The Mission continued during 12th FYP with new targets of additional production of 25

million tonnes food grains comprising 10 million tonnes rice, 8 million tonnes wheat, 4 million tonnes pulses and 3 million tonnes coarse cereals.

RashtriyaKrishiVikasYojana (RKVY): Concerned by slow growth in the Agriculture and its allied sectors, the erstwhile National Development Council (NDC), in its meeting held on 29th May, 2007 resolved that a special Additional Central Assistance Scheme i.e. RKVY be launched. The NDC resolved that agricultural development strategies must be reoriented to meet the needs of farmers and called upon the central and states to evolve a strategy to rejuvenate agriculture. The NDC reaffirmed its commitment to achieve 4 per cent annual growth in the agricultural sector during the 11th plan.

Integrated Schemes on Oilseeds, Pulses, Palm Oil and Maize (ISOPOM): A centrally sponsored Integrated Scheme of Oilseeds, Pulses, Oil Palm and Maize (ISOPOM) is being implemented in 14 major oilseed growing States to promote the cultivation of oilseeds including soya bean.

PradhanMantriFasalBimaYojana: It is a Crop Insurance Scheme in line with One Nation – One Scheme theme.

Objectives:

- To provide insurance coverage and financial support to the farmers in the event of failure of the notified crop as a result of natural calamities, pests & diseases.
- To stabilise the income of farmers for their continuance in farming.
- To encourage farmers to adopt innovative and modern agricultural practices.
- To ensure flow of credit to the agriculture sector.

The government has also taken significant steps to combat under- and malnutrition over the past two decades, such as through the introduction of mid-day meals at schools, Anganwadi systems to provide rations to pregnant and lactating mothers, and subsidised grains for BPL card holders through PDS. The National Food Security Act (NFSA), 2013, aims food and nutritional security for vulnerable through its associated schemes and programmes, simultaneously making access to food a legal right.

Conclusion

There is a compelling need to operationalise the nutritional security which implies physical, economic and social access to balanced diet, safe drinking water, clean environment, and health care. Ensuring food security alone will aid in reducing hunger but will not eliminate malnutrition if other components such as safe drinking water and health care are not envisaged.

United Nations E-Government Survey

News Excerpt

As the COVID-19 forces lockdowns, most countries and municipalities are pursuing e-governance strategies but many still do not have access to online services, says 2020 edition of the United Nations E-Government Survey.

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- UN E-Government Survey, published by UN Department of Economic and Social Affairs (UN DESA), is prepared for over a two-year period following an established methodology.
- It looks at how e-governance can facilitate integrated policies and services across 193 UN member states. The Survey supports countries' efforts to provide effective, accountable and inclusive digital services and to bridge the digital divide.

United Nations E-Government Survey 2020

- The 2020 ranking of the 193 UN member states in terms of digital government – capturing the scope and quality of online services, status of telecommunication infrastructure and existing human capacity – is led by Denmark, the Republic of Korea, and Estonia, followed by Finland, Australia, Sweden, United Kingdom, New Zealand, United States of America, Netherlands, Singapore, Iceland, Norway and Japan.

PEPPER IT WITH

E-Government Development Index (EGDI), United Nations Department of Economic and Social Affairs and 2030 Agenda for Sustainable Development.

- Among the least developed countries, Bhutan, Bangladesh and Cambodia have become leaders in digital government development, advancing from the middle to the high E-Government Development Index (EGDI) group in 2020.
- Mauritius, Seychelles, and South Africa are leading the e-governance ranking. Overall, 65 per cent of Member States are at the high or very high EGDI level.
- India has slipped 4 places to rank 100th in the Survey. In 2018, India had jumped 22 places to rank 96. In 2020, India ranks behind Bolivia (97) and Iran (89).

Conclusion

In response of the COVID-19 crisis governments have put in place new tools, such as dedicated health portals, hackathons, and e-services for supply of medical goods, virtual medical appointments, self-diagnosis apps and e-permits for curfews. Many countries were quick to deploy tracking and tracing apps, and apps for working and learning from home. Innovative digital government responses to COVID-19 include online dashboards in Canada and Australia to share information and track emergency responses.

E-government rankings tend to correlate with the income level of a country. Financial resources are not the only critical factor in advancing e-governance. A country's political will, strategic leadership and commitment to advance digital services can improve its comparative ranking.

Multidimensional Poverty Index (MPI)

News Excerpt

Multidimensional Poverty Index (MPI) released by United Nations Development Programme (UNDP) and the Oxford Poverty and Human Development Initiative (OPHI), shows that 65 out of 75 countries studied significantly reduced their multidimensional poverty levels between 2000 and 2019.

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- The MPI identifies multiple deprivations at household and individual level in health, education and standard of living, comprising 10 indicators.
- It uses micro data from household surveys, and—unlike the Inequality-adjusted Human Development Index—all indicators needed to construct the measure must come from the same survey.
- Each person in a given household is classified as poor or non-poor depending on the weighted number of deprivations his or her household, and thus, he or she experiences.
- These data are then aggregated into the national measure of poverty.
- MPI reflects both the incidence of multidimensional deprivation (a headcount of those in multidimensional poverty) and its intensity (the average deprivation score experienced by poor people).
- It can be used to create a comprehensive picture of people living in poverty, and permits comparisons across countries, regions and the world and within countries by ethnic group, urban or rural location, as well as other key household and community characteristics.
- The MPI offers a valuable complement to income-based poverty measures.
- The 2020 MPI covers 107 countries—28 low income, 76 middle income and 3 high income—and 5.9 billion people in developing regions.

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United Nations Development Programme, Oxford Poverty and Human Development Initiative

Key Findings

- In 107 developing countries, 1.3 billion people (22 %) live in multidimensional poverty.
- Around 803 million multi-dimensionally poor people live in a household where at least one is undernourished, 476 million have an out-of-school child at home, 1.2 billion lack access to clean cooking fuel, 687 million lack electricity and 1.03 billion have substandard housing materials.
- Before the pandemic 47 countries were on track to halve poverty between 2015 and 2030, if observed trends continued. But 18 countries, including some of the poorest, were off track.
- The countries with the fastest reduction in MPI value in absolute terms were Sierra Leone, Mauritania and Liberia, followed by Timor-Leste, Guinea and Rwanda. North Macedonia

had the fastest relative poverty reduction, followed by China, Armenia, Kazakhstan, Indonesia, Turkmenistan and Mongolia. Each of these countries cut its original MPI value by at least 12 percent a year.

- Of the 65 countries that reduced their MPI value, 50 also reduced the number of people living in poverty.
- The largest reduction was in India, where around 273 million people moved out of multidimensional poverty over 10 years.
- The report says that 10 countries account for 60 per cent of unvaccinated children, and 40 per cent unvaccinated children for Diphtheria-tetanus-pertussis (DTP3) resides in Nigeria, India, Pakistan and Indonesia.

Conclusion

Poverty is undesirable in the present world as it is against humanity. It's scaling down is *sine qua non*. To address the issue of poverty, it is suggested that a massive awareness campaign should be carried out for population reduction.

The Hand-in-Hand Geospatial Platform

News Excerpt

The Food and Agriculture Organization (FAO) launched the Hand-in-Hand geospatial platform with a large and rich set of data on food, agriculture, socioeconomics, and natural resources to strengthen evidence-based decision-making in food and agriculture sectors.

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- Hand-in-Hand is an evidence-based, country-led and country-owned initiative of the FAO to accelerate agricultural transformation and sustainable rural development to eradicate poverty (SDG1) and, end hunger and all forms of malnutrition (SDG2). In doing so, it contributes to the attainment of other Sustainable Development Goals.
- It prioritizes countries where national capacities and international support are most limited or where operational challenges, including natural- or man-made crises, are greatest. This is in line with the UN's priority commitment to "leave no one behind."
- It uses the most sophisticated tools available, including advanced geo-spatial modelling and analytics, to identify the biggest opportunities to raise the incomes and reduce the inequities and vulnerabilities of the rural populations.
- It adopts a market-oriented food systems approach to increase the quantity, quality, diversity and accessibility of nutritious foods available in local, regional and national food markets and to improve food system capacities to deliver nutrition and healthy diets for everyone.

The Hand-in-Hand Initiative beneficiaries are: Burkina Faso; Ecuador; El Salvador; Ethiopia; Guatemala; Haiti; Honduras; Kiribati; Lao People's Democratic Republic; Mali; Nepal; Nigeria; Pakistan; Papua New Guinea; Solomon Islands; Tajikistan; Tuvalu; Yemen; Zimbabwe.

About the Platform

- The platform is a crucial tool for all efforts to build back better and create more resilient food systems post COVID-19.
- It boosts over one million geospatial layers and thousands of statistics series with over 4,000 metadata records, bringing together geographic information and statistical data on over ten domains linked to food and agriculture - from food security, crops, soil, land, water, climate, fisheries, livestock to forestry. It also includes information on COVID-19's impact on food and agriculture.
- Geospatial technologies and agricultural data represent an opportunity to find new ways of reducing hunger and poverty through more accessible and integrated data-driven solutions.
- The platform can be used by anyone and its application will in turn help data-driven and evidence-based decision-making in food and agriculture.

PEPPER IT WITH

Geographic Information System, Remote Sensing and Global Positioning System, Food and Agriculture Organization

Platform provides vital information to

- ✓ Monitor agricultural water productivity, including agricultural systems at risk due to human pressure on land and water.
- ✓ Compare human population density to distribution of cattle or compare density between two livestock species around the world.
- ✓ Ascertain aquatic species distribution.
- ✓ Analyse precipitation trends.
- ✓ Analyse information from national forest monitoring systems that show distribution of forest resources with other geospatial data such as the road network. This allows the separation of undisturbed forest areas that have high conservation value from accessible areas that are more suitable for restoration or production.
- ✓ Allow us to design more targeted agricultural interventions and investment plans through territorial approach - an approach that fosters equality, inclusion and sustainable food and nutrition security.

What is Geospatial Technology?

- It is an emerging field of study that includes Geographic Information System (GIS), Remote Sensing (RS) and Global Positioning System (GPS).
- It enables us to acquire data that is referenced to the earth and use it for analysis, modelling, simulations and visualization.
- It allows us to make informed decisions based on the importance and priority of resources most of which are limited in nature.
- It may be used to create intelligent maps and models that may be interactively queried to get the desired results in a STEM application or may be used to advocate social investigations and policy-based research.
- It may be used to reveal spatial patterns that are embedded in large volumes of data that may not be accessed collectively or mapped otherwise.
- It has become an essential part of everyday life. It's used to track everything from personal fitness to transportation to changes on the surface of the earth.

National Geospatial Policy (NGP)

- ❖ The Government of India came out with the Geospatial Information Regulation Bill in May 2016.
- ❖ Aim of the NGP is to empower people through geospatial technologies.
- ❖ NGP recognises multiple sources through which geospatial data is made available, such as crowd-sourcing, surveying, remote sensing, mobile phones, location based services, and geospatial web services.
- ❖ NGP also recognises mass markets of geospatial data that exist (e.g., Google Maps sourcing mapping data from third parties) and likelihood of growth of actors involved in creation, distribution and acquisition of such information.

Does India use Geospatial Technology?

- ✚ India's geospatial market has been growing remarkably. All levels of government, i.e. national, state and local, need data for governance. Geospatial data and aided applications are helping departments across sectors with the same. Many government departments in India use a variety of geospatial technologies like GIS, Remote Sensing, LIDAR, GNSS, Surveying and Mapping, etc.
- ✚ The use of geospatial map data and applications is spread across a wide variety of areas, including legislative and policy development, allocation and management of natural resources, defence & public safety purposes, spatial planning and informed decision which are being arrived at throughout sectors of importance to economy.
- ✚ All flagship programmes, be it Smart Cities, Skill Development, Digital India, Start-up India, Make in India, the Clean Ganga Project, or the push to infrastructure, industrial development, energy, and smart agriculture, have substantial geospatial components.
- ✚ As of now, geospatial technology has made inroads into various sectors both in the public and private domains in India. The major sectors using this technology are agriculture, telecommunications, oil & gas, environmental management, forestry, public safety, infrastructure, and logistics. As the utility and cost effectiveness of this technology is being realised, the geospatial industry is on a healthy growth path.

Disabled are entitled to same benefits of SC/ST quota

News Excerpt

Supreme Court confirmed any person suffering from disabilities will be entitled to the same benefits of relaxation as scheduled caste, scheduled tribe candidates in public employment and education.

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- A three-judge Bench led by J. Rohinton Nariman upheld a 2012 judgment of the Delhi High Court in *Anamol Bhandari (minor) through his father/ Natural Guardian v. Delhi Technological University* in a significant decision.
- Verdict came on a petition filed by Aryan Raj, a special needs person against the Government College of Arts, Chandigarh.
- SC highlighted the ruling of Delhi High court in Anmol Bhandari case that new academic courses should be crafted to specifically cater to the needs of intellectually disabled persons.

Requirement of the Verdict

- As the intellectually and mentally challenged persons have certain limitations, which are not there in physically challenged persons. So, there are possibilities of them lagging in some subjects, the subject experts are required to examine the feasibility of creating a course that caters to the specific needs of such persons.
- Candidates with disabilities were often not able to get the benefit of reservation in education and employment because of not meeting the general standards. Now, public sector employers and colleges/universities will have to allow the same relaxations to them as to SC / ST candidates.

Definition of Disability

- According to The Rights of Persons with Disabilities Act, 2016:
"Person with disability" means a person with long term physical, mental, intellectual or sensory impairment which, in interaction with barriers, hinders his full and effective participation in society equally with others. Before RPWD Act 2016, only seven types of disabilities were recognized. Under RPWD Act 2016 a total of 21 types of disabilities are recognized.
"Person with benchmark disability" means a person with not less than forty per cent of a specified disability where specified disability has not been defined in measurable terms and includes a person with disability where specified disability has been defined in measurable terms, as certified by the certifying authority.
- According to Person with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995
"Disability" means-Blindness; Low vision; Leprosy-cured; Hearing impairment; Locomotor disability; Mental Retardation and Mental illness.

Disability Issues in India

- ✓ A large number of children with disabilities (CWDs) were unable to complete their schooling.
- ✓ Lack of education in disabled leads to lower employment & incomes.
- ✓ Social exclusion from the society.

Although, the SarvaShikshaAbhiyan has made an effort to promote the inclusion of children with disabilities, the system faces a lot of challenges in identifying these children as well as responding to their needs.

Constitutional & Legal Framework for Disabled in India

Under the Constitution the disabled have been guaranteed the following fundamental rights:

- **Article 15(1)** enjoins on the Government not to discriminate against any citizen of India (including disabled) on the ground of religion, race, caste, sex or place of birth.
- No person including the disabled irrespective of his belonging can be treated as an untouchable. It would be an offence punishable in accordance with law as provided by **Article 17** of the Constitution.
- Every person including the disabled has his life and liberty guaranteed under **Article 21**.

- The right to education is available to all citizens including the disabled. **Article 29(2)** of the Constitution provides that no citizen shall be denied admission into any educational institution maintained by the State or receiving aid out of state funds on the ground of religion, race, caste or language.
- **Article 41** of the Constitution provides that *“the State shall within the limits of its economic capacity and development, make effective provision for securing the right to work, to education and to public assistance in cases of unemployment, old age, sickness and disablement, and in other cases of undeserved want.”*
- India is signatory to the United Nations Convention on the Rights of Persons with Disabilities.
- Also, various legislation that affects people with disabilities in India includes the Rights of Persons with Disabilities Act, 2016, the National Trust Act, 1999, the Rehabilitation Council of India Act, 1992 and the Mental Health Care Act, 2017.

India's statistics on disability

Overall Disabled Population: Overall, 2.21% of Indian population has one or the other kind of disability. This means 2.68 crore (26.8 million) people in India are disabled.

Disabled Male Population: Out of total 62.32 crore male Indian citizens, there are 1.5 crore (15 million) disabled males in India.

Disabled Female Population: Out of total 58.76 crore female Indian citizens, there are 1.18 crore (11.8 million) disabled females in India.

Disabled Population living in Rural / Urban Areas: About 69% of the overall disabled Indian population lives rural areas. This tells us that 1.86 crore (18.6 million) disabled people live in rural areas. Only about 0.81 crore (8.1 million) disabled people live in urban areas.

Education in Indian Disabled Population: In 2011, only 61% of the disabled children aged 5-19 years were attending educational institution. 12% had attended earlier and 27% never attended an educational institution.

Literacy of Disabled Population in India: Of the total disabled population, nearly 55% or 1.46 crores (14.6 million) people are literates. 62% of males and only 45% of females are literate. In the rural areas, 49% of the disabled are literates while in urban areas, the percentage of literates among disabled population is 67%.

Government Initiatives

Accessible India Campaign: The Department of Empowerment of Persons with Disabilities (DEPwD), Ministry of Social Justice & Empowerment has conceptualised the “Accessible India Campaign (Sugamya Bharat Abhiyan)” as a nation-wide flagship campaign for achieving universal accessibility that will enable persons with disabilities to gain access for equal opportunity and live independently and participate fully in all aspects of life in an inclusive society. The campaign targets at enhancing the accessibility of built environment, transport system and Information & communication eco-system.

Scheme of Assistance to Disabled Persons for Purchase/Fitting of Aids and Appliances (ADIP Scheme): The ADIP Scheme is in operation since 1981 with the main objective to assist the needy disabled persons in procuring durable, sophisticated and scientifically manufactured, modern, standard aids and appliances that can promote their physical, social and psychological rehabilitation by reducing the effects of disabilities and enhance their economic potential. Assistive devices are given to PWDs with an aim to improve their independent functioning and to arrest the extent of disability and occurrence of secondary disability.

Deendayal Disabled Rehabilitation Scheme: The umbrella Central Sector Scheme called the "Scheme to Promote Voluntary Action for Persons with Disabilities.

Objectives

The objectives of the scheme are:

- To create an enabling environment to ensure equal opportunities, equity, social justice and empowerment of persons with disabilities.

- To encourage voluntary action for ensuring effective implementation of the People with Disabilities (Equal Opportunities and Protection of Rights) Act, 1995.

National Fellowship for Students with Disabilities: Government of India has launched a Central Sector Scheme namely, Rajiv Gandhi National Fellowship (RGNF) during the financial year 2012-13 to increase opportunities to students with disabilities for pursuing higher education leading to degrees such as M. Phil. and Ph.D. The scheme caters the requirements of the students with disabilities for pursuing research degree in universities, research institutions and scientific institutions. This will not only enable them to be eligible for employment to the posts of Lecturers lying vacant in various colleges and universities but will equip them to effectively take advantage of the growing opportunities at the national and international level in the context of the new economic order.

Way Forward

The first thing to be done is to move away from the 'charity-based approach' to the 'rights-based approach'.

A significant proportion of people see a person with disabilities as an object of 'sympathy' and 'pity' thereby leading to their 'suffering' and their treatment as a third-class citizen in the country.

Conclusion

In recent years though, the discourse of disability has certainly gained momentum. In the public sphere, movies and news channels have highlighted issues of disability. Actors have played the roles of people with disabilities in films and news channels have had shows on disability.

Blue Heart Campaign

News Excerpt

World Day Against Trafficking in Persons was celebrated on 30 July, this year theme was focus on the first responders to human trafficking.

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Who are the First Responders?

- People who work in different sectors - identifying, supporting, counselling and seeking justice for victims of trafficking, and challenging the impunity of the traffickers.
- During COVID-19 crisis, the essential role of first responders has become even more important, particularly as the restrictions imposed by the pandemic have made their work even more difficult. Still, their contribution is often overlooked and unrecognized.

What is Human Trafficking?

- Human trafficking is a global problem and one of the world's most shameful crimes, affecting the lives of millions of people around the world and robbing them of their dignity.
- According to the United Nations, human trafficking is defined as *"the recruitment, transportation, transfer, harbouring or receipt of persons, by means of threat or use of force or other forms of coercion, of abduction, of fraud, of deception, of the abuse of power or of a position of vulnerability or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purpose of exploitation. Exploitation shall include, at the minimum, the exploitation of the prostitution of other or other forms of sexual exploitation, forced labour or services, slavery or practices similar to slavery, servitude or the removal of organs".*

The Blue Heart Campaign

- ✓ The Blue Heart Campaign is a global awareness raising initiative to fight human trafficking and its impact on society.
- ✓ It seeks to encourage involvement from governments, civil society, the corporate sector and individuals alike, to inspire action and help prevent this heinous crime.
- ✓ The Blue Heart is increasingly recognized as the international symbol against human trafficking, representing the sadness of those who are trafficked while reminding us of the cold-heartedness of those who buy and sell fellow human beings.
- ✓ The campaign allows people to show their solidarity with the victims of human trafficking and increasing their visibility by wearing the Blue Heart.

- ✓ Donations to the Blue Heart campaign go to the United Nations Voluntary Trust Fund for Victims of Trafficking in Persons, which provides vital assistance and protection to the victims of trafficking through specialized organizations across the globe.

How does the Blue Heart Campaign support trafficking victims?

- All proceeds to the Blue Heart Campaign go to the United Nations Voluntary Trust Fund for Victims of Trafficking in Persons, especially women and children.
- Trust Fund was created as an integral component of a global effort to address trafficking in persons.
- In August 2010, member states of the UNGA established the Trust Fund to provide the opportunity for people from all walks of life including governments, the private sector, international organizations, NGOs and individuals to work together to help victims of human trafficking in a practical and tangible manner.
- United Nations Office on Drugs and Crime was tasked with the management of the Trust Fund.

Why a Blue Heart?

The Blue Heart represents the sadness of those who are trafficked while reminding us of the cold-heartedness of those who buy and sell fellow human beings. The use of the blue UN colour also demonstrates the commitment of the United Nations to combating this crime against human dignity. In the same way that the red ribbon has become the international symbol of HIV/AIDS awareness, this campaign aims to make the Blue Heart into an international symbol against human trafficking.

Constitutional & legislative provisions related to Trafficking in India

- Trafficking in Human Beings or Persons is prohibited under **Article 23 (1)**.
- **The Immoral Traffic (Prevention) Act, 1956 (ITPA)** is the premier legislation for prevention of trafficking for commercial sexual exploitation.
- **Criminal Law (Amendment) Act, 2013** has come into force and sec. 370 and sec. 370A of the Indian Penal Code which provide for comprehensive measures to counter the menace of human trafficking including trafficking of children for exploitation in any form including physical exploitation or any form of sexual exploitation, slavery, servitude, or the forced removal of organs.
- **Protection of Children from Sexual offences (POCSO) Act, 2012**, which has come into effect from 14th November, 2012 is a special law to protect children from sexual abuse and exploitation. It provides precise definitions for different forms of sexual abuse, including penetrative and non-penetrative sexual assault, sexual harassment.
- There are other specific legislations enacted relating to trafficking in women and children Prohibition of Child Marriage Act, 2006, Bonded Labour System (Abolition) Act, 1976, Child Labour (Prohibition and Regulation) Act, 1986, Transplantation of Human Organs Act, 1994, apart from specific sections in the IPC, e.g. sec. 372 and 373 dealing with selling and buying of girls for the purpose of prostitution.
- State Governments have also enacted specific legislations to deal with the issue. (e.g. The Punjab Prevention of Human Smuggling Act, 2012)

Measures taken by centre to prevent and combat Human Trafficking?

1. **Anti-Trafficking Cell (ATC):** Anti-Trafficking Nodal Cell was set up in the Ministry of Home Affairs (MHA) (CS Division) in 2006 to act as a focal point for communicating various decisions and follow up on action taken by the State Governments to combat the crime of Human Trafficking. MHA conducts coordination meetings with the Nodal Officers of Anti Human Trafficking Units nominated in all States/UTs periodically.
2. **Capacity Building:** To enhance the capacity building of law enforcement agencies and generate awareness among them, various Training of Trainers (TOT) workshops on Combating Trafficking in Human Beings for Police officers and for Prosecutors at Regional level, State level and District level were held throughout the country.
3. **Judicial Colloquium:** In order to train and sensitize the trial court judicial officers, Judicial Colloquium on human trafficking are held at the High Court level. The aim is to sensitize the judicial officers about the various issues concerning human trafficking and to ensure speedy court process. So far, eleven Judicial Colloquiums have been held at

Chandigarh, Delhi, Himachal Pradesh, Maharashtra, Chhattisgarh, Tamil Nadu, Andhra Pradesh, Bihar, Uttar Pradesh, Jharkhand and Odisha.

Indigenous vaccine for infants

News Excerpt

India got its first indigenous pneumonia vaccine along with an apex drug regulator granting market approval for Pneumococcal Polysaccharide Conjugate Vaccine developed by Serum Institute of India.

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- The Serum Institute, first obtained the DCGI approval to conduct Phase I, Phase II and Phase III clinical trials of Pneumococcal Polysaccharide Conjugate Vaccine in India. It has also conducted clinical trials in Gambia.
- According to information on the clinical trials registry, the first phase of the trial was conducted in 2013 in 34 young Indian adults, while the second phase in 114 toddlers of 12-15 months. The third phase of trials was conducted on 448 infants between the age of six to eight weeks old, and this was completed in October last year, as per the registry.
- Around 2,250 infants were part of the trial in the Gambia and the vaccine has been pre-qualified by WHO in December 2019.

Serum Institute of India Pvt. Ltd. — the world's largest vaccine manufacturer by number of doses produced and sold globally (more than 1.5 billion doses)— has got the go-ahead from Drug Controller and General of India to manufacture its own indigenously developed pneumococcal vaccine. The vaccine maker has also partnered with AstraZeneca to support efforts to make a vaccine against Covid-19. Adar Poonawalla, CEO of SII, tells Anuradha Mascarenhas that they will be able to fulfil a global demand of 100 million doses in the next two to three years.

Vaccine and Pneumococcal

- Vaccine is used to immunize against infectious diseases and pneumonia caused by Streptococcus pneumonia in infants and is administered in an intramuscular injection.
- People over 65 years of age, who smoke cigarettes, and others who suffer from health conditions like chronic lung disease or diabetes are more affected by disease and need to be vaccinated.
- Pneumonia also affects people with sicknesses that can lower the body's resistance to infection, or those with weakened immune systems.
- Pneumococcal (pneumonia-causing) bacteria can spread from person to person via direct contact with respiratory secretions like saliva and mucus, according to the US Centers for Disease Control and Prevention.
- The bacteria can be carried in a person's nose and throat and spread to a healthy person without any symptoms of sickness presented in carriers.

Under the **Drug and Cosmetics Act**, the regulation of manufacture, sale and distribution of Drugs is primarily the concern of the State authorities while the Central Authorities are responsible for approval of New Drugs, Clinical Trials in the country, laying down the standards for Drugs, control over the quality of imported Drugs, coordination of the activities of State Drug Control Organisations and providing expert advice with a view of bring about the uniformity in the enforcement of the Drugs and Cosmetics Act.

Drug Controller General of India is responsible for approval of licenses of specified categories of Drugs such as blood and blood products, I. V. Fluids, Vaccine and Sera.

Highlights

- ✓ Pneumonia is an infection in one or both lungs. Bacteria, viruses, and fungi cause it.
- ✓ The infection causes inflammation in the air sacs in your lungs, which are called alveoli.
- ✓ The alveoli fill with fluid or pus, making it difficult to breathe.
- ✓ According to WHO, pneumonia is the leading cause of death in infants worldwide.

Is pneumonia contagious?

1. The germs that cause pneumonia are contagious. This means they can spread from one person to another.
2. Both viral and bacterial pneumonia can spread to others through inhalation of airborne droplets from a sneeze or cough.
3. One can also get these types of pneumonia by coming into contact with surfaces or objects that are contaminated with pneumonia-causing bacteria or viruses.
4. One can contract fungal pneumonia from the environment. However, it doesn't spread from person to person.

Symptoms of pneumonia: Pneumonia symptoms can be mild to life-threatening. They can include:

- coughing that may produce phlegm (mucus)
- fever
- sweating or chills
- shortness of breath that happens while doing normal activities or even while resting
- chest pain that's worse when you breathe or cough
- feelings of tiredness or fatigue
- loss of appetite
- nausea or vomiting
- headaches

For More Information read KSG current connect June 2020

PRAGYATA Guidelines

News Excerpt

Union HRD Ministry released the guidelines for Digital Education and recommended a cap on the screen time for students.

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Highlights from guidelines

- PRAGYATA guidelines have been developed from the perspective of learners, with a focus on online/blended/digital education for students, who are learning from home due to lockdown.
- The guidelines include eight steps of online education that is, Plan, Review, Arrange, Guide, Yak(talk), Assign, Track, and Appreciate.
- These guidelines on e-learning provide a roadmap or pointers for carrying forward online education to enhance the quality of learning.
- As per the guidelines, online classes for pre-primary students should not be more than 30 minutes. It further mentions that two online sessions of up to 30-45 minutes each should be conducted for classes 1 to 8 and four sessions for classes 9 to 12.
- The guidelines are relevant and useful for a diverse set of stakeholders including school heads, teachers, parents, teacher educators and students.
- The guidelines stresses upon the use of alternative academic calendar of NCERT, for both, learners having access to digital devices and learners having limited or no access.

Analytica

- These guidelines for school heads and teachers describe the need assessment, planning and steps to implement digital education while ensuring cyber safety and privacy measures.
- It outlines the support to be provided to students with special needs. Main emphasis is on balanced online and offline activities keeping the screen time as an essential parameter in accordance with the level of students.
- For parents, the guideline helps to understand the need for physical, mental health and wellbeing along with the cyber safety measures for children at home.
- Physical health and mental wellness is stressed for all stakeholders so that children do not get overly stretched or stressed, or get affected negatively (postural defects, ophthalmic issues, and other physical problems) owing to prolonged use of digital devices.
- Provides sufficient do's and don'ts regarding ergonomics and cyber safety.

- Emphasize the need to unify all efforts related to digital education, benefitting school going children.
- The initiative includes DIKSHA, SWAYAM Prabha, SWAYAM MOOCS, Radio Vahini, ShikshaVaani, Special content for children with special needs and ITPAL.

Conclusion

In a country like India characterized by multifarious diversity, switching over to digital modes of education needs various States, UTs level organization and National level organizations to join hands for a change that will sustain post-COVID-19 also.

Manodarpan Initiative

News Excerpt

Union government launched Manodarpan, an initiative to provide psychological support and counselling to students, teachers and families for mental health and emotional well-being.

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Pre-Connect

- The 'Manodarpan' initiative has been included in the Atmanirbhar Bharat Abhiyan.
- It is a part of strengthening human capital and increasing productivity and efficient reform and initiatives for the education sector.

Features of Manodarpan Initiative

- Advisory Guidelines for students, teachers and faculty of School systems and Universities along with families.
- Web page which will carry advisory, practical tips, posters, videos, do's and don'ts for psychosocial support, FAQs and online query system.
- National level database and directory of counsellors at School and University level whose services can be offered voluntarily for tele-Counselling Service on the National Helpline.
- National Toll-free Helpline - 8448440632 for a country wide outreach to students from school, universities and colleges.
- Unique helpline shall be manned by a pool of experienced counsellors, Psychologists and other mental health professionals and will continue beyond the COVID-19.
- *Handbook on Psychosocial Support: Enriching Life skills & Wellbeing of Students* - The booklet will include FAQs, facts & myths and will also cover ways and means to manage emotional and behavioural concerns from young children to college going youth.
- Interactive online chat platform for contact, counselling and guidance by psychologists and other mental health professionals which will be available for students, teachers, and families.
- Webinars, audio-visual resources including videos, posters, flyers, comics, and short films to be uploaded as additional resource materials on the webpage.
- Crowd sourcing from students all over the country will be encouraged as peer support.

Ministry of Human Resource Development (MHRD) has also announced other programmes like **PM eVidya** to boost digital education in India, New National Curriculum and Pedagogical framework for school, early childhood and teachers and National Foundational Literacy and Numeracy Mission.

Conclusion

Many students required psychological support because lockdown was new to them. They were stressed because of this. Manodarpan will provide assistance to the students, teachers and parents.

Community Canteen 2.0

News Excerpt

More Community canteens could contribute to jobs, growth and sustainability and provide good quality of cooked food to the vulnerable sections of society.

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Pre-Connect

- Union government announced a three-month extension to the PradhanMantriGaribKalyan Ann Yojana.
- Government would provide 5 kg of grains and 1 kg of chickpea monthly to about 800 million beneficiaries across the country.
- The implementation of the 'One Nation, One Ration Card' (ONORC) scheme to improve access to subsidised grains for migrant workers.

Grey Areas

- Lack of access to food drove millions of them to their native villages during the lockdown.
- While these measures are welcome, they may fall short of reaching all sections of vulnerable population.
- Most migrant workers do not live with families; many do not cook their meals. Instead, a significant number rely on roadside vendors and dhabas. Without access to cooking arrangement or fuel, only subsidised grains are not a sufficient solution to ensure nourishment.
- It would not be sufficient to attract them back to the urban areas as access to affordable food remains a major concern.

Way Ahead

- ✓ The solution lies in tweaking an existing approach — community canteens.
- ✓ More than 10 States have run community canteens, e.g. Amma Canteens in Tamil Nadu and Indira Canteens in Karnataka.
- ✓ However, a drawback is that most of these canteens rely on continuous government support for their sustenance as meals are usually priced unsustainably low at ₹5-10 per plate.
- ✓ However, a preliminary analysis suggests that such canteens could be operationally self-sustainable by pricing the nutritious meals at ₹15-20 per plate.
- ✓ This would still be lower than what most dhabas and roadside vendors charge for a meal.
- ✓ While the Central government should extend the initial capital support, the implementation at the state should be led by ULBs or municipal corporations, in collaboration with private entities as service providers.

Employment Generation

- Community canteens could also contribute to jobs, growth and sustainability.
- The 60,000 canteens, each serving about 500 beneficiaries on average, would generate more than 1.2 million jobs to serve 90 million meals a day.
- These canteens would also help bridge the nourishment gap among poor urban workers.
- The government should leverage community canteens to shift diets and agriculture production towards more sustainable and sustainably harvested food crops.
- These canteens must incorporate low-cost yet nutritious and environmentally sustainable food items in the plate — bringing in coarse grains such as millets and sorghum into the dietary patterns.
- These canteens would create the demand signals for the farmers to diversify their crops and focus on sustainably harvested produce.

Conclusion

Under extreme circumstances, the lack of access to food is a matter of survival. But even in regular times, access to nutritious food is essential. Pandemic or not, access to affordable and safe food should not be an uncertainty for any section of the society. A renewed approach to community canteens would not only achieve nutritional security for migrant workers but would also create new jobs, save fiscal resources, support economic growth and promote sustainable diets and agriculture.

ECONOMY

Indian Railways: Opening the Door for Private Players

News Excerpt

Indian Railways recently announced that it will open up the train operations to private entities on 109 origin destination pairs of routes using 151 modern trains. Request for Qualifications (RFQ) proposals have been invited for scrutiny of vendor capabilities, from those who can bring modern trains for operations on existing rail infrastructure.

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Pre-Connect

- In 2015, the panel chaired by Bibek Debroy recommended that the way forward for the railways was “liberalisation and not privatisation” in order to allow entry of new operators “to encourage growth and improve services.”
- It was estimated in Economic Surveys that a one rupee push in the railway sector would have a forward linkage effect of increasing output in other sectors by ₹2.50. The Debroy committee found this significant to take the ‘Make in India’ objective forward.
- It also made it clear that a regulatory mechanism was a prerequisite to promote healthy competition and protect the interests of all stakeholders.

Analytica

- This is the first initiative of private investment for running passenger trains over the Indian Railways network and will attract investments of about ₹30,000 crores.
- The present move takes another step towards competing passenger train operations, bringing new-generation trains and attracting investments
- It began with the Indian Railway Catering and Tourism Corporation (IRCTC), a public sector undertaking, introducing the Lucknow-Delhi Tejas Express, in 2019. The Tejas were the first trains allowed to run by a ‘non-railway’ operator.
- These trains will be operated by drivers and guards of the Indian Railways.
- The Railways said “majority” of trains will be manufactured in India and the private entity will be responsible for financing, procuring, operation and maintenance of the trains, which will be designed for a maximum speed of 160 kmph.
- For the project, the routes are divided into 12 clusters based out of major city centres, such as Patna, Secundrabad, Bengaluru, Jaipur, Prayagraj, Howrah, Chennai, Chandigarh, and two each for Delhi and Mumbai.
- Private entities will only run 5 per cent of the trains while the 95 per cent, with the same ticket fares, will be run by the Railways. The Railways is expecting that the private train operations will begin by April 2023.
- The objective of the initiative is to:
 - introduce modern technology rolling stock
 - reduce maintenance
 - reduce transit time
 - boost job creation
 - provide enhanced safety
 - provide world class travel experience to passengers
 - reduce demand supply deficit in the passenger transportation sector

Under recent move

- ✓ The operation of the trains by the private entity shall conform to the key performance indicators like punctuality, reliability, upkeep of trains, etc.
- ✓ Operation and maintenance of the passenger trains would be governed by standards & specifications and requirements specified by Indian Railways.
- ✓ Sponsorship with suitable branding of trains/stations and use of CSR for cleaning activity may be explored for resultant savings in expenditure.
- ✓ If NGOs want to adopt stations for cleaning activity, it may be permitted by Divisional Railway Managers with the condition that it should result in savings.

- ✓ From a passenger perspective, there is a need for more train services, particularly between big cities.

Conclusion

Train services operated by Indian Railways cover several classes of passengers, meeting the social service obligation to connect remote locations, and adopting the philosophy of cross-subsidy for passengers in low-cost trains through higher freight tariffs. In more recent years, it has focused on revenue generation through dynamic demand-based pricing.

The aim should always need to be ensure better service delivery as well as a better way to finance railways social obligations.

PEPPER IT WITH
TEJAS, IRCTC, BibekDeboroy Committee, Anil Kakodkar Committee, Vande Bharat Express

India-Sri Lanka Currency Swap Agreement

News Excerpt

The Reserve Bank of India has signed an agreement for extending a \$400-millin currency swap facility to Sri Lanka to boost the foreign reserves and ensure financial stability of the country, which is badly hit by the COVID-19 pandemic.

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Pre-Connect

- A currency swap between two countries is an agreement to exchange currencies of the two countries or any hard currency, based on market exchange rate at the time of the transaction.
- The parties agree to swap (exchange) back these quantities of the two currencies at a specified date in the future at predetermined conditions like using the same exchange rate as in the first transaction.
- India already has a \$75 billion bilateral currency swap line with Japan.

Analytica

- In the India-Sri Lanka swap agreement the drawals can be made in US Dollar, Euro or Indian Rupee.
- This currency swap arrangement will remain available till November 2022.
- The agreement took place under the South Asian Association for Regional Cooperation (SAARC) framework.
- The SAARC Currency Swap Facility came into operation on November 15, 2012 with an intention to provide a backstop line of funding for short term foreign exchange liquidity requirements or balance of payment crises till longer term arrangements are made.
- To further financial stability and economic cooperation within the SAARC region, the Reserve Bank of India last year revised Framework on Currency Swap Arrangement for SAARC countries 2019-2022 (valid from November 14, 2019 to November 13, 2022).
- Based on the terms and conditions of the Framework, the RBI would enter into bilateral swap agreements with SAARC central banks, who want to avail swap facility.
- Under the Framework for 2019-22, RBI will offer swap arrangement within the overall corpus of US \$ 2 billion. The drawals can be made in US Dollar, Euro or Indian Rupee. The Framework provides certain concessions for swap drawals in Indian Rupee.
- The Currency Swap Facility will be available to all SAARC member countries, subject to their signing the bilateral swap agreements.

PEPPER IT WITH
Currency Swap with Japan, Operation TWIST, Advance Pricing Agreement, SAARC

Benefits of Swap agreements

- ✓ The currency swaps agreements help countries **to meet short term foreign exchange liquidity requirements.**
- ✓ It also ensures availability of adequate foreign exchange **to avoid any Balance of Payments (BOP) crisis.**

- ✓ These swap operations carry no exchange rate or other market risks, as transaction terms are set in advance. The absence of an exchange rate risk is the major benefit of such a facility.

Conclusion

These positive developments illustrate active implementation of the leadership-level commitment to work together for addressing the challenges arising from the COVID-19 pandemic, and further the mutually beneficial India-Sri Lanka partnership, including in the economic domain.

TIFAC releases report on Active Pharmaceutical Ingredients

News Excerpt

Indigenous production of Active Pharmaceutical Ingredients (APIs) needs to be scaled up to a level where the production is economically viable, says a report which identified a list of APIs that need prioritized manufacturing and the associated

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advantages.

Pre-Connect

- API is the term used to refer to the biologically active component of a drug product (e.g. tablet, capsule). Drug products are usually composed of several components. The API is the primary ingredient.
- India's pharmaceutical industry is third largest in the world, in terms of volume, behind China and Italy, and fourteenth largest in terms of value.
- Despite a very strong base, due to low-profit margins and non-lucrative industry, domestic pharmaceutical companies have gradually stopped manufacturing APIs and started importing APIs, which was a cheaper option with increased profit margins on drugs.
- With the availability of cheaper APIs from China, the pharmaceutical industry relies heavily on imports.
- The imports from China have been increasing steadily and now stand around 68%.

Analytica

- The report titled 'Active Pharmaceutical Ingredients-Status, Issues, Technology Readiness, and Challenges' was brought out recently by Technology Information Forecasting and Assessment Council (TIFAC).
- This report has recommendations to make India "AtmaNirbhar" in production of APIs. Presently we are heavily dependent on imports of APIs.
- The pharmaceutical industry in India is third largest in the world, in terms of volume, behind China and Italy, and fourteenth largest in terms of value.
- To address the issue of import of APIs from China, TIFAC has recommended policies to address the requirement of APIs in short & medium term to make our country self-reliant.

TIFAC

TIFAC is an autonomous organization set up in 1988 under the Department of Science & Technology to look ahead in technology domain, assess the technology trajectories, and support innovation by networked actions in select areas of national importance.

Major recommendations of the report

- ✓ Focus on engineering and scale aspect of technology development.
- ✓ Need for Mission mode Chemical Engineering with defined targets for uninterrupted synthesis of molecules.
- ✓ To create mega drug manufacturing clusters with common infrastructure in India.
- ✓ To develop technology platform for biocatalysis towards reducing process steps for cost optimization and for fluorination.
- ✓ Investment on priority in fermentation sector of large capacity and scale supporting techno-economic feasibility, attention to technologies like hazardous reactions, flow chemistry, cryogenic reactions, and membrane technology.
- ✓ The report further suggests focus on chiral building blocks through biocatalysis for production of niche intermediates involving enzymatic reactions or fermentation as an area of potential exploitation for Indian API industry.

The World Drug report is released by United Nations Office on Drugs and Crime (UNODC)

- ✓ Focus on antiviral drugs, which require nucleic acid building blocks - Thymidine/ Cytosine Adenine/ Guanine- none of which are manufactured in India because of lack of cyanation plants.

The report also recommended for

- ✓ Government encouragement of Indian companies working in chemical segments such as steroids, amino acids, carbohydrates, nucleosides, etc.,
- ✓ To collaborate for technology development or quick technology transfer.
- ✓ Highlighted the need for closer academia-industry interaction for technology development and commercialization.

Conclusion

The recommendations if implemented will go a long way in making India “AtmaNirbhar” and further boosting pharmaceutical sector which has occupied a central stage at the global level.

‘Pre-Packs’ Insolvency regime

News Excerpt

The Ministry of Corporate Affairs is looking for the possibility of “pre-packs” insolvency proceedings under the current insolvency regime to offer faster insolvency resolution under the Insolvency and Bankruptcy Code. This will help in maintaining business continuity and thereby preserving asset value and jobs.

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Pre-Connect

- In a pre-pack insolvency, resolution takes place with predetermined secured creditors rather than going for a public bidding.
- The process needs to be completed within 90 days so that all stakeholders retain faith in the system.
- The pre-pack would act as an important alternative resolution mechanism to the Corporate Insolvency Resolution Process (CIRP) and would help lower the burden on the NCLTs.
- However, the proposed pre-packaged resolution would likely be subject to approval by the NCLT.

Analytica

- Slow progress in resolution has been one of the key issues raised by creditors regarding the Corporate Insolvency Resolution Process (CIRP) under the IBC.
- In the case of pre-packs, the incumbent management retains control of the company until a final agreement is reached. The transfer of control from the incumbent management to an insolvency professional as is the case in the CIRP leads to disruptions in the business and loss of some high-quality human resources and asset value.
- Such a system would likely require that financial creditors agree on terms with potential investors and seek approval of the resolution plan from the National Company Law Tribunal (NCLT).
- This process would likely be completed much faster than the traditional CIRP which requires that the creditors of the distressed company allow for an open auction for qualified investors to bid for the distressed company.

Corporate Insolvency Resolution Process (CIRP): It is a recovery mechanism for creditors. If a corporate becomes insolvent, a financial creditor, an operational creditor, or the corporate itself may initiate CIRP.

Conclusion

This arrangement can speed up the insolvency proceedings and will make the transition smoother. However, the key drawback of a pre-packaged insolvency resolution is the reduced transparency compared to the CIRP, as financial creditors would reach an agreement with a potential investor privately and not through an open bidding process. This could lead to stakeholders such as operational creditors raising issues of fair treatment when financial

PEPPER IT WITH
NCLT, DRT, IBBI, ARC,
Operational Creditors

creditors reach agreements to reduce the liabilities of the distressed company. So for speeding up the insolvency proceedings the issues of pre-packaged insolvency procedures must be addressed as soon as possible.

Mega Food Park

News Excerpt

Recently Union Minister of Food Processing inaugurated Zoram Mega Food Park in Mizoram. The Food Park will help in doubling farmer's income in the region and will provide gainful employment to youth.

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Pre-Connect

- In the north eastern states nearly 40% wastage of fruits happens in the absence of any processing unit.
- After processing of fruits, the rich and high variety of fruits could also be sold as pure packaged juice in major metropolitan cities in India.
- The North-East Region has the potential to become the Organic Destination of the world due to its rich agricultural and horticultural produce.

Analytica

- Zoram Mega Food Park located near National Highway 54 will help in overcoming the transportation constraints.
- This will help North East to become the Organic Destination of the world due to its rich agricultural and horticultural produce. Sikkim has already been declared as an organic state.
- In the last six years the Government has approved 37 Mega Food Parks and 18 of them are already in operation.
- The Scheme of Mega Food Park aims at providing a mechanism to link agricultural production to the market by bringing together farmers, processors and retailers so as to ensure maximizing value addition, minimizing wastage, increasing farmer's income and creating employment opportunities particularly in rural sector.
- The Mega Food Park Scheme is based on "Cluster" approach on hub and spoke model and envisages creation of state of art support infrastructure in a well-defined agri/horticultural zone for setting up of modern food processing units in the industrial plots provided in the park with well-established supply chain.
- Mega Food Park typically consist of supply chain infrastructure including collection centers, primary processing centers, central processing centers, cold chain and food processing units.

PEPPER IT WITH

PM SAMPADA Yojana, FSSAI, Operation GREENS, KISAN UDAAN Scheme.

Conclusion

The opening of MFP in Mizoram will help better integrate it with the market elsewhere. This is also a right move in providing the much needed forward and backward linkage.

Special Liquidity Scheme for NBFCs and HFCs

News Excerpt

With a view to improving the liquidity position of NBFCs (Non-Banking Financial companies) as well as HFCs (Housing Finance Companies), the Union Ministry for Finance & Corporate Affairs launched a Special Liquidity Scheme of Rs. 30,000 crore.

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Pre-Connect

- It has been announced in the Budget Speech of 2020-21 that a mechanism would be devised to provide additional liquidity facility to NBFCs/HFCs over that provided through the Partial Credit Guarantee Scheme (PCGS). There is an urgency to implement the above Budget announcement to strengthen financial stability on account of the emerging situation of Covid-19.

PEPPER IT WITH

NBFC & NBFI, RBI and NHB and NABARD, Liquidity Infusion Facility Scheme, Marginal Standing Facility

- This facility would supplement the liquidity measures taken so far by the Government and RBI. The Scheme would benefit the real economy by augmenting the lending resources of NBFCs/HFCs/MFIs.

Analytica

- The Government of India has approved a scheme to improve the liquidity position of NBFCs/HFCs through a Special Purpose Vehicle (SPV).
- SBI Capital Markets Limited (SBICAP), a subsidiary of the State Bank of India has set up a SPV (SLS Trust) to manage this operation. The SPV will purchase the short-term papers from eligible NBFCs/HFCs, who shall utilise the proceeds under this scheme solely for the purpose of extinguishing existing liabilities.
- The instruments will be Commercial Papers (CPs) and Non-Convertible Debentures (NCDs) with a residual maturity of not more than three months and rated as investment grade.
- The main objective of the scheme is to avoid any potential systemic risks to the financial sector.
- RBI will provide funds for the Scheme by subscribing to government guaranteed special securities issued by the Trust. Government of India will provide an unconditional and irrevocable guarantee to the special securities issued by the Trust.
- Any NBFC including Microfinance Institutions registered with RBI under the Reserve Bank of India Act, 1934 (excluding those registered as Core Investment Companies) and any HFC registered with the National Housing Bank (NHB) under the National Housing Bank Act, 1987; which is complying with the following broad conditions will be eligible to raise funding from the said facility:
 - Compliance with RBI regulations on Capital adequacy
 - Net NPA is less than 6% as on 31.03.2019
 - Net profit in at least one of the two preceding financial years
 - Rated as investment grade by a rating agency
 - Is not reported under SMA-1 or SMA-2 category by any bank for their borrowing during the period one year prior to 01.08.2018
- The Scheme will remain open for 3 months for making subscriptions by the Trust. The period of lending by the Trust shall be for a period of upto 90 days.
- The financing would be used by the NFBCs/HFCs only to repay existing liabilities and not to expand assets.
- Further, those market participants who are looking to exit their standard investments with a residual maturity of 90 days may also approach the SLS Trust.

Conclusion

This facility is a part of the Government and RBI's efforts to alleviate the concerns of the market participants on the availability of funds to the NBFCs and HFC and will infuse much required liquidity into the sector.

The Consumer Protection Act, 2019

News Excerpt

The Consumer Protection Act, 2019 came into force from July 2020. The new Act will empower consumers and help them in protecting their rights through its various notified Rules and provisions like Consumer Protection Councils, Consumer Disputes Redressal Commissions, Mediation, Product Liability and punishment for manufacture or sale of products containing adulterant / spurious goods.

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Pre-Connect

- The Consumer Protection Act, 2019 which comes into effect from July 20, replacing the earlier Consumer Protection Act, 1986, gives more power to consumers.
- There is a need to large attention to consumer protection and to include the changing market pattern due to e-commerce.

Analytica

PEPPER IT WITH

Agmark, EcoMark, FSSAI, STAR rating of appliance, Extended Producer Responsibility

- The new Act broadens the definition of consumer, by recognising those engaged in offline as well as online multi-level and telemarketing transactions, which will protect those rendered vulnerable in the wake of rapidly-developing technology.
- The Act establishes the Central Consumer Protection Authority (CCPA) to promote, protect and enforce the rights of consumers.
- The rules for prevention of unfair trade practice by e-commerce platforms will also be covered under this Act.
- Consumers can now institute a complaint from where they reside or work.
- National Commission can hear cases above ₹10 crore when compared to above ₹1 crore earlier.
- Parties can be allowed to settle the disputes through mediation.
- The CCPA will be empowered to conduct investigations into violations of consumer rights and institute complaints/prosecution.
- It can order recall of unsafe goods and services, order discontinuance of unfair trade practices and misleading advertisements.
- The CCPA can impose penalties on manufacturers/endorsers/publisher of misleading advertisements.
- Under this act every e-commerce entity is required to provide information relating to return, refund, exchange, warranty and guarantee, delivery and shipment, modes of payment, grievance redressal mechanism, payment methods, security of payment methods, charge-back options, etc.
- There is provision for informing about the country of origin which is necessary for enabling the consumer to make an informed decision at the pre-purchase stage.
- The e-commerce platforms have to acknowledge the receipt of any consumer complaint within forty-eight hours and redress the complaint within one month from the date of receipt under this Act.
- The new Act introduces the concept of product liability and brings within its scope, the product manufacturer, product service provider and product seller, for any claim for compensation.
- The Act provides for punishment by a competent court for manufacture or sale of adulterant/spurious goods.
- The new Act has several provisions for simplifying the consumer dispute adjudication.
- As per the Consumer Disputes Redressal Commission Rules, there will be no fee for filing cases upto Rs. 5 lakh.
- There are provisions for filing complaints electronically, credit of amount due to unidentifiable consumers to Consumer Welfare Fund (CWF).

CONSUMER PROTECTION ACT 1986	PROVISIONS	CONSUMER PROTECTION ACT 2019
No separate regulator	Regulator	Central Consumer Protection Authority (CCPA) to be formed
Complaint could be filed in a consumer court where the seller's (defendant) office is located	Consumer court	Complaint can be filed in a consumer court where the complainant resides or works
No provision. Consumer could approach a civil court but not consumer court	Product liability	Consumer can seek compensation for harm caused by a product or service
District: up to ₹20 lakh State: ₹20 lakh to ₹1 cr National: above ₹1 cr	Pecuniary jurisdiction	District: up to ₹1 cr State: ₹1 cr to ₹10 cr National: Above ₹10 cr
No provision	E-commerce	All rules of direct selling extended to e-commerce
No legal provision	Mediation cells	Court can refer settlement through mediation

The Act has also provision for the **Central Consumer Protection Council**, an advisory body on consumer issues, headed by the Union Minister of Consumer Affairs, Food and Public Distribution with the Minister of State as Vice Chairperson and 34 other members from different fields. The Council will have three-year tenure.

Conclusion

The Consumer Protection Act 2019 is a way forward in ensuring that consumer interests are protected and have incorporated many provisions which have become the need of the hour in the era of e-commerce.

Global Real Estate Transparency Index (GRET)

News Excerpt

India's real estate industry has registered one of the largest improvements globally and regionally in Jones Lang LaSalle's (JLL) biennial Global Real Estate Transparency Index (GRET).

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Analytica

- The country ranks 34th globally on the index, with higher levels of transparency observed in India due to regulatory reforms, enhanced market data, and sustainability initiatives.
- JLL stated that the improvement is led by the progress in the country's Real Estate Investment Trusts (REIT) framework attracting greater interest from institutional investors.
- JLL has been tracking real estate transparency since 1999. This 11th edition of GRET covers 99 countries and territories, and 163 city regions.
- The rankings have six Asia Pacific markets – Mainland China (32nd), Thailand (33rd), India (34th), Indonesia (40th), Philippines (44th) and Vietnam (56th) – among the top 10 biggest improvers globally.
- Mature markets such as Australia (3rd) and New Zealand (6th) have maintained their positions near the top of the global ranking.
- A real estate investment trust ("REIT") is a company that owns, operates or finances income-producing real estate. They are registered with the SEBI and regulated by it.
- India has also edged into the top 20 for Sustainability Transparency through the active role of organizations like the Indian Green Building Council and Green Rating for Integrated Habitat Assessment.

PEPPER IT WITH
GRIHA rating, LEED, RERA

2 per cent equalisation levy on non-resident e-commerce companies

News Excerpt

India in her reply to the US, has defended the 2% equalisation levy on non-resident e-commerce companies, saying it is non-discriminatory in nature and its purpose is to tax businesses that have a close nexus with the country's market through their digital operations.

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Pre-Connect

- Earlier India had imposed a 2 % equalization levy on non-resident e-commerce companies to ensure a level-playing field with regard to e-commerce activities undertaken in India.
- India said the levy is applicable only for companies with annual revenues in excess of Rs 20 million.
- The equalisation levy is an additional safeguard against BEPS (Base Erosion and Profit Shifting) and loss of revenue in India due to activities of the e-commerce operators operating in the country.
- The concept of equalisation levy in India emerged as a result of the deliberations of the OECD Base Erosion and Profit Shifting Project, which crystallised in the BEPS Project report.

Analytica

- According to India's stand, the purpose of the equalisation levy is to ensure greater competitiveness, fairness, reasonableness and exercise the ability of governments to tax businesses that have a close nexus with the Indian market through their digital operations.

- It has been imposed to provide greater clarity, certainty and predictability in respect of characterisation of payments for digital services and consequent tax liabilities to all stakeholders, so as to minimise costs of compliance and administration as also tax disputes in these matters.
- It applies equally to all non-resident e-commerce operators not having permanent establishment in India, irrespective of the origin of such companies and there is no bias against any particular country.
- India also maintained that the equalisation levy is entirely consistent with India's commitments under the WTO and international taxation agreements.

Conclusion

The market share of e-commerce companies have grown rapidly in the last few years. It has become important to provide a level playing field to various stakeholders. The equalization levy is a move in right direction and also acts as a safeguard against BEPS.



International Relations

Attari-Wagah Border (India-Afghan Trade)

News Excerpt

The Trade route between India and Afghanistan through Attari-Wagah Border resumed recently after Pakistan announced the resumption of Afghan exports to India through the Attari-Wagah border to facilitate transit trade.

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Highlights

- Over 14 trucks with goods worth ₹5 crore from Afghanistan have crossed over to India through the Attari-Wagah border in Punjab's Amritsar.
- Both Pakistan and India had suspended trade through the border in March to deal with the COVID-19 pandemic.
- Pakistan had allowed Afghanistan to send goods to India using the border from July 15 under the Pakistan-Afghanistan Transit Trade Agreement.
- Afghanistan-Pakistan Transit Trade Agreement (also known as APTTA) is a bilateral trade agreement signed in 2010 by Pakistan and Afghanistan that calls for greater facilitation in the movement of goods amongst the two countries.



Analytica

- Pakistan has closed its borders with Afghanistan multiple times, where it has used blockades for arm-twisting political circles in Afghanistan.
- This usually causes prices to spiral in Afghan markets as costlier or smuggled imports fulfill the demand.
- Traders from India usually import dry fruits and herbal items from Afghanistan through the Integrated Check Post (ICP).
- The arrival of 14 trucks laden with dry fruits, *mulathhi* [liquorice] and other assorted goods worth over ₹5 crore has brought back semblance of normalcy in the markets.
- The ICP usually sees an annual trade of around ₹7,000 crore and ₹1,000 crore with Afghanistan and Pakistan, respectively.
- Pakistan had shut trade with India and stopped operations of the Samjhauta Express after the abrogation of Article 370 that granted special status to Jammu and Kashmir.
- Truck drivers and porters hope for resumption of their livelihood. Thousands of porters and truck drivers hope to get back their jobs then.

PEPPER IT WITH

Integrated Check Post,
Pakistan-Afghanistan
Transit Trade Agreement,
Chabahar Port, Gwadar
Port, CPEC

Conclusion

The resumption of business would revive the ₹250 crores dry fruits trade, which would benefit a large section of people directly and indirectly, including daily wage earners and transporters. Besides allowing hurdle-free entry of Afghan exports to India, Pakistan should also consider the opening of trade with India from the Wagah border.

India-EU Summit

News Excerpt

Recently the 15th Summit between India and the European Union (EU) was held in virtual format.

Highlights

- India and the European Union committed to a framework for strategic cooperation until 2025, and vowed to cooperate on their response to the coronavirus pandemic, and at the United Nations Security Council.
- Trade and investment were the main focus of the 15th India-EU summit. The two sides announced to try and take the Bilateral Trade and Investment Agreement (BTIA) forward.
- The leaders discussed India's tensions with China at the Line of Actual Control, the situation with Iran, and concerns over cross border terrorism from Pakistan.
- India and the EU formalised the long-negotiated civil nuclear agreement on research and development cooperation in use of atomic energy.
- India and the EU launched a number of initiatives in maritime security, trade and investment, law enforcement, energy, cyber space and artificial intelligence at the Summit.
- India and the EU also decided to upgrade their dialogue and cooperation on technologies such as 5G and artificial intelligence and to promote global standards and to foster their safe and ethical deployment.
- India pitched for adopting a long-term strategic perspective with regards to India's cooperation with the EU, through an action-oriented agenda that can be fulfilled within a stipulated time.

PEPPER IT WITH

Model BIT, GATS, Data Secure Status, Sanitary and Phyto-sanitary Measures, General Data Protection Regulation

Analytica

- The EU is India's largest trading partner with annual bilateral trade in goods at \$100 billion and cumulative investment flows from the 27-member bloc at over \$90 billion.
- It is the time for the EU and India to enhance cooperation, strengthen and deepen their dialogue, and work towards defending a rules-based global order that facilitates sustainable growth, security and stability.
- As the world moves away from a global supply chain that is overly dependent on China, India emerges as the most natural ally for the EU in this regard.
- Europe's dependence on Asia for life-saving health goods has been starkly revealed during the current pandemic. With India's vast drug manufacturing capabilities and the EU's technical expertise, a partnership between the two for the exchange of ideas, innovations, and capabilities in the health sector will benefit both regions.
- To ameliorate supply chain concerns, the partnership should further develop the ICT and manufacturing sector in India, enhance capacities for sourcing components and supporting technology.

European Union

- ❖ The European Union is a unique economic and political union between 27 EU countries that together cover much of the continent. It is headquartered at Brussels.
- ❖ The predecessor of the EU was created in the aftermath of the Second World War. The European Economic Community (EEC) was created in 1958 to increase economic cooperation between six countries: Belgium, Germany, France, Italy, Luxembourg and the Netherlands.
- ❖ Since then, 22 other members joined and a huge single market (also known as the 'internal' market) has been created and continues to develop towards its full potential.
- ❖ On 31 January 2020 the United Kingdom left the European Union.
- ❖ EU is India's largest trading partner and investor, and accounts for 11% of India's global trade.

- In the area of climate, the Paris Agreement and EU-India Clean Energy and Climate Partnership provide a foundation to build on.
- The EU-India agenda should include the promotion and de-risking of investment in renewable energy and green technology, the channeling of post-COVID-19 stimulus into green infrastructure, joint research and development, and business-to-business cooperation to contribute to the green transition.

Bilateral Trade and Investment Agreement (BTIA)

- ❖ Initiated in 2007, the EU-India FTA was renamed Broad-based Trade and Investment Agreement (BTIA) and has stagnated for 10 years.
- ❖ Even after a decade of negotiations, India and the EU have failed to resolve certain issues which have led to a deadlock.
- ❖ The last set of negotiations were carried out in Brussels in 2013 after which further negotiations were stalled.
- ❖ India wants liberalisation of services in Mode 1 (cross-border trade) and Mode 4 (presence and movement of natural persons).
- ❖ There are four Modes or types of services trade stipulated under the 1995 GATS (Agreement on Trade in Services) under the WTO.
- ❖ Mode 1 refers to cross border trade for which data secure status is important. EU laws demand that member nations outsource business to those countries which qualify as data secure.
- ❖ India is also pushing for changes in Mode 4 which covers the movement of skilled professionals like software engineers and allows them to temporarily reside and work in EU countries.
- ❖ India has not been granted “data secure” status by the EU.
- ❖ U.K. visa rules discriminate against Indian technical professionals due to the hiked visa fees and numerical caps on visas.
- ❖ Presence of non-tariff barriers on Indian agricultural products in the form of sanitary and phyto-sanitary measures which are too stringent and enable the EU to bar many Indian agricultural products from entering its markets.

Conclusion

For too long, India-EU relations have been held captive by the diminishing promise of a free-trade agreement (FTA). The EU and India need to play a vital role in finding a consensus on a multilateral, rules-based and sustainable world order. To be successful in achieving such an ambitious goal, India and the EU must consider each other as mutual partners and cooperate on global issues.

- ✓ The first step towards a closer bond between India and the EU must be the completion of an extensive Free-Trade Agreement to unlock the economic potential of the cooperation.
- ✓ An ambitious and comprehensive trade and investment agreement will strengthen our economic relations and will support the effort to reform international institutions such as the World Trade Organization.

India and Chabahar

News Excerpt

Recently news reports claimed that Iran had decided to proceed with the Chabahar port **rail project** by itself citing funding delays from India. Later Iran denied the claim that India has been dropped from the railway project, stating that “vested interests” were behind recent reports.

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Pre-Connect

- The Chabahar Agreement was signed in June 2015 and approved by Iran’s Guardian Council in November 2016.
- Iran’s Chabahar port is located on the **Gulf of Oman** and is the only oceanic port of the country. The port gives access to the energy-rich Persian Gulf nations’ southern coast.

- Chabahar, which is located 72 kilometers west of Pakistan's Gwadar port, holds immense strategic and economic significance for India.
- In addition to developing the Chabahar Port, India and Iran had also agreed to develop the 628-km long Chabahar-Zahedan railway line which was to be executed by the Indian Railways Construction (IRCON) Limited, with a financial commitment of around US\$ 1.6 billion.
- While the Chabahar port development has moved forward in the last five years, the railway line languished. A major achievement for India came in the form of operationalisation of the Chabahar Port in December 2018.
- After several threats and appeals to India, Iran said it was moving ahead to build the Chabahar-Zahedan line on its own this month, with approximately \$400 million from the National Development Fund of Islamic Republic of Iran.

Analytica

Why is Chabahar important to India?

- Chabahar is considered to be of great strategic value to India. It not only provides access to Afghanistan but is also a part of the International North-South Transport Corridor (INSTC), linking India to Eurasia.
- Given the fact that India has not joined the China-led Belt and Road Initiative due to concerns over sovereignty and transparency, Chabahar assumes great importance for India. Gwadar port in Pakistan (which is a part of the China-Pakistan Economic Corridor) is less than 100 kms away from Chabahar.
- Beijing has also been rapidly making inroads into India's neighborhood through its so-called "string of pearls strategy," which has seen it helping with port development in Gwadar (Pakistan), Hambantota (Sri Lanka), Chittagong (Bangladesh), and Kyaukpuy (Myanmar).
- Access to Chabahar port is important for India's energy security. As a growing economy, India has been eyeing the energy-rich Central Asian countries.
- Natural gas from Central Asia could be exported to India via the Chabahar port. India is already a part of projects like the Turkmenistan, Afghanistan, Pakistan, and India (TAPI) pipeline.

PEPPER IT WITH
INSTC, TAPI and IPI
pipelines, Ashgabat
Agreement, JCPOA,
CPEC, String of Pearls

The Controversy over Rail Project

- Despite the attractions, India's investment in Chabahar has always been held hostage to international policy shifts on Iran. U.S. policy in particular has swung wildly in the last two decades.
- It placed heavy sanctions on Iran until nuclear talks between the P-5+1 (the U.S., the U.K., France, China, Russia and Germany) that began in 2006, ended successfully with the signing of the Joint Comprehensive Plan of Action (JCPOA) in 2015.
- Despite India's continued commitment towards the Chabahar Port project and the latter's exemption from the US sanctions, progress in realising the full potential of the port and related commitments by New Delhi has been slow.
- This can be attributed to myriad factors: harsher sanctions by the US since 2018, technical and bureaucratic issues on both Iranian and Indian sides- such as the delays were over contract disagreements.
- The U.S. gave Chabahar port and rail line a special waiver or "carve-out", but the sanctions made it very difficult for companies dealing with the U.S. to participate in the project.

The China Angle

- Recently Iran has approved the China-Iran 25-year partnership for \$400 billion to build infrastructure and energy resources in Iran which gives the impression that Iran may be relying more and more on Beijing.
- China has been intensifying its political, military and economic ties with Iran and the Arab world.
- If China gets a foothold in the development of the Chabahar Port, it could shift the balance of power in China's favour in the Indian Ocean Region (IOR).
- The cooperation plan with China is yet to be finalised by the two countries.

- The projection of draft bilateral agreement with China at this point of time could be viewed as Tehran's signal to the US administration of its growing proximity with one of America's key adversaries.

Way Forward

Chabahar is not the first time that delays in the completion of ambitious infrastructure projects undertaken by India in the region have inflicted setbacks on India's strategic goals. From Nepal to Myanmar, Sri Lanka and Iran, Delhi has made commitments on building power projects, highways, railways, and other infrastructure. Each proceeds slowly or not at all.

- ✓ The growing US-Iran confrontation, particularly the US sanctions on Iran, will continue to cast a shadow on India-Iran cooperation on the Chabahar project and overall bilateral ties.
- ✓ However, as major regional actors, New Delhi and Tehran will have to continue to explore ways to further strengthen their partnership by taking pragmatic steps based on their respective national interests.
- ✓ The Chabahar project is important for India's regional goals, and for its relations with Iran. That is reason enough to act quickly.

Exercise Malabar and the Quad

News Excerpt

Recently there have been reports that India could soon invite Australia to join the Malabar naval exercises which will complement growing strategic and security cooperation among the QUAD (United States, Japan, Australia and India).

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Pre-Connect

- The next edition of Malabar, already delayed by the Covid-19 pandemic, is set to be held by the end of the year.
- **Exercise Malabar** is a trilateral naval exercise involving the United States, Japan and India as permanent partners.
- Originally begun in 1992 as a bilateral exercise between India and the United States, Japan became a permanent partner in 2015.
- Past non-permanent participants are Australia and Singapore.
- The exercise **includes diverse activities**, ranging from fighter combat operations from aircraft carriers through **Maritime Interdiction Operations Exercises**.

Quadrilateral Security Dialogue (QSD or QUAD)

- ❖ It is an informal strategic forum between the United States, Japan, Australia and India.
- ❖ The forum was initiated as a dialogue in 2007 by Prime Minister Shinzo Abe of Japan, with the support of the Vice President of the US, Prime Minister of Australia and Prime Minister of India.
- ❖ The QUAD aims to promote a "free and open Indo-Pacific amid China's aggressive postures in the region."

Analytics

- China has long opposed a coalition of democracies in the Indo-Pacific region. The Chinese leadership sees the maritime Quadrilateral as an Asian-NATO that seeks only to contain China's rise.
- Following the stand-off in Ladakh, many Indian analysts believe the time is right for India to shed its traditional defensiveness in the maritime domain.
- Maritime alliance with the U.S, Japan and Australia can counter Chinese moves in the Indian Ocean.
- The U.S. and its Pacific partners' principal motivation in forming a maritime coalition is to implement a 'rules-based order' in the Indo-Pacific littoral.
- India's priority should be to acquire strategic capabilities to counter a Chinese naval presence in the Indian Ocean.
- While India has acquired airborne surveillance assets from the U.S., the Indian Navy is yet to develop the undersea capability to deter Chinese submarines in the eastern Indian Ocean.
- With the strategic contest between the U.S. and China in East Asia and Southeast Asia hotting up, there is every possibility that the military-Quad will be used to draw India into the security dynamics of the Asia-Pacific.

- While they may engage in the occasional naval exercise in the Bay of Bengal, the U.S. and Japanese navies have little spare capacity for sustained surveillance and deterrence operations in the IOR.
- Australia, ironically, is the only one ready and able to partner India in securing the Eastern Indian Ocean.
- Despite a growing presence in the Indian Ocean, the PLAN is yet to physically threaten Indian interests at sea.
- Chinese warships have not challenged Indian sovereignty in its territorial waters, or ventured close to Indian islands with malign intent. Nor have PLAN assets impeded the passage of Indian merchantmen in the regional sea lanes and choke points.
- Were the Indian Navy to combine with friendly forces to raise the ante in regional littorals, it would need to be ready for the consequences.

PEPPER IT WITH

Trilateral Strategic Dialogue, Five Eyes, NATO, String of Pearls, Nine Dash Line, UNCLOS

Way Forward

The reality for India is that naval coalition building alone will not credibly deter Chinese naval power in the Indian Ocean.

- ✓ Upgrading the trilateral Malabar to a quadrilateral, without acquiring the requisite combat and deterrence capability, could yield gains for India in the short term, but would prove ineffective in the long run.
- ✓ Indian decision-makers should also reflect on the strategic rationale of the military-Quad.
- ✓ India should not sign up to quadrilateral engagement without a cost-benefit exercise and commensurate gains in the strategic-operational realm.

At a time when India and China are negotiating a truce on the border in Eastern Ladakh, invitation to Australia to participate in the Malabar exercise sends contrary signals to China. If China responded through aggressive posturing in the Eastern Indian Ocean, it could needlessly open up a new front in the India-China conflict.

Asian Development Bank**News Excerpt**

Recently Indian Election Commissioner Ashok Lavasa was appointed by the Asian Development Bank (ADB) as its vice-president.

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Highlights

- The ADB has appointed Ashok Lavasa as Vice-President for Private Sector Operations and Public-Private Partnerships.
- As per the ADB Charter, Vice Presidents are appointed by the Board of Directors on recommendation by the ADB President. The appointments are merit based.
- The ADB president heads a management team of six vice-presidents.
- A vice-president is appointed for a term of three years, which can be extended by another two years.
- Lavasa is the second Election Commissioner who has dropped out of the services to join an international role.
- Earlier, Chief Election Commissioner Nagender Singh had put forth his resignation paper before finishing his term to be the judge of the International Court of Justice.

PEPPER IT WITH

NDB, AIIB, IMF, World Bank, MDGs, SDGs

Asian Development Bank (ADB)

- ❖ The Asian Development Bank (ADB) is a regional development bank established on 19 December 1966, headquartered in the city of **Mandaluyong**, Philippines.
- ❖ ADB has 68 shareholding members including 49 from the Asia and Pacific region.
- ❖ ADB assists its members, and partners, by providing loans, technical assistance, grants, and equity investments to promote social and economic development.

- ❖ ADB maximizes the development impact of its assistance by facilitating policy dialogues, providing advisory services, and mobilizing financial resources through co-financing operations that tap official, commercial, and export credit sources.
- ❖ ADB's highest policy-making body is the Board of Governors, which comprises one representative from each member nation – 48 from the Asia-Pacific and 19 from outside the region.
- ❖ The Governors elect 12 members to form the Board of Directors, which performs its duties full time at the ADB headquarters.
- ❖ During the 1960s, ADB focused much of its assistance on food production and rural development.
- ❖ Each ADB shareholder country is represented on the Board of Governors, in which all of ADB's powers are vested.
- ❖ As of 31 December 2019, ADB's five largest shareholders are Japan and the United States (each with 15.6% of total shares), the People's Republic of China (6.4%), India (6.3%), and Australia (5.8%).
- ❖ While ADB's work has contributed to Asia and the Pacific slashing extreme poverty by more than half, the region is still home to 1.2 billion people who live on \$3.10 a day or less and almost three-quarters of the world's underweight children.

US Trinity Test

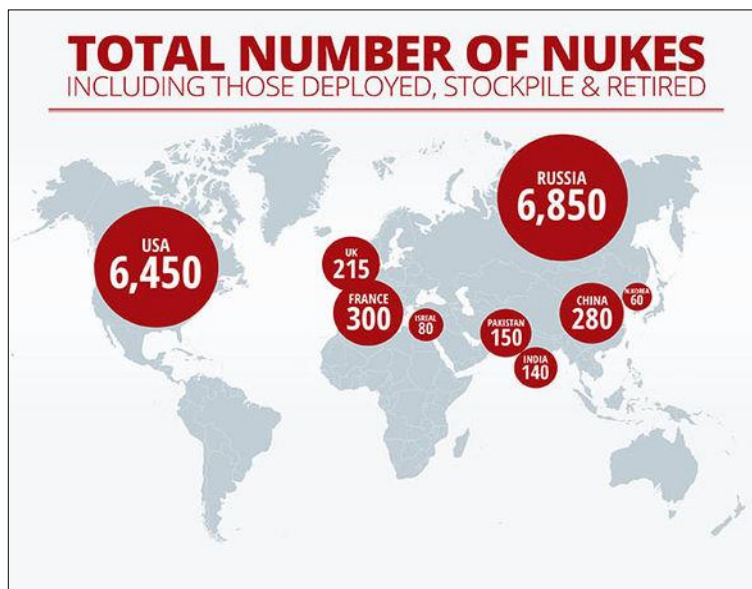
News Excerpt

July 16th marks the completion of 75 years of the test of the world's first atomic bomb by the US — in what was dubbed as the 'Trinity Test'.

Pre Connect

- On July 16, 1945, the world's first super bomb — loaded with about 13 pounds of plutonium at its core — exploded in a desert in New Mexico.
- The super bomb, nicknamed 'Gadget', was built by a team of scientists at a top-secret site in Los Alamos, New Mexico.
- It was developed as part of the US-led Manhattan Project, which sought to build nuclear weapons to give the allied forces an edge over Germany, Japan and Italy in World War 2.
- Less than a month later, an identical nuclear bomb called 'Fat Man' was dropped on the Japanese city of Nagasaki, killing tens of thousands.

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Highlights

The Manhattan Project

- The United States launched a secret atomic research undertaking, code-named the Manhattan Project, which sought to develop an atomic weapon to end World War-II.
- The super bomb was finally designed and conceptualised by a team of scientists at a top-secret laboratory in Los Alamos.

PEPPER IT WITH
NPT, CTBT, INF treaty,
Nuclear Triad, Nuclear
Suppliers Group

- The Los Alamos team developed two types of bombs — one was uranium based, which was later code-named ‘the Little Boy’ before it was dropped on Hiroshima; the other had a plutonium core.
- Testing the ‘Little Boy’ was not feasible, as there was not enough uranium available. The Plutonium bomb was eventually tested at the Trinity site on July 16, 1945.

The immediate repercussions of the Trinity Test

- New Mexico residents were pointedly not warned before the test, to ensure that it was carried out secretly.
- A sudden rise in infant mortality was reported in the months after the explosion.
- The number of cancer patients went up after the Trinity Test.
- The dust outfall from the explosion was expected to have travelled nearly 100 miles from the test site, posing a serious threat to residents in the area.
- Many families complained that their livestock suffered skin burns, bleeding and loss of hair.
- The uranium bomb in Hiroshima on August 6, 1945, destroyed around 70 per cent of all buildings and caused around 140,000 deaths by the end of 1945.
- The plutonium bomb explosion over Nagasaki, which took place three days later, killed 74,000 people that year.

Conclusion

Seventy-five years after the Trinity Test, as many as nine countries around the world are currently in possession of nuclear weapons. These include, the US, the UK, Russia, France, India, China, Israel, Pakistan and North Korea. There is an urgent need to control the further testing and proliferation of nuclear weapons.

India-Sri-Lanka Fishermen Issue

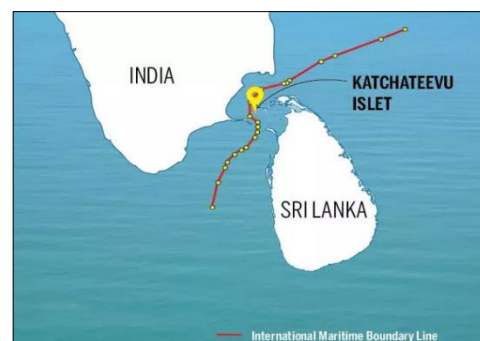
News Excerpt

Recently Sri Lanka’s northern fishermen have reported a “sudden increase” in the number of Indian trawlers spotted in the island’s territorial waters.

Pre-Connect

- Indian boats have been fishing in the troubled waters for centuries and had a free run of the Bay of Bengal, the Palk Bay and the Gulf of Mannar until 1974 and 1976 when treaties were signed between the two countries to **demarcate the maritime boundary — the ‘International Maritime Boundary Line’(IMBL)**.
- However, the treaties failed to factor in the hardship of thousands of traditional Indian fishermen who were forced to restrict themselves to a meager area in their fishing forays.
- The small islet of **Katchatheevu**, hitherto used by them for sorting their catch and drying their nets, **fell on the Lankan side of the IMBL**.
- Fishermen often risk their lives and cross the IMBL rather than return empty-handed, but the Sri Lankan Navy is on alert, and have either arrested or destroyed fishing nets and vessels of those who have crossed the line.
- Fishermen along the northern coast of Jaffna Peninsula, especially Point Pedro, have complained to northern Fisheries authorities about their nets being found damaged in the sea, after being caught under the large Indian trawlers that were reportedly in Sri Lanka’s territorial waters.

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Analytica

- In the 1960s, the government of India decided to promote seafood exports, offering huge subsidies to fishermen.
- As a result of this move, the fishermen of Tamil Nadu capitalised on the world's rising seafood demand. At that time, there were no clearly demarcated maritime borders between India and Sri Lanka.

- The Palk Bay, a narrow strip of water separating the state of Tamil Nadu in India from the Northern Province of Sri Lanka, has historically provided rich fishing grounds for both countries.
- Multiple issues have compounded to bring tensions to near crisis point, with serious ramifications for domestic and bilateral relations
- These include ongoing disagreement over territorial rights to the island of Kachchatheevu, frequent poaching by Indian fisherman in Sri Lankan waters, and the damaging economic and environmental effects of trawling.
- The bay, which is 137 kilometers in length and varies from 64 to 137 kilometers in width, is divided by the International Maritime Boundary Line (IMBL). Bordering it are five Indian districts and three Sri Lankan districts.
- Intimate ties between fishermen and the sea have affected the history, economy, and culture of both countries. Historically, the shallow waters of the Palk Bay and geographical contiguity between India and Sri Lanka facilitated the movement of ideas, goods, and men.
- Fishing is more important economically for the Northern Province of Sri Lanka.
- In India, the fisheries dispute chiefly began with an internal debate about sovereignty related to ceding of the island of Kachchatheevu to Sri Lanka—a situation that exacerbated the tension between fishermen practicing traditional fishing and those using trawlers.
- Internal relations and perspectives in both countries are having a marked impact on bilateral relations. The livelihoods of their populations and the bay's marine ecology are being threatened.

Kachchatheevu Island

- ❖ Kachchatheevu is a 285-acre uninhabited volcanic island administered by Sri Lanka and was a disputed territory claimed by India until 1976
- ❖ The 1974 Agreement while ceding Kachchatheevu to Sri Lanka, also protects traditional fishing rights enjoyed by Indian fishermen to fish in and around Kachchatheevu.
- ❖ Unfortunately these traditional rights were also given away when the maritime boundary agreement delimiting the Gulf of Mannar and the Bay of Bengal was signed in 1976.
- ❖ The ceding of the island exacerbated the tension between the fishermen practicing traditional fishing and those using huge modern mechanised trawlers
- ❖ In order to prevent the conflict, Tamil Nadu government enacted the Tamil Nadu Marine Fisheries Regulation Act in 1983, which required that trawlers or mechanised boats should not catch fish within three nautical miles from the coast.
- ❖ It also stipulated that the three-nautical-mile area would exclusively be reserved for artisanal fishermen.

Way Forward

The deep sea fishing scheme has been launched to end bottom trawling but not all have been able to join the scheme. As the Joint Working Group set up to address the fishermen's issue is 'inactive,' the fishermen face a bleak future.

- ✓ Palk Bay should not be viewed as a contested territory, but as common heritage.
- ✓ A dialogue among fishermen should commence and they should come to an agreement as to how resources could be equitably shared and marine resources enriched through joint efforts.
- ✓ For a solution arrived from below has greater chances of success than a solution imposed from above.



ENVIRONMENT

The OECD-FAO Agricultural Outlook 2020-2029

News Excerpt

Recently, a joint OECD-FAO Agricultural Outlook was released. It highlighted the impact of COVID-19 on agriculture and food supply. It focuses on market projections for major agricultural commodities.

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Pre-Connect

- **Food and Agriculture Organization (FAO):** It is a specialized agency of the United Nations that leads international efforts to defeat hunger. Its goal is to achieve food security for all.
- **Organisation for Economic Co-operation and Development (OECD):** It is an intergovernmental Organisation that works to build better policies. The main purpose of the OECD is to improve the global economy and promote world trade.

Highlights

- **Impact of COVID:** COVID-19 pandemic is expected to undermine food security. COVID-19 has impacts on consumption, production, prices and trade, changes in consumer's preferences, plant and animal diseases, and the heightened uncertainty with respect to future trading agreements between several regional as well as global countries.
- **Key findings:** Over the next ten years supply growth is going to outpace demand growth, causing real prices of most commodities to remain at or below their current levels. However, average per capita food availability is projected to reach about 3,000 kcal and 85 g of protein per day by 2029.
- **Agricultural pricing:** The slower demand growth for agricultural commodities is projected to be matched by efficiency gains in crop and livestock production, which will keep real agricultural prices relatively flat.
- **Aquaculture:** By 2024, aquaculture production is projected to overtake capture fisheries as the most important source of fish worldwide.
- **Livestock:** Global livestock production is expected to expand by 14%. Feed use will expand in line with aquaculture and livestock production as feed efficiency improvements will be counterbalanced by an increase in feed intensity due to reduced backyard farming.
- **Climate Change and Agriculture:** With continuation of current policies and technologies, agricultural GHG emissions are projected to grow by 0.5% annually. Livestock will account for 80% of this global increase. Nevertheless, without additional efforts, this slowdown will still fall short of what the agricultural sector could and should do to contribute to the Paris Agreement targets for fighting climate change.

PEPPER IT WITH
Agriculture Conferences,
Organic Agriculture, Zero
Hunger. SDGs

Analytica

Short term factors & Impact on Supply Chain—

- ✓ Uncertainties has emerged in global supply chain is due to bottlenecks in labour markets, input industries, agriculture production, food processing, transport and logistics, as well as shifts in demand for food services.
- ✓ The challenge of labour shortage, durable condition for agriculture sector have significant impact on overall agricultural supply chain.

Long term Challenges—

- ✓ Apart from COVID, locust invasion in East Africa and Asia, the continued spread of African swine fever, more frequent extreme climatic events may cause global supply shortage in long term.
- ✓ Global trade tension among major food producing countries would escalate the issue of food security among the lower income countries.

Way Forward

- **Investment:** There is need to invest in building productive, resilient and sustainable food chain.
- **Innovation:** From farm to house, there is need to adapt the evolving preferences and aligned digital innovations in agro-food supply chains. Innovation will remain critical in improving the resilience of food systems in the face of multiple challenges.

- **Global Markets & Food Security:** Open and transparent international markets are important for food security. A well-functioning, rule based, reliable and predictable international trade system can help ensure global food security and allow producers in exporting countries to thrive.

COVID-19 and Biomedical Waste Management (BMW)

News Excerpt

Amidst COVID-19 outbreak, the pollution watchdog, Central Pollution Control Board (CPCB), has revised the guidelines for handling and safe disposal of biomedical waste. The guidelines add to existing practices under the BMW rules, 2016.

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Pre-Connect

- **Bio-Medical Waste:** Any waste generated during the medical diagnosis, treatment, immunization of human beings, animals or in research activities or testing of biologicals.
- **CPCB:** It is a statutory Organisation under the Water (Prevention and Control of Pollution) Act, 1974. CPCB was entrusted with the powers and functions under the Air (Prevention and Control of Pollution) Act, 1981. It plays an advisory role to the Government and State Pollution Control Boards (SPCB) in matters relating to the implementation and enforcement of the Air, Water and Environmental Acts.
- **Common Bio-medical Waste Treatment and Disposal Facility (CBWTFs):** As per BMW rules, 2016, CBWTF is a set up where biomedical waste generated from member health care facilities is treated to reduce adverse effects of bio medical waste. The treated recyclable waste may finally be sent for disposal in a secured landfill or for recycling.

About New BMW Rules

- The guidelines provide a series of steps for safe disposal of waste generated in hospital isolation wards for COVID-19 patients, testing centres and laboratories, quarantine facilities and homes of suspected patients. COVID-19 waste should be disposed of immediately upon receipt at facilities.
- The revisions in the guidelines aim to reduce the burden on CBWTFs and simultaneously do not compromise on safe disposal of COVID-19 waste.
- Foot-operated lids in colour-coded bins must be introduced to avoid contact.
- Quantification and tracking the movement of COVID-19 needed to be carried out by all quarantine centres through the CPCB's biomedical waste-tracking mobile application called COVID19BWM.
- Designated nodal officers for biomedical waste management in hospitals must be made responsible for training waste handlers about infection prevention measures.
- **Appointment of Nodal Officers:** The guidelines authorise ULBs to hire services of professional waste management agencies for timely collection of solid and biomedical waste if collection and transportation operations are inadequate due to existing staff conditions.
- **Waste Disposal—**

PEPPER IT WITH
COVID-19, Vaccination,
NGT, Waste-to-Energy,
Incineration plants

Prior to Guidelines	As per New BMW Rules
All kinds of mixed waste (some of waste was not biomedical waste) arrived at CBWTF From containment zones and quarantine households was disposed off in a yellow bag.	Only contaminated waste produced by COVID-19 patients and hospitals should be put in yellow-colored bags.
Concern: After incineration ash content from the mixed waste is very high.	Advantages: It helps in reducing the quantity of COVID-19 waste generated and reduces unnecessary burden on CBWTFs for incineration as well.

Analytica

Significance of Move:


- ✓ **Health security for Sanitation worker:** The guidelines have given more emphasis on enhanced safety of sanitation workers, garbage collectors including transportation staff.
- ✓ **Waste Demarcation:** Demarcated types of waste will reduce the chances of contamination. It will also improve incineration efficiency.

Role of People:

- ✓ The society's perception and practice of indiscriminate disposal of various items can be a potential source of infection of COVID to municipal workers. The communities need to dispose their used napkins, tissues, empty sanitizer bottles in a separate bag, to ensure the safety of municipal workers.

Key Concerns:

- ✓ **Saturation of CBWTFs:** Many States have utilised over 70 % of incinerator capacity and looking for alternative incinerators and disposal options. Untreated garbage may pose challenges in term of increasing risks.
- ✓ **Lack of integrated approach:** There was absence of integrated waste management solution in context of COVID. Lack of coordination among ULBs, Hospital and other stake holders attributed to increasing in caseloads.
- ✓ **Issue of funding of ULBs:** ULBs are already suffered due to lack of resources and funding. In context of COVID sub-optimal performance in biomedical waste collection may pose public health challenges.



STATE	Covid-19 BMW* (Metric Tons Per Day)	Adequacy of existing treatment facility
Maharashtra	17.494	Adequate
Tamil Nadu	10.41	91% utilised
Delhi	11.114	70% utilised
Karnataka	2.8	Adequate
Andhra Pradesh	5.516	Adequate

*BMW: Biomedical waste

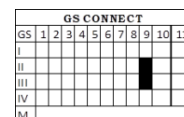
Way Forward

- **Universal precautions:** Rigorous monitoring is required to ensure that biomedical waste does not end up infecting others. There is need to ensure that people who are at home quarantine are disposing biomedical waste properly and to not end up passing it to anyone including garbage collectors.
- **Augment the Waste treatment capacity:** In case of rising quantities of BMW there would be a need for more incineration facilities. There is dire need to augment existing incineration capacities. Further role of PPP on short-term basis can also be considered.
- **Awareness for Segregation:** In order to facilitate 'ease of waste treatment' proper segregation is essential. Segregation can enhance the efficiency of waste treatment and decrease the risk of exposure to the containment. NGO can play significant role in awareness and door-to-door campaign.
- **In-house incineration:** In case of excess biomedical waste from large hospital and quarantine facilities in-house alternatives could be inducted to either reduce pressure on common waste treatment facilities or minimize the threat of possible contamination.

The Global E-waste Monitor 2020: UN University Report

News Excerpt

Recently, United Nations University led report on e-waste 'The Global E-waste Monitor 2020' was released. It has given emphasis on the issue of rising of e-waste and sub-optimal recycling.



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Pre-Connect

Basel Convention: The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal is a multilateral treaty aimed at suppressing environmentally and socially detrimental hazardous waste trading patterns.

Highlights

- Global e-waste comprise of discarded electrical and electronic equipment will increase by 38 per cent in the decade between 2020 and 2030.

- The world dumped a record 53.6 million tonnes of e-waste last year, an average of 7.3 kg per capita.
- Out of which just 17.4% was recycled. Most electronic waste around the world still not being collected and recycled properly.
- China, with 10.1 million tonnes, was the biggest contributor to e-waste, and the United States was second with 6.9 million tonnes. India, with 3.2 million tonnes, was third. Together these three countries accounted for nearly 38% of the world's e-waste last year.
- Even countries with a formal e-waste management system in place are confronted with relatively low collection and recycling rates.

India and E-Waste

- Structured management of e-waste in India is in nascent stage and is mandated under the E-Waste (Management) Rules, 2016. Some of the salient features of the rules are-
 - E-waste classification,
 - Extended producer responsibility (EPR),
 - Collection targets (EPR)
 - Restrictions on import of e-waste containing hazardous materials.
- E-waste is categorized into 21 types under two broad categories: Information technology and communication equipment and consumer electrical and electronics.
- There are 312 authorised recyclers of e-waste in India, with the capacity for treating approximately 800 kilotonnes annually.
- Formal recycling capacity remains under utilised, as around 90% of the waste is still handled by the informal sector.
- **Key Concern:** India's e-waste generation estimates and the lax of capacity with the urban local bodies may grim the situation. The rules mandate an individual to drop the e-waste at an authorised collector, but do not provide any incentive against it. This forces e-waste to end up with informal sector and loses track on further recycling.

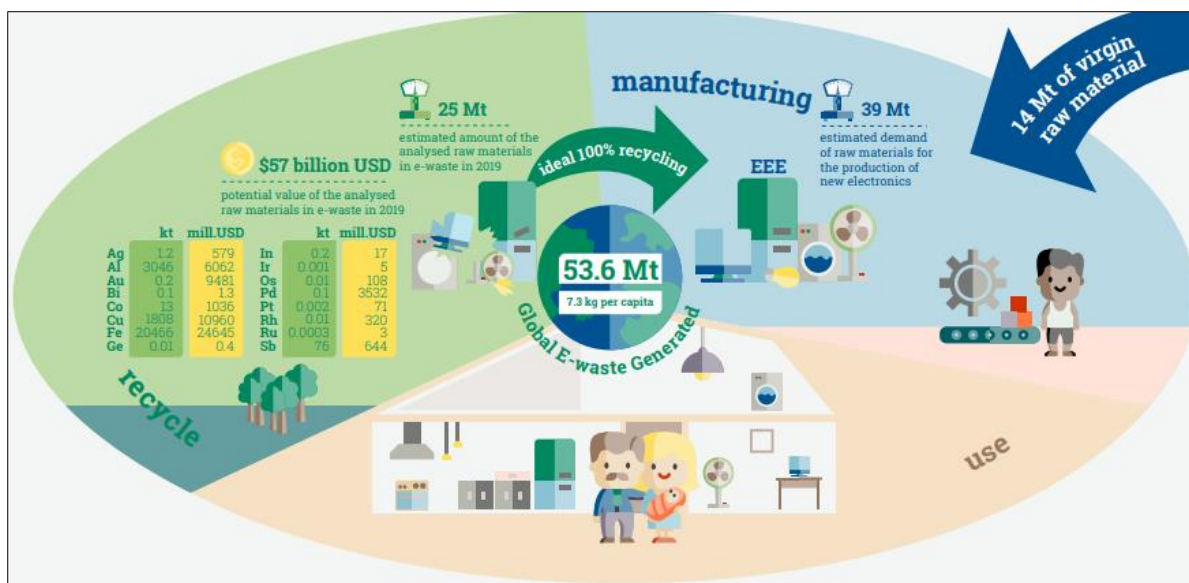
Analytica

E-Waste and SDGs-

- ✓ E-waste management closely relates to SDG 3 on good health and well-being, SDG 6 on clean water and sanitation, and SDG 14 on life below water. e-waste also closely relates to the SDG indicators on the material footprint (SDGs 8.4.1 and 12.1.1) and the SDGs on the domestic material consumption (SDGs 8.4.2 and 12.2.2).

E-Waste Sector Sustainability & Jobs

- ✓ The need of the hour is to generate employment and save environment, which can be done through identifying and promoting cooperatives and expanding the scope of the waste management rules and by way of inclusion of informal sector workers.



- ✓ **E-Waste Circular economy:** E-waste is an 'urban mine'. The value of raw materials in the global e-waste generated in 2019 is equal to approximately \$57 billion USD. By improving e-waste collection and recycling practices worldwide, a considerable amount of secondary raw materials – precious, critical, and non-critical – could be made readily available to re-enter the manufacturing process while reducing the continuous extraction of new materials.

Impact of E-Waste

- ✓ **Soil:** When e-waste breaks down, it releases toxic heavy metals like lead, arsenic, cadmium etc. When these toxins leach into the soil, they influence the plants and crops growth. These toxins can enter the human food supply, which can lead to birth defects as well as a number of other health complications.
- ✓ **Water:** E-waste that is improperly disposed can lead to toxins entering groundwater. These toxins can make human and animals sick and cause imbalances in the planetary ecosystem. Toxins like lead, barium, mercury, and lithium are also considered carcinogenic.
- ✓ **Air:** When e-waste is disposed off at the landfill, it's usually burned by incinerators on site. This process can release hydrocarbons in the atmosphere, pollutes air and cause imbalances in air quality.

Way Forward

- In order to separately collect, effectively treat, and dispose of e-waste, as well as divert it from conventional landfills and open burning, it is essential to integrate the informal sector with the formal sector.
- The competent authorities are needed to establish and mechanisms for handling and treatment of e-waste in a safe and sustainable manner must be inducted.
- Increasing information campaigns, capacity building, and awareness is critical to promote environment friendly e-waste management programmes.
- Introduce extended producer responsibility to ensure producers finance the collection and recycling of e-waste. Enforce legislation for all stakeholders, and strengthen monitoring and compliance mechanisms across the country to ensure a level playing field.
- Reducing the amount of hazardous substances in e-products will also have a positive effect in dealing with the specific e-waste streams since it will support the prevention process.

PEPPER IT WITH

E-Waste (Management) Rules, SDGs, Mercury Poisoning, Blue Baby Syndrome

Virtual Climate Action Ministerial

News Excerpt

Recently, the fourth edition of the virtual Ministerial on Climate Action was held. The meeting focused on aligning global recovery measures with the Paris Agreement, and improving resilience against future crises. The meeting was co-chaired by European Union, China and Canada.

Pre-Connect

- The CoP-26 UN climate change conference was set to take place in Glasgow in November, but has been postponed due to COVID-19 Outbreak.
- **Ministerial on Climate Action:** It is an annual meeting attended by ministers and high-level representatives from over 30 countries, including ministers from the G20 and chairs of key party groupings in the UN climate negotiations.
- **United Nations Framework Convention on Climate Change (UNFCCC):** It is a near-universal environmental treaty adopted and implemented by countries. The adoption of the UNFCCC in 1992 has set a precedent in the fight against climate change.
- **Paris Agreement:** The Paris Agreement's central aim is to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2°C above pre-industrial levels. The agreement aims to increase the ability of countries to deal with the impacts of climate change, and at making finance flows consistent with a low GHG emissions and climate-resilient pathway.

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Highlights

- MoCA has acknowledged that the ongoing COVID-19 pandemic and the associated economic crisis are placing an unprecedented burden on citizens and societies, affecting peoples' lives and livelihoods, and posing many challenges towards economic recovery.
- MoCA reiterated to reboot their economies in a manner that builds more sustainable, inclusive and resilient societies, in line with the United Nations Sustainable Development Goals, the UNFCCC, and the Paris Agreement.
- MoCA has given a political signal that now is the time to ensure that the recovery from COVID-19 goes hand in hand with the transition to low-carbon and climate resilient economies.
- Developing countries, in particular the poorest and most vulnerable, are facing some of the harshest impacts of climate change, which combined with the public health and economic crises triggered by the pandemic, may lead to even more severe consequences.
- There is dire need of finance, technology transfer and capacity building to ensure that the recovery agenda allows for a just transition towards low-carbon and climate resilient societies, and addresses poverty and inequality.

Analytica

India's Active Contribution to Combat Climate Change:

- ✓ India has achieved reduction of 21% in emission intensity of its GDP between 2005 and 2014, thereby achieving its pre-2020 voluntary target. Further, India's renewable energy installed capacity has increased by 226% in last 5 years and stands more than 87 Gigawatt.
- ✓ The share of non-fossil sources in installed capacity of electricity generation increased from 30.5% in March 2015 to 37.7% in May 2020 and Government has further announced the aspirational target of increasing our renewable energy capacity to 450 GW.
- ✓ With the active effort of Government 80 million LPG connections in rural areas have been provided, providing with clean cooking fuel and healthy environment.
- ✓ India's total forest and tree cover is 8,07,276 sq. km. which is 24.56% of the total geographical area of the country; More than 360 million LED bulbs have been distributed under UJALA scheme, which has led to energy saving of about 47 billion units of electricity per year and reduction of 38 million tonnes of CO₂ per year.
- ✓ India has also leapfrogged from Bharat Stage-IV (BS-IV) to Bharat Stage-VI (BS-VI) emission norms by 2020 which was earlier to be adopted by 2024.
- ✓ India had levied a coal cess of Rs. 400/- as part of one of the most explicit green initiatives & this is now subsumed under Goods and Services Tax(GST).
- ✓ Under Smart Cities Mission, first-of-its-kind initiative – Climate Smart Cities Assessment Framework 2019 has been launched which intends to provide clear roadmap for cities and urban India towards combating climate change through adoption of both mitigation and adaptation measures.

Rewa Ultra Mega Solar Park

- ❖ The Rewa Solar Power project has received the World Bank Group President's Award.
- ❖ Solar Power project in Rewa consists of three solar power generating units, each having a capacity of 250 MW and each located on a 500-hectare plot of land inside a Solar Park.
- ❖ It is India's first such solar project to break the grid parity barrier.
- ❖ In comparison to the tariffs of prevailing solar project in early 2017 of around Rs 4.50 per unit, the Solar project in Rewa achieved the first-year tariff of Rs 2.97 per unit.
- ❖ The Rewa Solar Power project is expected to reduce carbon emission equivalent to around 15 lakh tons of CO₂ per year.
- ❖ It exemplifies the commitment of the nation to achieve the 175 GW target of installed renewable energy capacity by 2022. This includes 100 GW of solar installed capacity.

Conclusion

Delivering on a green and sustainable recovery requires determination and a long-term vision that is inclusive, responds to the urgency highlighted by countries and addresses the challenges of climate action, economic growth and social development in a mutually supportive

manner. This determination and vision need to be reflected in efforts to implement current commitments, the update of NDCs, and in the formulation of Long-Term Strategies by 2020, in line with the Paris Agreement.

India Energy Modeling Forum

News Excerpt

During the meeting of joint working group of the Sustainable Growth Pillar, an **India Energy Modeling Forum** was launched.

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Pre-Connect

- **India-US Strategic Energy Partnership:** The first ministerial meeting was held in April 2018. It has four pillars: Oil and Gas, Power and Energy Efficiency, Renewable and Sustainable Growth. The Sustainable Growth pillar is being co-chaired by NITI Aayog and USAID.
- The Energy Modelling Forum (EMF) in USA was established in 1976 at Stanford University to connect leading modelling experts and decision makers from government, industry, universities, and other research organizations. The forum provides an unbiased platform to discuss the contemporary issues revolving around energy and environment.
- **Energy Modeling:** Energy-modeling is the virtual or computerized simulation of a building or complex that focuses on energy consumption, utility bills and life cycle costs of various energy related items. It is also used to evaluate the payback of green energy solutions like solar panels and photovoltaics, wind turbines and high efficiency appliances.

India and Energy Modeling

- In India, there was no formalized and systematic process of having a modeling forum.
- NITI Aayog will initially coordinate the activities of the forum and finalizing its governing structure. The forum would include knowledge partners, data agencies and concerned government ministries.
- The India Energy Modelling Forum will accelerate the effort and aim to-
 - Provide a platform to examine important energy and environmental related issues;
 - Inform decision-making process to the Indian government;
 - Improve cooperation between modelling teams, government, and knowledge partners, funders;
 - Facilitate exchange of ideas, ensure production of high-quality studies;
 - Identify knowledge gaps at different levels and across different areas;
 - Build capacity of Indian institutions.
- Models to assess the energy and environmental impacts of competing development pathways are critical to formulating policies to support energy security and low carbon growth.
- NITI Aayog strives to develop a better understanding and appreciation for energy modelling to deal with the conflicting views of the energy sector and decide the best way forward.

PEPPER IT WITH
Resource Efficiency, National
Resource Efficiency Policy.

Advantages of Energy Modeling

The benefits are actually multiple and diverse, including-

- ✓ Energy efficiency and certification goals are achieved more easily, due to more-informed design decisions.
- ✓ Risks, delays and setbacks are mitigated through the elimination of redesign later in the project.
- ✓ Different components and systems can be compared in order to choose those that will optimize energy efficiency and meet performance targets.
- ✓ Energy modeling in the pre-design phase can allow a project to achieve 45 percent average savings per project compared to a baseline building.

Agriculture Infrastructure Fund and Green-Ag Project

News Excerpt

The Union Cabinet has approved a new pan India Central Sector Scheme that is intended to provide a medium - long term debt financing facility.

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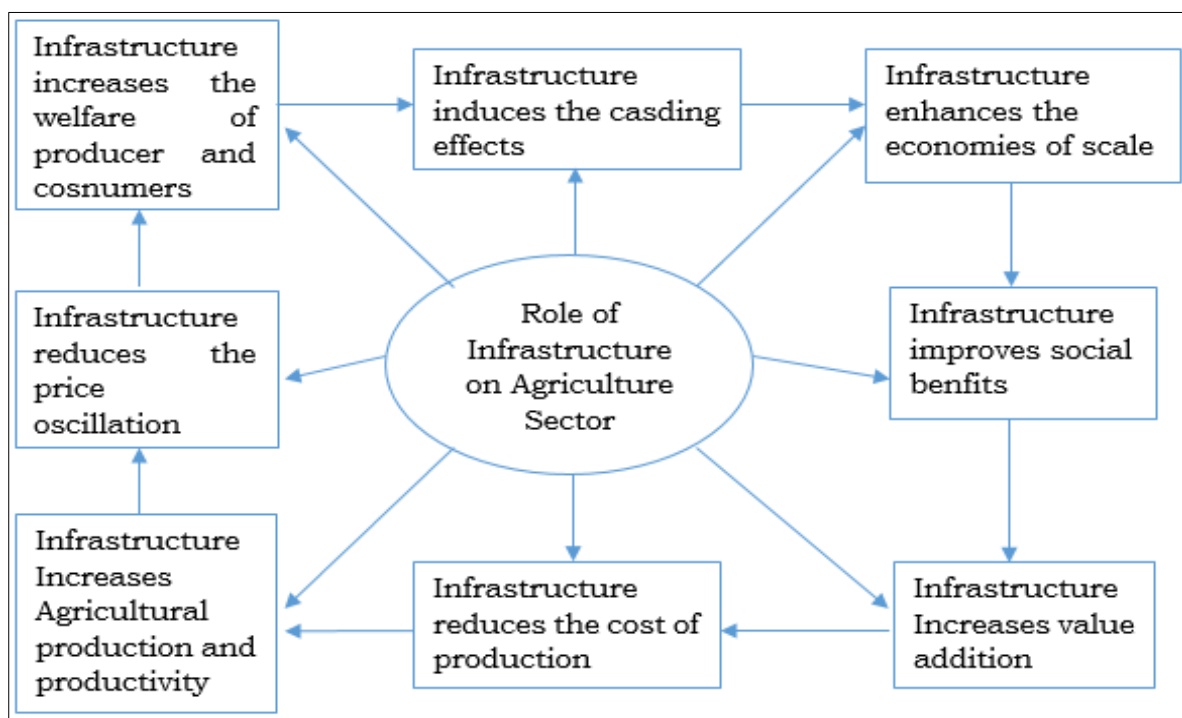
- **National Bank for Agriculture and Rural Development (NABARD):** NABARD will steer this initiative in association with the Ministry of Agriculture and Farmers Welfare. It was established to provide finance for Agriculture and rural development. NABARD is active partner of Government in several incentive, subsidy based programmes and schemes.
- **FPOs:** The fund will also be used to provide loans, at concessional rates, to FPOs and other entrepreneurs through primary agriculture credit societies (PACs). An FPO, formed by a group of farm producers, is a registered body with producers as shareholders in the organisation. It deals with business activities related to the farm produce and it works for the benefit of the member producers to improve their own economic and social situation.
- **Credit Guarantee Fund Scheme for Micro and Small Enterprises (CGS):** It was launched by the Government to make available collateral-free credit to the micro and small enterprise sector. Both the existing and the new enterprises are eligible to be covered under the scheme.

Agriculture Infrastructure Fund (AIF)

- **Main Objective:** The main objective of the AIF is to attract investment in post-harvest infrastructure which has been a weak link in the agricultural supply chain. Better storage facilities can help farmers avoid distress selling immediately after the harvest, when prices are generally low.
- **Creation of durable assets:** AIF is aimed to build warehouses, silos, pack houses, sorting and grading units, cold chain projects, ripening chambers, e-marketing platforms, etc. to give preservative support after harvesting and to minimise post-harvest losses.
- **Interest Subvention:** The Centre will bear the expenditure by providing interest subvention of 3 per cent on term loans for post-harvest management. The Centre will also provide a guarantee to banks for loans up to ₹2 crore for possible defaults by borrowers. This will be done through Credit Guarantee Fund Trust for Micro and Small Enterprises for loans up to ₹2 crore.

PEPPER IT WITH

PM
KisanSampadaYojana,
PM-KISAN,
Agricultural pricing,



- **Data Availability:** Financing for post-harvest projects is already available under priority sector lending from banks and other financial institutions. But complete data of such loans is not available. The greatest benefit of the AIF will be that data will be collected through an online portal.

Analytica

Significance of the move:

- ✓ Core investment in infrastructure will have cascading impact on forward linkages of agriculture value chain. Earlier the major focus was on backward linkages, and most of the investment return diluted in terms of post-harvest losses. New initiative are focused on reducing the post-harvest losses.
- ✓ Infrastructure support would create durable assets, assured income security and stability in food market.

Visible impact of infra on Agriculture:

- ✓ Agricultural infrastructure investment is of great significance to reducing poverty and developing the rural economy.
- ✓ Infrastructure support make forward as well as backward linkages. AIF is aims to strengthen the forward linkages in agricultural supply chain or value chain.
- ✓ Increasing the intensity of investment to improve the supply level of agricultural commodities is a necessary step to achieving stability in food prices and agricultural modernization in rural areas. Agricultural infrastructure, as a kind of public good, can drive private investment to compensate for underinvestment and improve agricultural productivity.
- ✓ By reducing the cost of agricultural production and increasing output, agricultural infrastructure can create significant benefits in promoting economic growth, narrowing the gap between the rich and the poor, and promoting the coordinated development of urban and rural areas.

Green-Ag Project

The Union government has launched the Green-Ag Project to reduce emissions from agriculture and ensure sustainable agricultural practices.

- ❖ **Implementing states:** The project will be implemented in Mizoram, Rajasthan, Madhya Pradesh, Odisha and Uttarakhand.
- ❖ **Bodies:** The Project is funded by **the Global Environment Facility**, while the Department of Agriculture, Cooperation, and Farmers' Welfare (DAC&FW) is the national executing agency. **Other key players involved in its implementation are Food and Agriculture Organization (FAO)** and the Union Ministry of Environment, Forest and Climate Change (MoEF&CC).
- ❖ **Aims & Objectives:** The project will ensure 49 million Carbon dioxide equivalent sequestered or reduced through sustainable land use and agricultural practices. It aims to bring at least 104,070 ha of farms under sustainable land and water management.
- ❖ **Benefits:**
 - Along with environmental advantages, this project would help local people.
 - It will give fillip to take advantage of the rich agro-biodiversity.
 - This project will facilitate the livestock production practices, promotion of secondary agriculture and the establishment of green value chains. These factors could attribute to enhance income opportunities.
 - This Project will Institutionalized the inter-sectorial mechanisms (agricultural and allied sectors, forestry and natural resources management, and economic development) at the national and States level.

Conclusion

Creating post-harvest physical infrastructure is as imperative as the changes in the legal framework. The AIF will help fill this gap. Its positive impact will be evident in due course, depending upon how fast, and how earnestly, the states, FPOs, and individual entrepreneurs implement the reforms initiated by the Government.

Clean Energy Economy: NITI Aayog

News Excerpt

NITI Aayog has released a report that advocates for green stimulus and recovery efforts that work towards building a clean, resilient, and least-cost energy future for India.

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Highlights

- How COVID-19 influence the clean energy transition, specifically for transport and power sectors, and recommends principles to drive economic recovery and maintain momentum towards a clean energy economy.
- Report lays out principles for policymakers to support India's clean energy future:
 - Invest in least-cost-energy solutions.
 - Support resilient and secure energy systems
 - Prioritize efficiency and competitiveness, and
 - Promote social and environmental equity.
- India's transport sector can save 1.7 gigatonnes of cumulative carbon dioxide emissions and avoid about 600 million tonnes of oil equivalent (Mtoe) in fuel demand by 2030 through shared, electric, and connected passenger mobility and cost-effective, clean, and optimized freight transport.
- Savings are also achievable in the power sector through the adoption of renewable energy, energy storage, efficiency, and flexibility.
- In the transport sector, emerging challenges are- Private vehicle ownership versus non-motorized, shared, and public transport, internal combustion engines versus electric vehicles.
- In Power sector, the issue of demand drop, technical losses, and debt ridden DISCOMS pose challenges to renewable energy initiatives. Funds may subvert to revival of existing power sector, rather than investment in renewable sources of energy.
- Stimulus package hardly have any direct provision for renewable energy investment. Liquidity measures for DISCOMS have been purposed. It appears that the trajectory of clean energy may deviated in short term.

Green Stimulus

- It is short-run fiscal stimuli that also serve a "green" or environmental purpose in a situation of "crisis" characterized by temporary under-employment.
- The package included renewable electricity production; building retrofits; efficiency technology upgrades; incentive schemes for low-carbon vehicles; energy network expansion; green transport infrastructure, including rail and mass transit; and clean energy.

Public EV Charging Plaza

- India's first public EV charging plaza was inaugurated in Delhi.
- It is a joint initiative of Energy Efficiency Services Ltd. and NDMC.
- It has been set up with a focus on enhancing energy efficiency and promoting e-mobility.
- Such innovative initiatives are imperative for the creation of a robust e-mobility ecosystem.

Influence on India's clean Energy transition

- Over the past five years, India has launched new efforts to advance its transition to clean energy and mobility, including its NDCs (nationally determined contribution) to install 500 GW of renewable energy capacity by 2028 and the Faster Adoption and Manufacturing of Electric Vehicles (FAME) II scheme.
- Economic slowdown may create new challenges for India's clean energy transition, including liquidity and financing constraints, supply-chain shortages, shifting priorities in the public and private sectors, reduced workforce, and job losses.

Conclusion

COVID-19's impact on the clean energy transition is multifaceted. On one hand, the decrease in fossil fuel consumption due to reduced demand in power, transport, and industrial sectors has contributed to fall in the GHG emissions. While India starts recovering from the impacts of lockdown, it is important that the financial and policy efforts enable a green transition

pathway. The gravity of crisis suggests that today's policy measures will form the basis of tomorrow's political, institutional, and infrastructural frameworks, shaping society for decades to come. The importance of making the green choice is essential to India's future.

RAISE Initiative

News Excerpt

Retrofit of Air-conditioning to improve Indoor Air Quality for Safety and Efficiency (RAISE)—A national programme has been launched. It is a joint initiative of Energy Efficiency Services Limited (EESL) and the US Agency for International Development's (USAID) MAITREE Program.

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Pre-Connect

- **Market Integration and Transformation Program for Energy Efficiency (MAITREE):** It is a part of the US-India bilateral Partnership between the Ministry of Power and USAID and is aimed at accelerating the adoption of cost-effective energy efficiency as a standard practice within buildings, and specifically focuses on cooling.
- **Indoor Air Pollution Monitoring & Management:** An initiative under National Clean Air Programme (NCAP). It refers to the physical, chemical, and biological characteristics of air in the indoor environment within a home, building, or an institution or commercial facility.

About

- The RAISE initiative can potentially alleviate the issue of indoor bad air quality in workspaces across the nation and pioneer ways to make them healthier and greener.
- EESL has undertaken a retrofit of its office air-conditioning and ventilation system.

Advantages

- Poor air quality has been a concern in India. Indoor pollution is a worrying factor, as it reduces productivity. Most buildings are not equipped to establish and maintain healthy indoor air quality and need to be upgraded.
- As people are returning to offices and public spaces, maintaining good indoor air quality is essential. 'RAISE' could play a significant role in moderating indoor air quality.

PEPPER IT WITH

Ambient Air quality, Air Quality Index, SAFAR, National Clean Air Programme

Assam Flood and Kaziranga's Ecosystem

News Excerpt

Flood in Assam is frequent and a cause of devastating impact on biosphere.

Pre-Connect

Kaziranga National Park:

- It is a UNESCO world heritage site, and famous for the Great Indian one horned rhinoceros.
- The landscape of Kaziranga is of sheer forest, tall elephant grass, rugged reeds, marshes & shallow pools.
- **The great Indian rhinoceros, falls under 'vulnerable category' in the IUCN Red List.** It is in high demand globally due to its single horn. Habitat loss is the other major threat to rhino populations.

Role of floods in Kaziranga's Ecosystem

- Assam is traditionally a flood prone region — sandwiched between the Brahmaputra River and the KarbiAnglong Hills. (NH-37 bifurcated park from KarbiAnglong Hills).
- Floods are necessary for Kaziranga by virtue of its ecosystem. It is a riverine ecosystem, not based on solid landmass. It won't survive without water. Kaziranga is formed by alluvial deposits from the Brahmaputra.
- The regenerative nature of floods helps replenish Kaziranga's water bodies and maintain its landscape, a mix of wetlands, grasslands and semi-evergreen deciduous forests.

Wildlife or animal corridors are meant to ensure safe passage for animals between two isolated habitats.

- The floodwaters also function as a breeding ground for fish, which are carried away by the receding waters into the Brahmaputra, the park replenishes the river's stock of fish too.
- Flood helps get rid of unwanted plants such as water hyacinth which collect in huge masses in the landscape.
- In herbivore-dominated area like Kaziranga, it is important to maintain its grassland status. If it were not for the annual floods, the area would become a woodland.

Impacts of Floods on wildlife and fringe villages

- Villages on the southern periphery of the park are affected by the floods. Fleeing floodwaters, animals stray from the boundary of the park, and there is an increased interaction between humans and wildlife, at times leading to conflict.
- Animals also affected due to short term distress on habitat. For Instance—Rhino calves get separated from their mothers, tigers swim and take refuge inside homes, deer amble into villages.
- When the flood water hits a certain level, the animal moves towards safer places, higher ground in the KarbiAnglong hills. However, animal have to cross NH-37 which cuts across the park, that leads to the killing of animals in road accidents.
- During the flood, villagers guide strayed animals to safer ground.

PEPPER IT WITH
National Parks, Wildlife
protection act,
Elephant corridor

Way Forward

To mitigate the threat of floods and animal fatalities following arrangement can be inducted-

- ✓ Embankments of river and de-salinization of river to avert issue of excess water.
- ✓ NGOs and local communities can work together to tackle the floods.
- ✓ To avoid epidemics a door-to-door vaccination can be organised before the floods.
- ✓ When the floods hit, sec. 144 of Cr.P.C can be imposed along NH-37, speed limits should be enforced to minimize the possibility of human-animal conflict.

MaguriMotapung Wetland

News Excerpt

A gas leak accident has happened at Baghjan well in Assam after a blowout and subsequent explosion has led to extensive damage to both the publicly-owned resources—the Maguri-Motapung wetland and Dibru-Saikhowa National Park.

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The Baghjan well is a gas-producing well in Tinsukia district, and is at an aerial distance of 900metres from the Dibru-Saikhowa National Park. It has been drilled by Oil India Limited (OIL) since 2006.

Highlights

- **Gas Leak:** The gas started to ooze out of the well during the maintenance. The gas well was under maintenance and it was temporarily shut. The Blowout Preventer (BOP) was also removed.
- **Reasons:** The incident could have occurred due to various factors such as lack of attention, poor workmanship, bad maintenance and outdated practices.

Impact

- ✓ The gas leak and blowout caused deaths of Gangetic dolphins, including many riverine species and a variety of fish. Fish species have also declined in wetland and river tributaries, where dissolved oxygen level has fallen due to the oil spill.

- ❖ Dibru-Saikhowa is a National Park as well as a Biosphere Reserve situated in the south bank of the river Brahmaputra in Assam.
- ❖ DibruSaikhowaNational Park is one of the 19 biodiversity hotspots in the world.
- ❖ It mainly consists of semi wet evergreen forests, tropical moist deciduous forest, bamboo, cane brakes and grasslands.
- ❖ **Maguri-Motapung Wetland is an Important Bird Area notified by the Bombay Natural History Society.**
- ❖ **MaguriMotapungBeel** is adjacent to Dibru-Saikhowa National Park.

- ✓ The birds have flown away due to the oil spill and intense noise from the blowout.
- ✓ The Gas particle have set on leaves of nearby vegetation like—Tea gardens, bamboo banana trees, betel nut trees and others.
- ✓ The highest concentration of polyaromatic hydrocarbons (PAHs), a toxic compound, in fish samples was observed from Maguri Motapung wetland.
- ✓ The impact is significant and will have long-term effects, as many of these pollutants will leach into the ground and contaminate groundwater.
- ✓ The burnt-out area is mapped as 65-70 hectares, which include crop fields, grasslands, and swamps.

PEPPER IT WITH
Blue Revolution, Bhopal
Gas Tragedy, Methyl
Isocyanate

Draft Environment Impact Assessment Notification 2020

News Excerpt

The Ministry of Environment, Forest and Climate Change (MoEF&CC) has published the draft Environment Impact Assessment (EIA) Notification 2020, with the intention of replacing the existing EIA Notification, 2006 under the Environment (Protection) Act, 1986.

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Pre-Connect

- An EIA notification is issued under sec. 3 of the Environment Protection Act, 1986 to impose restrictions on setting up new projects or expansion of existing projects.
- An EIA makes a scientific estimate of the likely impacts of a project, such as a mine, dam, industrial unit or waste treatment plant.
- To assure community participation, there is also a provision for public consultation in the rules, including a public hearing at which the local community and interested persons can give opinions and raise objections.

EIA Provisions: Then and Now

Parameter	EIA Notification, 2006 Rules	Draft EIA Notification, 2020
1. Post Facto Clearance	<ul style="list-style-type: none"> • No such effective provisions was there. • In case of failure in clearance. By submitting a remedial plan and by paying the prescribed penalty, project can be taken further. 	<ul style="list-style-type: none"> • The Provision has introduced under New EIA, 2020. • Even if a project has come up without environment safeguards or without getting environment clearances, it could carry out operation under the provision of the new draft EIA 2020.
		<p>Implications:</p> <ul style="list-style-type: none"> • Any project operating illegally (Since many years) without environmental clearance have an opportunity to turn into legal units without penalties, remedial plans and compensation to the damage that has been done. • For Instance- the LG Polymer Plant in Vishakhapatnam, where the styrene gas leak happened. It was revealed that the plant had been running for over two decades without clearances. If there would be an EIA, 2020 in place it could have escaped from penalties or could continue the plant operations without compensation.

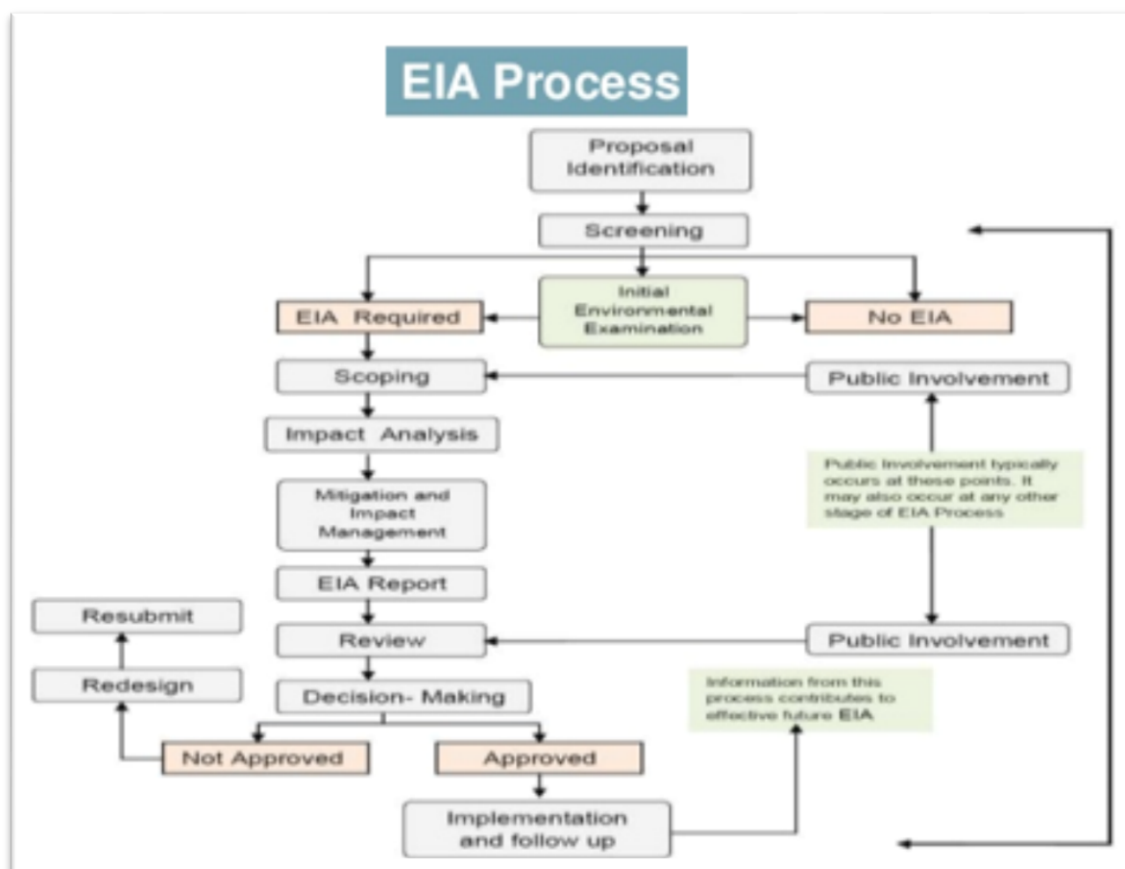
2. Criteria of Project Exemption	<ul style="list-style-type: none"> Under the unamend EIA Notification, 2006, any project to explore for hydrocarbon reserves was listed under Category A requiring an EIA report, public hearing and clearance from the Union MoEF&CC. 	<ul style="list-style-type: none"> Section 26 provides a list of projects that would not attract environmental clearance or permission, including Renewable energy projects, solar thermal power projects, solar parks, coal mining and seismic surveys for oil, methane and shale gas on some lands.. Roads and highways get liberal concessions. The notification also exempts projects with “strategic considerations as determined by the government” from the stricter purview of EIA and public hearings. <p>Implications:</p> <ul style="list-style-type: none"> Clean Energy has overlooked the manifold environmental and social concerns, like requirement of large land area, diversion of agricultural land and changes to drainage patterns brought on by the construction and operation of solar parks. Coal Mining, Oil and methane exemption may have irreversible impact of entire ecosystem. <p>For instance- In Assam due to poor adherence of environment norms gas well was blowout and caught fire. It cause severe damage to livelihood and rich biodiversity. The oil plant had been operating for over 15 years without obtaining prior consent from authority. If there would be an EIA, 2020 in place situation might have been turned grim.</p> <ul style="list-style-type: none"> The blanket authority provided to the government to categorise projects as strategic and elimination of public hearings undermines the very fabric of India’s international commitment under numerous multilateral agreements.
3. Role of Citizen	<ul style="list-style-type: none"> Under EIA, 2006 robust public hearing and people led governing provisions were core part. In case of violation, complaints from citizens are given cognizance. 	<ul style="list-style-type: none"> Section 14 provides exemption for these and some other projects from public consultation, also limiting the scope of public involvement in the case of national parks and sanctuaries where pipeline infrastructure will pass. The notice period for public hearing has been cut from 30 days to 20 days. <p>Implications:</p> <ul style="list-style-type: none"> The new draft will strengthen discretionary power of government while restraining public engagement in safeguarding the environment. Numerous provisions of the new EIA Notification also endanger the basic tenets of public participation.
4. Monitoring	<ul style="list-style-type: none"> The authorities were mandated to monitor projects for compliance 	<ul style="list-style-type: none"> It has been now been proposed to relax the monitoring frequency to once a year. The monitoring mechanism is faulty as the

& Compliance	with environmental norms every six months.	compliance report will be filed by the project proponents themselves. This will create a lot of room for discrepancies. • In case of violation public complaints would not be acknowledged.
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- The draft EIA is retrograde, because the CAG found in 2016 that the deficiency in semi-annual compliance reporting was between 43% and 78%, while failure to comply with conditions ranged from 5% to 57%.

Importance of EIA

- ✓ The undertaking of an EIA is a minimum environment and social safeguard, at the project level of the proposed activity, and is intended to facilitate systematic consideration of environmental issues as part of development decision-making.



- ✓ EIA emerges as a prominent and significant regulatory mechanism for the environmental policy as a tool for informed decision-making towards sustainable development and application of the precautionary principle.
- ✓ EIA's role as a tool in the achievement of sustainable development has been endorsed by the United Nations Environment Programme (UNEP) in its guidelines of EIA.

Conclusion

- There is dire need of stronger laws to protect the environment and to ensure that natural resources are available to those who need them the most.
- There are a large number of communities like Adivasis, peasants, coastal and fisher communities whose lives mainly depend on the state of the environment. Any drastic changes in EIA will have a direct impact on the living and working conditions of these people and the ecology. Government should acknowledge and come up with the environment and people-friendly laws.

PEPPER IT WITH
Forest Rights Act, 2006;
Wildlife Protection Act, The
Biological Diversity Act, 2002

- The dilution of environmental standards in the EIA needs to be evaluated in the background of the robust environmental principles operating at the national and international levels.
- India is a party to the Rio declaration, 1992 adopted by the UNCED, enunciated a catalogue of environmental principles including sustainable development, precautionary principle, and environmental impact assessment.

Bhagirathi Eco-Sensitive Zone

News Excerpt

The MoEF&C has approved the zonal master plan for the Bhagirathi Eco-sensitive zone to expedite the *Chardham* road project.

Pre-Connect

Eco-Sensitive Zones (ESZ):

1. ESZs are ecologically fragile areas, within 10 kms around Protected Areas, National Parks and Wildlife Sanctuaries in accordance with Supreme Court guidelines.
2. ESZ are formed to serve as “*shock absorber*” for protected areas. The basic aim here is to regulate certain activities around national parks and wildlife sanctuaries to minimise negative impact on the fragile ecosystem.
3. **Permitted activities:** Ongoing agricultural or horticultural practices, rainwater harvesting, organic farming, use of renewable energy resources. Mining is prohibited and tourism is regulated.

Chardham Road project: It proposes to provide all-weather connectivity to Yamunotri, Gangotri, Badrinath and Kedarnath, consist of 826 km length, involving an investment of Rs. 12,000 crores.

Zonal Master Plan (ZMP)

- The Bhagirathi Eco-Sensitive Zone notification mandated Uttarakhand government to prepare ZMP to be implemented under the supervision of the Monitoring Committee.
- The ZMP is based on watershed approach and includes governance in the area of forest and wildlife, watershed management, irrigation, energy, tourism, public health and sanitation, road infrastructure, etc.
- The approval of ZMP will give a boost to conservation and ecology of the area and also to undertake developmental activities as permitted under ZMP.

Key Concerns

- The Himalayas are extremely fragile. The rocks haven't consolidated completely. Hill cutting will destabilize the region, if there is a forest loss, debris would flow into the river and making the region extremely vulnerable to landslides.

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Lunar Lake

- ❖ It is notified as national geo-heritage monument. It has pH of 10.5.
- ❖ Recently, the colour of Lunar lake turned pink due to a large presence of the salt-loving 'Haloarchaea' microbes.
- ❖ The low level of water may lead to increased salinity and change in the behaviour of algae because of atmospheric changes.
- ❖ Lack of oxygen and unavailability of fresh water could have attributed to colour change.
- ❖ Season-wise changes occur in water and this might be case with the Lunar lake.

- The Himalayan region is tectonically active. Indian tectonic plate is subducting under the Eurasian plate. Himalayas falls under seismic zone V; thus, a major earthquake can occur anytime.
- Heavy construction may have devastating impact on regional flora and fauna. It could attribute to the seismic activity.

Tiger Census

News Excerpt

The MoEF&CC released a report on Tiger Census on the eve of Global Tiger Day i.e. 29 July.

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Pre-Connect

- **St. Petersburg declaration:** The Heads of the Governments of Tiger Range countries at St. Petersburg, Russia, had resolved to double tiger numbers across their global range by 2022 by signing the St. Petersburg declaration on tiger conservation.
- **Project Tiger:** It is an ongoing Centrally Sponsored Scheme of the Ministry of Environment, Forests & Climate Change providing central assistance to the tiger States for tiger conservation in designated tiger reserves.
- **M-STrIPES:** Monitoring System for Tigers-Intensive Protection and Ecological Status. It is used to estimate the population of tigers. It is GPS-enabled mobile app-based software that helps to capture data relating to tiger sightings, deaths, wildlife crime and ecological observations while patrolling.

Highlights

- This report assesses the status of tigers in terms of spatial occupancy and density of individual populations across India.
- The fourth cycle of National tiger status assessment of 2018-19 covered 381,400 km of forested habitats in 20 states of India.
- India's tiger population now stands at 2967. India has 70% of world's tiger population.
- The detailed report of the 4th All India Tiger Estimation is unique in the following ways;
 - Abundance index of co-predators and other species has been carried out which hitherto was restricted only to occupancy.
 - Sex ratio of tigers in all camera trap sites has been carried out for the first time.
 - Anthropogenic effects on tiger population have been elaborated in a detailed manner.
 - Tiger abundance within pockets in tiger reserves has been demonstrated for the first time.
- Tigers were observed to be increasing at a rate of 6% per annum in India when consistently sampled areas were compared from 2006 to 2018.
- The report evaluates the status of habitat corridors connecting major tiger populations and highlights vulnerable areas that require conservation attention for each landscape
- LIDAR based survey technology is used for the first time. LIDAR is a method for measuring distances by illuminating the target with laser light and measuring the reflection with a sensor.

PEPPER IT WITH

The National Tiger Conservation Authority, Wildlife Protection Act, 1972, Umbrella Species, Bio-Indicator

Role of Tiger in Eco-System

- ✓ **Keystone Species:** Tigers, are the top predators in an ecosystem, and are vital in regulating and perpetuating ecological processes. Ensuring the conservation of this top carnivore guarantees the well-being of entire ecosystem and biodiversity.
- ✓ Tiger is an incredible part of the nature and their increased number reflects equilibrium.

Voluntary National Review 2020

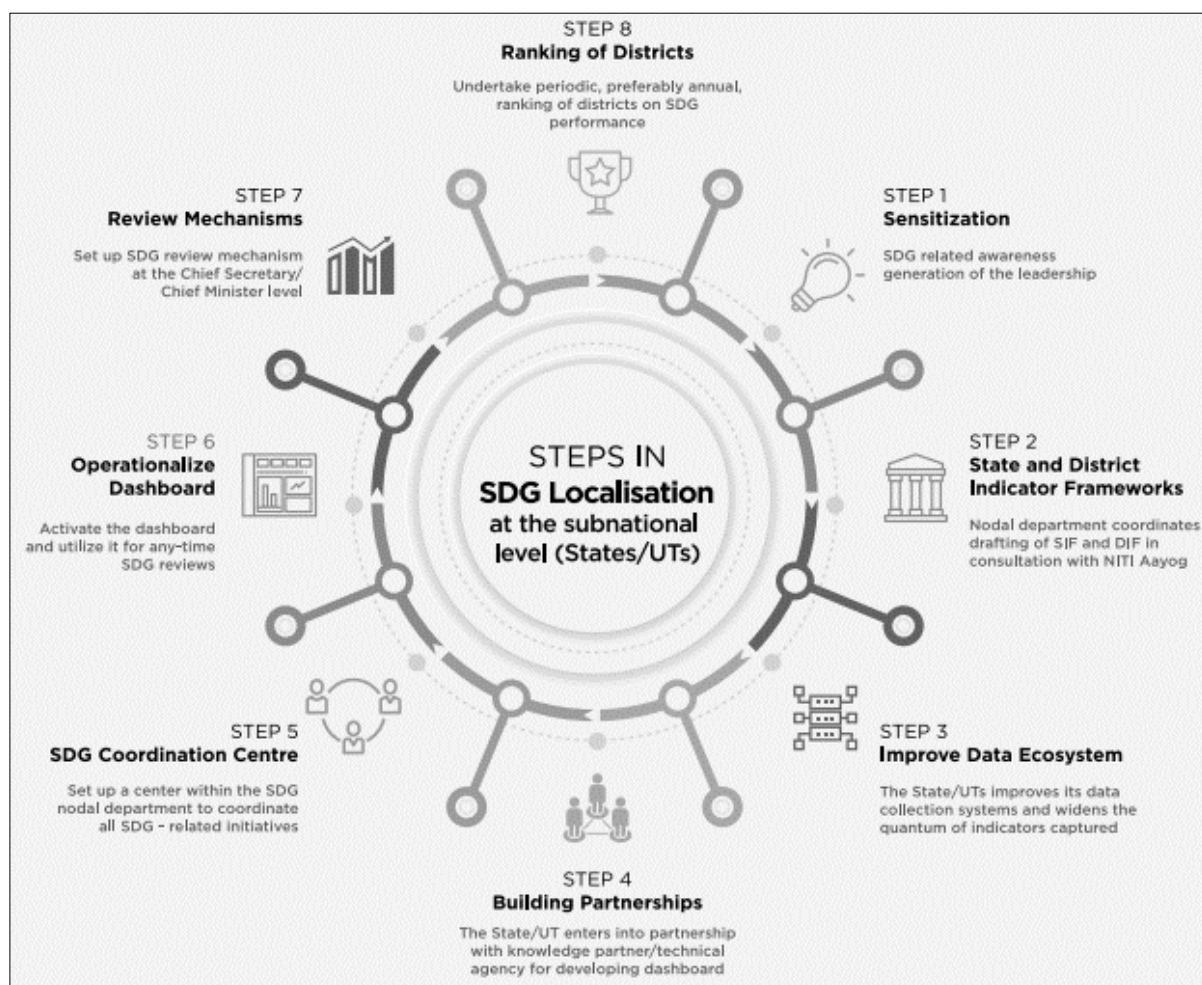
News Excerpt

NITI Aayog presented India's second Voluntary National Review (VNR) at the United Nations High-level Political Forum (HLPF) on Sustainable Development, 2020.

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Pre-Connect

- **HLPF:** HLPF is the foremost international platform for follow-up and review of progress on the **17 Sustainable Development Goals (SDGs)**. The HLPF meets annually under the aegis of the Economic and Social Council (ECOSOC) of the UN.



- **ECOSOC:** It ensures the three dimensions of sustainable development – economic, social and environmental. It is the central platform for fostering debate and innovative thinking, forging consensus on ways forward, and coordinating efforts to achieve internationally agreed goals.
- **VNR:** The VNRs aim to facilitate the sharing of experiences, including successes, challenges and lessons learned, with a view to accelerating the implementation of the 2030 Agenda. The VNRs presented by Member States at the HLPF are a critical component of the review of progress and implementation of the 2030 Agenda and the SDGs.

India VNR 2020

- NITI Aayog has the mandate of overseeing the adoption and monitoring of SDGs at the national and sub-national level.
- India calls for developed nations to assist developing ones.
- India reiterates that the developed countries have an intrinsic obligation to provide financial assistance to the developing countries, especially for global public goods such as climate change mitigation and control of pandemics, so that they can fully achieve the SDGs.

- Deliberating on the “SDG-17” that is about “partnerships for the goals”, the report highlighted the need for international cooperation for curbing illicit financial flows.
- **SDG financing:** India needs to enhance its spending by an additional 6.2% of GDP while doing major upgrade of its statistical system.
- **SDG Localization:** The NITI Aayog has prepared the report by engaging with sub-national and local governments, civil society organizations, local communities, and people in vulnerable situations and the private sector. Localization can provide more and more data to measure and effective results under framework.

Way Forward

- ✓ **Addition of indicators for targets which are presently not covered:** The National Indicator Framework currently does not include indicators for 36 out of the 169 SDG targets. This is due to the fact that the statistical system, historically, has not been collecting data which correspond to some of the new challenges put forward by the SDG framework.
- ✓ **Improving the frequency of data collection:** It is strenuous to collect data on a wide array of themes across India, in short intervals.
- ✓ **Data quality:** With data in large quantity emanating from a variety of sources on a myriad of themes, it is imperative to focus on data quality. The third-party led independent surveys can be done for SDG data validation.
- ✓ **SDGs Monitoring:** SDG localization is the principal approach to achieve the 2030 Agenda in a time-bound manner in India. In this regard, it is essential that the States and UTs set up their own SDG monitoring systems, even Gram Panchayat have to monitor SDGs on the basis of resources that they have and complementing the monitoring efforts by NITI Aayog.

PEPPER IT WITH
SDG India baseline
report 2019, Agenda
2030, NITI Aayog



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The advertisement features a central illustration of a person sitting on a blue sofa, working on a laptop. Surrounding the person are various icons: a clock, a target with an arrow, a bar chart, a pie chart, and a potted plant. The background is a mix of teal and white with a red arrow pointing upwards.

Science & Technology

International Thermo-Nuclear Experiment Reactor (ITER)

News Excerpt

The world will mark a historic moment with the start of machine assembly of world's largest experimental fusion reactor at ITER facility in southern France.

Pre-Connect

- ITER is one of the most ambitious energy projects in the world today.
- In southern France, 35 nations are collaborating to build the world's largest tokamak, a magnetic fusion device that has been designed to prove the feasibility of fusion as a large-scale and carbon-free source of energy based on the same principle that powers our Sun and stars.
- ITER will be the first fusion device to produce net energy and maintain fusion for long periods of time. It also will be the first fusion device to test the integrated technologies, materials, and physics regimes necessary for the commercial production of fusion-based electricity.
- Thousands of engineers and scientists have contributed to the design of ITER since the idea for an international joint experiment in fusion was first launched in 1985.
- ITER Members- **China, the European Union, India, Japan, Korea, Russia and the United States**- are now engaged in a 35-year collaboration to build and operate the ITER experimental device, and together bring fusion to the point where a demonstration fusion reactor can be designed.
- ITER-India is the Indian domestic agency, a specially empowered project of the Institute for Plasma Research (IPR), an aided organization under Dept. of Atomic Energy, Govt. of India.
- ITER-India is responsible for delivery of the following ITER packages: Cryostat, In-wall Shielding, Cooling Water System, Cryogenic System, Ion-Cyclotron RF Heating System, Electron Cyclotron RF Heating System, Diagnostic Neutral Beam System, Power Supplies and some Diagnostics.
- Additionally, related R&D and experimental activities are being carried out at the ITER-India laboratory in Gandhinagar, Gujarat.

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What is Fusion?

Fusion is the energy source of the Sun and stars. In the tremendous heat and gravity at the core of these stellar bodies. The hydrogen nuclei collide, fuse into heavier helium atoms and release tremendous amounts of energy in the process. Three conditions must be fulfilled to achieve fusion in a laboratory:

1. very high temperature (on the order of 150,000,000° Celsius);
2. sufficient plasma particle density (to increase the likelihood that collisions do occur); and
3. sufficient confinement time (to hold the plasma, which has a propensity to expand, within a defined volume).

At extreme temperatures, electrons are separated from nuclei and a gas becomes a plasma—often referred to as the fourth state of matter. Fusion plasmas provide the environment in which light elements can fuse and yield energy.

Analytica

- Power plants today rely either on fossil fuels, nuclear fission, or renewable sources like wind or water.
- Global demand for energy is skyrocketing with population growth. On top of this, we know for a fact that relying on fossil fuels is not going to sustain the planet for long.
- The tokamak is an experimental machine designed to harness the energy of fusion. Inside a tokamak, the energy produced through the fusion of atoms is absorbed as heat in the walls of the vessel.
- Just like a conventional power plant, a fusion power plant will use this heat to produce steam and then electricity by way of turbines and generators.
- The heart of a tokamak is its doughnut-shaped vacuum chamber. Inside, under the influence of extreme heat and pressure, gaseous hydrogen fuel becomes a plasma—the very environment in which hydrogen atoms can be brought to fuse and yield energy.

- The charged particles of the plasma can be shaped and controlled by the massive magnetic coils placed around the vessel; physicists use this important property to confine the hot plasma away from the vessel walls.
- The term "tokamak" comes from a Russian acronym that stands for "toroidal chamber with magnetic coils." First developed by Soviet research in the late 1960s, the tokamak has been adopted around the world as the most promising configuration of magnetic fusion device.
- ITER will be the world's largest tokamak—twice the size of the largest machine currently in operation, with ten times the plasma chamber volume.
- The amount of fusion energy a tokamak is capable of producing is a direct result of the number of fusion reactions taking place in its core. The larger the vessel, the larger the volume of the plasma and therefore the greater the potential for fusion energy.
- With ten times the plasma volume of the largest machine operating today, the ITER Tokamak will be a unique experimental tool, capable of longer plasmas and better confinement.

Key Advantages

- ✓ **Produce 500 MW of fusion power:** The world record for fusion power is held by the European tokamak JET. ITER is designed to produce a ten-fold return on energy, 500 MW of fusion power from 50 MW of input heating power. ITER will not capture the energy it produces as electricity, but—as first of all fusion experiments in history to produce net energy gain—it will prepare the way for the machine that can.
- ✓ **Demonstrate the integrated operation of technologies for a fusion power plant:** ITER will bridge the gap between today's smaller-scale experimental fusion devices and the demonstration fusion power plants of the future. Scientists will be able to study plasmas under conditions similar to those expected in a future power plant and test technologies such as heating, control, diagnostics, cryogenics and remote maintenance.
- ✓ **Achieve a deuterium-tritium plasma in which the reaction is sustained through internal heating:** Fusion research today is at the threshold of exploring a "burning plasma"—one in which the heat from the fusion reaction is confined within the plasma efficiently enough for the reaction to be sustained for a long duration. Scientists are confident that the plasmas in ITER will not only produce much more fusion energy, but will remain stable for longer periods of time.
- ✓ **Test tritium breeding:** One of the missions for the later stages of ITER operation is to demonstrate the feasibility of producing tritium within the vacuum vessel. The world supply of tritium (used with deuterium to fuel the fusion reaction) is not sufficient to cover the needs of future power plants. ITER will provide a unique opportunity to test mockup in-vessel tritium breeding blankets in a real fusion environment.
- ✓ **Demonstrate the safety characteristics of a fusion device:** ITER achieved an important landmark in fusion history when, in 2012, the ITER Organization was licensed as a nuclear operator in France based on the rigorous and impartial examination of its safety files. One of the primary goals of ITER operation is to demonstrate the control of the plasma and the fusion reactions with negligible consequences to the environment.

PEPPER IT WITH
Nuclear fission, Large
Hadron Collider,
Ghost particle, God
Particle

Vitamin- D

News Excerpt

Low levels of vitamin D are related to COVID-19 infection and hospitalization, a new study out of Israel found.

Pre-Connect

- Vitamins are organic compounds that are needed in small quantities to sustain life. Most vitamins need to come from food.
- There are 13 known vitamins. Vitamins are either water-soluble or fat-soluble. Fat-soluble vitamins are easier for the body to store than water-soluble.
- Vitamin D is a fat-soluble vitamin that is naturally present in very few foods, added to others, and available as a dietary supplement. It is also produced endogenously when ultraviolet rays from sunlight strike the skin and trigger vitamin D synthesis.

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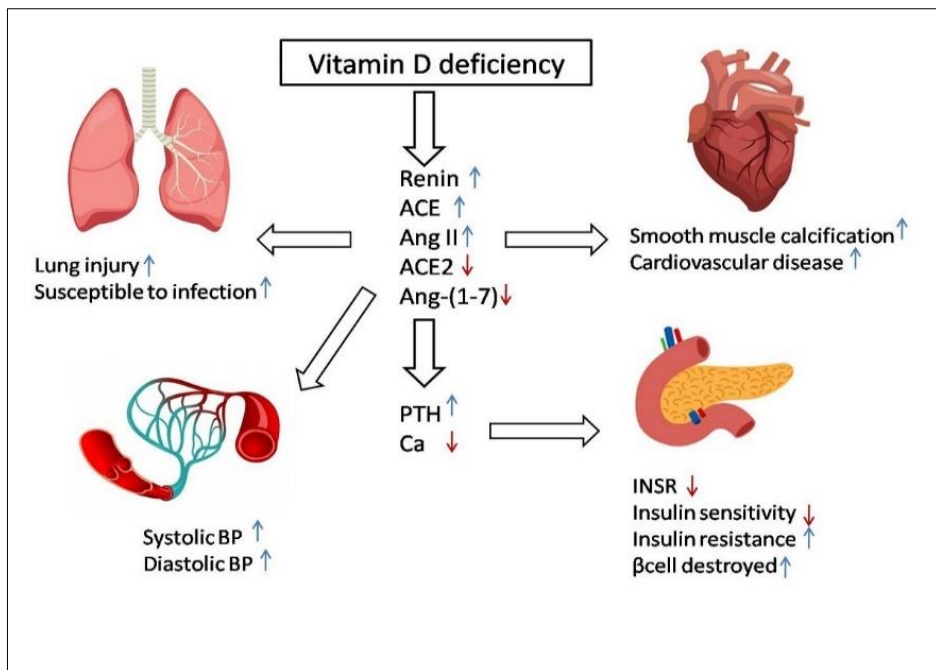
Significance

Vitamin D has multiple roles in the body. It assists in:

- promoting healthy bones and teeth
- supporting immune, brain, and nervous system health
- regulating insulin levels and supporting diabetes management
- supporting lung function and cardiovascular health
- influencing the expression of genes involved in cancer development

If Vitamin D deficiency continues for long periods, it may result in complications, such as:

- cardiovascular conditions
- autoimmune problems
- neurological diseases
- infections
- pregnancy complications
- certain cancers, especially breast, prostate, and colon.



Sources

Getting sufficient sunlight is the best way to help the body produce enough vitamin D. Plentiful food sources of vitamin D include:

- fatty fish, such as salmon, mackerel, and tuna
- egg yolks
- cheese
- beef liver
- mushrooms
- fortified milk
- fortified cereals and juices

S. No.	Vitamin	Deficiency diseases
1)	Thiamine (B ₁)	Beriberi
2)	Riboflavin (B ₂)	Glossitis
3)	Niacin (B ₃)	Pellagra
4)	Pyridoxine (B ₆)	Anaemia
5)	Cyanocobalamin (B ₁₂)	Pernicious anaemia
6)	Folic acid (B ₉)	Anaemia
7)	Pantothenic acid	Burning feet
8)	Biotin	Nerves disorders
9)	Ascorbic acid (Vitamin C)	Scurvy
10)	Retinol (Vit. A)	Eye and Skin diseases – Night blindness, Xerophthalmia, Rupture of cornea, Scale formation on skin
11)	Calciferol (Vit. D)	Rickets, fragile bones
12)	Tocopherol (Vit. E)	Fertility disorders – Sterility in males, Abortions in females
13)	Phylloquinone (Vit. K)	Blood clotting

Highlights

- COVID-19 caused by SARS-CoV-2 has become one of the most important epidemiological events within the last 100 years, causing devastating consequences for the public health systems and the socio-economic repercussions around the world.

- When doctors tested patients for risk factors of COVID-19 infection, one consistent marker was low levels of vitamin D in the blood.
- Normal levels of vitamin D may provide protection against getting COVID-19 or severe symptoms.
- Previous studies are continuing to examine what potential role vitamin D has to prevent or minimize the severity of COVID-19, since there is a body of research connecting vitamin D to other viral respiratory infections.
- So far doctors know that overdosing on vitamin D supplements does nothing to help protect against COVID-19 but could cause other harmful side-effects. The upshot is that vitamin D levels should be kept up but not overdone.
- The recommended daily value is 600 IUs, or at most 800 IUs, and more than that can lead to adverse effects like nausea and kidney problems.
- The normal amount of 40 to 60 ng/ml (nanograms per milliliter) is enough to help your body strengthen its immune system and ward off infection.

Conclusion

The relation between Vitamin-D and COVID-19 is still not clear but maintaining the optimal level of Vitamin-D in the body would be a good precautionary step.

Production of lithium in stars

News Excerpt

A forty-year-old puzzle regarding the production of lithium in stars has been solved by Indian researchers. Stars, as per known mechanisms of evolution, actually destroy lithium as they evolve into red giants.

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What is Lithium?

- Lithium is the lightest known metal with atomic number 3. It is an element of many uses.
- According to NASA, Lithium, as well as the first and second lightest chemical elements (hydrogen and helium, respectively), are the only elements created at the birth of the universe.
- However, according to the Big Bang Theory, the universe should hold three times as much lithium as can be accounted for in the oldest stars, an issue called the missing lithium problem.
- It's used in the manufacture of aircraft. It's also used in mental health: Lithium carbonate is a common treatment of bipolar disorder, helping to stabilize wild mood swings caused by the illness.
- Lithium-ion batteries are the key to lightweight, rechargeable power for laptops, phones and other digital devices.
- Lithium is a special metal in many ways. It's light and soft — so soft that it can be cut with a kitchen knife and so low in density that it floats on water. It's also solid at a wide range of temperatures, with one of the lowest melting points of all metals and a high boiling point.

Highlights

- Astronomers regard lithium as fragile, easily destroyed in the hot interiors of stars. This is confirmed by observations of lithium on the surface of stars, where we see that it becomes less abundant as they age, confirming that they gradually destroy it as they evolve.
- However, the 'lithium-rich giants', first discovered about 40 years ago, have lithium contents up to 1000 times higher than other giant stars. They have been a source of mystery and detailed astronomical study - eluding explanation for many decades.
- According to a new study, when stars grow beyond their Red Giant stage into what is known as the Red Clump stage, they produce lithium in what is known as a Helium Flash and this is what enriches them with lithium.
- Lithium was first produced in the Big Bang, around 13.7 billion years ago when the universe came into being, along with other elements.
- While the abundance of other elements grew millions of times, the present abundance of lithium in the universe is only four times the original value. It is actually destroyed in the stars.

- The Sun, for instance, has about a factor of 100 lower amount of lithium than the Earth.
- Before this finding, the planet engulfment theory was quite popular. For example, Earth-like planets may increase the star's lithium content when they plunge into their star's atmosphere when the latter become Red Giants. Until now, it was believed that only about 1% of giants are lithium rich.
- This is the first study to demonstrate that lithium abundance enhancement among low mass giant stars is common.
- The research team has shown that as the star evolves beyond the Red Giant stage, and before it reaches the Red Clump stage, there is a helium flash which produces an abundance of lithium.

Mission to Mars

News Excerpt

Three countries- China, UAE and US has launched their respective Mar's mission in the month of July.

Highlights

UAE's Emirates mars mission

- This is the first space mission by the UAE, and the first Arab mission to Mars.
- The Emirates Mars Mission "**Hope Probe**" will be the first probe to provide a complete picture of the Martian atmosphere and its layers when it reaches the red planet's orbit in 2021.
- It will help answer key questions about the global Martian atmosphere and the loss of hydrogen and oxygen gases into space over the span of one Martian year.
- With no previous domestic space exploration experience, planetary science capacity or suitable infrastructure, the nation managed to put together a delivery team of 100% local, Emirati staff with an average age of under 35.
- Despite the fact that Mars missions are notorious for their high failure rates, UAE aim for the red planet in the first place. Space programmes have historically been used as catalysts for geopolitical influence.
- The UAE's mission has been timed to coincide Hope's arrival into Martian orbit with the nation's 50th anniversary as an independent country.
- Through its design and execution, the mission aims to diversify UAE's economy from traditional activity, including oil and finance.
- Instead, it wants to inspire a young Arab generation towards scientific and entrepreneurial careers – and away from other, less societally beneficial pathways.

Objectives

- Understand climate dynamics and the global weather map through characterizing the lower atmosphere of Mars.
- Explain how the weather changes the escape of Hydrogen and Oxygen through correlating the lower atmosphere conditions with the upper atmosphere.
- Understand the structure and variability of Hydrogen and Oxygen in the upper atmosphere, as well as identifying why Mars is losing them into space.

Chinese Tianwen-1 mission to Mars

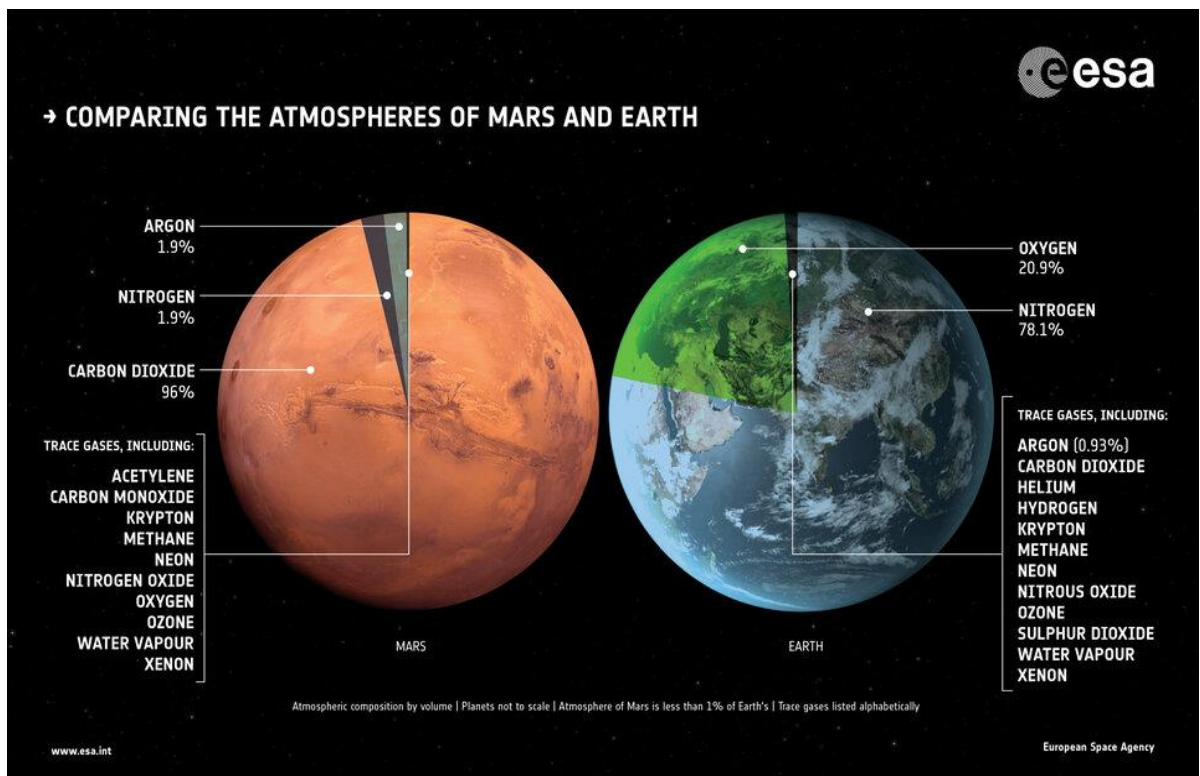
- China has launched a rover to Mars on 23rd of July 2020, signalling a space race with the US, where NASA is set to launch its own rover on July 30.
- This is a period that offers a window for such launches, with the alignment of Earth and Mars allowing a short journey.
- China's first Mars probe is called Tianwen-1, which means "Questions to Heaven".
- The spacecraft consists of an orbiter, a lander and a rover, and the mission aims to study the thickness and sub-layer distribution of the Martian soil.
- The spacecraft, weighing 5 tonnes, launched on a Long March 5 rocket from Xichang, China.
- The scientific goals of the mission include studying Martian topography and geology and determining the composition of the surface material, climate and environment.

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- Tianwen-1 will reach the Red Planet's orbit in February 2021. The rover will land on Mars in May.
- The orbiter will use high-resolution cameras to search for a suitable landing site somewhere in the Utopia Planitia region. It weighs around 240 kg and will carry cameras, a subsurface radar, a spectrometer, a magnetometer, and atmospheric sensors.

US's Perseverance Rover mission to Mars

- The Mars 2020 **Perseverance** Rover mission is part of NASA's Mars Exploration Program, a long-term effort of robotic exploration of the Red Planet.
- The mission addresses high-priority science goals for Mars exploration, including key questions about the potential for life on Mars.
- Perseverance takes the next step by not only seeking signs of habitable conditions on Mars in the ancient past, but also searching for signs of past microbial life itself.
- The rover introduces a drill that can collect core samples of the most promising rocks and



soils and set them aside in a "cache" on the surface of Mars.

- A future mission could potentially return these samples to Earth. That would help scientists study the samples in laboratories with special room-sized equipment that would be too large to take to Mars.
- The mission also provides opportunities to gather knowledge and demonstrate technologies that address the challenges of future human expeditions to Mars.
- These include testing a method for producing oxygen from the Martian atmosphere, identifying other resources (such as subsurface water), improving landing techniques, and characterizing weather, dust, and other potential environmental conditions that could affect future astronauts living and working on Mars.

Why go to Mars?

- Mars is an obvious target for exploration because it is close by in our Solar System, but there are many more reasons to explore the Red Planet.
- The scientific reasons for going to Mars can be summarised by the search for life, understanding the surface and the planet's evolution, and preparing for future human exploration.
- Mars is an excellent place to investigate the existence of life beyond the Earth because it is the most similar planet to Earth in the Solar System. Evidence suggests that Mars was

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once full of water, warmer and had a thicker atmosphere, offering a potentially habitable environment.

- While life arose and evolved on Earth, Mars experienced serious climate change. Planetary geologists can study rocks, sediments and soils for clues to uncover the history of the surface.
- Scientists are interested in the history of water on Mars to understand how life could have survived. Volcanoes, craters from meteoroid impacts, signs of atmospheric or photochemical effects and geophysical processes all carry aspects of Mars' history.
- Samples of the atmosphere could reveal crucial details on its formation and evolution, and also why Mars has less atmosphere than Earth.
- Mars can also help us to learn more about our home. Understanding martian geophysical processes promises to uncover details of the evolution and history of Earth and other planets in our Solar System.
- To reduce the cost and risk for human exploration of Mars, robotic missions can scout ahead and help us to find potential resources and the risks of working on the planet.
- Before sending astronauts, we need to understand the hazards. Inevitably, astronauts would bring uncontained martian material when they return to Earth, either on their equipment or on themselves. Understanding any biohazards in the soil and dust will help the planning and preparation of these future missions.
- Going to Mars is hard and it is even harder for humans because we would need to pack everything to survive the trip to our neighbouring planet and back.
- Designing a Mars mission would be easier if we could use resources that are already available locally.
- Water is a valuable resource for human expeditions, both to consume by astronauts and for fuel. Samples gathered by robots could help to evaluate where potential resources are available for future human explorers and how to exploit them.

Neo-Wise Comet

News Excerpt

The comet NEOWISE will be making its closest approach to the Earth in the month of July, passing by at a distance of 103 million kilometres.

Pre-Connect

- Comets are basically dusty snowballs which orbit the Sun. They are made of ices, such as water, carbon dioxide, ammonia and methane, mixed with dust.
- These materials came from the time when the Solar System was formed.
- Comets have an icy center (nucleus) surrounded by a large cloud of gas and dust (called the coma). The coma is created as the ice in the nucleus is warmed by the Sun and vaporizes.
- Comets can develop two tails as they travel closer to the Sun: a straight gas tail and a curved dust tail.
- The gas tail is created by the solar wind, pushing gas away from the comet's coma and pointing straight back from the Sun.
- The dust in the coma is not affected by magnetic fields but is vaporized by the Sun's heat, and forms a curved tail which follows the comet's orbit.

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Asteroid, Kuiper belt,
Asteroid belt, Solar
system

Highlights

- Officially known as C/2020 F3, Comet NEOWISE is a comet that was discovered on March 27, 2020, by NEOWISE, the asteroid-hunting afterlife of the Wide-field Infrared Survey Explorer (WISE) mission.
- Comet NEOWISE has two tails that typically accompany every comet.
- Comet NEOWISE is about 3 miles (5 kilometers) in diameter which is a reasonably large but roughly average-size comet.
- The comet is moving about twice as fast as the Earth's speed around the sun. Because of the comet's extremely elliptical orbit, it will slow down as it reaches its farthest point from

the sun, then fall back toward the inner solar system and accelerate again when it heads back round the sun.

- That trip around the sun is over for Comet NEOWISE's current orbit and it's moving back to the outer solar system.
- This particular comet has no possibility of impacting the Earth. It crosses the plane of Earth orbit well inside of recovery orbit and almost near the orbit of Mercury, so there's absolutely no hazard from this comet.

G4 virus

News Excerpt

In a new research, scientists from China – which has the largest population of pigs in the world – have identified a “recently emerged” strain of influenza virus that is infecting Chinese pigs and that has the potential of triggering a pandemic.

Pre-Connect

It is estimated that the world population will reach 11 billion by 2100, and one of the consequences of this population rise would be new challenges in controlling disease outbreaks. Some of deadliest outbreaks in recent times are-

- The 1918 influenza pandemic was the most severe pandemic in recent history. It was caused by an H1N1 virus with genes of avian origin. Although there is not universal consensus regarding where the virus originated, it spread worldwide during 1918-1919.
- In February 1957, a new influenza A (H2N2) virus emerged in East Asia, triggering a pandemic (“Asian Flu”). This H2N2 virus was comprised of three different genes from an H2N2 virus that originated from an avian influenza A virus, including the H2 hemagglutinin and the N2 neuraminidase genes. The estimated number of deaths was 1.1 million worldwide and 116,000 in the United States.
- The 1968 pandemic was caused by an influenza A (H3N2) virus comprised of two genes from an avian influenza A virus, including a new H3 hemagglutinin, but also contained the N2 neuraminidase from the 1957 H2N2 virus. It was first noted in the United States in September 1968. The estimated number of deaths was 1 million worldwide.
- SARS stands for severe acute respiratory syndrome, is caused by the SARS coronavirus. It first infected people in late 2002 in China, and within weeks spread to 37 countries through air travel. The virus infected 8,000 people worldwide, about 800 of whom died.
- In the spring of 2009, a novel influenza A (H1N1) virus emerged. This new H1N1 virus contained a unique combination of influenza genes not previously identified in animals or people. This virus was designated as influenza A (H1N1)pdm09 virus.
- Middle East respiratory syndrome (MERS) is a viral respiratory disease caused by a novel coronavirus (Middle East respiratory syndrome coronavirus, or MERS-CoV) that was first identified in Saudi Arabia in 2012. Approximately 35% of reported patients with MERS-CoV infection have died.
- West Africa's Ebola outbreak sparked international concern in 2014, killing more than 11,310 people and infecting more than 28,000. The outbreak is now the most fatal and widespread ever recorded.

Highlights

- Named G4, the swine flu strain has genes similar to those in the virus that caused the 2009 flu pandemic.

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Swine Flu

The WHO declared the outbreak of type A H1N1 influenza virus a pandemic in 2009 when there were around 30,000 cases globally. The US Centers for Disease Control and Prevention (CDC) defines swine flu as, “a respiratory disease of pigs caused by type A influenza viruses that regularly cause outbreaks of influenza in pigs. Influenza viruses that commonly circulate in swine are called “swine influenza viruses” or “swine flu viruses”. Like human influenza viruses, there are different sub-types and strains of swine influenza viruses”.

- The scientists identified the virus through surveillance of influenza viruses in pigs that they carried out from 2011 to 2018 in ten provinces of China.
- During this time, more than 29,000 nasal swabs were collected from slaughtered pigs and over 1,000 swabs or lung tissues were collected from farmed pigs that had signs of respiratory disease.
- Out of these samples, the researchers isolated 179 swine flu viruses, the majority of which belonged to the newly identified G4 strain.
- They also found that the G4 strain has the capability of binding to human-type receptors (like, the SARS-CoV-2 virus binds to ACE2 receptors in humans), was able to copy itself in human airway epithelial cells, and it showed effective infectivity and aerosol transmission in ferrets.
- The scientists report that the new strain (G4) has descended from the H1N1 strain that was responsible for the 2009 flu pandemic.
- Pigs are intermediate hosts for the generation of pandemic influenza virus. Thus, systematic surveillance of influenza viruses in pigs is a key measure for pre-warning the emergence of the next pandemic influenza.
- It cannot be said if this new strain, if transmitted from pigs to humans, can transmit from one human to another.
- The scientists suggest that controlling the prevailing G4 Eurasian-Avian like (EA) H1N1 viruses in pigs and closely monitoring human populations, especially workers in the swine industry, should be “urgently implemented”.

Conclusion

There is a need to learn from the past experience in dealing with outbreaks caused by different viruses. The current COVID-19 pandemic has a devastating impact on socio-economic condition of the world. Therefore, it would wise to take necessary action in advance to restrict the impact of any such diseases.

Accelerate Vigyan Scheme

News Excerpt

To provide a single platform for research internships, capacity building programs, and workshops across the country, the Science and Engineering Research Board (SERB) has launched a new scheme called ‘Accelerate Vigyan’ (AV).

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Highlights

- The primary objective of this inter-ministerial scheme is to give more thrust on encouraging high-end scientific research and preparing scientific manpower, which can lead to research careers and knowledge-based economy.
- Recognizing that all research has its base as development of quality and well-trained researchers, AV will initiate and strengthen mechanisms of identifying research potential, mentoring, training and hands-on workshop on a national scale.
- The vision is to expand the research base, with three broad goals, namely, consolidation / aggregation of all scientific programs, initiating high-end orientation workshops, and creating opportunities for research internships for those who do not have access to such resources / facilities.
- The institution is also planning to launch an app for this in the coming two months.
- There are two components of AV:
 - a) **ABHYAAS** programme-It is an attempt to boost research and development in the country by enabling and grooming potential PG/PhD students by means of developing their research skills in selected areas across different disciplines or fields. It has two components:
 - High-End Workshops (‘KARYASHALA’) and
 - Research Internships (‘VRITIKA’).
 This is especially important for those researchers who have limited opportunities to access such learning capacities / facilities / infrastructure.
 - b) **SAMMOHAN**- It has been sub-divided into

- SAYONJIKA- It is an open-ended program to catalogue the capacity building activities in science and technology supported by all government funding agencies in the country.
- SANGOSHTI- It is a pre-existing program of SERB. It is designed to facilitate the scientific community to establish an interaction with other individuals and research groups to enhance knowledge exchange. It is to keep them abreast of the latest developments in Science & Technology by supporting participation in national and international events across the country.
- As part of this acceleration drive, there is a plan to organize about 1000 high-end workshops (dedicated to certain themes) to provide opportunities to about 25,000 postgraduate and doctoral students in the next five years, in collaboration with premier scientific institutions and laboratories.
- Also, central coordination of internships in these institutions will provide opportunity to another 1000 potential postgraduate students every year.
- The AV will work on mission mode, particularly with respect to its component dealing with consolidation/aggregation of all major scientific events in the country.
- Thus, an Inter-Ministerial Overseeing Committee (IMOC) involving all the scientific ministries/departments and a few others has been constituted for the purpose of supporting SERB in implementing the AV scheme in a successful manner.
- The database of skilled manpower developed across different disciplines so generated and the final outcomes captured in the process through all the sub-components of the AV will serve the cause of all stakeholders in respect of capacity building in the country.
- The scheme also seeks to garner the social responsibility of the scientific community in the country.

Science and Engineering Research Board (SERB)

- ❖ It was set up through the Science and Engineering Research Board Act, 2008 of Parliament.
- ❖ The body comes under Department of Science and Technology.
- ❖ Promoting basic research in Science and Engineering and to provide financial assistance to persons engaged in such research, academic institutions, research and development laboratories, industrial concerns and other agencies for such research and for matters connected therewith or incidental thereto are the primary and distinctive mandate of the Board.
- ❖ SERB aims to build up best management systems which would match the best global practices in the area of promotion and funding of basic research.

Conclusion

The initiative is a right step in direction of promoting research and development, innovation and promote science and technology in the country.

India-Russia Joint Technology Assessment and Accelerated Commercialization programme

News Excerpt

The Department of Science and Technology has launched the India-Russia Joint Technology Assessment and Accelerated Commercialization Programme in partnership with the Federation of Indian Chambers of Commerce and Industry (FICCI) and Foundation for Assistance to Small Innovative Enterprises (FASIE) of the Russian Federation.

Highlights

- The programme will connect Indian, and Russian Science & Technology (S&T) led SMEs and Start-ups for joint R&D for technology development and for cross-country technology adaptation.
- The launch of the programme is very timely, wherein we can leverage joint intellectual and financial resources to develop technologies that would provide the solutions for tomorrow.

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- India has one of the largest start-up ecosystems in the world and the number of unicorns is testament to the tremendous talent the country possesses.
- S&T-led innovation and entrepreneurship are priorities of both countries and will be a key point on the agenda as President Putin visits India later this year.
- There is a history of scientific cooperation between the countries, and with this initiative; we take the next step of commercialization.
- There was a need to convert knowledge into products, and such a program would connect Indian and Russian scientific & production houses, researchers, entrepreneurs to address societal challenges, not only of two countries but globally.
- The programme will run through two annual cycles with up to five projects to be funded under each cycle.
- Projects are being sought on leading S&T focus areas, including but not limited to, IT & ICT (including AI, AR, VR), Medicine & Pharmaceuticals, Renewable Energy, Aerospace, Alternative Technologies, Environment, New Materials, Biotechnologies, Robotics and Drones.
- On behalf of DST, FICCI will implement the program in India.
- Over a period of two years, the Department of Science and Technology will fund up to INR 15 Crore to ten Indian SMEs/Start-ups and FASIE will provide similar funding to the Russian projects.
- The programme will provide access to partial public funding for jointly selected projects with the participation of at least one start-up/SME from India and one SME from Russia.
- The selected projects will be required to bear partial funding as well, either through own funds or alternate sources of funding. In addition to the financial support, the teams will also be supported through capacity building, mentorship and business development.
- The programme is accepting applications under two broad categories, i.e. Joint Partnership Projects and Technology Transfer/Adaptation. A dedicated portal www.indiarussiainnovate.org has been developed for this purpose.

Federation of Indian Chambers of Commerce and Industry (FICCI)

- ❖ Established in 1927, it is the largest and oldest apex business organisation in India.
- ❖ A non-government, not-for-profit organisation, FICCI is the voice of India's business and industry.
- ❖ From influencing policy to encouraging debate, engaging with policy makers and civil society, FICCI articulates the views and concerns of industry.
- ❖ It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies.
- ❖ FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policy makers and the international business community.

ASTHROS Mission

News Excerpt

NASA has started work on a new mission to send a telescope, on a football stadium-sized balloon, high into the stratosphere to observe wavelengths of light invisible from the Earth.

Highlights

- NASA has begun work on a balloon of the size of a football stadium that will carry a 2.5-meter telescope into the stratosphere to observe wavelengths of light that are not visible from the ground.
- The mission named Astrophysics Stratospheric Telescope for High Spectral Resolution Observations at Submillimeter-wavelengths, or ASTHROS in short, will tentatively be launched by December 2023 from Antarctica.

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- The ASTHROS mission will be carried on a big balloon that will be about 150 meters wide and will be inflated with helium. It will spend three weeks in the air, observing and collecting crucial data.
- ASTHROS will observe far-infrared light, which is light with wavelengths much longer than what is visible to the naked eye, and to do that the balloon will reach heights of about 40 kilo meters — altitudes that are roughly four times higher than what commercial airliners fly.
- Though the mission will still be well under the boundary of space (100 kilo meters above Earth's surface), the altitude will be high enough for it to observe light wavelengths that are blocked by Earth's atmosphere.
- The main payloads in the balloon are going to be a telescope, science instruments, and certain subsystems like cooling and electronic systems.
- The mission will measure the motion and speed of gas around newly formed stars, with four major targets already planned to begin with.
- ASTHROS will observe two regions in the Milky Way where stars are born.
- The telescope will also map the presence of two kinds of nitrogen ions that reveal the places where "winds" from supernova explosions have reshaped the clouds of gas and dust in these active, energetic star-forming regions of the galaxy.

Plasma Bank

News Excerpt

To enable the search for plasma donors more systematic, the Delhi government inaugurated India's first plasma bank at ILBS Hospital in Delhi.

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Pre-Connect

What is Plasma?

- Plasma is the clear, straw-colour liquid portion of blood that remains after red blood cells, white blood cells, platelets and other cellular components are removed.
- It is the single largest component of human blood, comprising about 55 percent, and contains water, salts, enzymes, antibodies and other proteins.
- Composed of 90% water, plasma is a transporting medium for cells and a variety of substances vital to the human body.
- Plasma carries out a variety of functions in the body, including clotting blood, fighting diseases and other critical functions.
- Source plasma is plasma that is collected from healthy, voluntary donors through a process called plasmapheresis and is used exclusively for further manufacturing into final therapies.
- Recovered plasma is collected through whole blood donation in which plasma is separated from its cellular components. Recovered plasma may be used for fractionation.

Importance of Donation

Source plasma donation and blood donation are critically important activities that contribute to saving lives. Source plasma and recovered plasma are used to produce therapies that treat people with rare, chronic diseases and disorders such as primary immunodeficiency, hemophilia and a genetic lung disease, as well as in the treatment of trauma, burns and shock.

What is a plasma bank?

A plasma bank functions like a blood bank, and has been created specifically for those who are suffering from Covid-19, and have been advised the therapy by doctors. The facility has been set up at the ILBS, which will be the nodal centre for collection of plasma.

Who can donate plasma?

- Those who had the disease, but have recovered at least 14 days before the donation can be considered as a plasma donor— although doctors prefer a time of three weeks between recovery and donation.
- People between the ages of 18 and 60, and weighing not less than 50 kg are eligible. Women who have given birth are not eligible, as the antibodies they produce during pregnancy (after being exposed to the blood of the foetus) can interfere with lung function.

- People with comorbidities such as diabetes, hypertension, and cancer are also excluded.

How does plasma donation differ from blood donation?

- In plasma donation, as opposed to blood donation, only plasma is extracted and the other components of blood are returned to the body.
- Blood contains several components, including red blood cells, platelets, white blood cells, and plasma.
- During a whole blood donation, donors typically donate a pint (about a half litre) of blood.
- During automated donation (apheresis), you will be connected to the apheresis machine using a fully disposable one-time use apheresis kit. The process uses a single needle.
- The machine will selectively retain the plasma and return all red blood cells and other components of blood. All plasma proteins lost due to donation will be formed again in 24-72 hours.
- 500 ml of plasma can be donated every two weeks, while blood can be donated once in three months.

Highlights

- ✓ The Chief Minister Arvind Kejriwal inaugurated India's first plasma bank at the Institute of Liver and Biliary Sciences (ILBS) to ease access to plasma that is being used as a trial to treat Covid-19 patients.
- ✓ The bank will coordinate with patients who have recovered from Covid-19, and are eligible to donate plasma.
- ✓ In Delhi, seven hospitals have permission to conduct the plasma trials on Covid-19 patients.
- ✓ The rising demand for plasma among the patients pushed the government to set up a one-stop centre for the donors.
- ✓ Plasma was not easily available and the patient's attendants were running from pillar to post in search of plasma from a recovered patient.
- ✓ In plasma therapy, the antibody rich plasma from a recovered patient is extracted and administered to a patient. The trials are trying to find out if the antibodies can help patients recover.
- ✓ The extensive checks and stringent eligibility conditions are among the reasons that finding an apt donor for Covid-19 patients are proving to be a problem.
- ✓ Each hospital should contact the plasma bank along with the details of the patient who is in need of plasma therapy. All Delhi hospitals will have to appoint a nodal officer who will be coordinating with the ILBS for plasma.
- ✓ Each plasma donation would be used to treat 2 patients. The bank collects 500 ml of plasma, depending on weight.

Conclusion

Though plasma is not the ultimate cure of novel coronavirus but it is helpful for patients with moderate symptoms, mainly those whose condition is not serious. Plasma Bank will organise the availability of plasma as well its donation and therefore help in treatment of COVID-19 patient.

Delhi's serological survey

News Excerpt

The Ministry of Health and Family Welfare declared the results of a serological survey carried out in Delhi between June 27 and July 10, which showed that 22.86% of the people surveyed had developed Immunoglobulin G (IgG) antibodies, indicating they had been exposed to the novel coronavirus that causes Covid-19.

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What is a serological survey?

- A serological survey seeks to assess the prevalence of disease in a population by detecting the presence of specific antibodies against the virus.
- A serological test is performed to diagnose infections and autoimmune illnesses. It can also be conducted to check if a person has developed immunity to certain diseases.

- The survey included the IgG Enzyme-Linked Immunosorbent Assay (ELISA) test which estimates the proportion of the population exposed to SARS-CoV-2 infection.
- The IgG test is not useful for detecting acute infections, but it indicates episodes of infections that may have occurred in the past. The test has been approved by ICMR for its high sensitivity and specificity.

Highlights

- ✓ The seroprevalence study found the presence of antibodies in 22.86 per cent of the people surveyed.
- ✓ This rate of seropositivity cannot, however, be extrapolated over Delhi's entire population. Since it is not possible to test everyone in the population, serological studies are used as a tool to make an estimate of the extent of disease spread in the community.
- ✓ In April, the Indian Council of Medical Research (ICMR) had conducted a pilot serosurvey in 83 districts in 21 states.
- ✓ The initial results, which are being peer-reviewed, indicate that the percentage of the general population that could have been infected in the past was 0.73 per cent, with urban areas showing a higher prevalence of 1.09 per cent.
- ✓ ICMR has said it would soon launch a follow-up serosurvey across the country.
- ✓ The government has said that results show that a significant proportion of the population is still vulnerable to contracting the novel coronavirus infection.
- ✓ Containment measures need to continue with the same rigour. Non-pharmacological interventions such as physical distancing, use of face mask/cover, hand hygiene, cough etiquette and avoidance of crowded places etc. must be followed strictly.

Human Growth Hormone

News Excerpt

Pardeep Singh, who is a 2018 Commonwealth Games silver medallist, has been handed a provisional four-year suspension after his blood sample tested positive for human Growth Hormone (hGH).

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Pre-Connect

What is a Human Growth Hormone (HGH)?

- It is an important hormone produced by your pituitary gland.
- Also known as growth hormone (GH), it plays a key role in growth, body composition, cell repair, and metabolism.
- HGH also boosts muscle growth, strength, and exercise performance, while helping you recover from injury and disease.
- Low HGH levels may decrease your quality of life, increase your risk of disease, and make you gain fat.
- Optimal levels are especially important during weight loss, injury recovery, and athletic training.

HGH Uses and Abuses

- Synthetic HGH was developed in 1985 and approved by the FDA (Food and drug administration, USA) for specific uses in children and adults.
- In children, HGH injections are approved for treating short stature of unknown cause as well as poor growth due to a number of medical causes, including:
 - Turner's syndrome, a genetic disorder that affects a girl's development
 - Prader-Willi syndrome, an uncommon genetic disorder causing poor muscle tone, low levels of sex hormones, and a constant feeling of hunger
 - Chronic kidney disease
 - HGH deficiency or insufficiency
 - Children born small for gestational age
- In adults, approved uses of HGH include:

- Short bowel syndrome, a condition in which nutrients are not properly absorbed due to severe intestinal disease or the surgical removal of a large portion of the small intestine
- HGH deficiency due to rare pituitary tumors or their treatment
- Muscle-wasting disease associated with HIV/AIDS
- However, some people use the hormone, along with other performance-enhancing drugs such as anabolic steroids in an attempt to build muscle and improve athletic performance.
- Yet HGH's effect on athletic performance is unknown.
- Because the body's HGH levels naturally decrease with age, some so-called anti-aging experts have speculated and claimed that HGH products could reverse age-related bodily deterioration. But these claims, too, are unproven.
- Others purchase HGH products -- or products that claim to increase your body's own production of HGH -- in the form of pills and sprays.

HGH Side Effects and Other Hazards

- Possible side effects of HGH use include:
 - Nerve, muscle, or joint pain
 - Swelling due to fluid in the body's tissues (edema)
 - Carpal tunnel syndrome
 - Numbness and tingling of the skin
 - High cholesterol levels
 - HGH can also increase the risk of diabetes and contribute to the growth of cancerous tumors.
- Because of the high cost, HGH drugs have been counterfeited.

National Anti-Doping Agency [NADA]

It was established by the Government of India, with the objective of acting as the independent Anti-Doping Organization for India having a vision of dope free sports. The NADA has the necessary authority and responsibility for:

- ❖ Planning, coordinating, implementing, monitoring and advocating improvements in Doping Control;
- ❖ Cooperating with other relevant national organizations, agencies and other Anti-Doping Organizations;
- ❖ Encouraging reciprocal Testing between National Anti-Doping Organizations;
- ❖ Promoting anti-doping research;
- ❖ Where funding is provided, withholding some or all funding, during any period of his or her ineligibility, to any Athlete or Athlete Support Personnel who has violated anti-doping rules;
- ❖ Vigorously pursuing all potential anti-doping rule violations within its jurisdiction including investigating into whether Athlete Support Personnel or other Persons may have been involved in each case of doping.
- ❖ Planning, implementing and monitoring anti-doping information and education programs.

World Anti-Doping Agency (WADA)

It was established in 1999 as an international independent agency composed and funded equally by the sport movement and governments of the world.

Its key activities include scientific research, education, development of anti-doping capacities, and monitoring of the World Anti-Doping Code (Code) – the document harmonizing anti-doping policies in all sports and all countries.

Highlights

- ✓ In a first-of-its-kind case, a 2018 Commonwealth Games silver medallist and reigning national champion weightlifter has tested positive for HGH.
- ✓ Pardeep Singh has been handed a provisional four-year suspension after his blood sample tested positive for HGH, which is prohibited in and out of competition by the World Anti-Doping Agency.
- ✓ According to the NADA, this is the first instance of an Indian athlete testing positive for HGH.
- ✓ Apart from Singh, two athletes who took part in this year's Khelo India University Games have also tested positive, a weightlifter and boxer.

Raman Spectroscopy

News Excerpt

A team led by AmitDutt from the Mumbai-based Tata Memorial Centre has turned to Raman Spectroscopy to detect RNA viruses present in saliva samples.

Pre-Connect

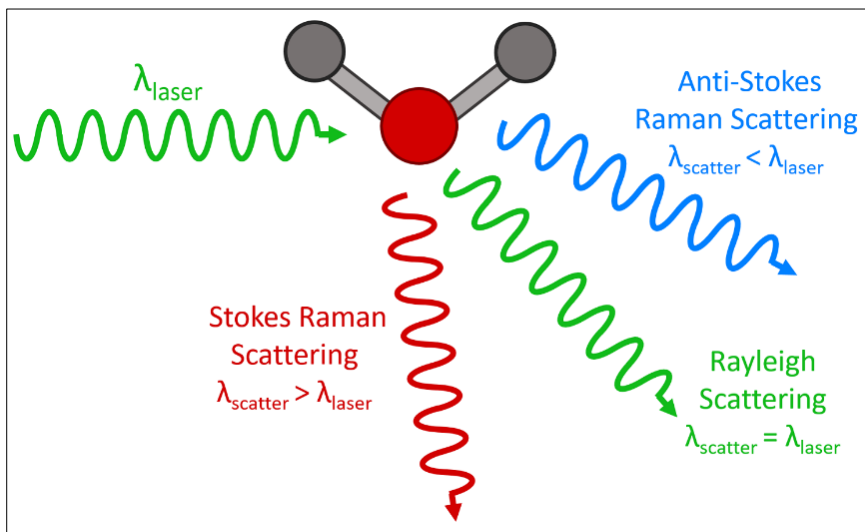
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What is Raman Spectroscopy?

- Raman spectroscopy is an analytical technique where scattered light is used to measure the vibrational energy modes of a sample.
- It is named after the Indian physicist C. V. Raman who, together with his research partner K. S. Krishnan, was the first to observe Raman scattering in 1928.
- Raman spectroscopy can provide both chemical and structural information, as well as the identification of substances through their characteristic Raman 'fingerprint'.
- Raman spectroscopy extracts this information through the detection of Raman scattering from the sample.

What is Raman Scattering?

- When light is scattered by molecule, the oscillating electromagnetic field of a photon induces a polarisation of the molecular electron cloud which leaves the molecule in a higher energy state with the energy of the photon transferred to the molecule.
- This can be considered as the formation of a very short-lived complex between the photon and molecule which is commonly called the virtual state of the molecule.
- The virtual state is not stable and the photon is re-emitted almost immediately, as scattered light.
- In the vast majority of scattering events, the energy of the molecule is unchanged after its interaction with the photon; and the energy, and therefore the wavelength, of the scattered photon is equal to that of the incident photon. This is called elastic (energy of scattering particle is conserved) or Rayleigh scattering and is the dominant process.
- In a much rarer event Raman scattering occurs, which is an inelastic scattering process with a transfer of energy between the molecule and scattered photon.
- If the molecule gains energy from the photon during the scattering (excited to a higher vibrational level) then the scattered photon loses energy and its wavelength increases which is called Stokes Raman scattering (after G. G. Stokes).
- Inversely, if the molecule loses energy by relaxing to a lower vibrational level the scattered photon gains the corresponding energy and its wavelength decreases; which is called Anti-Stokes Raman scattering.
- Quantum mechanically Stokes and Anti-Stokes are equally likely processes. However, with an ensemble of molecules, the majority of molecules will be in the ground vibrational level (Boltzmann distribution) and Stokes scatter is the statistically more probable process.
- As a result, the Stokes Raman scatter is always more intense than the anti-Stokes and for this reason, it is nearly always the Stokes Raman scatter that is measured in Raman spectroscopy.



Highlights

- ✓ It has been reported that novel coronavirus is found in sufficient numbers in human saliva.

- ✓ For the study, the researchers spiked saliva samples with non-infectious RNA viruses and analysed it with Raman Spectroscopy. They analysed the raw Raman Spectroscopy data and compared the signals with both viral positive and negative samples.
- ✓ Statistical analysis of all the 1,400 spectra obtained for each sample, showed a set of 65 Raman spectral features was adequate to identify the viral positive signal.
- ✓ Interestingly, most of the spectra were specific for the RNA molecule.
- ✓ To minimise variability and automate the analysis of the Raman spectra for RNA viruses, they developed an automated tool — RNA Virus Detector — using a graphical user interface.
- ✓ The tool can be used for detecting RNA virus from an individual or a group of samples in an unambiguous and reproducible manner, and is freely downloadable.
- ✓ This tool, the first of its kind, takes raw data from a Raman Spectrometer analysis based on the 65-spectra signature and provides an objective output if viral RNA is present or absent in the sample.
- ✓ This conceptual framework to detect RNA viruses in saliva could form the basis for field application of Raman Spectroscopy in managing viral outbreaks, such as the ongoing COVID-19 pandemic.
- ✓ Since the tool can only identify RNA viruses and not identify the specific one, it can be used only for screening.
- ✓ The RNA virus detected could be a common cold virus as well or any other RNA virus such as HIV. It doesn't look for COVID-19 viral-specific signature.
- ✓ The advantage is that the tool can be taken to the field and people who test positive for RNA virus can be quarantined while another sample may be sent for validation using RT-PCR.
- ✓ This whole process of data acquisition and analysis can be performed within a minute.
- ✓ Since no additional reagent is needed there is no recurring cost. A portable (benchtop or handheld) Raman spectrophotometer installed at the port of entry such as airports or any point of care (in the field) can quickly screen passengers within minutes.



SECURITY

India-US conduct PASSEX Exercise

News Excerpt

Indian navy conducted a Passage Exercise (PASSEX) with the United States near the Andaman and Nicobar (A&N) islands as it was transiting the Indian Ocean.

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Pre-Connect

- The exercise comes amidst high alert by the Navy in the Indian Ocean Region (IOR) due to the ongoing stand-off with China along the border in Ladakh.
- With regular large-scale exercises deferred due to the COVID-19 pandemic, the India Navy has recently undertaken several PASSEXs as an opportunity to improve interoperability on the high seas.
- The Indian Navy had conducted similar PASSEXs with the Japanese Navy and the French Navy in the recent past.
- The India Navy is keeping a close watch on the movement in the IOR of Chinese naval ships, whose presence has gone up considerably over the years in the name of anti-piracy patrols.
- In 2017, China opened its first overseas military base in Djibouti in the Horn of Africa.

Highlights

- As part of this exercise, four Indian naval ships-INS Rana, INS Sahyadri, INS Shivalik and INS Kamorta, teamed up with USS Nimitz and three other U.S. ships in the Eastern Indian Ocean near the A&N islands.
- USS Nimitz, the U.S. Navy's largest aircraft carrier, was returning from the South China Sea through the Malacca Straits.
- A significant volume of China's oil imports passes through the Malacca Strait, which is south-east of these islands.
- Given their strategic location, India is also undertaking a major infrastructure expansion plans on the A&N island chain.
- The navy has been on an operational alert in the Indian Ocean where scores of warships are ready for any task in the aftermath of the border row.
- It has positioned warships along critical sea lanes of communications and choke points under its mission-based deployment and the vessels could be diverted for any mission.
- Indian warships are deployed from as far as the Persian Gulf to the Malacca Strait and northern Bay of Bengal to the southeast coast of Africa.

Analytica

- ✓ The stage is also set for Australia to be part of the next Malabar naval exercise conducted by India with the US and Japan. The next edition of Malabar, already delayed by the Covid-19 pandemic, is set to be held by the end of the year.
- ✓ The formal invitation to Australia is expected to be extended after some time in view of delicate negotiations between India and China on disengagement and de-escalation to end their standoff along the LAC.
- ✓ China has also been wary of the Quadrilateral security dialogue or Quad that was revived in late 2017 by India, the US, Australia and Japan, and these suspicions have increased since the four countries upgraded the forum to the ministerial level last year.

Permanent Commission for Women in Indian Army

News Excerpt

The government issued a formal Government Sanction Letter (GSL) for grant of Permanent Commission (PC) to women officers in Indian Army, paving the way for empowering women officers to shoulder larger roles in the organisation.

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Pre-Connect

- The order follows a Supreme Court verdict in February that directed the government that women Army officers be granted PC and command postings in all services other than combat.
- About 300 women officers had approached the apex court on the issue of PC and the issue of command postings came up in the discussion on subsequent avenues after the grant of PC.
- In its appeal, the government cited “physical” and “physiological limitations” in granting command positions to women officers, to which the Supreme Court said there was need for administrative will and “change of mindset.”

Permanent Commission

- A Permanent Commission means a career in the army until one retires. If one gets selected through Permanent Commission, one has the option to serve the country up to the full age of retirement.
- Earlier, women officers could serve for 10-14 years in the Short Service Commission (SSC). Women officers were allowed entry into branches such as Army Service Corps, Ordnance, Education Corps, Engineers, Signals, Intelligence, Electrical, and Mechanical Engineering.

Highlights

- The order specifies the grant of PC to Short Service Commissioned (SSC) women officers in all the 10 streams of the Army in which they presently serve — the Army Air Defence (AAD), Signals, Engineers, Army Aviation, Electronics and Mechanical Engineers (EME), Army Service Corps (ASC), Army Ordnance Corps (AOC), and Intelligence Corps in addition to the existing streams of Judge and Advocate General (JAG) and the Army Educational Corps (AEC).
- There is, however, no option to allow women in combat roles like infantry, armoured, mechanised infantry, aviation and artillery.
- However, the GSL, for which the Army had sought six additional months in the Supreme Court citing Covid-19 pandemic, is a “delayed response” that came after the Army initiated four major policy changes.
- This includes the central government’s move to make the Battle Physical Efficiency Test (BPET) mandatory for all women officers, including those commissioned before 2009 and above 35 years of age, who were earlier exempt from it.
- The BPET is a series of tests meant to test the physical fitness of an officer or a *jawan* to perform military tasks.
- The grant of permanent commission is dependent on the annual confidential report (ACR) in the first 10 years of service, a ‘Shape 1’ medical category and discipline and vigilance clearance.

There are total of 1,653 women officers which is a miniscule 4 % of the total strength of commissioned officers in the Army.

How do other armies treat women?

- ❖ UK — It lifted a ban on women serving in close combat roles in 2016. The next year, Royal Air Force’s ground-fighting force opened to women for the first time, making it the first branch of the forces to open all roles to female service personnel. In 2018, women became eligible to apply for every role in the British forces.
- ❖ France — Women can serve in every position in the military, including submarines and combat infantry. Women make up around 15 per cent of all service personnel in the combined branches of the French military.
- ❖ Australia — All combat and non-combat roles are open to women. In 2016, women were allowed to serve in the front-line combat roles
- ❖ US — In 2015, US opened all combat jobs to women, and authorised the military to begin integrating female combat soldiers.
- ❖ Russia — Women can serve in most areas of the military except riot control. They have been allowed in submarines, including nuclear submarines, since 2014. Women are also allowed to lead the combat infantry.

Commonwealth Human Rights Initiative (CHRI) Report

News Excerpt

Recently, a report was released by the Commonwealth Human Rights Initiative (CHRI) and an international anti-slavery organisation Walk Free on the occasion of World Day Against Trafficking in Persons.

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Pre-Connect

- The Commonwealth Human Rights Initiative (CHRI) is an independent, non-profit, international non-governmental organisation working in the area of human rights.
- In 1987, several Commonwealth professional associations founded CHRI, since there was little focus on human rights within the association of 53 nations although the Commonwealth provided member countries the basis of shared common legal system.
- Through its reports, research and advocacy, CHRI draws attention to the progress and setbacks to human rights in Commonwealth countries.
- CHRI promotes adherence to the Universal Declaration of Human Rights, the Commonwealth Harare Principles and other internationally recognised human rights instruments, including domestic legislation supporting human rights in Commonwealth countries.
- In advocating for approaches and measures to prevent human rights abuses, CHRI addresses the Commonwealth Secretariat, the United Nations Human Rights Council members, civil society and the media on criminal justice concerns.
- It is headquartered in New Delhi, India, with offices in London, UK and Accra, Ghana.
- CHRI's work is split into two core themes: Access to Information and Access to Justice, which includes Prison Reform, Police Reform, and advocacy on media rights and the South Asia Media Defenders Network (SAMDEN).
- CHRI additionally monitors the human rights situation across the Commonwealth through its International Advocacy and Programming (IAP) unit.

Modern Slavery

- ❖ Modern slavery is the severe exploitation of other people for personal or commercial gain. Modern slavery is all around us, but often just out of sight. People can become entrapped making our clothes, serving our food, picking our crops, working in factories, or working in houses as cooks, cleaners or nannies.
- ❖ From the outside, it can look like a normal job. But people are being controlled – they can face violence or threats, be forced into inescapable debt, or have had their passport taken away and are being threatened with deportation.
- ❖ 40 million people are estimated to be trapped in modern slavery worldwide. 1 in 4 of them are children. Almost three quarters (71%) are women and girls.
- ❖ Modern slavery takes many forms. The most common are:
 - Human trafficking
 - Forced labour
 - Bonded labour
 - Descent-based slavery
 - Slavery of children
 - Forced and early marriage

Highlights

- Commonwealth countries have made little progress towards their commitment to eradicate modern slavery by 2030, despite an estimated one in every 150 people in the Commonwealth living in conditions of modern slavery.
- The report found that one-third of the Commonwealth countries had criminalised forced marriage, while 23 had not criminalised commercial sexual exploitation of children.
- Out of 54 countries, only four engage with business to investigate supply chains, and all countries report gaps in victim assistance program.

- None of the Asian countries in the group had implemented laws against forced labour in supply chain.
- The report said India accounted for one-third of all child brides in the world.
- India, like all other Commonwealth countries in Asia, had not ratified the International Labour Organisation's 2011 Domestic Workers Convention or the 2014 Forced Labour Protocol.
- Despite being the largest country in the region, India has the weakest response on national coordination, with no national coordinating body or National Action Plan in place.



A graphic announcement for KSG's new batch. It features a large white speech bubble on a pink background. Inside the bubble, the KSG logo is at the top, followed by the text "NEW BATCH" in large bold letters, "will commence from" in smaller text, and "21st Sep 7:30 pm" in large bold letters. To the left of the bubble is a megaphone with three yellow lightning bolts emanating from it.

KSG
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**NEW
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A graphic advertisement for KSG's Current Affairs Classes. It features a teal and white background. On the left, there is an illustration of a person sitting on a blue sofa, using a laptop. Surrounding the person are various icons: a clock, a target, a bar chart, a pie chart, and a potted plant. On the right, the text "Current Affairs Classes" is in large white letters, followed by "60+ hours of classes" and "Covering most important topics" in smaller text. Below this, "Prelims 2020" is written in large red letters, and "Starting 16 August" is in large teal letters. The KSG logo is in the top left corner.

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**Current Affairs
Classes**
60+ hours of classes
Covering most important topics

**Prelims
2020**
Starting
16 August

Art and Culture

Mongolian Kanjur Manuscripts

News Excerpt

The Ministry of Culture has taken up the project of reprinting of 108 volumes of Mongolian Kanjur under the National Mission for Manuscripts (NMM).

Pre-Connect

- Historical interaction between India and Mongolia goes back centuries.
- Buddhism was carried to Mongolia by Indian cultural and religious ambassadors during the early Christian era.
- As a result, today, Buddhists form the single largest religious denomination in Mongolia.
- India established formal diplomatic relations with Mongolia in 1955. Since then, the overwhelming relationship between both the countries has now reached a new height.
- Now, the publication of Mongolian Kanjur by the Government of India for the Government of Mongolia will act as a symbol of cultural symphony between India and Mongolia.

Highlights

- Mongolian Kanjur, the Buddhist canonical text in 108 volumes is considered to be the most important religious text in Mongolia.
- In the Mongolian language 'Kanjur' means 'Concise Orders'- the words of Lord Buddha in particular.
- It is held in high esteem by the Mongolian Buddhists and they worship the Kanjur at temples and recite the lines of Kanjur in daily life as a sacred ritual.
- The Kanjur are kept almost in every monastery in Mongolia.
- Mongolian Kanjur has been translated from Tibetan.
- The Mongolian Kanjur is a source of providing a cultural identity to Mongolia.

National Mission for Manuscripts

- ❖ The National Mission for Manuscripts was launched in February 2003 by the Government of India, under the Ministry of Tourism and Culture.
- ❖ It has the mandate of documenting, conserving and disseminating the knowledge preserved in the manuscripts.
- ❖ One of the objectives of the mission is to publish rare and unpublished manuscripts so that the knowledge enshrined in them is spread to researchers, scholars and general public at large.
- ❖ Under this scheme, reprinting of 108 volumes of Mongolian Kanjur has been taken up by the Mission.

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Pratihara Style of Architecture

News Excerpt

A valuable statue of Shiva that was stolen from a temple in Rajasthan 22 years ago and smuggled to Britain was finally repatriated to India. The four-foot statue is a rare and brilliant depiction of Shiva in the late 9th century Pratihara-style of Rajasthan.

Pre-Connect

- The Gurjara-Pratiharas or simply, the Pratiharas, ruled much of northern India from the mid-8th to 11th century CE.
- They held their sway over western and northern India.
- This dynasty saw its fortunes rising under Nagabhata I who successfully defeated Arab invaders.
- Bhoja or Mihira Bhoja was the most well-known king of this dynasty.
- The Pratiharas were known chiefly for their patronage of art, sculpture and temple-building, and for their continuous warfare with contemporary powers like the Palas of eastern India and the Rashtrakuta Dynasty of southern India.

Highlights

- The most important groups of architectural works generally credited to the early Pratiharas are at Osian and Roda in Gujrat.

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- The early works at Osian have five-bay mulaprasadas with porch and open hall but no vestibule or ambulatory and several have five-shrine complexes (pancha-yatana).
- Most of the works at Roda have five-bay mulaprasadas without ambulatory, like the temples at Osian, but they generally have only a porch.
- Dedicated to a Shakti cult, the Teli-ka-Mandir at Gwalior consists of an elevated rectangular mulaprasada and a double oblong shikhara and a closed portico.
- The Ghateshwara at Baroli has a Phamsana, portico with parapets and miniature Latina shikharas at the corners.
- Gyaraspur Temple is more advanced in plan, with ambulatory as well as vestibule and closed hall with balconies and porch.
- Someshwara Temple is distinguished by the octagonal arrangement of the many-faceted pillars which define the central space of its hall. It also has one of the earliest-known seven-bay mulaprasadas.
- Vishnu Temple is notable for the Samvarana roof of its hall - one of the earliest known examples of the type, clearly revealing its evolution from the Phamsana form.

Madhubani Paintings

News Excerpt

Artisans are adding a pinch of Madhubani art to brighten up the otherwise dull face masks. Priced between Rs 50 to Rs 100, these masks are finding takers from across the country.

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Highlights

- Madhubani painting, also referred to as Mithila Art (as it flourishes in the Mithila region of Bihar), is characterized by line drawings filled in by bright colours and contrasts or patterns. This style of painting has been traditionally done by the women of the region, though today men are also involved to meet the demand.
- These paintings are popular because of their tribal motifs and use of bright earthy colours. These paintings are done with mineral pigments prepared by the artists.
- The work is done on freshly plastered or a mud wall. For commercial purposes, the work is now being done on paper, cloth, canvas etc.
- Cotton wrapped around a bamboo stick forms the brush. Black colour is obtained by mixing soot with cow dung; yellow from turmeric or pollen or lime and the milk of banyan leaves; blue from indigo and so on.
- The colours are applied flat with no shading and no empty space is left.
- Figures from nature & mythology are adapted to suit their style.
- The themes & designs widely painted are of Hindu deities such as Krishna, Rama, Siva, Durga, Lakshmi, Saraswati, Sun and Moon, Tulasi plant, court scenes, wedding scenes, social happenings etc.
- Floral, animal and bird motifs, geometrical designs are used to fill up all the gaps.



Current Affairs Classes

60+ hours of classes
Covering most important topics



Prelims 2020

Starting 16 August

MISCELLANEOUS

Miscellaneous

Golden Birdwing butterfly

A Himalayan butterfly named Golden Birdwing (*Troides aeacus*) has been discovered as India's largest butterfly after 88 years. The female Golden Birdwing with 194 mm wingspan was recorded at Uttarakhand's Pithoragarh district's Didihat town, while the male Golden Birdwing with 106 mm wingspan was recorded at the **Wankhar Butterfly Museum**, Shillong.

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Hul Divas

In Santali language, Hul means rebellion. In the memory of Santhal Hul (rebellion), Hul Divas (Rebellion Day) is celebrated each year on the same date 30 June, especially among Santhal tribes.

Bhognadih (a village in Sahebganj district of Jharkhand) was the main centre of the Santhal rebellion of 1855. On 30 June 1855, a large number of Santals assembled in a field in Bhognadih, they declared themselves as free and took oath under the leadership of **Sidomurmu and Kanhumurmu** to fight unto the last against the British rulers as well as their agents. The rebellion started on June 30, 1855 and lasted until January 3, 1856 when the movement was brutally ended by troops loyal to the British.

Dharma Chakra Day

International Buddhist Confederation (IBC), under the aegis of Ministry of Culture, is celebrating Asadha Poornima on July 4, as Dharma Chakra Day. This day commemorates Buddha's First Sermon to his first five ascetic disciples at the Deer Park, Rishipatana in the present day Sarnath near Varanasi, UP. The day is also celebrated by Buddhists all over the world as the day of Dharma Chakra Parvattana or "Turning of the Wheel of Dharma". This day is also aptly observed as Guru Poornima by both Buddhists and Hindus as a day to mark reverence to their gurus.

Dare to Dream 2.0

Defence Research and Development Organisation (DRDO) has launched its innovation contest 'Dare to Dream 2.0' on the 5th death anniversary of former President and noted **scientist Dr APJ Abdul Kalam also known as the Missile Man of India.**

- 'Dare to Dream 2.0' challenge is a scheme to promote the Indian innovators and startups for innovations in defence and aerospace technologies.
- The scheme is being launched for emerging technologies to promote the individuals & startups for innovation in defence and aerospace technologies in the country after the call of 'Atmanirbhar Bharat' given by Prime Minister.
- The winners will be decided after due evaluation by an expert committee. Award money, up to Rs. 10 lakh for startup and Rs. 5 lakh to individual category, will be given to the winners.

Globbaandersonii

- A team of researchers from Pune and Kerala have "rediscovered" **Globbaandersonii** from the Sikkim Himalayas near the Teesta river valley region.
- The plant is commonly as 'dancing ladies' or 'swan flowers' are characterised by white flowers, non-appendaged anthers (the part of a stamen that contains the pollen) and a "yellowish lip".
- It is classified as "critically endangered" (IUCN Red List of Threatened Species) and "narrowly endemic", the species is restricted mainly to Teesta River Valley region which includes the Sikkim Himalays and Darjeeling hill ranges.
- The earliest records of the collection of this plant were dated between the period 1862-70 by Scottish botanist Thomas Anderson from Sikkim and Darjeeling. Then, in 1875, the

British botanist Sir George King, had collected it from the Sikkim Himalayas and is thought to have been extinct until its “re-collection”, for the first time recently.

CogX

CogX is a prestigious Global Leadership Summit and Festival of AI and Emerging Technology held annually in London. The awards are given out to the best-of-the-best in AI and emerging technologies across the world. Recently **MyGov Corona Helpdesk Chatbot** has bagged **two awards** under categories (1) **“Best Innovation for Covid-19 – Society”** and (2) **“People’s Choice Covid-19 Overall Winner”** at the recently held CogX 2020.

MyGov is the world’s largest citizen engagement platform. It facilitates two-ways communication between the Government and Citizen and facilitates participatory governance in India. The platform was developed after collaboration between the teams of MyGov, WhatsApp, and JioHaptik Technologies Limited.

Karan-4

Sugarcane is an important cash crop of the country cultivated over about 5 million ha area including both sub-tropical and tropical regions. Co 0238 (Karan 4) is a high yielding and high sugar content variety, derived from the cross Co LK 8102 x Co 775. This variety was evolved at the Sugarcane Breeding Institute, Regional Centre, Karnal and released by the Central Sub-committee on Crop Standards, Notification and Release of Varieties during 2009 as an early maturing variety for commercial cultivation in North-West Zone (NWZ) comprising the states of Haryana, Punjab, Western and Central Uttar Pradesh, Uttarakhand and Rajasthan. The jaggery of Co 0238 is of A1 quality with light yellow colour. This variety is moderately resistant to the prevalent races of red rot pathogen. This variety has spread in the field at a much faster rate as it combines both high cane yield and better juice quality and hence is being preferred by both farmers and sugar industry.

DehingPatkai Wildlife Sanctuary

The Assam government recently decided to upgrade DehingPatkai Wildlife Sanctuary also known as the Jeypore Rainforest located in Dibrugarh and Tinsukia districts of Assam into a national park. It will be the sixth national park of Assam after Kaziranga, Nameri, Manas, Dibru-Saikhwa and Rajiv Gandhi Orang National Park.

- It is located within the larger DehingPatkai Elephant Reserve
- It was declared a wildlife sanctuary in 2004.
- Sanctuary lies at the foot hill of Patkai hill.
- River Dehing passes through this wild life sanctuary.
- It forms the largest stretch of lowland rainforest in the country.
- It is the only sanctuary in India which is home to seven different species of wild cats - tiger, leopard, clouded leopard, leopard cat, golden cat, jungle cat and marbled cat.
- It has the highest concentration of the rare endangered White Winged Wood Duck.

BalaramYojana

The Odisha government has propelled BalaramYojana to give rural credit of Rs 1,040 crore to provide employment opportunities to those farmers who are currently unemployed at the time of infection of corona virus. Around seven lakh landless cultivators will get advantage under the plan in the next two years. Agricultural loans will be given to landless farmland through Joint Liability meetings (JLG). The implementation and arrangement of the scheme at the state level has been given by Institute on Management of Agricultural Extension (IMAGE). The Agricultural Technology Management Agency (ATMA) will make arrangements at the field level.

NekarSammanYojana

Karnataka Chief Minister has launched NekarSammanYojane for handloom weavers in July 2020. For becoming a beneficiary of the scheme, silk, cotton, woollen and other handloom weavers can fill NekarSammanYojana Online Application Form. People can register themselves at the official SevaSindhu portal which is developed as an initiative to deliver the various

schemes and services of the Karnataka State Government at the doorstep of the citizens. Under the scheme, the state government is transferring Rs 2000 of financial support to all weavers in the state registered with the SevaSindhu portal. Under the first phase, the Chief Minister at the launch transferred Rs 2000 directly into the bank accounts of 19744 weavers in the state. Annually, the financial assistance will be provided once to all registered weavers under the SevaSindhu portal. The scheme will cost the State Government of Karnataka an amount of Rs 10.96 crore every year.

Himachal Pradesh becomes First State in India to have LPG Gas Connection in Every Household

Himachal Pradesh has become the first state in the country where all households have LPG gas connections, Chief Minister Jai Ram Thakur has announced. Pointing out that as many as 1.36 lakh families of the state have been benefitted under the PradhanMantriUjjawalaYojna and as many as 2,76,243 families in the state were provided free gas connections under 'Himachal GrihiniSuvidhaYojana', a state government scheme to cover the left out families in the state.

Kakrapar Atomic Power Plant achieved criticality

Almost 25 years after the last unit was commissioned at Kakrapar Atomic Power Plant, the Nuclear Power Corporation of India Limited (NPCIL) has achieved criticality of a third unit of 700 MWe at the plant in Tapi district which is fully based on indigenous technology. The first two units at Kakrapar of 220 MWe (Megawatt electric) each were based on Canadian technology. The third unit is fully indigenous.

A reactor is said to be critical when the nuclear fuel inside a reactor sustains a fission chain reaction, where each fission event releases a sufficient number of neutrons to sustain a series of reactions. Criticality is first step towards power production.



**NEW
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will commence from
21st Sep 7:30 pm



Concept Clearing Assignment

1. Mention the recent steps taken by India and European Union to strengthen economic relations. Discuss the challenges in this respect.
2. In light of recent controversy of Chabahar rail project, highlight the causes which India is facing in its investment projects abroad.
3. What is the relevance of QUAD grouping for India? Do you think it is the right time to expand QUAD?
4. Highlight the Sri Lanka's importance in India's neighbourhood first policy. Mention the recent developments to strengthen the ties between the two countries.
5. Critically analyse the recent steps taken by government to introduce private players in railways?
6. What is Mega Food Park Scheme? How this can be utilised to make North East India an organic region?
7. Discuss the salient features of Consumer Protection Act, 2019? Do you think it will solve the issues related to e-commerce market?
8. What do you know about International Thermo-Nuclear Experiment Reactor? Discuss India's contribution in it.
9. What is Agricultural Infrastructure Fund? Do you think schemes like this will result in doubling farmer's income?
10. What is Clean Energy Economy? Enumerate the steps taken by government towards Clean Energy Economy.
11. What are the reasons for flooding of Assam? How this flooding impact the rich natural ecosystem of the region?
12. What do you understand by Environment Impact Assessment (EIA)? Critically analyse the recent Draft EIA Notification, 2020.
13. Mention the salient features of the 91st constitutional Amendment Act. Discuss its contribution in shaping the present day politics.
14. Even after guidelines given in Prakash Singh verdict, police reforms are long overdue in India. Discuss the reasons for this delay.
15. What was the requirement to introduce National Financing Reporting Authority (NFRA)? Discuss the functions of NFRA.



The advertisement features the KSG logo at the top left, with the tagline 'An Institute For IAS Exam...'. The main text reads 'Current Affairs Classes' in large white letters on a dark blue background, followed by '60+ hours of classes' and 'Covering most important topics'. Below this, 'Prelims 2020' is written in large red letters, and 'Starting 16 August' is written in large blue letters. The background illustration shows a person sitting on a blue sofa, working on a laptop, surrounded by various icons representing different topics: a clock, a target, a bar chart, a pie chart, a speech bubble, and a potted plant.

CC July 2020 PT Question

1. Consider the following statements with regard to the strength of Legislative Assembly:

1. The number of Ministers can't exceed 15% of the Assembly's strength.
2. The number of ministers, including the Chief Minister, shall not be less than 12.
3. The 86th Constitutional Amendment Act limits the number of Ministers.

Which of the statements given above is/are correct?

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

2. Consider the following:

1. National Police Commission
2. Malimath Committee
3. Second Administrative Commission

Which of the following is the correct chronological sequence of the formation of the above Committees/Commissions?

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

3. 'Istanbul Convention' is related to which of the following?

- (a) Cybercrime
- (b) Biological Diversity
- (c) Domestic Violence
- (d) Rights of Child

4. Consider the following statements with regard to New Education Policy:

1. Abhijit Sen Committee has suggested changes in the education system under the NEP.
2. The Higher Education Commission of India will be set up as a single umbrella body for entire higher education.

3. It aims to set up at least one large multidisciplinary institution in or near every district by the year 2030.

Which of the statements given above is/are **incorrect**?

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

5. Consider the following statements:

1. A pre-pack insolvency is a mechanism to revive a distressed company by raising fresh funds through public bidding.
2. The process needs to be completed within 90 days so that all stakeholders retain faith in the system.

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. Consider the following statements with regard to the Special Liquidity Scheme:

1. The Scheme aims to improve the liquidity position and help reducing the non-performing assets of the scheduled commercial banks.
2. RBI will provide funds for the Scheme by subscribing to government guaranteed special securities.
3. Commercial Papers (CPs) and Non-Convertible Debentures (NCDs) are the instruments used under the scheme.

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

7. In context of the Consumer Protection Act, 2019 consider the following statements:

1. The Act establishes a separate regulator to promote, protect and enforce the rights of consumers.
2. Under the act, complain can only be filled in a consumer court where the area of the defendant's office is located.

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 Global real estate transparency index:

1. India has shown an improvement in a Global real estate transparency index.
2. The index is releases biennially by Asian Infrastructure Investment Bank.

Which of the statements given above is/are correct?

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

9. Consider the following statements with regard to the Currency swap agreement:

1. It is an agreement to exchange currencies of the two countries based on pre-determined exchange rate.
2. India's currency swap facility is available to all ASEAN member countries, subject to their signing the bilateral swap agreements.

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. Recently a report released on State of Food Security and Nutrition in the World (SOFI) 2020, in this context consider the following statements:

1. The report is jointly released by World Health Organization and United Nations Children's Fund.
2. The report highlights that Asia has the highest number of undernourished followed by Africa.
3. As per the report, the number of undernourished people in India has declined.

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

11. Who among the following releases the Multidimensional Poverty Index (MPI)?

- (a) World health Organisation and World Economic Forum
- (b) International Monetary Fund and Amnesty International
- (c) United Nations Development Programme and Oxford Poverty and Human Development Initiative
- (d) World Bank and Oxfam International

12. Consider the following statements regarding the Hand-in-Hand geospatial platform:

1. The technology enables to acquire data that is referenced to the earth and use it for analysis, modelling, simulations and visualization.
2. It has been launched by Food and Agriculture Organization (FAO).
3. India has framed National Geospatial Policy, 2020 which aims to recognize mass markets of geospatial data.

Which of the statements given above is/are correct?

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

13. The Blue Heart Campaign is related to which of the following?

- (a) Trafficking of Persons
- (b) Plastic waste
- (c) Melting of Ice sheets

- (d) Promoting aquaculture
14. In which of the following states Dibru-Saikhowa National Park is located?
- Assam
 - Arunachal Pradesh
 - Mizoram
 - Tripura
15. In context of Agriculture Infrastructure Fund, consider the following statements:
- It aims to attract investment in post-harvest infrastructure.
 - The projects will be eligible for grant under existing schemes of State Governments.
 - It provides indicative targets for the States and UTs.
- Which of the statements given above is/are correct?
- 1 and 2 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3
16. Consider the following statements with regard to Green-Ag Project:
- The project aims to reduce emissions from agriculture and ensure sustainable agricultural practices.
 - It is funded by the United Nations Environment Programme.
 - It is implemented in the state of Maharashtra as pilot project.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - 1 and 3 only
 - 2 and 3 only
17. The RAISE Initiative is related to which of the following?
- Increase afforestation
 - Entrepreneurship
 - Upgrade waste management
 - Improve Air quality
18. Consider the following statements in context of Kaziranga's Ecosystem:
- It is a riverine ecosystem.
 - It is sandwiched between the Brahmaputra River and the Karbi Anglong Hills.
 - It is an herbivore-dominated area.
- Which of the statements given above are correct?
- 2 and 3 only
 - 1 and 3 only
 - 1 and 2 only
 - 1, 2 and 3
19. Consider the following statements with regard to Hope mission:
- It is the first space mission by the UAE and the first Arab mission to Mars.
 - It will provide a complete picture of the Martian atmosphere and its layers.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2
20. Consider the following statements with regard to Madhubani Paintings:
- It is characterized by patterns drawings filled in by dark colours.
 - These paintings are popular because of their tribal motifs.
 - Figures from nature & mythology are adapted in this style of painting.
- Which of the statements given above are correct?
- 1 and 2 only
 - 2 and 3 only
 - 1 and 3 only
 - 1, 2 and 3
21. Which of the following tribe celebrates the Hul Divas?
- Chakma tribe
 - Bhotia tribe
 - Bhil tribe
 - Santhal tribe
22. Which of the following statements are correct regarding Globba andersonii?

1. It is classified as "Threatened" in IUCN list.
2. The species is restricted mainly to Teesta River Valley region.
3. It is characterised by white flowers, non-appendaged anthers and a "yellowish lip".

Select the correct answer using the code given below:

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

23. Consider the following statements with regard to Dehing Patkai Wildlife Sanctuary:

1. It has the highest concentration of the rare endangered White Winged Wood Duck.
2. It has recently declared as a National Park.

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

24. Kachchatheevu Island is located between which of the following countries?

- (a) India- Indonesia
- (b) India-Maldives
- (c) India- Sri Lanka
- (d) India – Seychelles

25. Consider the following statements with regard to Asian Development Bank (ADB):

1. It aims to establish a trade block in the Asia to counter the growth of European countries.
2. India is the largest shareholder in this Bank.

Which of the statements given above is/are correct?

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

26. Which one of the following was a very important seaport in the Kakatiya kingdom? [2017]

- (a) Kakinada
- (b) Motupalli
- (c) Machilipatnam (Masulipatnam)
- (d) Nelluru

27. With reference to 'Global Climate Change Alliance', which of the following statements is/are correct? [2017]

1. It is an initiative of the European Union.
2. It provides technical and financial support to targeted developing countries to integrate climate change into their development policies and budgets.
3. It is coordinated by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD).

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

28. With reference to the religious history of India, consider the following statements: [2017]

1. Sautrantika and Sammitiya were the sects of Jainism.
2. Sarvastivadin held that the constituents of phenomena were not wholly momentary, but existed forever in a latent form.

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

29. Mediterranean Sea is a border of which of the following countries? [2017]

1. Jordan
2. Iraq
3. Lebanon
4. Syria

Select the correct answer using the code given below:

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

30. With reference to 'National Investment and Infrastructure Fund', which of the following statements is/are correct? [2017]

- 1. It is an organ of NITI Aayog.
- 2. It has a corpus of Rs. 4, 00,000 crore at present.

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

Answer Key

- 1. A
- 2. A
- 3. C
- 4. A
- 5. B
- 6. B
- 7. A
- 8. A
- 9. A
- 10. D

- 11. C
- 12. A
- 13. A
- 14. A
- 15. D
- 16. A
- 17. D
- 18. D
- 19. C
- 20. B

- 21. D
- 22. B
- 23. C
- 24. C
- 25. D
- 26. B
- 27. A
- 28. B
- 29. C
- 30. D



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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: 




AKSHAT JAIN
(AIR - 2)




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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: 




SRUSHTI JAYANT DESHMUKH
(AIR - 5)



TESTIMONIAL

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Signature: 



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: 

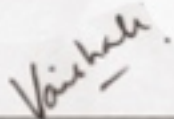


VAISHALI SINGH
(AIR - 8)



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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: 



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.

Signature: 

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